

The role of monetary policies in achieving the objectives of sustainable development in Algeria

Abdelli Razika

Université de Khemis Miliana

abdellirazika4@gmail.com

BEKKOUCHE Karima

Université de Khemis Miliana

bekouchekarima@yahoo.fr

Received: 04.07.2017 ----- Accepted: 04.05.2018

Abstract:

The interest of many countries in achieving sustainable development has increased over the past two decades. This concern is reflected in the development of strategies and development plans aimed at achieving integration between social development, economic growth and environmental protection. In this study, we will examine the role of monetary policy in achieving sustainable development by analyzing the impact of some monetary policy instruments such as the rate of re-discounting and the rate of exchange (a channel for reporting monetary policy) on the most important indicators of sustainable development, economical index (GDP per capita), social index (unemployment rate), environmental index (agricultural land) and, finally, a corporate index

(number of Internet subscribers per million inhabitants).

Keywords: sustainable development, monetary policy; development indicators

ملخص:

تصاعد اهتمام مختلف دول العالم بتحقيق التنمية المستدامة خلال العقد المنصرم، وتجسد هذا الاهتمام بوضع الاستراتيجيات والخطط التنموية الهادفة إلى تحقيق التكامل بين التنمية الاجتماعية والنمو الاقتصادي وحماية البيئة.

وسوف نتطرق من خلال هذه الدراسة إلى تبين دور السياسة النقدية في تحقيق التنمية المستدامة من خلال تحليل أثر بعض أدوات السياسة النقدية والمتمثلة في معدل إعادة الخصم، وسعر الصرف (قناة لإبلاغ السياسة النقدية)، على أهم مؤشرات التنمية المستدامة مؤشر اقتصادي (نصيب الفرد من الناتج المحلي الإجمالي، مؤشر اجتماعي (معدل البطالة)، مؤشر بيئي (الأراضي الزراعية)، وفي الأخير مؤشر مؤسستي (عدد المشتركين في الإنترنت لكل مليون نسمة).

التنمية المستدامة؛ السياسة النقدية؛ مؤشرات التنمية **الكلمات المفتاحية:**

Introduction:

The interest of many countries in achieving sustainable development has increased that can be seen through the planning of development strategies and plans aimed at achieving integration between social development, economic growth and environmental protection.

Today's sustainable development is attracting increasing attention from States, international and regional economic organizations, research centers and research groups for their effective role in achieving social justice, environmental protection and sustainable development that preserves the rights of all generations.

- Where the countries of the world are trying to make the most of their available resources without harming the environment and the future of other generations.

Algeria, like other countries, is now called upon to keep pace with the various regional and international political transformations in order to achieve a total and sustainable development, to achieve this, policies and strategies must be developed covering a range of economic, social and environmental fields. In this study, we have referred to the determination of the role of monetary policy in achieving sustainable development through each of their instruments.

Based on the above, we can raise the question of the study in the following: *the problematic:*

- What is the role of monetary policy in achieving sustainable development in Algeria? *The importance of the study:*

The importance of the study stems from the importance of monetary policy and its ability through the measures taken by the state to achieve the objectives of the economic policy of economic stability, as well as the knowledge of monetary policy tools through which sustainable development is achieved in Algeria.

Objective of the study:

Through this study, we aim at the following:

- Explain the role of monetary policy in achieving sustainable development with its various tools in Algeria during the period 2000-2015.
- Analysis of some indicators of sustainable development in Algeria during the period 2000-2015

Study

Hypotheses:

- Sustainable development aims to increase national income and then increase GDP per capita
- Monetary policy contributed through its various instruments in achieving sustainable development in Algeria during 2000-2015

To solve the above problem, it is necessary to address the following topics:

Topic

one: Theoretical rooting for sustainable development

Topic tow : monetary policy tools

Topic three: The role of monetary policy in achieving sustainable development in Algeria

First: theoretical rooting of sustainable development

all of them work harmoniously within the environmental system, in order to preserve them and achieve continuous and **What is sustainable development:**

There are multiple and varied definitions of sustainable development, but each of them revolves around similar meanings (1)

- "Development that meets the needs of the present without hindering future generations from providing their needs."

