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THE POLITICAL TRENDS OF ALGERIAN GOVERNMENT IN FRONT OF SUSTAINABLE DEVELOPMENT CHALLENGES.

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Abstract:

Over recent decades, the concept of sustainable development (SD) has been considered as a leading model to sustain the development of Nations and improve the quality of our life. This concept has gained great interest at global and it has been the subject of considerable research. A series of Conferences over time about sustainable development has widely focused in an attempt to develop this notion and build up models to measure it. At national level and after the independence in 1962, Algeria made an effort to improve its economic situation and rebuild the country. In this regard, it has adopted a strategy for economic development in order to solve the problem of unemployment, reduce poverty and meet the population needs. This policy was launched without taking into consideration how to protect environment and deal with the different damages caused to it.

As a result, we found ourselves in front of a degraded environment. Thence in order to solve this huge problem, our country has partnered with the United Nations System, to give birth to a United Nations Development Cooperation Framework to enhance the effectiveness of sustainable development programs and integrate SD indicators in its strategy. In this context, the purpose of this article is to present the understanding of Sustainable Development, its emergence over time and the various concepts related to it. It also highlights the question of the efforts of the Algerian State to implement sustainable development in their policies and strategies.

Key words: sustainable development, Government Policy, Agenda 2030, Agenda 21, SDGs, HLPF.

JEL Classification: Q01, Q38, Y10

الملخص :

على مدى العقود الأخيرة تم اعتبار مفهوم التنمية المستدامة نموذجًا رائدًا للحفاظ على تنمية الأمم وتحسين نوعية حياتنا، حيث اكتسب هذا المفهوم اهتماما كبيرا على الصعيد العالمي وكان موضوع بحث كبير، فقد ركزت سلسلة من المؤتمرات مع مرور الوقت على التنمية المستدامة على نطاق واسع في محاولة لتطوير هذه الفكرة وبناء نماذج لقياسها.

أما على المستوى الوطني فقد بذلت الجزائر بعد الاستقلال جهداً لتحسين وضعها الاقتصادي وإعادة بناء البلاد، وفي هذا الصدد اعتمدت إستراتيجية للتنمية الاقتصادية من أجل حل مشكلة البطالة والحد من الفقر وتلبية احتياجات السكان، لكن تم إطلاق هذه السياسة دون الأخذ في الاعتبار كيفية حماية البيئة والتعامل مع الأضرار المختلفة التي لحقت بها ، ونتيجة لذلك وجدنا أنفسنا أمام بيئة متدهورة، ولحل هذه المشكلة أقامت بلدنا شراكة مع منظومة الأمم المتحدة من أجل وضع إطار عمل للتعاون الإنمائي لتعزيز فعالية برامج التنمية المستدامة ودمج مؤشراتها في استراتيجيتها، فكان الهدف من هذا المقال هو تقديم فهم للتنمية المستدامة من خلال التعرض لظهورها على مدى فترة من الزمن ولأهم المفاهيم المختلفة المتعلقة بها، كما يسلط الضوء على مسألة الجهود التي تبذلها الدولة الجزائرية لتحقيق التنمية المستدامة في سياساتها واستراتيجياتها.

الكلمات المفتاحية: التنمية المستدامة، جدول أعمال 2030 ، جدول أعمال القرن 21 ، أهداف التنمية المستدامة ، المنتدى السياسي الرفيع المستوى.

تصنيف JEL: Q38, Q01, Y10

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1. INTRODUCTION

After the independence in 1962, Algeria made an effort to improve its economic situation and rebuild the country. In this regard, it has adopted a strategy for economic development in order to solve the problem of unemployment, reduce poverty and meet the population needs (Latifa, 2018, pp. 01-14).

This policy was launched without taking into consideration how to protect environment and deal with the different damages caused to it.

As a result, we found ourselves in front of a degraded environment. Thence in order to solve this huge problem, our country has partnered with the United Nations programs, to give birth to a United Nations Development Cooperation Framework. This one aims to enhance the effectiveness of sustainable development programs.

The objective of this paper is to address the question of the efforts of Algerian State in order to implement sustainable development in their policies and strategies. To answer this question, this paper aims to cover the following elements:

-The first will clarify and interpret the notion of SD and give an overview about the famous models to explain it.

-The second will devote the Algerian endeavors in terms of sustainable development implementation

-The Third will address Algeria government in a few figures: Social, Economic and Environmental aspect.

2. The Definition of the notion of sustainable development SD

The best definition so far formulated for sustainable development is the one made by the World Commission on Environment and Development published in 1987 in the report Our Common Future also called the **Brundtland** Report. This report defined the sustainable development as:

"*Sustainable development is development that meets the needs of current generations without compromising the ability of future generations to meet their needs* (Brundtland, 1987, p. 24) **.** It contains within it two key concepts: the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs **"**

Another wellknown international report on this subject is the World Conservation Strategy prepared by the IUCN,WWF and UNEP in 1980 ,the sustainable development has been defined as :

"For development to be sustainable, it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long-term as well as the short-term advantages and disadvantages of alternative action (Bass, 17 murch 2000, p. 05) "

3. Models for interpreting the concept of Sustainable Development

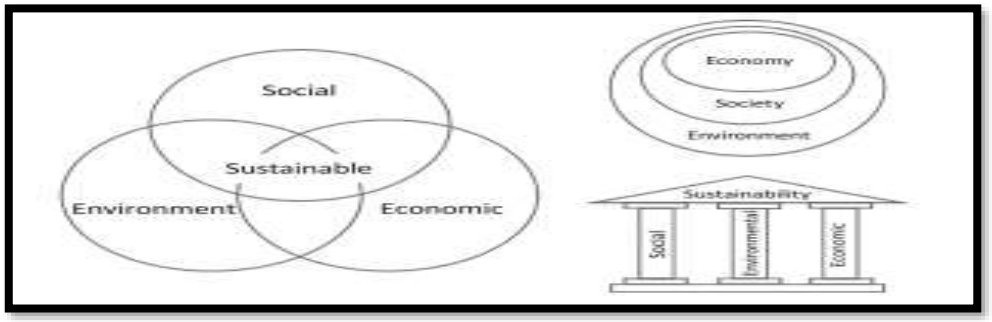
To more understand and operationalize the Sustainable development and move away from literary or scientific definitions towards a process and an operational way. Several attempts in this area have highlighted and some models have been developed such as: "**Three Pillar Basic Model, The Egg of Sustainability, Atkisson's Pyramid Model, Prism of Sustainability, The Amoeba Model** (Teshager Alemu, 2018, p. 34)"

The **Three Pillar Basic Model** is the most well-known models presented by Barbier in 1987, also known as the "triple bottom line. In this model, Sustainable Development is modeled on three pillars or dimensions "Economy, Environment and Society "*if anyone pillar is weak then the system as a whole is*

unsustainable; as it underlined by the author Stefan Larsson " in this view ,it is impossible de sustain one part of the total system without the others being involved (Emmelin, 2008, p. 14)**".**

Three popular ways to visualize the three pillars are shown in the following Figure:

Figure 01: The three Pillar Basic Model



Source: Ben Purvis and all, Three pillars of sustainability: in search of conceptual origins, Sustainability Science revue,23 August 2018,page 2.

4. THE NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY IN GOVERNMENT

Since the declaration of Rio" de 1992 and the need to implement the Agenda 21, the understanding of the national strategy of the Nation moved from an environmental strategy to a strategy that integrates economic, environmental and social objectives in a balanced manner under the new concept of national strategy of sustainable development. So, at this Conference on Environment and Development (UNCED), governments made a commitment to adopting national strategies for sustainable development. According to James Meadowcroft :"the National Sustainable Development Strategies is one tool that governments can use to enhance strategic decision making for sustainable development. Because sustainable development implies intergenerational time frames, and a complex balancing of social objectives, the longer term and more comprehensive approach to planning embodied in national strategy processes is important. Strategies provide an opportunity to take stock and fix priorities. They provide an occasion to focus debate, build consensus, examine trade-offs and make choices (Meadowcroft, 18 May 2007, p. 152)**"**

The guidance of "OECD/2001" defines the strategy for sustainable development: "A co-ordinated set of participatory and continuously improving processes of analysis, debate, capacity-strengthening, planning and investment, which integrates the economic, social and environmental objectives of society, seeking trade offs where this is not possible (OCDE, 2001, p. 16)".

In other words ,NSDSs have also become increasingly understood as vehicles for an ambitious governance reform, marrying the better regulation/good governance agenda with the principles of sustainable development towards (OECD., Paris: 2001) **:**

- Incrementally transform national policy-making in the direction of a more network-oriented and effective multi-level governance;
- Fostering a change towards openness, transparency and public/stakeholder participation; and,
- Improving the knowledge processes related to decision making so that decisions are made on the basis of sound evidence and integrated understanding of the effects of the decision and the involved trade-offs.

5. ALGERIAN ENDEAVOURS IN TERMS OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION

In this context, we will give a little clarification concerning the effort provided by the Algerian government in order to succeed its participation to integrate the principles of SD, in this regard, we will focus, in the following, on the two programs in the framework of **Agenda 21** and **Agenda 2030.**

5.1. THE TRENDS OF ALGERIA REGARDING THE MILLENNIUM DEVELOPMENT GOALS (MDGS) IN THE FRAMEWORK OF AGENDA 21 DURING 2000-2015: THE (PNAE-SD) PROGRAM.

For the first time, Algeria started its participation to integrate SD in its policy in 2000; it was through **the program of The National Action Plan for the Environment and Sustainable Development (PNAE-SD**) This program is part of the contribution of the European Commission through the EC-LIFE program and the METAP program administered by the World Bank.

The LIFE Program is a French initials " L'Instrument Financier pour l'Environnement" launched in 1992, it is the European Union's instrument for the environment and climate action in order to contribute to the implementation and financing its climate and environmental policy. According to New Aquitaine Region Report of Brussels" The LIFE program aims to effectively implement EU environment and climate policy. LIFE aims to contribute to a transition to a resource efficient, low carbon economy resilient to the effects of climate change and protect the quality of the environment and biodiversity (LIFE, 2018, p. 01)"

On the other hand ,the Mediterranean Environmental Technical Assistance Program (METAP) is an instrument of Mediterranean Environment Program (MEP),it was launched by the World Bank in 1990 with the cooperation of the United Nations Development Program(UNDP); International Bank for Reconstruction and Development (IBRD); European Commission (EC); European Investment Bank (EIB). The aim of this program was to provide grants to tackle critical environmental problems shared by Mediterranean countries as mentioned by Graham Bennett: "The program aims to identify suitable investment projects and institution strengthening activities and to prepare specific policy measures based on the key environment priorities on the region (Graham Bennett, 2002, p. 66)"

A- STAKES AND CHALLENGES OF (PNAE-SD) PROGRAM

The preparation of the PNAE-SD was made possible thanks to the cooperation that led the different teams involved in this project, at the level of the Ministry of Spatial Planning and the Environment, the World Bank and the Agency of German Technical Cooperation (GTZ). All activities and funding related to the preparation of the PNAE-DD were coordinated by The World Bank. She played a key role to develop the methodological framework, provided continuous support in the institutional and legal fields and contributed to review the restructuring of the final report **(MATE, 2002)**.

B.THE GOALS OF THE (PNAE-SD) PROGRAM

To operationalize the principle of sustainable development, Algeria made a detailed analysis of ecological problems as part of the preparation of the PNAE-DD. As a result, Algeria found itself in «environmental transition" phase concomitant with that of its "economic transition". The environmental problems encountered have clearly showed that the ecological degradation of the country, in particular as regards natural capital, has reached a severity level and affected not only the economic and social attributes of the country for the past three decades, but also will limit the possibilities of taking into consideration the well-being of future generations. In this regard, four strategic objectives have been developed within the framework of this program, in close connection with the national economic reform program as follows: 1/ Improve the Citizen's Health and Quality of Life.2/ Conserving natural capital and improving its

productivity .3/Reduce economic losses and improve competitiveness.4/Protect the global environment **(MATE, 2002)**

C. THE MEANS USED TO IMPLEMENT (PNAE-SD) PROGRAM

- **THE PRIORITY ACTIONS PLAN**

The priority actions plan aimed to achieve previous national goals at the short-term of PAGE-SD program and to focus on government regulatory and institutional reforms. In total, the estimated cost of short-term actions was 970 million $ over three years (some 320 million $ per year). This amount included 50 million$ of an institutional nature and USD 920 million $ of investments.

- **THE FINANCING PLAN**

The financing plan aims to rationalize the Algerian public spending at the short term to the benefit of the environment. It is based on the economic instruments and environmental taxation through the recovery of the services costs consumed by individuals and households, or the assumption of the costs of de-pollution and degradation of natural resources caused by the activity of public or private economic enterprises.

5.2. THE TRENDS OF ALGERIA REGARDING THE SUSTAINABLE DEVELOPMENT GOALS (SDGS) IN THE FRAMEWORK OF AGENDA 2030 DURING 2015-2030.

