

DEVELOPING RENEWABLE ENERGY SOURCES AS A STRATEGIC ANALYTICAL INPUT TO COMBAT POVERTY IN ALGERIA



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Abstract:

Since the World Summit on Development, studies of international politics have tended to link economic recovery policies with the requirements of achieving human security according to the international system units. Perhaps the growing international interest in the agenda of the Third Millennium Development Goals - as a global initiative that seeks progress towards sustainable development - has deepened studies and reports aimed at finding analytical approaches to embody this global endeavour. Renewable energies represent a basic and reliable future source for advancing economic and social growth in Algeria, which provides job opportunities and improves living standards in a manner that enables combating the phenomenon of poverty. Perhaps the issue of pairing between depleted and renewable energies would achieve the stability and continuity of the state.

key words: renewable energies; combating poverty; Transition; Energetic Pairing.

ملخص:

عمدت دراسات السياسة الدولية منذ القمة العالمية للتنمية إلى الربط بين سياسات الانعاش الاقتصادي ومتطلبات تحقيق الأمن الانساني لوحدة النظام الدولي، ولعل تنامي الاهتمام الدولي بأجندة الأهداف الانمائية للألفية الثالثة كمبادرة عالمية تنشده احرار تقدم باتجاه التنمية المستدامة، عمق من الدراسات والتقارير الرامية لإيجاد المدخل التحليلية لتجسيد هذا المسعى العالمي. تمثل الطاقات المتجددة مصدرا أساسيا يُعول عليه مستقبلا للدفع بعجلة النمو الاقتصادي والاجتماعي في الجزائر، مما يوفر فرص العمل ويُحسن مستويات المعيشة وبالشكل الذي يُمكن من مكافحة ظاهرة الفقر، ولعل ان مسألة المزوجة بين الطاقات الناضبة والمتجددة من شأنه أن يُحقق استقرار الدولة واستمرارها.

الكلمات المفتاحية: الطاقات المتجددة، مكافحة الفقر، الانتقال/المزوجة الطاقوية.

Introduction:

Poverty is a social and economic phenomenon that has taken on an international dimension, as it has become a distinctive phenomenon for many societies. Accordingly, efforts to combat poverty have come to the top of the priorities of international organizations and play a fundamental role in drawing up the development policies of countries on the path of development. Algeria is among the countries that have paid great attention to combating the phenomenon of poverty, especially in recent years, through studies and analyses with the aim of measuring it and proposing effective policies to combat poverty.

In line with this development goal, which falls within the analytical and theoretical frameworks of human security, Algeria has adopted an energy policy - particularly investment in renewable energies - as a strategic approach to combating poverty and reducing its economic, political, security and societal challenges. Especially in light of the close connection between poverty issues, environmental problems and sustainable development issues according to the requirements of Algerian national security on the one hand, and the requirements of the current international concern, on the other hand. However, addressing this proposition by analysing the dichotomy of combating poverty and the local developmental policies of renewable energy and projecting it on Algeria can only be achieved by answering the following problem:

How does the development of investment in the alternative of renewable energy contribute - in light of the many economic and political problems in Algeria - to combating poverty and pushing towards achieving the requirements of sustainable human development?

The problem includes a set of sub-questions:

- 1- What is poverty and what are its characteristics and indicators for measuring it in Algeria?
- 2- To what extent is it possible for Algeria to adopt the energy transition approach as an embodiment of sustainable development human requirements?
- 3- What are the possibilities for developing renewable energy alternatives that can combat poverty in light of the political and economic challenges in Algeria?

Study axes:

1. Poverty measurement indicators: an analytical study in Algeria.
2. Renewable energies and their role in achieving human development goals.
3. Algeria and the prospects of betting on renewable energies to combat poverty.

Poverty Measurement Indicators: An Analytical Study in Algeria

○ **The concept of poverty:**

The study of poverty measurement indicators necessitates, first of all, the epistemological definition of the concept of poverty in a way that helps to extrapolate its characteristics and develop the necessary effective policies to combat it. Human development reports indicate that more than a third of the population of developing countries lives in extreme poverty, which led to subsequent UN reports to emphasize on the priority of including combating poverty in local development policies.