- "Poverty alleviation for the world's poor in providing a secure and sustainable life, reducing the depletion of natural resources, environmental degradation, cultural imbalance and social stability".

Despite the difference in the definition of sustainable development, its content is rational in the use of renewable resources in a way that does not fade or deteriorate or diminish the future generations' benefit. It also includes the wisdom of using resources that are not renewed so that future generations are not denied access to them.

Sustainable development also requires the consumption of non-renewable energy sources at a slow pace to ensure smooth and gradual transition to renewable sources of energy.

At the Earth Summit in Brazil in 1992, the international community adopted the term sustainable development in the sense of "meeting the needs of the present generation without wasting the rights of future generations at a level no less than the standard in which we live." The international community has identified the components of sustainable development as:

- Economic growth - Social development - Protection of the environment and sources of natural wealth. (2)

- *The World Commission on Sustainable Development* defines in report entitled "Our common future and sustainable development" in 1987 as "Meeting the needs of the present without compromising the ability of future generations to meet their own needs".

The most important definitions given to sustainable development are:

- Development was first identified in the 1987 report of *the World Commission on Environment and Development* as "development that meets the needs of the present without compromising the ability of future generations to meet their needs". (3)

- The World Bank defines sustainable development as "a development that is concerned with achieving the parity that ensures opportunities for future generations by ensuring that global capital is sustained or sustained over time."(4)
The WEBSTER dictionary defines Sustainable Development: "those development that use natural resources without allowing them to be depleted, partially destroyed or completely destroyed, that is, the need to rationalize their use." (5)

B. Characteristics of sustainable development:

There are several characteristics of sustainable development are mainly: (6) – It

is a development is the time dimension is the basis; it is a long-term development depends on the assessment of the present means and the planning for the longest period of time in which to predict the variables.

– It is a development of the conservation of the biosphere in the natural environment with regard to its basic components such as air, water, soil, other natural materials and energy sources.

–It is a development requires that natural resources should not be depleted beyond their capacity, and that periodic operations in the

biosphere should be maintained, through which resources and elements will be transferred and purified.

– It is a development that takes into account the primary needs of the individual in the first place. Its priorities are to meet the needs of food, housing, clothing, education, health services and all that relates to improve the quality of human and material life

—It is an integrated development based on coordination between the policies of resource use, investment trends and technological selection, and that sustainable development. The following table illustrates the dimensions and elements of sustainable development:

Table 01: *Basic dimensions Sustainable development*

<i>Economic dimension</i>	<i>Social dimension</i>	<i>Environmental dimension</i>
Sustainable economic growth	Equal distribution	Ecosystems
Capital efficiency	Social mobility	Energy
Satisfying basic needs	Popular participation	Biodiversity
Economic justice	Cultural diversity	Biological productivity
	Sustainability of institutions	The ability to adapt

Source: Othman Mohamed Ghneim and Majda Abu-Mazat, *the problem of sustainable development in the context of the current economic culture*, studies of , Journal of Scientific Research issued by the deanship of scientific research, University of Jordan, Amman, Jordan, volume 35, No. 1, January 2008, p.177

C. Sustainable Development Goals:

Sustainable development seeks to achieve several objectives summarized as follows: (7)

1. Increasing national income: Increasing the national income is one of the most important objectives of sustainable development in developing countries, especially since the main motive lies in poverty and low standard of living of its population. The real national income is increased through:

- To increase and improve the quality of goods and services provided by various economic resources.
- The provision of capital and administrative competencies to exploit them.

2- Improving the standard of living: Increasing income does not necessarily improve the standard of living and to achieve the latter, it must be linked to the organization of the population increase and to achieve an increase in the average per capita income must: - Improving the standard of living: Increasing income does not necessarily improve the standard of living and to achieve the latter must be linked to increased income by organizing the increase of population and to achieve an increase in the average per capita income must:

- Control of birth rates.