Algeria has actively engaged to implement the 2030 agenda initiative on sustainable development goals SDGs at the national, regional and international levels. She has joined the United Nations High-level Political Forum on Sustainable Development (HLPF) program and convinced of its relevance for placing sustainable development at the center of the shared vision of the world and the future of our planet.

This membership is an extension of Algeria's commitment to the Millennium Development Goals Indicators (SDG Is) in 2000. As a result, some significant results have been achieved by adapting its policies and national strategies to the requirements of sustainable development.

In order to keep up with the 2030 Agenda and deal with the challenges to provide a strong national responses, Algeria set up, in 2016, an inter-ministerial coordination committee under the auspices of the Ministry of Foreign Affairs as being a head for the various ministries, institutions and national bodies, concerned by the SDGs monitoring and evaluation of the implementation of the program of development sustainable by 2030.

The Report of «Voluntary National Review" issued in 2019 by Algeria according to the requests of the High Level Political Forum (HLPF) is its first production.

A. THE ALGERIAN INSTITUTIONS SPECIALIZED TO IMPLEMENT OF THE AGENDA 2030.

In order to implement effectively the 2030 Agenda and provide a strong national assessment, Algeria set up, in 2016, an inter-ministerial Coordination Committee divided into 6 groups comes under the responsibility of the Ministry of Foreign Affairs.

Each group contains all the ministries and institutions concerned with the SDGs, with the prerogatives to evaluate the implementation of the 2030 sustainable development program.

The purpose of the groups created is to (audithors, 2018):

Group 1: End poverty and achieve gender equality;

Group 2: Ensure healthy lives for all at all ages;

Group 3: Promote sustained, inclusive and sustainable economic growth;

Group 4: Protect, restore and promote sustainable use of ecosystems;

Group 5: Promote the building of strong, equitable and peaceful societies;

Group 6: strengthening the Global Partnership and the international solidarity for Sustainable Development;

The breakdown by ministry and by SDG is illustrated in the table below:

TABLE 01: THE ALGERIAN SPECIALIZED INSTITUTIONS FOR IMPLEMENTING AGENDA 2030

groups	**The leadership team**	**Ministries/Institutions**	**SDGs**
Group 1: End poverty and achieve gender equality.	MSNFCF	MSNFCF, MICLAT, MJ, MADRP, MHUV, MTESS, CNES, ONS	1 et 5
Group 2: Ensure healthy lives for all at all ages.	MADRP	MADRP, MSPRH, MEN, MCrce, MFEP, ME, MTPT, MTESS, MJS, MICLAT, MSNFCF, MEER, CNES, ONS	2, 3 and 4
Group 3: Promote sustained, inclusive and sustainable economic growth.	MF	MF, MCrce, MADRP, ME, MTPT, MHUV, MSNFCF, CNES, ONS	7, 8, 9, 10 and 11
Group 4: Protect, restore and promote sustainable use of ecosystems.	MEER	MRE, MEER, MCrce, MADRP, ME, CNES, ONS	6, 12, 13, 14, and 15
Group 5: Promote the building of strong, equitable and peaceful societies.	MJ	MJ, MF, CNES, ONS	16
Group 6: strengthening the Global Partnership and the international solidarity for Sustainable Development.	MAE	All institutions	17

Source: the Algerian Ministry of Foreign Affairs documents

B. THE SUSTAINABLE DEVELOPMENT INDICATORS USED BY ALGERIAN GOVERNMENT.

The following table shows the set of economic, social and environmental indicators used by the Algeria government:

TABLE 02: ALGERIA'S INDICATORS REGARDING SUSTAINABLE DEVELOPMENT GOALS

	Economic indicators
01	**GDP: Gross domestic product (million current US$)**
02	**GDP growth rate (annual %, const. 2010 prices)**
03	**GDP per capita (current US$)**

04	Economy: Agriculture (% of Gross Value Added)
05	Economy: Industry (% of Gross Value Added)
06	Economy: Services and other activity (% of GVA)
07	Employment: Agricultured (% of employed)
08	Employment: Industryd (% of employed)
09	Employment: Servicesd (% employed)
10	Unemployment (% of labour force)
11	Labour force participationd (female/male pop. %)
12	CPI: Consumer Price Indexe (2010=100)
13	Agricultural production index (2004-2006=100)
14	Index of industrial productionh (2005=100)
15	International trade: Exports (million current US$)
16	International trade: Imports (million current US$)
17	International trade: Balance (million current US$)
18	Balance of payments, current account (million US$)
	Social indicators
19	Population growth ratej (average annual %)
20	Urban population (% of total population)
21	Urban population growth ratej (average annual %)
22	Fertility rate, totalj (live births per woman)
23	Life expectancy at birthj (females/males, years)
24	Population age distribution (0-14/60+ years old, %)
25	International migrant stockl (000/% of total pop.)
26	Refugees and others of concern to UNHCR (000)
27	Infant mortality ratej (per 1 000 live births)
28	Health: Current expenditure (% of GDP)
29	Health: Physicians (per 1 000 pop.)
30	Education: Government expenditure (% of GDP)
31	Education: Primary gross enrol. ratio (f/m per 100 pop.)
32	Education: Secondary gross enrol. ratio (f/m per 100 pop.)
33	Education: Tertiary gross enrol. ratio (f/m per 100 pop.)
34	Intentional homicide rate (per 100 000 pop.)
35	Seats held by women in national parliaments (%)
	Environnent and infrastructure indicators
36	Individuals using the Internet (per 100 inhabitants)
37	Research & Development expenditure (% of GDP)
38	Threatened species (number)
39	Forested area (% of land area)
40	CO2 emission estimates (million tons/tons per capita)
41	Energy production, primary (Petajoules)
42	Energy supply per capita (Gigajoules)
43	Tourist/visitor arrivals at national borderss (000)
44	Important sites for terrestrial biodiversity protected (%)
45	Net Official Development Assist. received (% of GNI)

Source: The United Nations DATA: http://data.un.org/en/iso/dz.html 07 /03/ 2020

6. ALGERIA GOVERNMENT IN A FEW FIGURES: SOCIAL, ECONOMIC AND ENVIRONMENTAL ASPECT

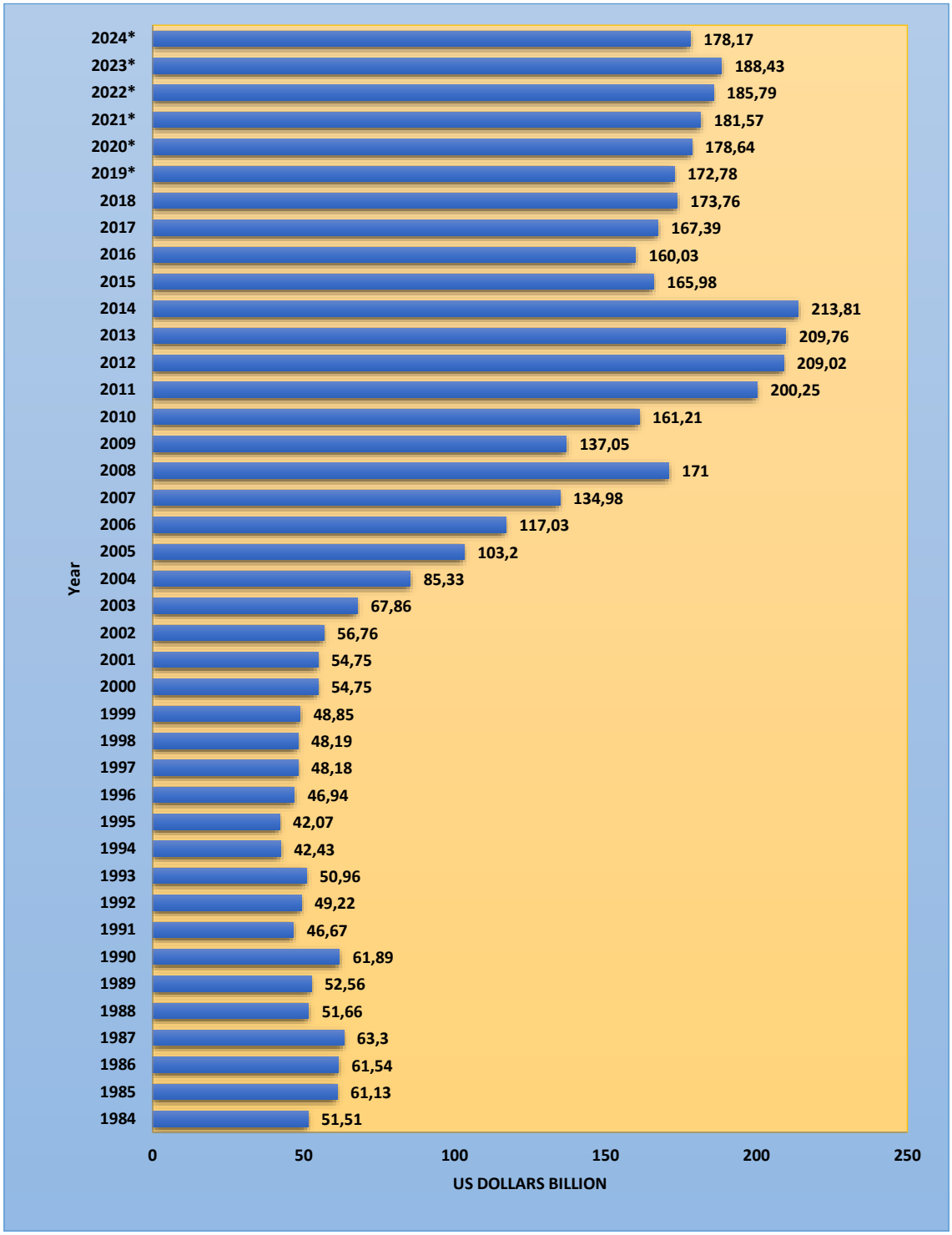
6.1. Algerian Economic indicators

➢ **Gross domestic product (GDP) in Algeria**

GDP is an important economic indicator of a country. It denotes the aggregate and final value of the goods and services produced within the geographic boundaries of a country during in any given period of time, normally a year (Rutherford, 2013, p. 257).

The graph below depicts the progression of the GDP in Algeria from 1984 to 2018, with projections up until 2024:

Figure 02: Algeria (GDP) in current prices from 1984 to 2024* in billion U.S. dollars



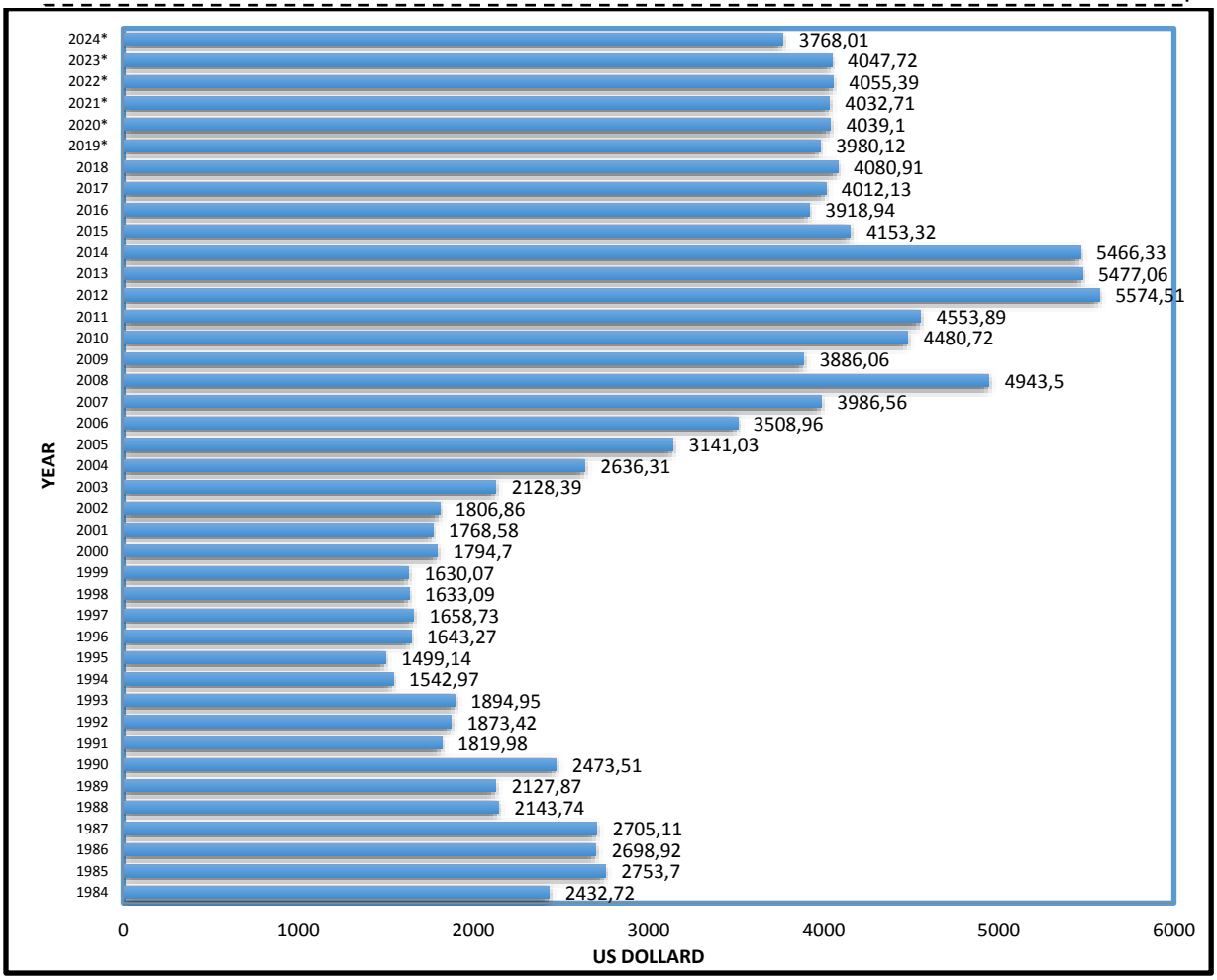
Source: Compiled by Researcher based on IMF database

Gross domestic product (GDP) per capita

GDP per capital is the divided of the GDP by the population; it is often used to compare the economies of countries and the wellbeing of their citizens (De George G. Watson, 1996, p. 52). The graph below depicts the progression of this indicator in Algeria from 1984 to 2018, with projections up until 2024.

we see that the two graphs have similar trends which means the GDP per capita of Algeria depends to the GDP value as illustrated in the above figure, if we look back a few years and compare these data with those of 2008 when the population has a low level of the GDP per capita, after that it grew and amounted to around at maximum level in 2013.but if we compare the Algeria position among countries, its population has always a low level.