Philosophically, poverty is viewed as an emotional and valuable phenomenon linked to the elements of human development, which is as old as human life, highly complex and multi-dimensional. This makes poverty an issue of justice, according to the logic of social settlement in the food items obtained. It is a question rooted in social ethics, the core concern of political philosophy. (Marie Asselin & Dauphin, 2000, p. 19).

Epistemologically, the concept of poverty refers to the inability of the individual or the group to access sufficient economic resources to satisfy basic needs, which means suffering from deprivation. This concept goes beyond the financial meaning to include aspects of social life, especially the environmental conditions for health and education.

In this context, the definitions of the World Development Report 2000/2001 and the Development Assistance Committee coincide with the consideration of poverty as “A concept that involves several forms of deprivation, and in general it is the inability to reach welfare standards at the economic and social level as well as other levels. Thus, it is a form of exclusion and a violation of human dignity”. (الليثي، 2001، صفحة 10) As for the World Bank, poverty is a state of human deprivation related to economic opportunities, education, health and nutrition, in addition to the lack of security and political rights. (البنك الدولي، 2001)

❖ **Poverty between economic requirements and social analysis**

International developments at the end of the nineteenth century lead to mixing economic and social variables, that is, efficiency in parallel with justice. Thus, the phenomenon of poverty emerged as an extension of the economic disintegration of countries. The phenomenon of poverty is analysed later as a manifestation of unemployment. (Milano, 1992, p. 120) Thus, the concept of poverty has often been associated with the term of wealth. However in light of the growing international interest in economic development issues and their association with issues of human security, poverty was presented as a preoccupation of economic theory, not only as an extension, but for the variables of employment and income to become analytical entrances to the phenomenon of poverty, considering that poverty is only a circumstantial product of the levels of economic growth of countries. That is, the higher the growth is and the more

it is exploited in rational distributional policies, the lower the poverty levels and vice versa.

Accordingly, the study of the phenomenon of poverty has become an essential issue in modern economic theory as a concept and a content that takes three forms, mainly represented in:

- ✓ Lack of and insufficient resources
- ✓ Failure to satisfy basic needs
- ✓ Inability to embody aspirations

In other words, the material/financial poverty of the individual or the group leads in turn to poverty in the needs due to the inability to meet them. The issue that in turn affects the poverty of aspirations (the inability to pay education fees leads to dropping out of education, which leads to knowledge poverty and the elimination of ambition). The indicators for measuring the three forms of poverty vary from one form to another, given that measuring material/monetary poverty is easier than measuring poverty in needs. While the most complicated is measuring the poverty of aspirations, especially if we raise the issue of measuring poverty indicators at a more deconstructive level, i.e. “absolute poverty versus relative poverty”. (Marie Asselin & Dauphin, pp. 20-23).

Perhaps the most important reasons for the spread of poverty in Algeria are:

- ✓ The size of the family, as its large size and high levels of dependency lead to an inability to provide for the requirements of its members, and the growth of this deficit turns into an aspect of poverty. (تقرير المركز الوطني (2005), للدراسات والتحليل
- ✓ Inflation that results in the lack of the purchasing power of money that results in the inability to meet the necessary requirements, and thus the tendency towards falling into poverty. Because of the Corona pandemic, the inflation rate in 2000 was about 2.42% and about 4.33% in January 2021.(الديوان الوطني للإحصائيات، 2020).
- ✓ Structural adjustment programs that resulted in changing the nature of the state's role in terms of lifting food subsidies, which led to a decrease in purchasing power, the closure of institutions, and the emergence of unemployment as a basic variable in the study of the phenomenon of poverty. (Bouzidi, 2000, p. 85)
- ✓ The security crisis in the early nineties in light of the events of 1988 had an impact on the growth of poverty.