- Achieving a fair distribution of national income.
- Satisfying the basic needs of current and future individuals.
- Providing quality of life through employment, education, health care, social services and housing.
- Respect the rights of individuals and enable them to participate in decision-making.

3- Enhancing the awareness of the population about the following environmental problems: This is done through their sense of responsibility towards them and encouraging them to participate effectively in finding suitable solutions through their participation in the preparation, implementation, follow-up and delivery of sustainable development programs and projects.

4. Rational use of resources: Sustainable development works to improve the quality of human life but at the expense of the environment by:

- rational use of these resources with the search for alternatives.
 - Adopting an environmental policy that is binding on the community with the imposition of deterrent penalties for its violation.
- Develop information programs focusing on the importance of the environment and the harm caused by the abuse.

5 - Linking modern technology to the goals of society: This is through:

- Educating members of the community about the importance of modern technologies in the field of development and how to use them, and renewing them in improving the quality of life of society and achieving its objectives.
- The need to develop clean technology that does not destroy the

environment. - combating pollution of various types and forms.
 - Avoid projects that cause environmental pollution

D. Sustainable Development Indicators:

Although the concept of sustainable development is widespread, its main dilemma remains the urgent need to identify indicators through which progress towards sustainable development can be measured. The indicators of sustainable development are divided into four main categories based on the definition of sustainable development itself, which is divided into economic, social and environmental indicators as well as institutional indicators. We Summarize the list of sustainable development indicators adopted by the United Nations Commission on Sustainable Development in the following table:

Table 02: Sustainable Development Indicators in Accordance with Agenda 21

<i>Economic indicators</i>	<i>Social indicators</i>	<i>Environment al indicators</i>	<i>Institution al indicators</i>
-GDP Per capita - Gross fixed investment share in GDP - Exports of	- Unemployment rate - Human poverty index - Population living below the	- Renewable resources / population - Water use / renewable reserves - Agricultural	- Number of daily newspapers per 1000 inhabitants - Number of Internet

goods and services / imports of goods and services	poverty line	land per capita	subscribers /
- Annual per capita consumption of energy	- Population growth	- permanent cultivated and arable land per capita	Internet users per 1000 inhabitants
- Depts. / GDP	- Adult literacy rate	- Use of fertilizers	- Number of scientists and engineers engaged in R & D per million people
	- Gross enrollment ratio in secondary schools	- Change in forest area	- Expenditure on R & D as a percentage of GNP
	- Life expectancy at birth	- Percentage of land affected by desertification	
	- Population without access to health services		
	- Population with no access to health facilities		

Source: Implementation of Development Indicators in ESCWA Countries, United Nations, Economic and Social Commission for Western Asia, New York 2001.

Second: monetary policy tools

1. What is monetary policy?

The monetary policy in Islam can be defined as: "The set of measures taken by the State in managing both money and credit and regulating

the general liquidity of the economy in order to achieve economic stability and control fluctuations in maintaining price stability, stability of the value of money in the internal markets of the economy and the exchange rate in dealing External and other objectives ... ". (8)

2. *Monetary policy directions*

the direction of monetary policy towards deflation or expansion depends on the type of problem or the existing crisis and tries to fix it.

A) *Restrictive monetary policy “deflationary trend “*

The central bank follows a monetary policy restricting spending, restricting credit, reducing the amount of money circulating in society, raising the interest rate and then trying to raise prices and thus fight inflation.

B - Expansionary monetary policy:

In contrast to the former, the central bank is resorting to this method to accelerate the growth of the monetary bloc by encouraging credit, increasing the volume of means of payment and lowering the interest rate. The volume of investments increases, leading to increased production and a reduction in unemployment.