Figure n 03: Algeria: Gross domestic product (GDP) per capita in current prices from 1984 to 2024* (in U.S. Dollars

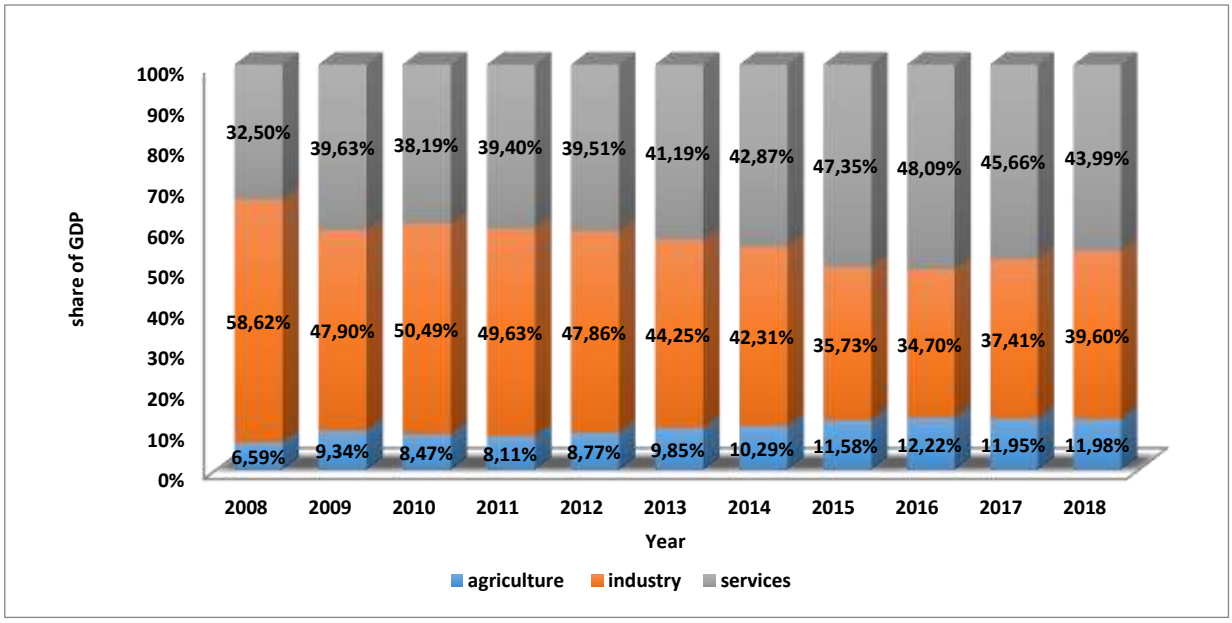


Source: Compiled by Researcher based on IMF database

- **Distribution of gross domestic product (GDP) across economic sectors Algeria**

This following graph shows the distribution of the gross domestic product (GDP) across Algeria economic sectors:

Figure 04 : Distribution of (GDP) across economic sectors



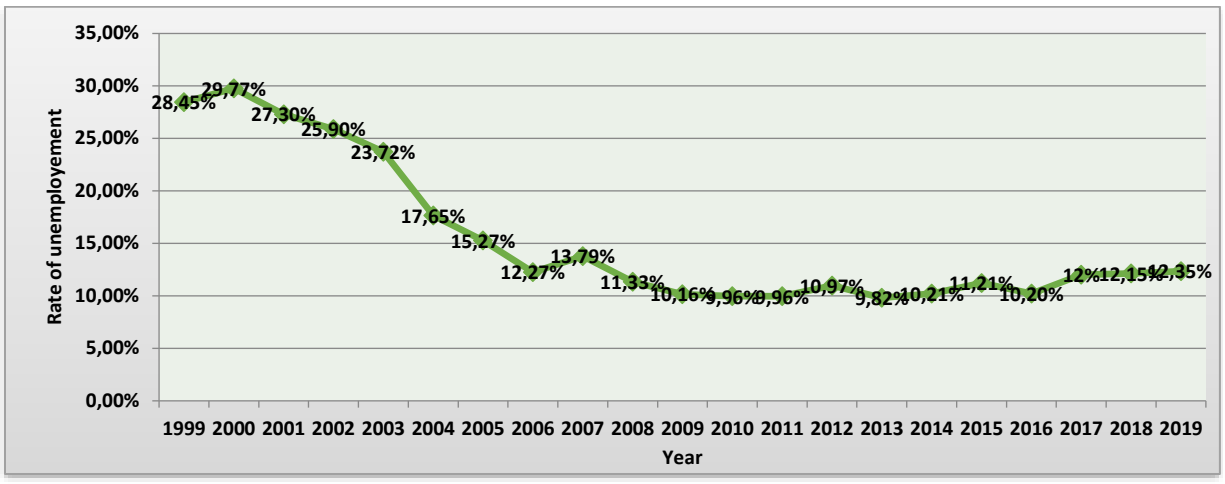
Source: Compiled by Researcher based on IMF database

From the results presented above, we deduce that the Algerian economy is based on the industry sector including oil revenues and the provision of services through different taxes on the other hand the agriculture sector does not exceed 10% per year.

- **Unemployment rate in Algeria**

The unemployment rate is defined as the percentage of unemployed workers in the total labor force, it is reported monthly, equals the number unemployed that is people without jobs who are looking for work divided by the number in the labor force (McEachern, 2008, p. 167), the following chart show the Algeria's Unemployment Rate from 1999 to 2019:

Figure 05: Unemployment rate from 1999 to 2019



Source: Compiled by Researcher based on IMF database

It is evident that unemployment rates has decreased significantly after 1999, it went from 29.5% in 2000 to 12.5% in 2006 and it reduced till a third in 2013 and estimated at 9.8%. This diminution due to the high oil prices which made it possible to create jobs and reduce unemployment. It should be noted that these jobs are mainly created in the public sector with a temporary nature.

With the current financial crisis and the crunch of oil prices, the Algerian government has adopted a set of measures from 2015 through the austerity policy in many areas such as the freezing of employment in the public sector, as well as the freezing of many investments. Consequently, the unemployment rate has increased to 12.35% for the period from 2019

- **Inflation rate in Algeria**

Inflation refers to an overall increase in the Consumer Price Index (CPI), which is a weighted average of prices for different goods (Arnold, 2008). In the following statistic, an average inflation rate in Algeria from 1984 to 2018, with projections up until 2024 has been illustrated:

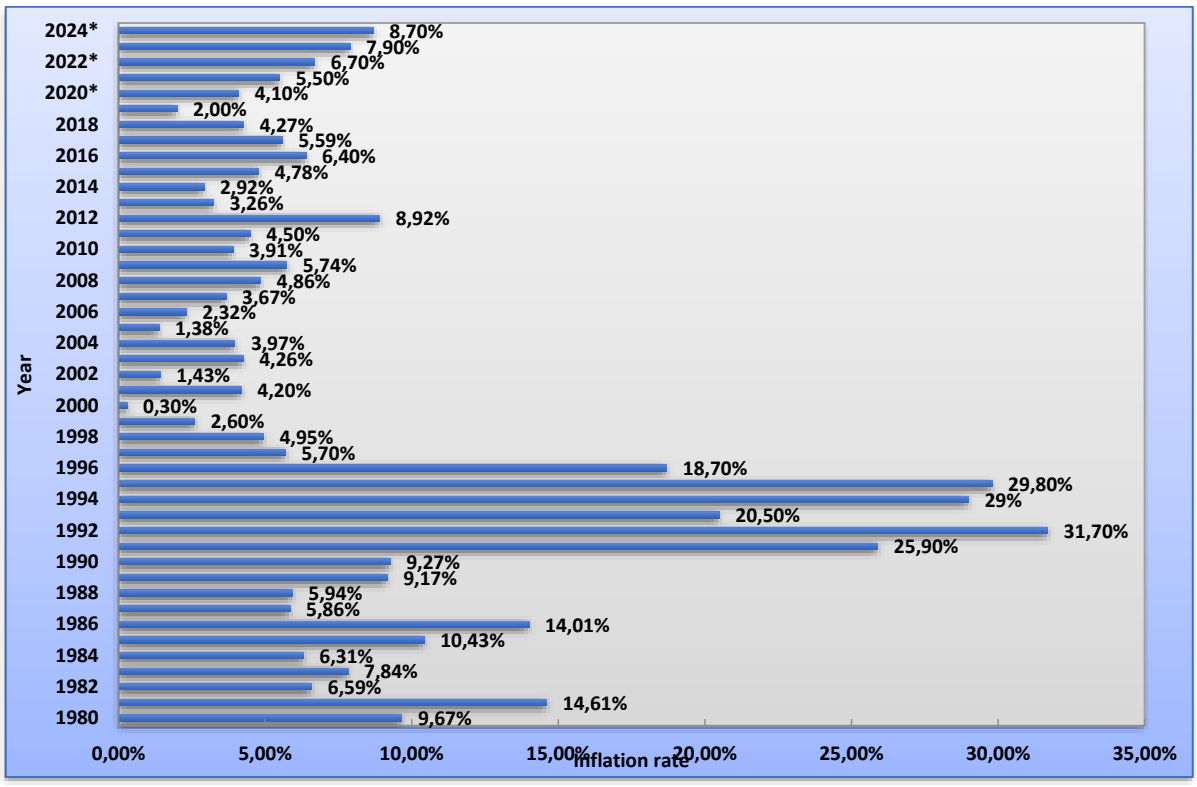
It should be noted that the inflation was brought under control at 0.3% in 2000, and then it has increased rapidly by 4.2% in 2001 due to the growth of the monetary supply which has coincided with the launch of the economic recovery program;

During the period 2002-2006, inflation rate has decreased then rose again from 2007 with a rate of 3.5% due to the expansion of public spending and the launch of the complementary program of economic growth where the increase has reached till 5.7% in 2009.

The year 2012 has seen an inflation rate of 8.8% due to the increase of the worker's wages of public sector and it has settled in the three following years.