- ✓ The variable of corruption and bureaucracy also contributed to slowing down the desired economic growth. The Corruption Index prepared by Transparency International (CPI) for the year 2010 ranked Algeria 105 out of 178 countries. The issue that, in turn, caused inequality, impeded growth and deepened the phenomenon of poverty in the Algerian society.
- ✓ Manifestations of societal instability and financial difficulties with the global health crisis - Covid-19 - affected the standard of living of the Algerian citizen, which was confirmed by the report of the Algerian League for the Defence of Human Rights, which indicated that about 38% of Algerians live in extreme poverty in year 2020. The unemployment rate rose by about 15.5 % for the same year.

❖ **Poverty measurement indicators:**

Consistent with the international interest in the main challenges of the phenomenon of poverty, poverty issues have become a priority in the economic and social development programs of Algeria. This phenomenon has become more and more overshadowed by the many political and security challenges posed geopolitically, institutionally and financially, especially in recent years. The negative repercussions of the phenomenon on Algerian society were exacerbated by the inability of the rentier income to meet the requirements of local growth and its inability to contain the manifestations of poverty in its various dimensions and levels.

In order to study the phenomenon of poverty in Algerian society, it is necessary to address the indicators for measuring this phenomenon, including:

1. Monetary poverty indicators: Poverty measurement indicators include:

Firstly - The head count index, which indicates the number of individuals and families who fall below the previously defined poverty line in society, i.e. the minimum level of consumption and the standard of living in a way that helps in evaluating poverty reduction policies or comparing them in different periods. (علي ، 2003 ، صفحة 3) However, what complements this indicator is:

Secondly - the poverty gap index, which is concerned with measuring the depth of poverty, that is, the poverty gap between the income of the poor and the poverty line in a way that enables the analysis of poverty levels that reflect the difference gap in the specified percentage of the poor in society. (Lipton, 1997, p. 103).

Thirdly - the poverty severity index, which simultaneously measures the degree of disparity between the poor and the poverty gap. That is, it measures the difference in income and inequality in distribution regarding the poverty line in society. Thus, the higher is the value of the indicator, the more severe is the phenomenon of poverty and the greater is the disparity between the poor. (Mourji & Decaluwé, 2008, p. 159).

2. Non-monetary poverty indicators: where the measurement is usually based on:

- Indicators of disparity: It means the strong relationship between disparity in the distribution of income and poverty, which results in disparity in the incomes of individuals and causes inequality.
- Composite indicators: which include a set of indicators that, in turn, include a number of partial indicators, similar to the following indicators:
Firstly - Human development (health, education, material well-being), the absence of which is accompanied by the exacerbation of poverty in societies, (PNUD, 1994, p. 97) **Secondly** - Human poverty as an indicator reflects the extent of capabilities available to the most deprived individuals at several levels (longevity, schooling, percentage of water utilization) i.e. deprivation from a decent standard of life. (PNUD, 2003, p. 335).

By analogy with that, the phenomenon of poverty cannot be confined to low income only, but goes beyond it to include many social and economic variables that reflect the varying deprivations of the poor in countries societies. In addition, the non-monetary analytical approach to poverty refers to qualitative measures that reflect the poor lives.

Accordingly, and as projection on Algeria, the phenomenon of poverty in Algerian society reflects a shortage in food consumption and the inability to satisfy the basic social needs of citizens, both material and non-material. The first poverty surveys in Algeria date back to the years 1988 and 1995, which emphasized the two variables “family consumption and family living standard”, where the poverty level reached its peak at about 22%. However, with the efforts of social and economic development, this percentage decreased to about 17% in 1999 to reach 11.1% in 2004. (سعدي و آخرون)

Under the program of the International Bank Group, and in cooperation with the National Bureau of Statistics in Algeria while preparing a report on welfare levels, and based on the data of the annual survey for the years 2010/2011 on household consumption and its relationship to the level of poverty and inequality, that revealed that the Algerian citizen spends about \$ 8.14 per day, the rate of 0.5 to 3.3 per cent lives in extreme poverty. (La Banque Mondiale, 2014)

II- Renewable energies and their role in achieving the human development goals

❖ Millennium goals: an evaluation study of Algeria

At the end of 1999, the World Bank and the International Monetary Fund put forward the idea of preparing strategies to combat poverty through providing

frameworks for drawing and implementing national policies and programs that give impetus to the field of development. Then, the Millennium Development Goals for the first twenty years of the 21st century were announced in the year 2000.