C) *The direction of monetary policy*

There is another trend of monetary policy for developing countries. These countries rely either on seasonal agriculture or on one crop and export of raw materials abroad. Therefore, the central bank increases the size of the means of payment at the start of agriculture and financing the crop. (9)

3. *Monetary Policy Tools:*

Monetary policy instruments are divided into two types: traditional quantitative and qualitative instruments. The most traditional

quantitative instruments affecting cash supply are: (10)

1-quantitative traditional monetary policy tools
-Open Market Operations:

Open market operations are one of the means of the central bank used to achieve an increase or decrease in the amount of cash reserves with commercial banks and the public, thus affecting the amount of credit granted by these banks. The central bank enters this market as a buyer or purchaser of these securities, with the aim of influencing the amount of cash reserves in commercial banks which affects the creation of credit in accordance with the prevailing economic conditions of recession and inflation. Therefore, the central banks maintain an appropriate amount of government bonds for this purpose and it is considered the most effective tools in developed countries that have sophisticated financial markets.

2-price re-discounts:

Commercial banks transactions may require more cash, resorting to the Central Bank in order to deduct the possession of commercial papers and government treasury bills, you get a cash value before the due date for as discount of a certain percentage of their value called re-discount, also the central bank gives direct lending to commercial banks when faced with excessive requests unexpected from their depositors to withdraw their deposits, so are unable to cash liquidity to meet these demands, threatening to shake the confidence of its customers, the central bank moves quickly to provide cash support and cover to these troubled banks for a low interest rate, and in the light of this, the discount price is the price received by the central

bank for a commercial paper discount government bills to commercial banks or for a loans provided directly to the commercial banks.

3. *Legal reserve ratio: (11)*

This means the percentage determined by the Central Bank on the bank deposit, these reserves are placed as deposits at the Central Bank in the form of balances or cash money.

B) Specific monetary policy instruments (direct instruments)

- Literary persuasion: (12)

This method is represented in the discretion of the central bank as the highest monetary authority in the domestic economy to convince commercial banks of the procedures and directives to be implemented to eliminate or alleviate the problems of the national economy, as it has the authority of literary supervision of commercial banks, this method is usually done through direct meetings with the managers of the various banks, during which they are persuaded by the orders and directives required at that stage, it is clear that the success of this method depends on the degree of development of the banking system and its diversity, as well as the experience, authority and position of the Central Bank.

-Instructions:

And is summarized in the issuance of instructions which are considers mandatory on commercial banks by the central bank within the policy of managing cash in the economy when they don't response to the previous persuasion method, in order for these instructions to be effective, they may be directly linked and applied to the banks and also a method of sanctions in the case that these instructions are not

implemented.

- Regulation of credit granted for the purpose of construction:

It is intended to affect the volume of credit granted for real estate finance purposes, not to establish (buildings, land purchases ...) to meet the requirements of development, and the national economy, such as restricting the establishment of a residential establishment for industrial property, or to achieve some kind of balance between real estate finance and other projects Which are required by the movement of economic activity (such as development and war activities ...)

In order to reduce the amount of cash flows that stimulates inflation and damage to monetary stability.

- Direct and indirect control:

Many prefer to use monetary and financial measures to achieve monetary and economic stability in normal circumstances. These indirect measures, which can be distinguished from direct control such as price controls by the state, wage control, technicians and assignments, are used in forced cases. Capital states favor indirect control to take control of the market mechanism rather than direct state intervention.

Third: The role of monetary policy in achieving sustainable development in Algeria

1. Monetary Policy Objectives:

The objectives of monetary policy can be mentioned as follows: (13)

Monetary stabilization (price stability): Some believe that price stability is the central objective of monetary policy; it is the main indicator of monetary stability through the monitoring of bank credit,

because the change in prices leads to serious damage to the class of creditors and for debtors, which leads to the bad distribution for wealth between the parties.

B - Stability of exchange rates: The stability of the exchange rate is an important indicator of monetary stability, as it aims to restrict inflation rates and work to stabilize the value of the local currency, by limiting the excessive expansion of the supply of money and its detrimental impact on the value of the currency. At the same time, the appropriate size of international reserves and the lack of excessive expansion of lending to the government to stabilize the local currency exchange rate.

C. Encourage and stimulate economic growth: The goal of exchange rate stability and inflation reduction is to create an environment for increasing the economic growth rate, which means continuous increase in the real GDP of the country. The central bank can make changes in the size of the total reserves of commercial banks and their ability to create credit and impact on the volume of bank credit, expansionary monetary policy can keep the low interest rate, which encourages the increase in demand for credit and investment and economic growth.