From 2015, inflation rate has increased due to the deflationary policy and declining revenues, as well as the devaluation of national currency 20% versus the dollar compared to 2014

Figure 06: Inflation rate from 1984 to 2024* (compared to the previous year)



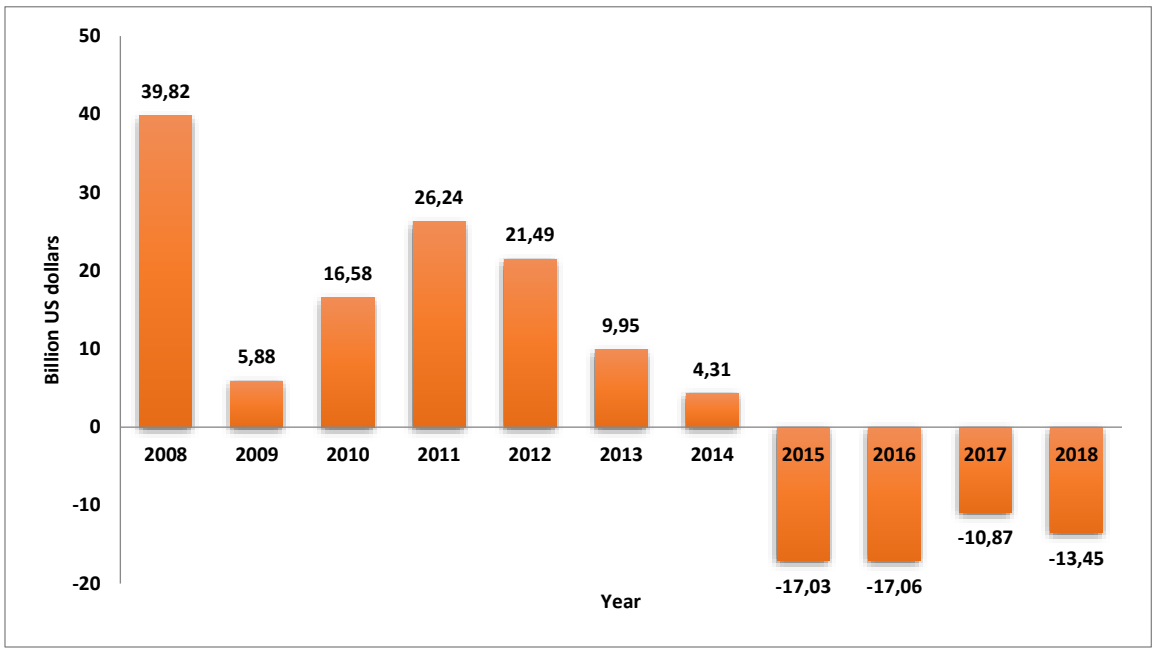
Source: Compiled by Researcher based on IMF database

- **Trade balance of Algeria**

The trade balance is a percentage of GDP which shows the difference between exports and imports of goods and services (Prasad, 1999, p. 18). A positive balance indicates a trade surplus), On the contrary, a negative balance indicates (trade deficit). According the Statistics, this difference is due to the size of economic activity (GDP)

This following figure shows Algeria's trade balance from 2008 to 2018:

Figure 07: Trade balance from 2008 to 2018 (in billion U.S. dollars)



Source: Compiled by Researcher based on IMF database

Since 2015, the Algerian trade balance has witnessed a very noticeable deficit Compared to previous years, this is due to lower oil prices, as Algerian exports depend on 90% of the hydrocarbon industry.

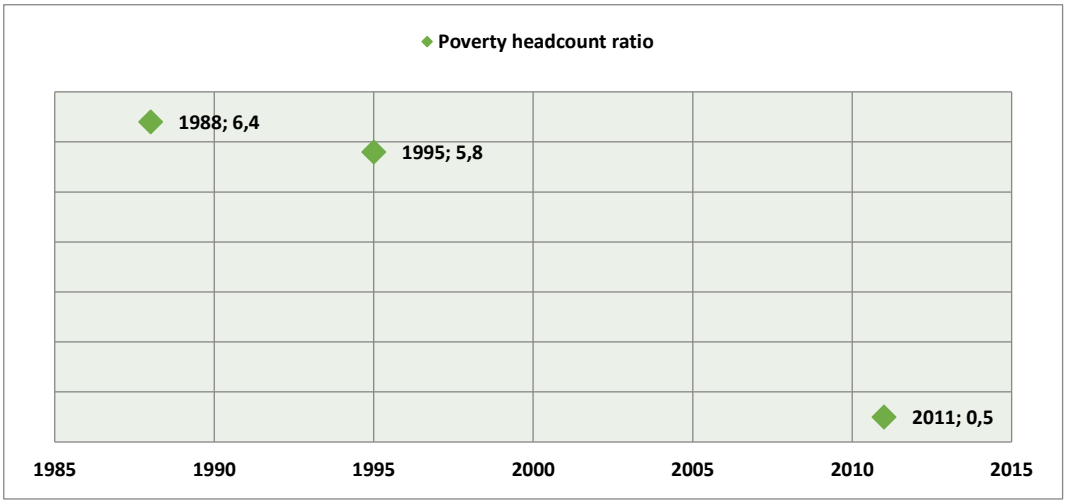
6.2. Algerian Social indicators

- **Poverty headcount ratio**

The poverty rate is the ratio of the number of individuals whose income falls below the poverty line; taken as 50 percent of the median income of the total population (Koen Caminada, 2012, p. 05). According to the World Bank data, There are no recent poverty estimates for Algeria, the latest official figures are in 2010/2011.So in the following, we will present the level of the achievement of this goal:

By agreeing and subscribing to the 2030 agenda, Algeria government has committed to eradicate the extreme poverty and to halve it at the national level. The social policy pursued by our country to fight poverty has already started for decades, in this regard; a study has been developed in 2011 showed that the population living below the extreme poverty line did not exceed 0.5% of the total population. It should be noted that this poverty rate has been considerably reduced from 5.8% in 1995 to 0.5% in 2011 as shown in the following figure:

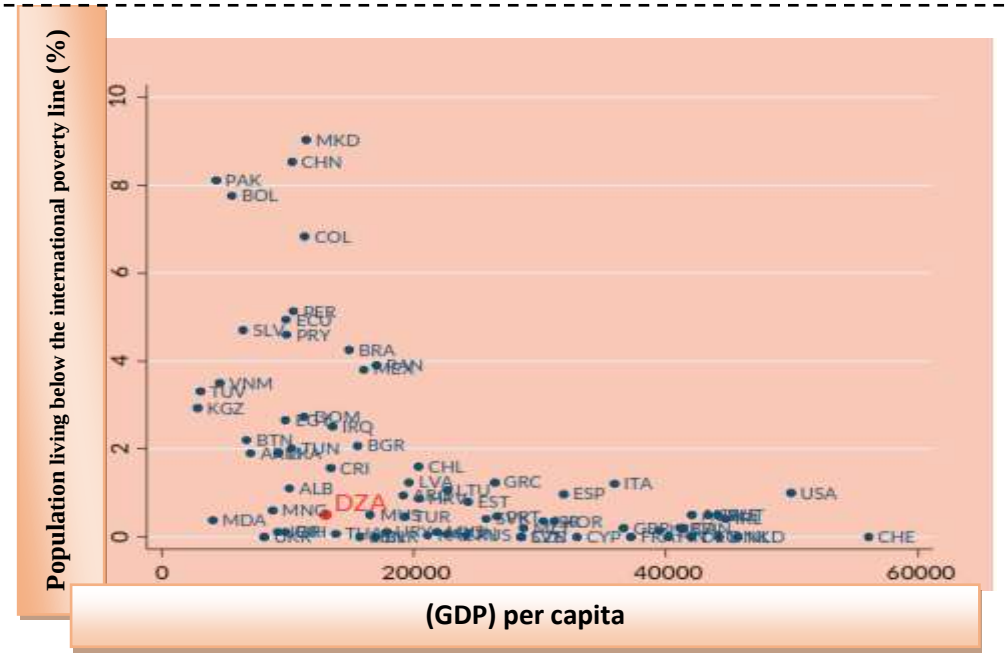
Figure n 08: Poverty headcount ratio in Algeria



Source: Compiled by Researcher based on IMF database

On the other hand, An international comparison study between 2010 and 2012, as shown in the following figure, shows that Algeria is the most one among the forty countries in the world that have reduced the poverty percentage of the population living below the international poverty line. In the following, an international comparison of Algeria regarding the extreme poverty line:

Figure n°09: An international comparison (2010-2012) of the Percentage of the population living below the international extreme poverty line as a function of GDP per capita.

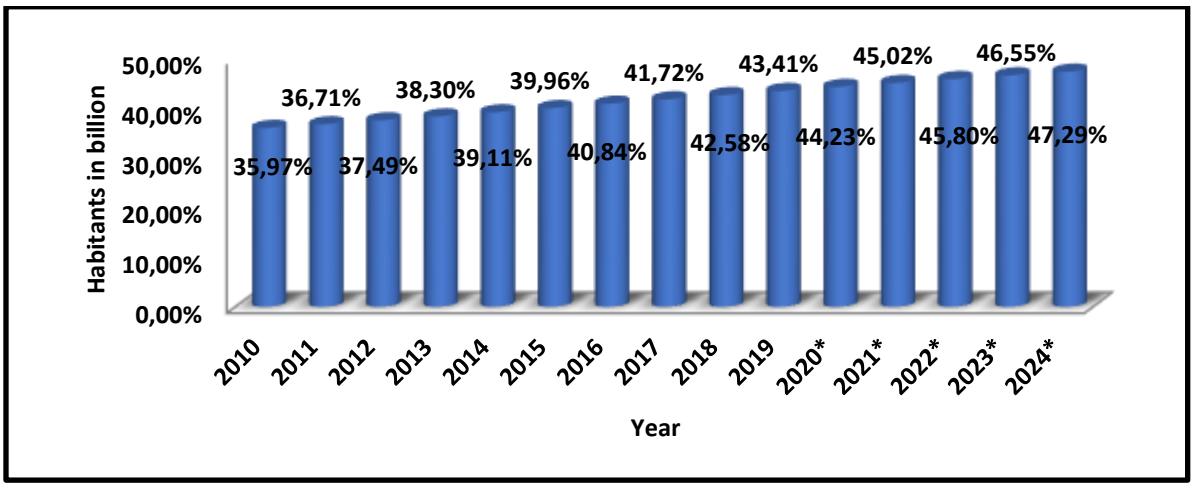


Source : Foreign affairs Ministry document .

- **Total population of Algeria**

This Data shows the total Algerian population from 2014 to 2017, with projections up until 2024:

Figure 10: Total population from 2014 to 2024 (in million inhabitants)



Source: Compiled by Researcher based on IMF database

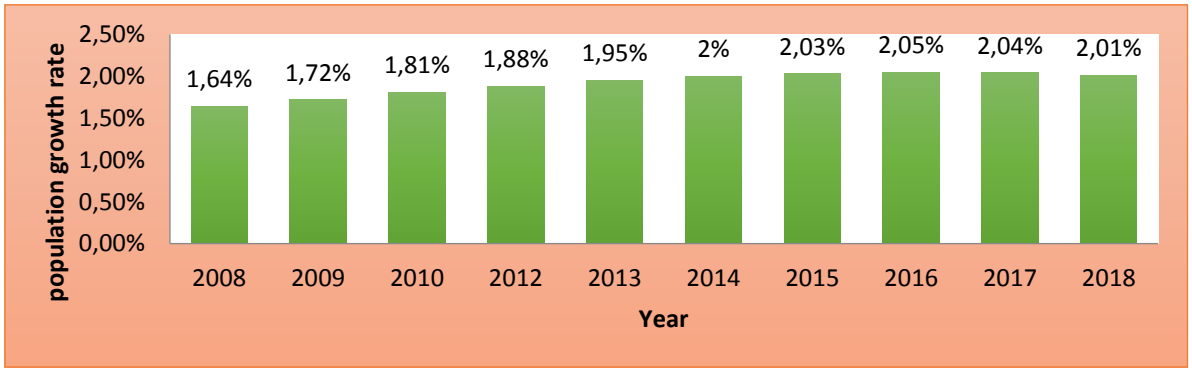
We deduce that the Algerian population is increasing since the independence and remains increasing until 2024 according to estimates above. In January 2019, the Algerian population amounted to approximately 43.41 million inhabitants.

We deduce also that Algeria's population increased by approximately 2.01 percent compared to the previous year.

- **Population growth in Algeria**

Population growth is the average annual rate of change of population size during a specified period, it measures the annual population growth rate for year t is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage (GÜNEY, 2017). The chart below shows that the average annual % of the period from 2008 to 2018 is about 2% witch classified Algeria in the rank 50 among the countries of the world.

Figure 11 : Population growth in Algeria



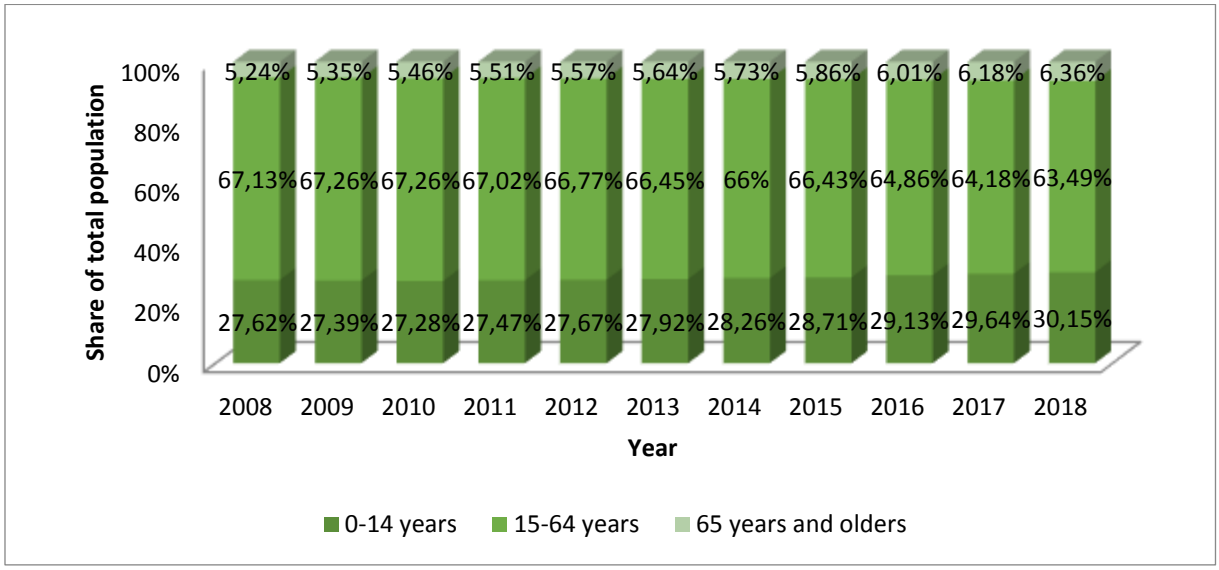
Source: Compiled by Researcher based on United Nations Population Division and world bank database.