The group of international commitments translated into the Millennium Goals aims to achieve the following:

1- Reducing the number of individuals who live on less than one dollar per day for the period 1990-2015. Projecting on Algeria, we note that the poverty rate declined from 1.9% in 1988 to 0.5% in 2009. Thus, Algeria was able to achieve the first goal for the year 2000, However, the growing manifestations of the Maghreb's geopolitical instability since the end of 2011 and its spread to Algeria directly affected the return of the phenomenon of poverty under its various indicators. (gouvernement Algérien, 2011, p. 4)

Within the framework of this objective, Algeria established a program to support economic recovery (2005-2009) with a sum of \$60 billion, which reduced the unemployment rate from 30% to 15.3% in 2005.

2- To raise the level of education for both sexes by the year 2015 and reduce the illiteracy rate among the age groups ranging from 15 to 24 years. In addition to reducing the mortality rate of infants younger than 5 years old. (gouvernement Algérien, p. 28) It should be noted that Article 29 of the Algerian Constitution stipulates that all citizens are equal before the law without discrimination on grounds of gender. In addition to the ratified international conventions on all forms of discrimination against women and their ability to advance in educational positions and engage in political activity.

3- To reduce the proportion of the population who suffer from hunger by half for the period 1999-2015. In Algeria, a limit of 2100 calories was adopted to measure food poverty, and a decrease of 5% was observed. The Algerian per capita consumption is now in line with international health standards despite the absence of the equilibrium feature. (gouvernement Algérien, p. 43)

4- Health improvement, as the Algerian state doubled the health structures and improved health coverage for citizens in accordance with its financial and economic capabilities.

5- Ensuring a sustainable environment. In the context of this endeavour, Algeria sought to ensure the success of the national program for the integrated management of waste. Notable progress has been made in the

field of combating industrial pollution and environmental taxation, thanks to the policy of rural renewal and awareness of the rationalization of all water resources, as well as the connection between sewage networks.

❖ **The energy transition in Algeria and the development goals:**

In order to highlight the importance and role of using renewable energies in achieving the endeavour to advance the national economy and get it out of the vicious circle known as the “fuel economy” towards a sustainable energy system in line with the current international trend concerned with the issues of exploiting renewable energies, the "Sustainable Development Plan 2030". For this energy endeavour, a clear strategy has been developed for the period 2011-2030 to double the efficiency of using renewable energy, especially striving to make maximum use of the new solar energy source in the future.

In line with the requirements of the economic/energy transformation to achieve development of the main variable for the social and human analysis of poverty, within the economic development programs in Algeria, the following has been adopted:

○ **Algeria’s renewable energy strategy “2011/2030”:**

As Algeria seeks to cover its energy needs in the medium and long term through the local economic development programs and in line with the context of international developments directly related to the human dimensions “environment and development” that encourage the production of alternative energies regionally and internationally, the Algerian government has adopted a project to develop the renewable energy sector, which was approved on 02/03/2011 and extends until 2030. (وزارة الطاقة، 2016، صفحة 5)

Accordingly, the sustainable energy security and humanitarian perspective requires the involvement of a main objective consisting in the ability of Algeria to secure 40% of the total electricity production until the year 2030, through the investment in the solar energy, wind power, and photovoltaic energy. Along with this, the state encourages public and private operators to invest in the development of renewable energies by granting the necessary financial and technical assistance which, in turn, created about 300,000 new jobs. (Ministère de l’énergie, 2016, p. 7).

The completion of the program was determined through 03 basic steps represented in the following:

- ✓ The first step: between the years “2011-2013”. The plan includes devoting knowledge and techniques to developing renewable energies in order to adapt all studies and projects in accordance with the local and national characteristics of Algeria and put them into practice.
- ✓ The second step: between the years “2014-2015”. It was emphasized that the development programs for the renewable energies sector should be published as a new sector at the national level.

- ✓ The third step, between the years 2015-2030, includes the state's adoption of a comprehensive expansion of this renewable energy development program.