D. Improving the balance of payments situation: monetary policy plays an important role in improving the balance of payments by raising the interest rate to attract foreign capital to move into the country and to adopt an appropriate exchange system that encourages exports and limits imports, if it succeeds in increasing the country's exports and reducing its imports and thereby reducing the balance of payments deficit.

2. Analysis of monetary policy indicators and sustainable development

-Monetary policy and sustainable development indicators:

Table 03: Development of monetary policy and sustainable development indicators

Years	Monetary policy indicators		Indicators of sustainable development			
	Rediscount rate%	exchange rate (dinar for US dollar)	* GDP per capita AD	*Unemployment rate %	* Agricultural lands (% of land area)	* Number of Internet users%
2000	7.5	75.3	107809.23	29	16.80	0.5
2001	6	77.3	109622.98	28	16.84	0.6
2002	5.5	79.7	114324.26	26	16.73	1.6
2003	4.5	77.4	121027.43	23.7	16.75	2.2
2004	4	72	124609.02	17.7	17.27	4.6
2005	4	73.3	130182.93	15.3	17.30	5.8
2006	4	72.3	130487.47	12.3	17.29	7.4
2007	4	66.8	132874.39	11.8	17.32	9.5
2008	4	71.1	133861.03	11.3	17.34	10.2
2009	4	72.6	133775.84	10.2	17.37	11.2
2010	4	74.4	136196.92	10	17.37	12.5
2011	4	72.8	137536.53	10	17.37	14
2012	4	77.5	139435.12	11	17.38	15.2

2013	4	79.3	140492.1 5	9.8	17.39	16.5
2014	4	80.5	143013.4 4	10.6	17.39	25
2015	4	93.2	14565.54	11.2	17.39	38.2

Source: Prepared by the researcher relying on:

* World Bank data

[http://data.albankaldawli.org/indicator/NY.GDP.PCAP.KD.ZG\(14\)](http://data.albankaldawli.org/indicator/NY.GDP.PCAP.KD.ZG(14))

* Bank of Algeria, Annual Reports for the years 2002, 2008, 2015.

[Http://www.bank-of-algeria.dz\(15\)](Http://www.bank-of-algeria.dz(15))

From the table's data, we note that the discount rate was three stages:

Where the year 2000 recorded 7.5%, then decreased in 2001 and recorded an estimated rate of 6%, and in recent years from 2004 to the present day, we see a stable rate of re-deduction, which amounted to 4%, and this is due to the development programs that Algeria experienced in this period.

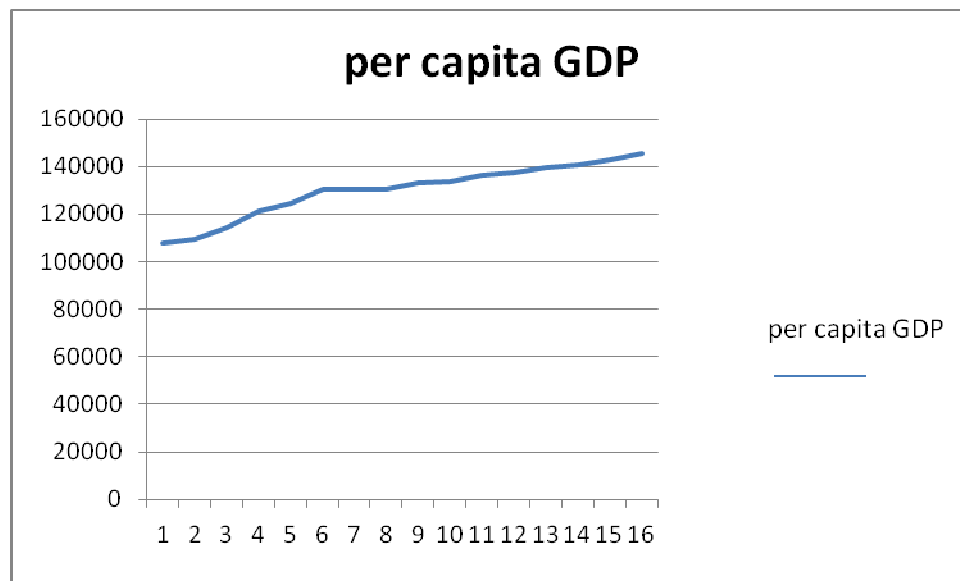
B. Analysis of indicators of sustainable development in Algeria during the period 2000-2015