- **Age structure in Algeria**

The age structure of a population of Nation contributes in the planning of its national policy, it is a an socioeconomic indication. In other words, governments with young populations need to invest more in education , while government with older populations need to invest more in the health sector.

This following statistic provides the distribution of the population according to age in Algeria from 2008 to 2018:

Figure 12: The distribution of the population according to age in Algeria



Source: Compiled by Researcher based on IMF database

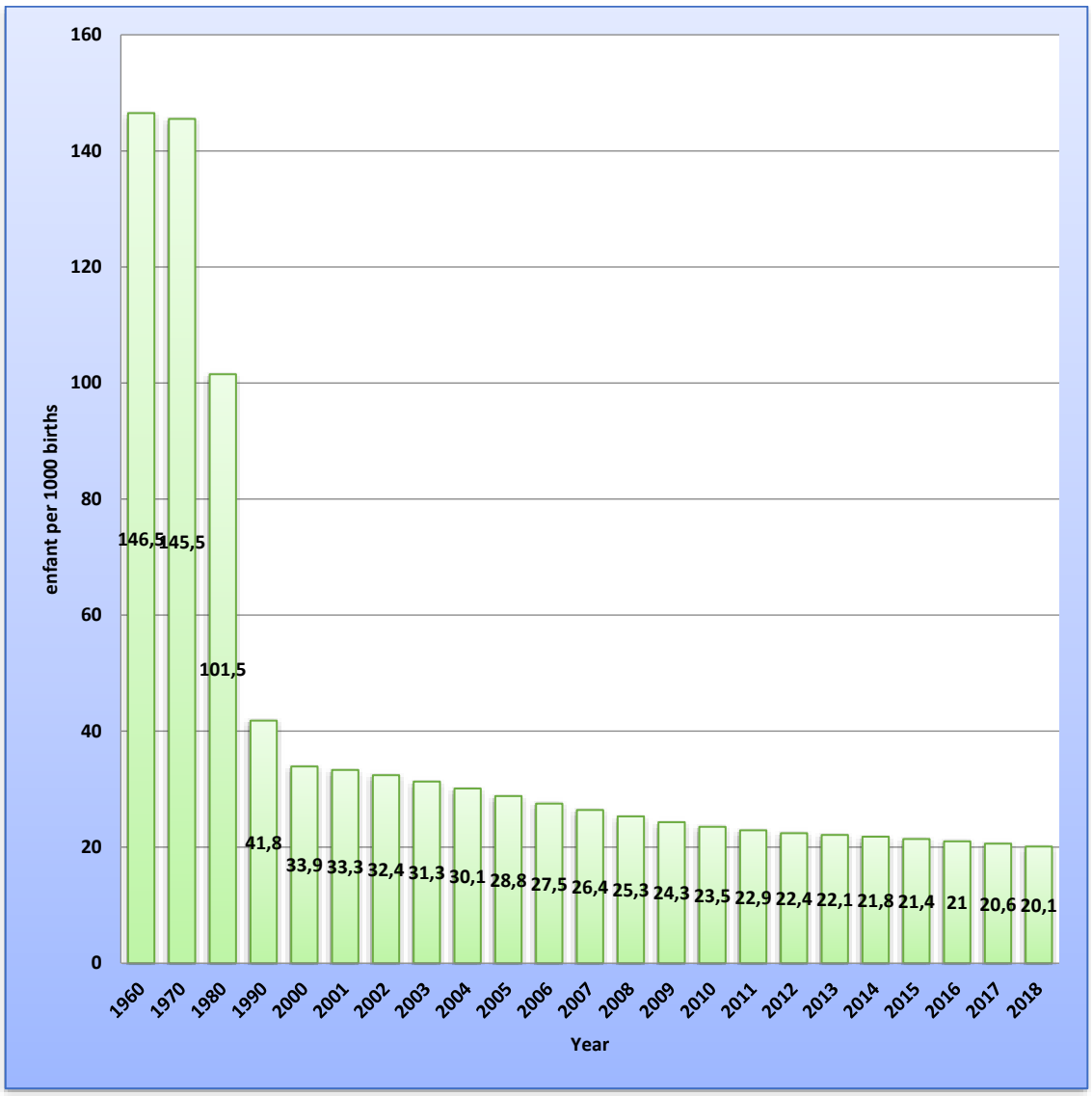
We observe that the population age group as follows: 0-14 years (children), 15-64 years (mature working age), 65 years and over (elderly).The population is distributed along the horizontal axis, with the youngest age groups at the bottom and the oldest at the top.

We deduce that a large percentage of the Algeria's total population is based on the young populations while older population only presents a small percentage of the total.

- **Infant mortality rate in Algeria**

Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year (NCHS, 2015). In this following statistic, we will show this indication in Algeria from 2008 till 2018:

Figure 13: infant mortality rate in Algeria



Source: Compiled by Researcher based on IMF database

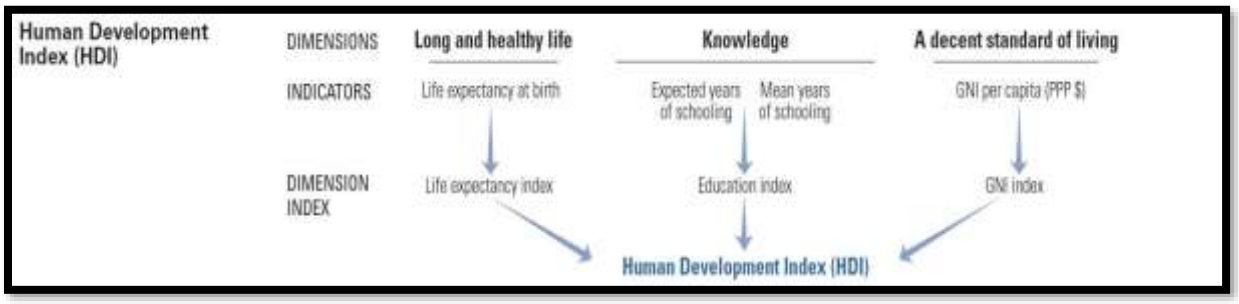
In Algeria this rate decreased from over 146,5 deaths per thousand births in 1960, to just 20,1 deaths per thousand births in 1918. This reduction is due to the advancements in medical care as well as the increases in living standards and wellbeing.

- **Human Development Index**

The Human Development Index (HDI) is a summary measure of achievements in three key dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living (Charles Edquist, 2009). The HDI is the geometric mean of normalized indices for each of the three dimensions.

The following figure presents the HDI calculation method:

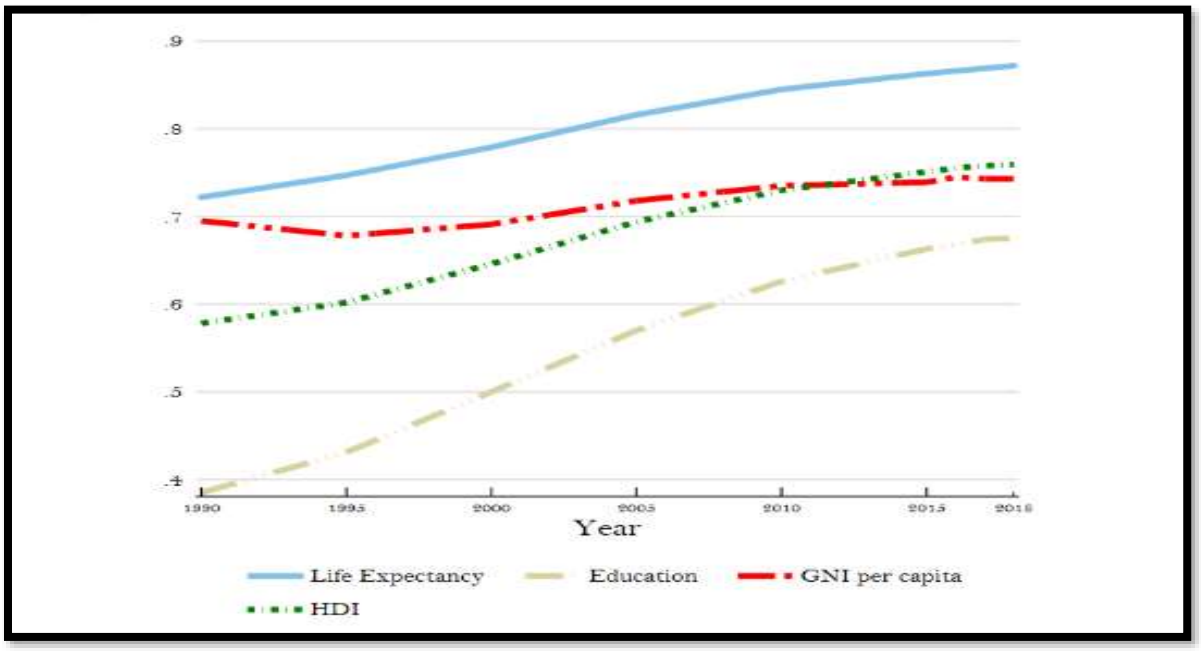
Figure 14: HDI calculation method



Source: UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP),HDI, sit: http://hdr.undp.org/en/content/human-development-index-hdi

The below Figure shows the contribution of the three component index to Algeria's HDI since 1990 till 2018:

Figure 15: Trends of the three component indices of HDI in Algeria since 1990 to 2018

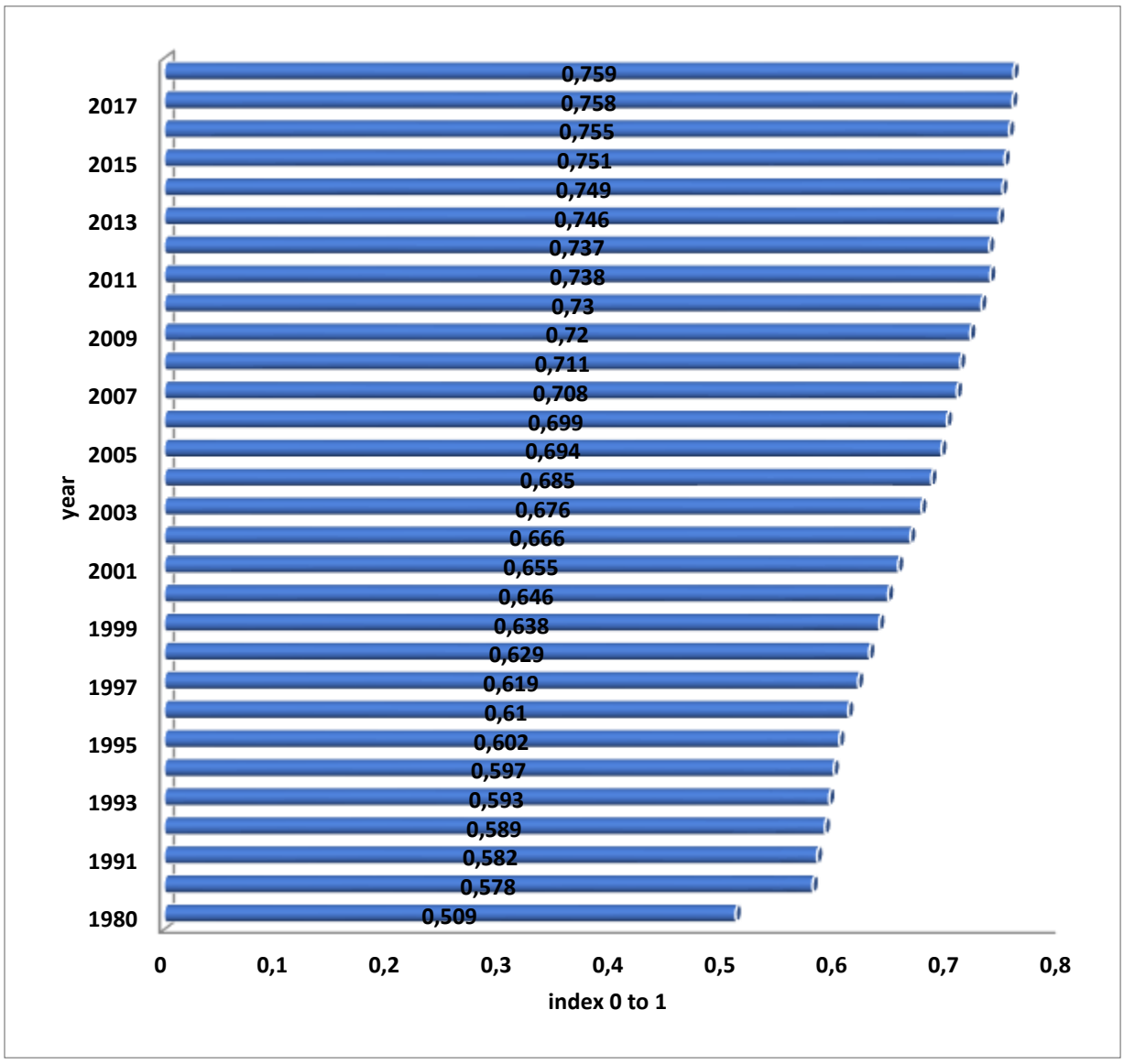


Source: Human Development Report 2019 ,Inequalities in Human Development in the 21 Century:Briefing note for countries on the Human Development Report Algeria ,UNDP, page 03.