- **The new Algerian economic model to support growth for (2016/2030)**

Approved on 22/07/2016, includes a number of reforms to be embodied based on decisions aiming to achieve economic diversification and exit from petroleum dependence, so that it is based on diversifying and transforming the structure of the economy in the horizons of 2030 on the one hand, and on the budget policy on the other hand.

The program is based on three main phases: (Ministère Des Finances, 2016, p. 2)

- ✓ The take-off phase “2016/2019”, the aim of which is to develop the share of the various sectors in the added value.
- ✓ The transitional phase “2020/2025”, the aim of which is to permit the evaluation of private capabilities to improve the economic level and remedy the delay.
- ✓ The stabilization phase “2026/2030”, during which the national economy is supposed to reach balance.

Perhaps the most prominent economic motives that encouraged the adoption of the model initiative are the changes that the oil market is aware of due to several factors, whether they are related to the mechanism of supply and demand, geopolitical competitions, or the degree of political stability of the producing countries.

Since 2014, Algeria has witnessed a decline in oil prices by 71% to reach approximately \$40/barrel. Fossil energy prices were also affected by the Corona crisis, as prices witnessed extreme levels of decline in April 2020 and Algeria's revenues decreased by about \$ 11 billion in the same year. Not neglecting to refer to the links between economic motives and the internal political roles that the state can play “the stability of the political system and its functional effectiveness” and abroad, if the energy transition is successful, as a regional center for renewable energy in Africa and the Mediterranean. Especially in light of what the world is witnessing as intensification of regional energy competitions (Libya, Ukraine, Eastern Mediterranean) that promotes the energy transition.

The new economic model is based on basic pillars crystallized in: (Ministère Des Finances, p. 11)

- Public finances by striving to improve the regular tax revenues and raise their collections to approximate the oil tax in light of the policy of rationalizing national expenditures.
- Economic diversification, ie. focusing on economic diversification outside the hydrocarbons sector and supporting competitive sectors.
- Adopting and activating an energy program for the production of renewable energies as a complementary goal to achieve sustainable development and establish human requirements for living.

In line with the aforementioned points and based on the World Bank reports, we notice a drop in oil revenues from 1781.1 billion DZD in 2016 to 1714 billion DZD in 2019, in contrast to an increase in non-fuel revenues from 3261.1 billion DZD to 3793 billion DZD in 2019. (تقارير البنك المركزي وقانون المالية، 2019-2018) On the other hand, according to the same source, non-hydrocarbon exports increased from 1.367 billion DZD in 2016 to 2.08 billion DZD in 2018. (تقارير البنك المركزي وقانون المالية، 2019-2018)

In order to achieve the energy transition, the economic model agenda emphasized the importance of investing in renewable energies to achieve the desired goals within the year 2030.

The concept of renewable energy or sustainable energy refers to the type of energy that is derived from naturally renewable resources that are inexhaustible and obtained from natural production processes that are friendly to the environment, and their uses do not generate any harmful gases or increase global warming. (خبابة و آخرون، 2013، صفحة 44).

The Renewable Energy Agency (IEA) considers that renewable energy is formed from energy sources resulting from spontaneous nature pathways, which are renewed in nature at a rate higher than the rate of their consumption.

Natural resources, both depleted and renewable, are considered a very important factor due to their ability to bring about rapid economic growth in countries, in addition to being a prominent factor in attracting foreign investment. However, the effectiveness of the relationship between resources and economic growth in achieving goals depends on rational management of these resources to drive and direct growth rates in a way that reduces or eliminates the manifestations of poverty in return for consolidating the manifestations of economic and human well-being.

If Algeria's endeavour through investing in renewable energies as a long-term strategy is to achieve a smooth energy transition in the future, then its short and medium-term goal lies in giving an impetus towards raising the rate of economic growth. That is, to guarantee a real increase in the domestic product within the country. As for the issue of sustainable development, it is a process that requires the embodiment of systematic and studied structural changes and developments, the main objective of which is to reflect growth on increasing the

societal well-being of the citizens of the country under study, along with improving their human standard of living.