- For the economic index: GDP per capita

Definition: It means GDP at current prices, divided by the total population, which is an important measure of the level of economic development and the overall performance of the economy. (16)

Through the above table, GDP per capita path can be represented as follows:

Figure 01: per capita GDP period (2000-2015)
Unit: 1 million dinars

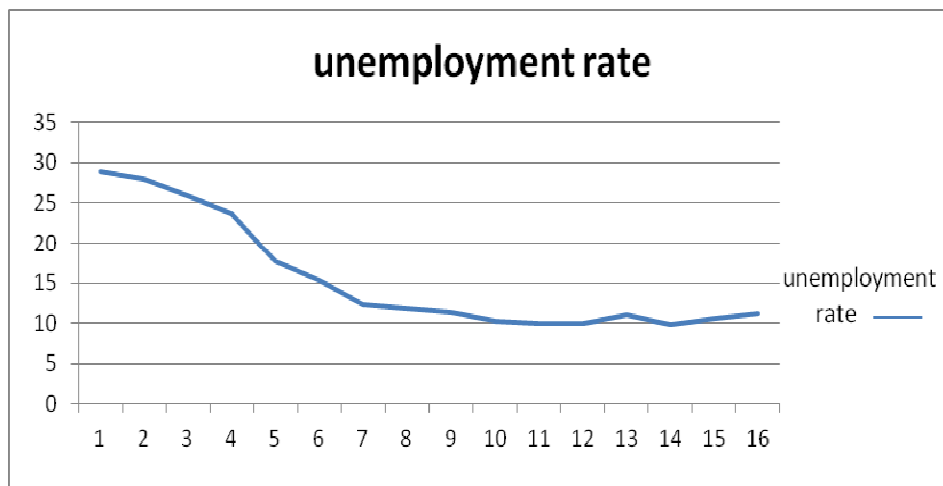


Source: Prepared by the researcher, according to the data of the previous table, and according to the 2007 Microsoft Excel program

- For the social index: unemployment rate

Definition: means the number of persons who are able to work, want and seek without finding it, expressed as a percentage of the total number of persons who constitute the labor force.(17)
 Through the above table, the evolution of the unemployment rate can be represented as follows:

Figure 02: Evolution of unemployment rate for the period (2000-2015)



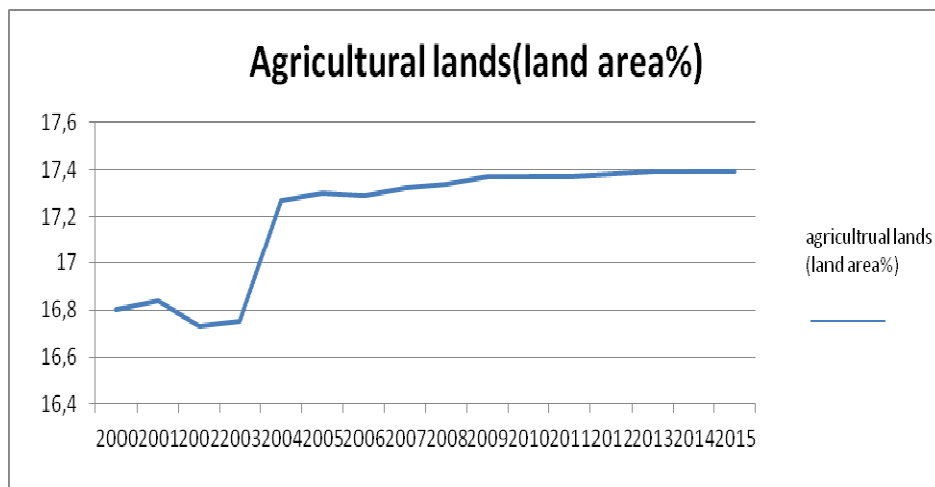
Source: Prepared by the researcher, according to the data of the previous table, and according to the 2007 Microsoft Excel program
- For the environmental index: Agricultural lands (of land area%)