Algeria government was classified with a "high" Human Development Index (HDI) on the world ranking of countries and the third among Africa countries. According to the latest annual report of the United Nations Development Program (UNDP): "Algeria's HDI value for 2018 is 0.759 which put the country in the high human development category positioning it at 82 out of 189 countries and territories"

Figure 16 reviews the progress of Algeria in each of the HDI indicators between 1980 and 2018:

Figure16: Algeria: Human Development Index



Source: Compiled by Researcher based on UNITED NATIONS DEVELOPMENT PROGRAM database

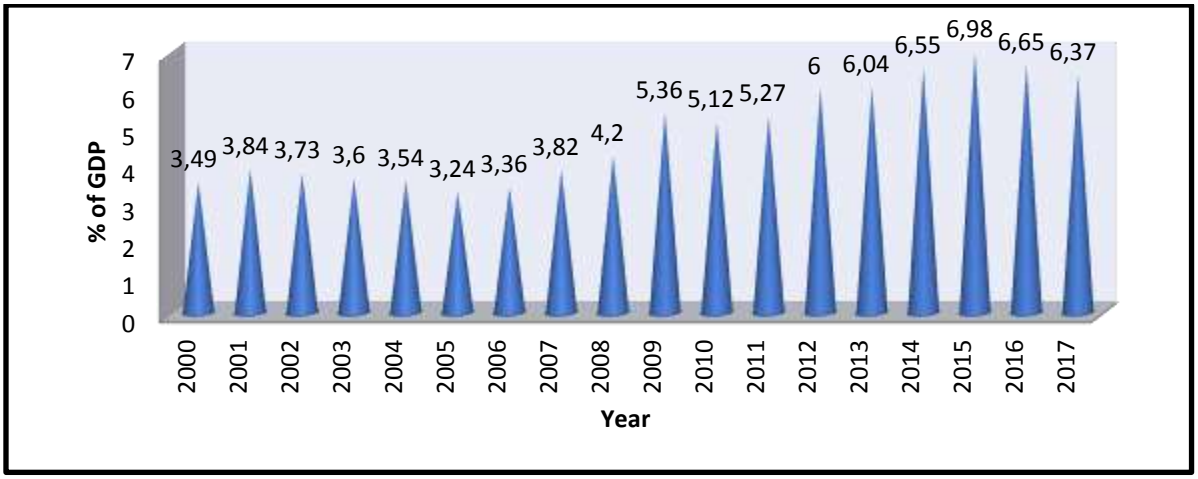
We observe that the Algeria's HDI value increased by 31, 2 percent from 0.578 to 0.759 between 1990 and 2018.

- **The Healthcare Spending (% of GDP)**

This indicator means how much a government spends on citizen's health care expressed as a percentage of GDP during each year and how that changes over time. The Sustainable Development Goal SDG3 called all governments to Strength health financing, so the evaluation of this indicator over time is a key factor lead to reach an efficient health system and hence of progress towards the universal health coverage (UHC) witch defined by World health organization as :" all people receiving quality health services that meet their needs without exposing them to financial hardship in paying for them (WHO, Report about "Universal Health Coverage: Supporting Country Needs", 2010, p. 03)".

The health spending to GDP ratio in Algeria is shown in the following chart:

Figure 17: Algeria Healthcare Spending (% of GDP)



Source: Compiled by Researcher based on the World Health Organization Global Health Expenditure database

According to the Data above, Algeria Healthcare Spending related to GDP from 2000 to 2017 reached a maximum value in 2015 with a 6.98 percent and a minimum value in 2005 with 3.24 percent, the average of this series reached to 4.84 percent.

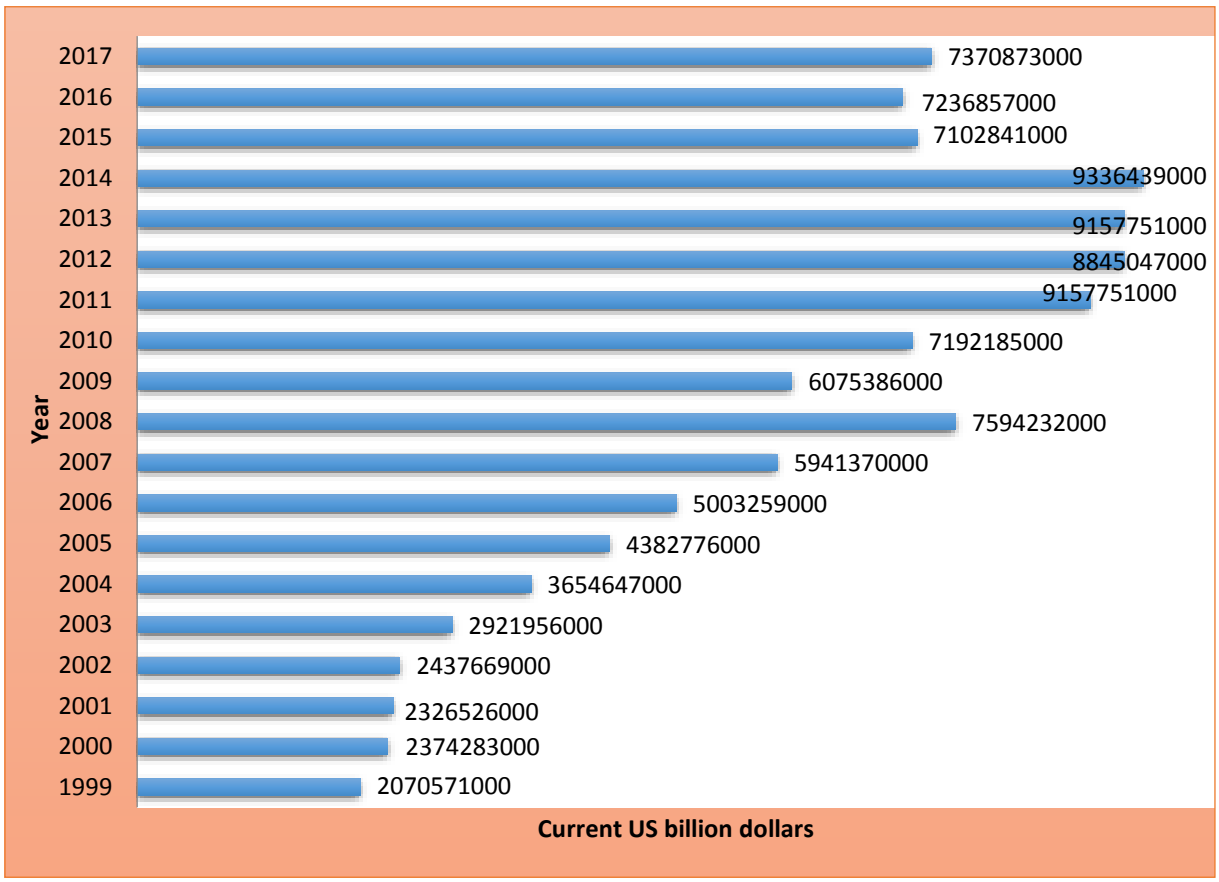
Returning to the World Bank data in 2017 for comparison all countries of the world, Algeria is ranked 89 among all the 181 countries with the value of 6, 37 percent which approximates the world average with value of 6.55 percent.

- **Education expenditure**

Education expenditure indicator is the total amount delivered by government's budget of a country to the different educational activities including wages and salaries, research and development spent **(Gbemisola Oseni, 2018)**. The education expenditure in Algeria from 1999 to 2017 reached a maximum value in 2014 with 9336439000 dollars; it multiplied four and half times during 15 years, after it started to decrease from 2015.

The chart below shows the Education expenditure of Algeria government for that period:

Figure 18: Education expenditure



Source: Compiled by Researcher based onWorld Bank database.

6.3. Algerian environmental and infrastructure indicators

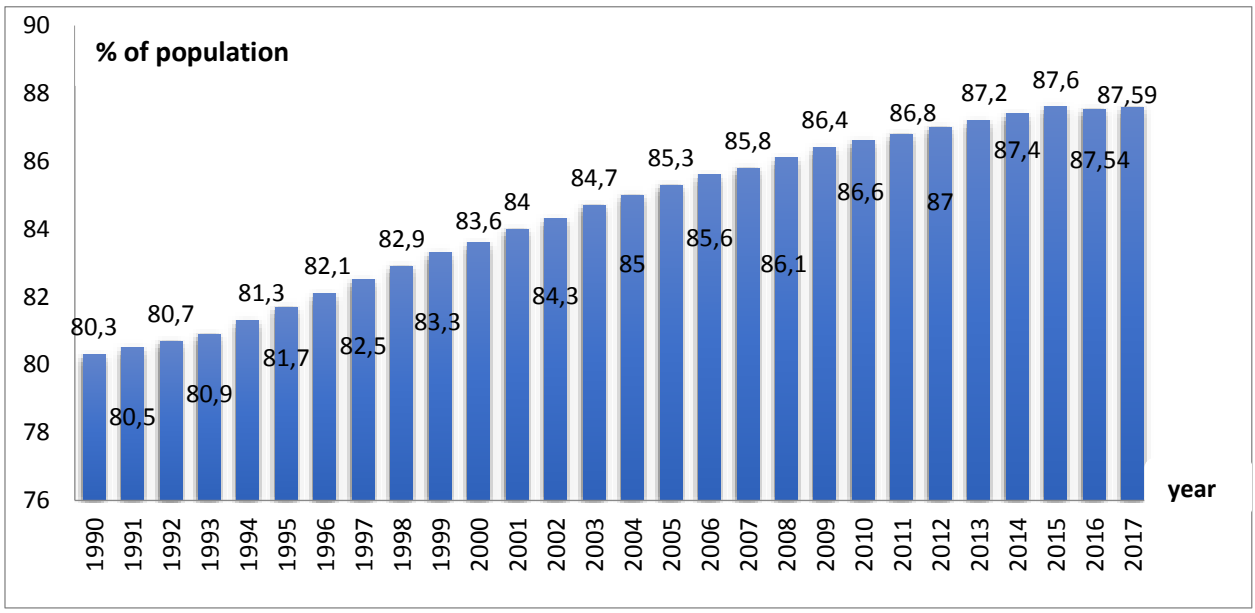
- **Access to improved sanitation**

According to the world health organization WHO, Sanitation means the ensuring of hygienic separation of human excreta from human contact (WHO, Sanitation accessed ,2019) and purveying the different facilities and services including "toilet, containment ,storage , treatment and end disposal through the piped sewer systems.

The unavailability of these services can produce major known infectious diseases such as cholera, typhoid so lead to a negative impact on the wellbeing of the nation. so, the percentage of the population using improved sanitation facilities is a good indicator that reflects the universal health coverage and the economic development of the country.

The chart below shows the percentage of the Algerian population which has access to improved sanitation; we observe that this indicator is still improving over time. In 2017, the percent of population which had access reached the value 87.59%.

Figure 19: Access to improved sanitation in Algeria



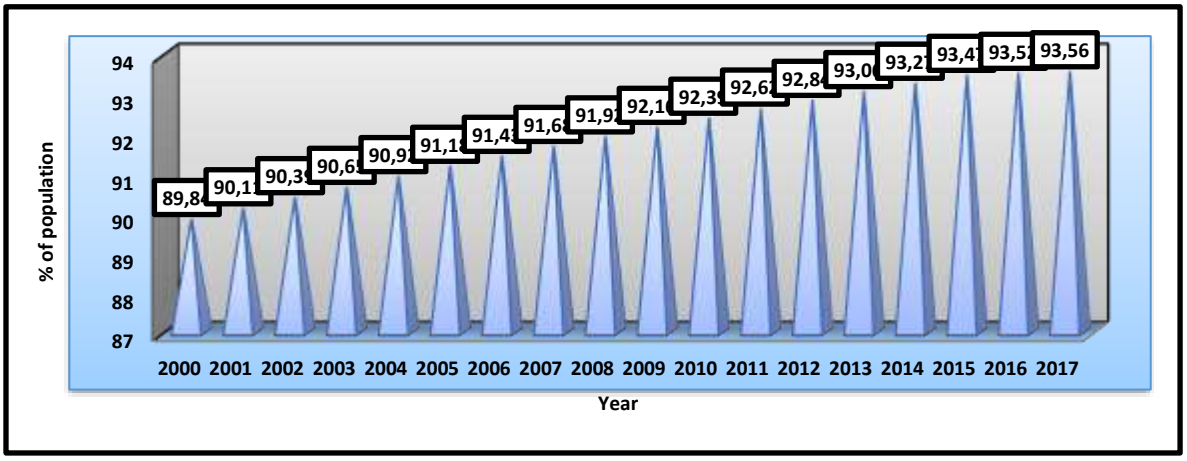
Source: Compiled by Researcher based on World Bank Database .