Although it is currently a matter of far-fetched - so to speak - with regard to Algeria, it is not extremely impossible, especially in light of the country's energy diversification, "exhaustive and renewable resources," coupled with the rational exploitation and investment of these resources and their financial revenues.

Adopting the option of renewable energy has many advantages, the most important of which is the possibility of local employment of renewable energy sources. This guarantees economic security and avoids the risks of speculation in the prices of traditional energy in the international energy market or the risks on energy transit lines and fierce competitions over supply or the global energy geography.

As well as the pressures related to climatic and environmental issues resulting from the production or exploitation of the depleted energy resource, Most of them are variables that guarantee the economic security of the state, (ميسين و هنتر، 2009، الصفحات 75-76) meaning that investment in renewable energies grants special independence from the central network of energy distribution, in addition to the proportionality of this exploitation to the capabilities of developing countries.

While the problem of the countries economic growth regarding its energetic dimension was linked, epistemologically and practically, to discussions of the issue of scarcity, the concept of sustainable development is considered the most important of the concepts raised in the epistemological and economic discussions of the issue of renewable energies. It is indeed a strategic transition from dependence on depleted energy, threatened by scarcity and environmental aggression and its repercussions on the collapse of the countries economies and security in the future, to clean sustainable renewable energy and its security advantage in the absence of conflict or international competition over it. As such, it provides the permanent fulfilment of the needs of the state and of its future generations without threat or compromise, while preserving the environment together with its actual economic security.

This close link between renewable energies and sustainable development is because the most important sources of this energy are:

Solar energy: by exploiting solar radiation in thermal conversion or photoelectric conversion.

Wind energy: is the fastest growing renewable energy on the global level (converting winds into electrical energy) of which the global production is about 40 thousand megawatts.

Biomass energy: represented by various types of plant-derived materials that can be used to produce energy through the process of photosynthesis (the global amount of electricity produced from biomass source is 10 megawatts).

Likewise, water energy, which is more efficient and cleaner than the other renewable energies for producing electricity (19% of the global production of electricity comes from the exploitation of water energy).

In addition to the energy of the earth's heat hidden under the earth's crust and the energy of the oceans that appear through tidal energy, wave energy and heat energy from the oceans. (النقرش، الصفحات 13-18)

In line with the objectives of the Sustainable Energy for All (SE4ALL) initiative, which aims to make renewable energies a variable that effectively promotes the process of sustainable development, the Minister of Renewable Energy and Energy Transition, Mr. Shams Eddine Chitour, stressed the need to gradually lift subsidies on energy prices while protecting the low-income classes. (شيتور، 2021)

Perhaps among the most prominent social dimensions of sustainable development are:

- ✓ Combating poverty through improving the level of real per capita income, which is based on increasing the national product based mainly on the availability of energy services.
- ✓ Improving health and education by reducing indoor pollution from poorly designed stoves.

The environmental motives play an important role in adopting renewable energies in Algeria's national strategy. The expansion of its use mitigates the effects of greenhouse gases that cause climate change "global warming problems".

- ✓ The demographic and urban transition towards the sustainable use of energy.

In the same vein, the expectations of Algeria's total energy consumption by 2035 is supposed to grow by about 1.9% during the period (2012-2035). That is, at a value of 1509 million barrels in 2035. (بدري و آخرون، صفحة 85)

Accordingly, despite the transitional energy endeavour, it is difficult to determine the period required for fulfilment in a country like Algeria, given the requirements of this transformation represented in "technological availability, economic feasibility, and human competencies," in addition to the very important variable of policy makers.

The expansion of the exploitation and employment of renewable energy contributes to the benefit by all citizens of a country from modern energy services, which is a basic factor for achieving modern social and economic development. Thus, the realization of the various aspects and levels of the goals of sustainable development.

III- Algeria and the prospects for betting on renewable energies to combat poverty

The Algerian strategy to achieve the renewable energy transition and security relies on the adoption, by the State, of a set of legal procedures, political and economic decisions and bureaucratic arrangements. All of which would provide future scenarios of what future national planning could embody regarding the achievement of sustainable human development, its basic analytical input is the development of the renewable energies sector.