Definition: it is the total area of agricultural land that is continuously grown crops;

this indicator indicates the extent to which the state encourages agricultural activity that helps to provide an acceptable level of food security for the population, in addition to the possibility of contributing to the reduction of the effects of the emission of greenhouse gases....(18)

According to the above table the agricultural lands (land area %) can be represented as follows :

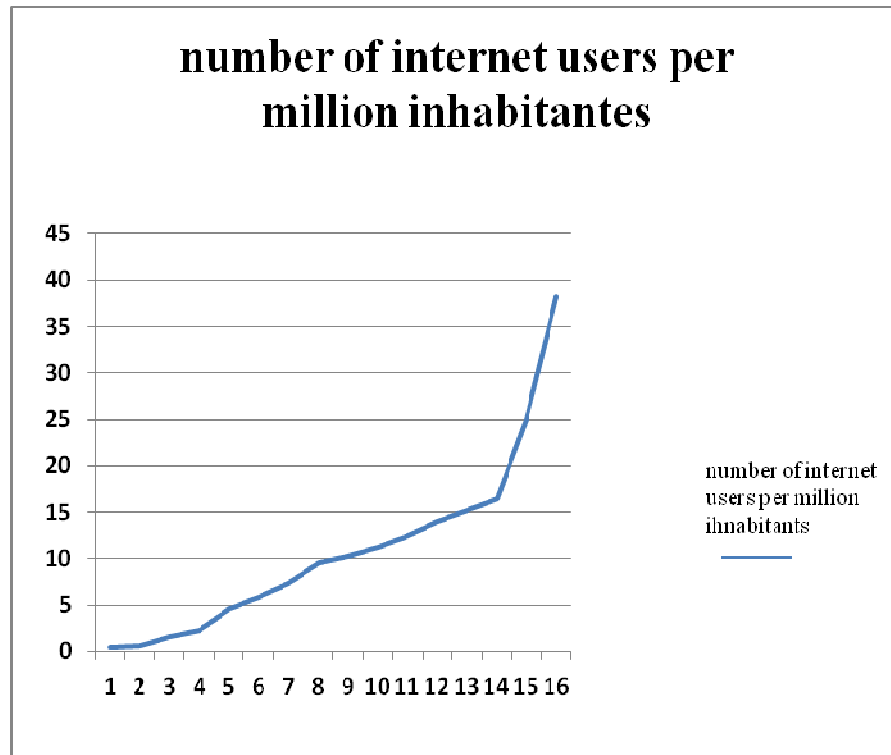
Figure03: agricultural lands (land area %) for the period 2000-20015



Source: Prepared by the researcher, according to the data of the previous table, and according to the 2007 Microsoft Excel program - For the institutional index: the number of Internet users per million people

Definition: It is the number of Internet users at the state level, divided by the total population, multiplied by 100. This indicator is a measure of the density of access to the Internet services.(internet).(19) Through the above table, the evolution of the number of Internet users per million inhabitants can be represented as follows:

Figure 04: Number of Internet users per million inhabitants (2000-2015)



Source: Prepared by the researcher, according to the data of the previous table, and according to the 2007 Microsoft Excel program

Conclusion:

In recent years, Algeria has reached advanced stages in achieving sustainable development in various dimensions such as reducing unemployment, raising the standard of living and equal distribution of incomes through the development of an appropriate laws and policies to achieve the goals of sustainable development. The study shows us the importance of monetary policy, which aims to encourage and stimulate economic growth and then sustainable

development. This is evidenced by the record of some indicators of sustainable development in Algeria in the period 2000-2015, where we notice an increase in GDP per capita. Unemployment rates reached 2000 estimated with 29 % and in recent years a decline estimated with 11.2%, at the year of 2015 the previous results lead us to a number of recommendations, the most important of which are:

Recommendations:

- Conduct periodic studies to determine the effectiveness of monetary policy in achieving the objectives of sustainable development.
- The need for coordination between monetary policy and fiscal policy to achieve the goals of sustainable development.
- Keeping abreast of the latest technological developments and benefiting from them, in order to reach the established goals.