- **People using at least basic drinking water services (% of population)**

According to the World Bank organization, the % of population using at least basic drinking water services is an indicator which measures percent of population that drinks water from an improved source including «piped water, boreholes or tube wells, protected dug wells, protected springs, and packaged or delivered water (WB, 2020)".

In Algeria this indicator reached 93, 56% in 2017 which considered the highest value over years. Different data from 2000 to 2017 are presented in the chart below:

Figure 20: Percent of Algerian People using at least basic drinking water services

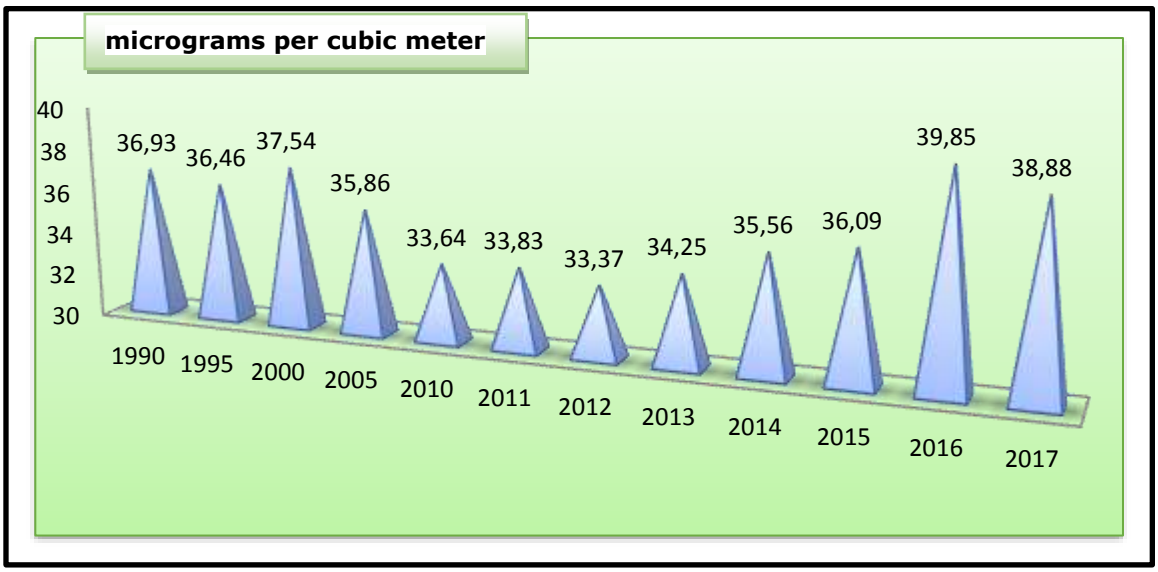


Source: Compiled by Researcher based on World Bank Database.

- **Mean annual exposure to PM2.5 air pollution (micrograms per cubic meter)**

PM2.5 is a fine particulate matter pollutes the air and impacts people's health through its deep penetrating into the respiratory tract and causing severe health damage when its levels in air are high. According to the World Health Organization (WHO) guideline, the annual mean concentrations of PM2.5 should not exceed 10 micrograms per cubic meter (Organization, 2005, p. 9), representing the lower range over which adverse health effects have been observed.
The graph below presents this indicator in Algeria from 2000 to 2017, we deduce from these data that the average value for PM2.5 air pollution reached over that period 35 micrograms per cubic meter which exceeded the lower range mentioned above.

Figure 21 : PM2.5 air pollution in Algeria



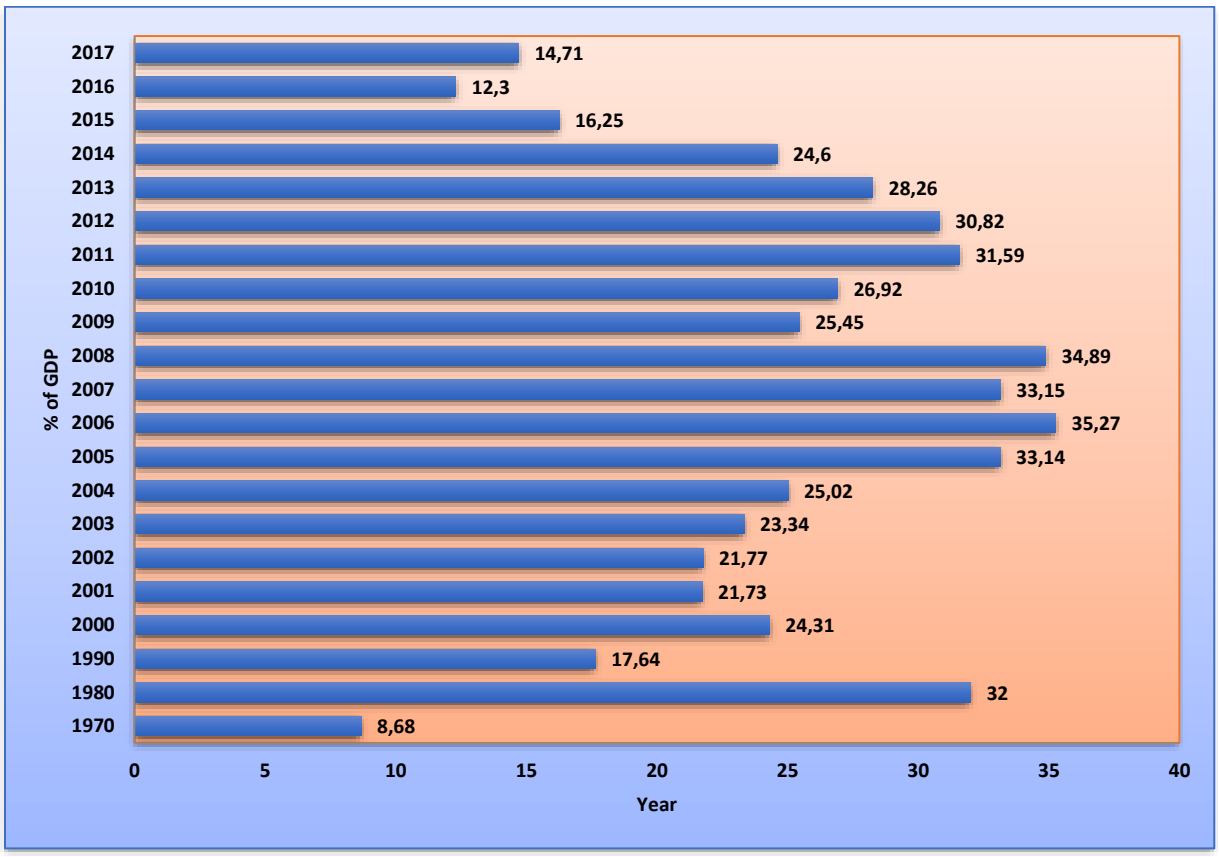
Source: Compiled by Researcher based on World Bank Database .

- **Total natural resources rents (% of GDP)**

In some countries the rents and earnings due to their natural resources represent a substantial and growing share of the gross domestic product (GDP), Measuring the Total natural resources rents indicator including "the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, forest rents.." and Accounting its contribution to economic output represent an important key to build an analytical framework for sustainable development (Blanco & Grier, 2012).

For Algeria State, this indicator reached the value 14.71% in 2017 , we observe also that the highest value over the period 1970 till 2017 was 39.30% in 1979, while the lowest value was 7.85 % in 1986.

Figure 22: Total natural resources rents (% of GDP)



Source: Compiled by Researcher based on World Bank Database.

- **Forest area (% of land area)**

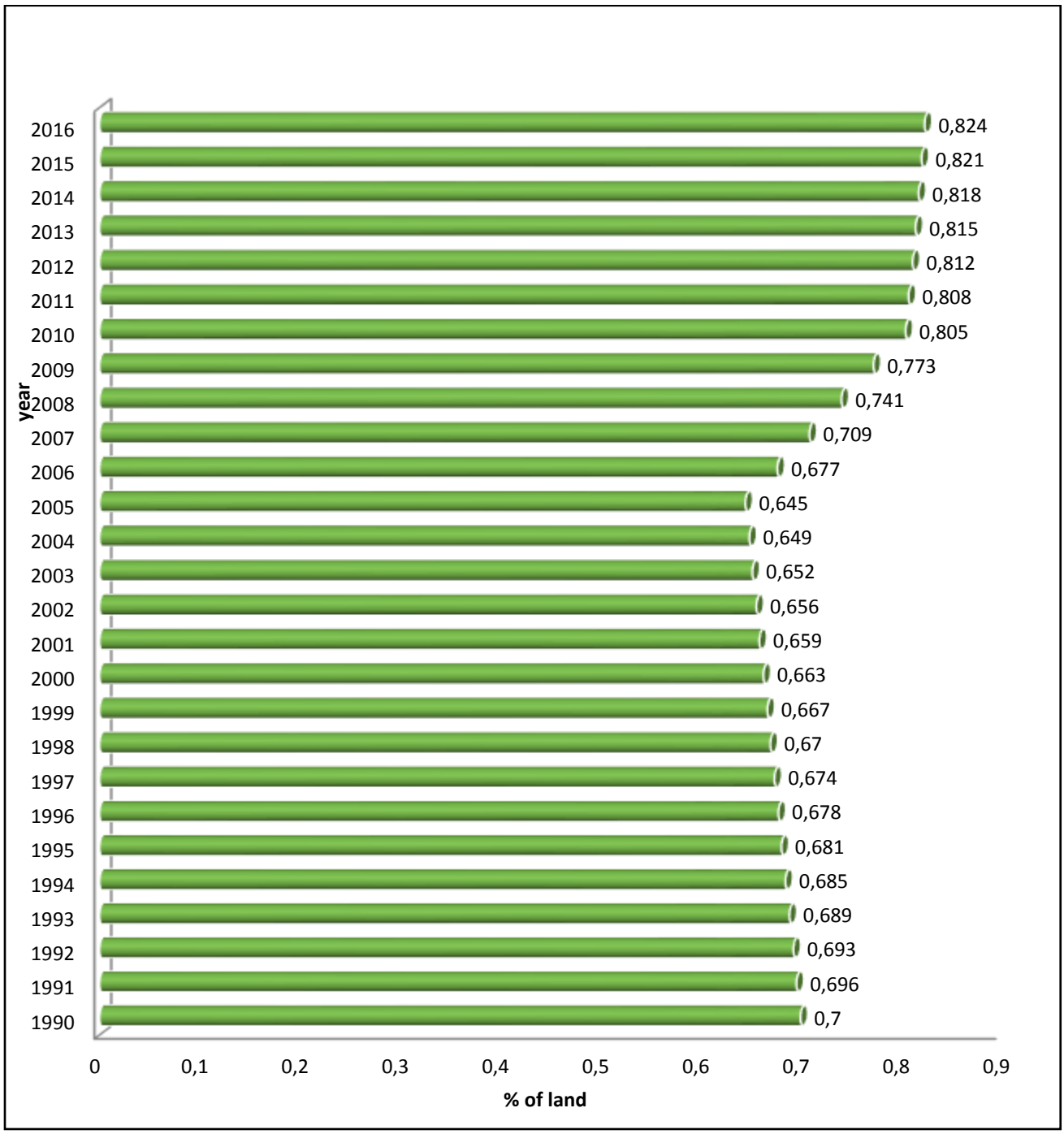
Forests areas are the worldwide ecosystems, diverse and widespread around the globe. it play an important role to serve multiple environmental, socio-economic aspect in many countries due to their several significant resources and functions including wood products , habitat for wildlife, conservation of biological diversity, water and soil, recreational opportunities and source of carbon cycle (UN, 2012).

Measuring this indicator presents an essential requirement for forest policy and planning strategies within the context of National strategy of sustainable development. Any fast decreasing forest area is considering an alarm of unsustainable ecosystems.

In this regards, the following data present the % of land area in Algeria according to the World Bank collection database.

We observe that this indicator was reported at 0.82444 % in 2016 which presents the highest value over the past 26 years while the lowest value was 0.645% in 2005.