These political, legal and bureaucratic regulatory frameworks aim to embody the requirements of economic growth and social welfare in the short and medium term first, then the long term. It is possible to discover the extent to which the national strategy for the development of investment in renewable energies is effective or not in achieving these requirements through an analytical process of some points, namely yet not be limited to:

- ✓ The development in the field of renewable energy has witnessed an upward growth trend since 2009, with an annual growth rate of 9%, especially at the end of 2018, when it reached 2270 gigawatts, making it more competitive with the depleted energy resource. (Boutarfa, 2016, p. 6) In addition to the announcement made in February 2021 by the Minister of Energy Transition and the Minister of Energy, Shams Eddine Chitour and Abdelmadjid ATTAR, on the establishment of a new company to implement the national programs for the development of electricity generation from renewable resources and production of about 15 thousand megawatts by 2035.

However, if the government planned in the energy transition strategy to reach a public production level in the range of 4,500 MW in 2022, what was achieved in the same year on the ground is about 400 megawatts only from renewable energy sources. Therefore, the process of comparing what is planned with the reality confirms Algeria's inability to embody the other endeavour, which is 22,000 MW of electricity by 2030.

- ✓ Investing in renewable resource projects, such as solar and wind energy, taking into account the geographical specificity of the Algerian state (the appropriate and dispersed areas) aiming to achieve the economic and social objectives enabling desert regions to benefit from renewable energy services. Especially, considering the difficulty of providing them with traditional energy using classical mechanisms, and in a way that qualifies the government to absorb the resentment of the region's citizens

as a result of the difficult living conditions on the one hand, and to combat the phenomenon of displacement towards the north on the other hand.

- ✓ Gradual lifting of subsidies on energy prices by the State while protecting the low-income classes. That is, the State's endeavour to alleviate poverty by providing energy services in parallel with improving the level of real per capita income as an economic and social requirement.

Although, from a rational analytical approach, this issue is considered very difficult, given that the rise in the cost of renewable energy projects is matched by the rise in domestic energy prices after the success of the transformation. Thus, perhaps the most positive aspect of this point relates to environmental issues.

- ✓ Employing the financial revenues of the vital and depleted energy sector to support technological and material investment in the renewable energies sector as a new national energy sector - to some extent - in order to achieve permanent economic stability.

However, in light of the regional and supra-regional geopolitical crises and wars that Algeria has experienced since 2011, such as the wars in Libya and Ukraine and the resulting depleted energy crises – oil and gas, in addition to the “tension in the Algerian-Mediterranean relations” and the “COVID-19 health crisis.” All of these are variables that greatly affected the price of depleted vital resources and prevented the process of supply and demand - to which the very important financial revenues of the State of Algeria depend - from achieving the security of its economic, social and political stability. This was negatively reflected on the national strategic development plan in the field of developing the renewable energy sector, at least in the short term (2022/2027).

These security factors - political, economic, and social - and health makes talking about sustainable development, through the entrance of developing the renewable energies sector in a way that reduces or eliminates the phenomenon of poverty, an intractable issue in the short and medium term.

The biggest challenge facing the national bet on the development of renewable energies is the technology variable as an analytical variable with higher priority in the agenda of energy transition projects. The problematic issue posed to the State is to link all political, economic, scientific and technological criteria to the need of attracting foreign investments from the leading countries in the renewable energy sector, with the aim of advancing the national program for renewable energies and its implications for the embodiment of social welfare

regarding the perspective of a security analysis. That is, a societal stability that enhances comprehensive national security.

Conclusion:

The national strategic awareness of the importance of including renewable energies issues as a major variable to limit the deterioration and instability of Algerian society in its many manifestations - foremost of which is poverty - is no less important than the other economic, environmental and health variables on the agenda of the Algerian decision-makers, to embody the requirements of sustainable development. Especially, since the green economy, which is the future national endeavour, is the cornerstone of developing investment in renewable energies in order to achieve comprehensive human development.