The

References:

- 1- A series of studies issued by the Center for Media Production, Sustainable ***Development in the Arab World between Reality and Hope***, King Abdul-Aziz University, Graduate Studies and Scientific Research, 11th Edition, p.40
- 2-National Committee for Sustainable Development, Towards a National Strategy for Sustainable Development, document ***of the framework of the National Strategy for Sustainable Development and methodology for preparing indicators for it***, Egypt, p5.
- 3 - Othman Mohamed Ghoneim and Magda Abu Mazen, ***Sustainable Development: Philosophy and Methods of Planning and its Measuring Tools***, edition 1, Dar Safa Publishing and Distribution,

- Amman, 2007, p. 25.
- 4- Ammar Amadi, *The Problem of Sustainable Development and its Dimensions*, Intervention in the International Forum on Sustainable Development and the Efficiency of Available Resources, Faculty of Economic Sciences and Management Sciences, Setif University 07/08, April 2008, p.05
- 5-Beat Burgenmeier, *economics of sustainable development*, 2nd ed., Brussels, 2005, p38.
- 6-Mohamed Abdelhamid Toufik and other , *Continuing Development in the Arab World*, Arab Organization for Education, Culture and Science, Tunis, 2000, p.14
- 7 - Shamia Bin Abbas, *The Application of Total Quality Management in Organizations and its Implications for Sustainable Development – The studying of Algeria situation*, Thesis for the PhD Degree, Faculty of Economic Sciences, Commercial and Management Sciences, University of Abdel Hamid Mahri Constantine, 2014/2015, p. 100-101 .
- 8- Ibrahim Abdel Halim Obada, *Monetary Policy and its Guidelines in Islamic Economy*, First International Forum of the Institute of Economic and Commercial Sciences and Management Sciences, Islamic Economics, Reality and Future Bears, University Center in Ghardaia, Algeria, p.02.
- 9- Mustafa Rushdie, Al-Wadjez in Monetary and Banking Economics, University's new Publishing House, Alexandria, 1998, p 190.
- 10-Ahmad Ismail Al-Mashhadani, *The Role of Monetary Policy in Achieving Monetary Stability in the Iraqi Economy for the Period 2003/2009*, Iraqi Journal of Economic Sciences, 10th Year, 33rd

- Issue, 2012, pp 134-135. 11-
- Djamal Salemi, Bashichi Walid, Quantitative Analysis of the Impact of Monetary Policy on Economic Growth: An Empirical Study on the Algerian Economy during **1990-2012**, Al Mustansiriya Journal of Arab and International Studies, No. 45, p 212
- 12- Saadoun Hussein Farhan, Thabet Khalil Ibrahim, ***Monetary stability and its impact on economic growth in a number of developing countries for the period 1990-2010***, Faculty of Management and Economics, University of Mosul, Journal of Kirkuk University for Administrative and Economic Sciences, pp. 144-145.
- 13- Saadoun Hussein Farhan, ***Stability and its impact on economic growth in a number of developing countries for the period 1990-2010***, Journal of Kirkuk University for Administrative and Economic Sciences, Volume 4, No. 2, 2014, pp. 145-146.
14. World Bank data
<http://data.albankaldawli.org/indicator/NY.GDP.PCAP.KD.ZG>
- 15- Bank of Algeria, Annual Reports for the years 2002.
<Http://www.bank-of-algeria.dz>
- 16- Sustainable Development Indicators Qatar 2015, p. 32 at
<http://www.mdps.gov.qa/en/knowledge/ReportsandStudies/SusDevIndicators2015Ar.PDF>
- 17- Same previous reference, p12
- 18-same previous reference, p57
- 19- Same previous reference p39