Figure 23: Forest area (% of land area)

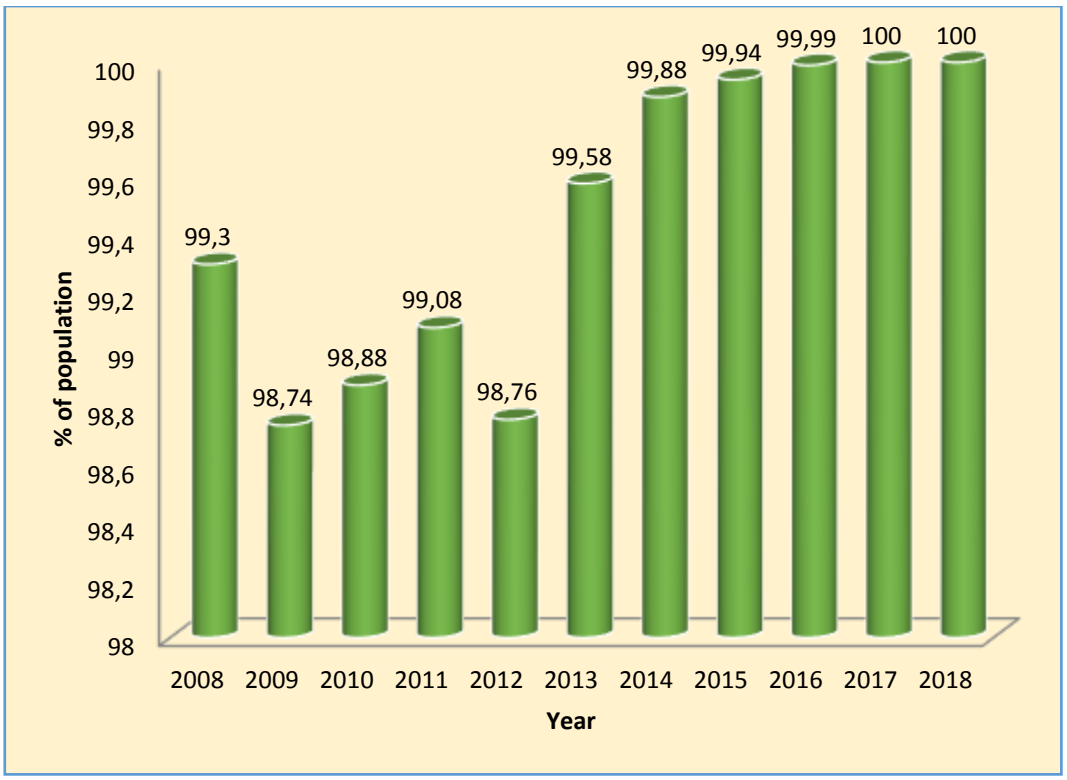


Source: Compiled by Researcher based on World Bank Database.

- **Access to electricity (% of population)**

The percentage of people with access to electricity refers to the percentage of people in a given area that have relatively stable access to electricity. Below is a chart with data showing the percentage of Algeria's population that had access to electricity from 2008 to 2018 as following:

Figure 24: Access to electricity (% of population)



Source: Compiled by Researcher based on World Bank Database.

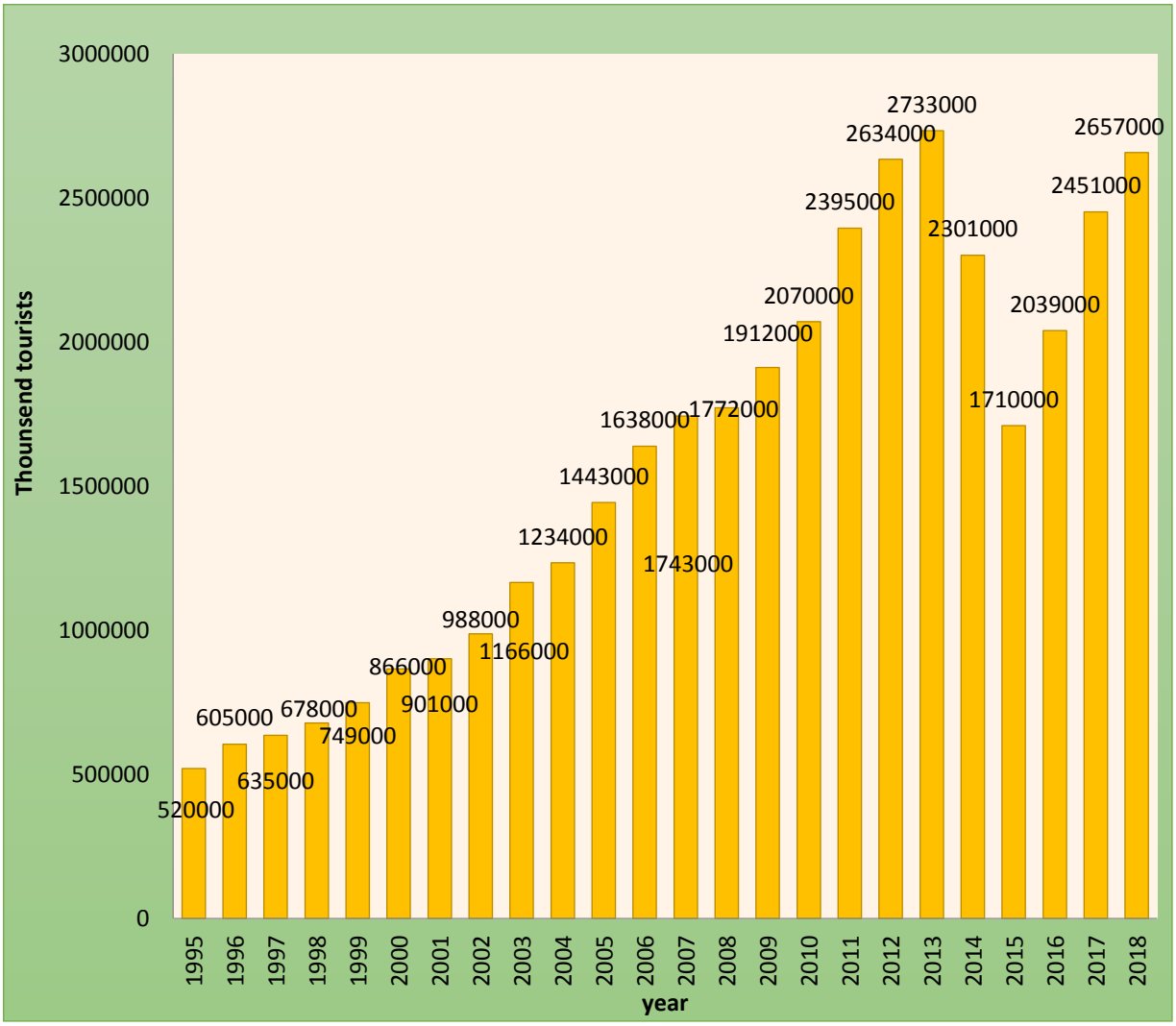
This indicator reached 100% as of 2017 which represents the highest value over the last 10 years, while the lowest value was 98.74 in 2009.

- **Tourist arrivals**

Tourism is an important source of foreign exchange and creation of employment for improving social, economic and environmental well-being of many countries. Targets 8,9 and 12 of Agenda 2030 identified this indicator as one of the key for sustainable development due to its participation to creates jobs and promotes local culture and products.

The following data provides Algeria's tourist arrivals from 1995 to 2018, The average value for Algeria during that period was 1577 thousand tourists with a minimum value was in 1995 with 520 thousand tourists while a maximum value was 2733 thousand tourists in 2013. If we compare it with the world average in 2018 based on 160 countries which was 8597298 thousand tourists, we deduce that it is incomparable what forces us to look for the causes.

Figure 25: Algeria: Tourist arrivals



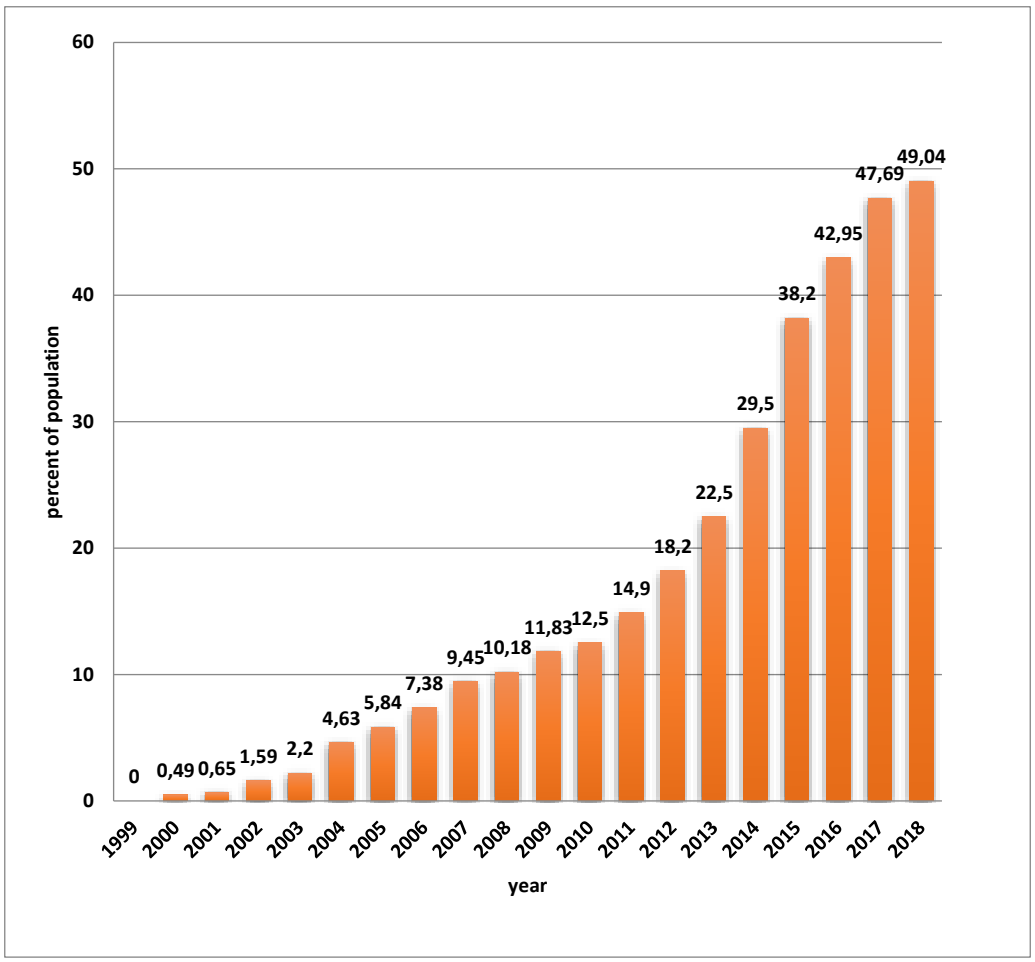
Source: Compiled by Researcher based on World Bank Database.

- **Individuals using the Internet (per 100 inhabitants)**

Internet infrastructure play a crucial role for achieving sustainable development goals through saving large amounts of paper, using Applications and programs on a daily basis so living more sustainable life and on the other hand, sharing studies, official reports, the results on the environment therefore living in balanced development with the environment (Antonio García Zaballos, 2019).

Percent of population using internet in Algeria is shown in the following data from 1990 to 2018. The minimum value was 0 percent in 1990 and a maximum value was 49.04 percent in 2018 with the average of 12.67 percent.

Figure26: Internet users (% of population)



Source: Compiled by Researcher based on World Bank Database.

- **Research and Development expenditure (% of GDP)**

Research and development present another key for achieving sustainable development by providing studies and models to understand and evaluate unsustainable patterns, by making available tools to analyze the efficiency of different policy options, and by developing cleaner technologies. For that indicator, it represents the amount of R&D expenditure divided by the total output of the economy (OECD, 2015).

The below chart provides data for Algeria from 2001 to 2017, the minimum value was 0.07 percent in 2005 and a maximum value was 0.54 percent in 2017 while the average value during that period was 0.26 percent which represents a minority value in comparison with the world average based on 83 countries in 2017 which was 1.02 percent.

Figure 27: Research and development expenditure, percent of GDP

Source: Compiled by Researcher based on World Bank Database.

Conclusion

The aim of this article was to provide an overview on the endeavors and efforts of Algeria government in terms of sustainable development implementation in the framework of united nation program.

Based on the lessons and results learned from the implementation of the Millennium Development Goals (MDGs) in the framework of Agenda 21 during the period 2000-2015 in Algeria, A new program was launched in 2015 to implement agenda 2030 which includes 17 goals subdivided into 169 targets. Our assessment from the adoption of these programs led us to deduce that progress towards sustainable development in Algeria is still moderate. In this regards, many challenges face Algeria government in order to insure an efficient Sustainable development implementation, these points can be cited in the following:

- The need to set up a specialized organization for monitoring the SDGs implementation in order to make an integrated national framework of indicators, this organization must contain branches distributed by 48 provinces which will help to ensure an effective management to implement the 2030 agenda.

- Set up a national statistical platform on the internet to provide SDGs which will constitute the one source for statistical information on sustainable development.

- Make available the necessary data to cover the international indicators requested by the UN programs in order to contribute for monitoring the global framework of SDG.

- Strengthen the statistical production data oriented towards the SDGs in terms of volume and quality.

- Develop complementary national indicators in case it will be appropriate and more suitable to the national policies context.

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