The renewable energies program adopted in the national energy strategy aiming to achieve energy efficiency is an ambitious and purposeful program at many different functional levels. However, the challenges associated with its embodiment, and in light of the State's capabilities, dictate the priority of cautious, rational and reasonable action, which would qualify the State for the flexible and smooth implementation of this program politically, economically and bureaucratically. Added to the need for regular upbringing and awareness regarding this type of transformation in a manner that makes its future effects integrated with the local functional performance at the national level.

Algeria is trying, through the renewable energy approach, to rectify the deteriorating social situation locally. The problem of poverty has created problems in:

Firstly - Efforts to achieve comprehensive social development throughout the national territory.

Secondly - it contributed to the inability of economic growth policies, to some extent.

This approach would alleviate the societal deprivation of the poor in an indirect way through developmental strategies that meet the requirements of human security. However, this issue requires a complete and accurate diagnosis of the phenomenon of poverty along with determining the depth and severity of deprivation relaying on accurate quantitative study to the maximum extent. Thus, to achieve the effectiveness and efficacy of the strategy adopted to combat the phenomenon within its general economic and social framework.

References

1. Boutarfa, N. (2016). Programme de développement des énergies renouvelables et de l'efficacité énergétique en Algérie. Algérie: ministère de l'énergie.
2. Bouzidi, A. (2000). les années 90 de l'économe Algérienne. ENAG.
3. gouvernement Algérien. (2011). *Rapport National sur les objectifs du millénaire pour le développement*. Algérie.

4. La Banque Mondiale. (2014). *Publication des résultats sommaires du Programme de comparaison internationale 2011 : le rapport compare la taille réelle des économies mondiales*.
5. Lipton, M. (1997). Poverty ,are there holes in the consensus. World development.
6. Marie Asselin, L., & Dauphin, A. (2000, Octobre). *Mesure de la pauvreté, un cadre conceptuel*. Canada: Centre canadien d'Etude et de Coopération Internationale (CECI), Direction Etudes et formations.
7. Milano, S. (1992). *la pauvreté dans les pays riches*. Paris: NATHAN.
8. Ministère de l'énergie. (2016, février). Agence nationale pour la promotion et la rationalisation de l'utilisation de l'énergie. Revue de PRESSE.
9. Ministère Des Finances. (2016, Juillet). *Le Nouveau Modèle De Croissance*.
10. Mourji, F., & Decaluwé, B. (2008). *La pauvreté*. France: Bréal édition.
11. PNUD. (1994). *Rapport sur le développement humain 1994*. Economica.
12. PNUD. (2003). *Rapport sur le développement humain 2003*. Economica.
13. البنك الدولي. (2001). *تقرير التنمية في العالم*. القاهرة: مركز الأهرام.
14. الديوان الوطني للإحصائيات, (2020). ديسمبر. (مؤشر الاستهلاك في الجزائر).
15. الليثي، هـ. (2001). *سياسة مكافحة الفقر وعدم المساواة على أساس النوع الاجتماعي في المنطقة العربية*.
16. النقرش، ع. (s.d.). *الطاقة: مفاهيمها، أنواعها، مصادرها*. المملكة الأردنية الهاشمية: مديرية التخطيط وزارة الطاقة والثروة المعدنية.
17. بدري، ع، & آخرون. (s.d.).
18. تقارير البنك المركزي وقانون المالية. (2018-2019).
19. تقرير المركز الوطني للدراسات والتحليل. (2005). *تقرير المركز الوطني للدراسات والتحليل حول السكان والتنمية*. الجزائر.
20. خبايا، ع، & آخرون. (2013). *تطوير الطاقات المتجددة بين الأهداف الطموحة وتحديات التنفيذ – دراسة حالة برنامج التحول الطاقوي لألمانيا*. -مجلة العلوم الاقتصادية والتسيير والعلوم التجارية. (10)
21. سعدي، ي، & آخرون. (s.d.). *ظاهرة الفقر في العالم العربي: أسبابها وانعكاساتها وكيفية معالجتها*. Consulté le 11 26, 2022, sur [http://: www.kantakji.com/media/3958/2107.doc](http://www.kantakji.com/media/3958/2107.doc)
22. شيتور، ش. (2021, 05 18). *ثمانية سنوات أمام الجزائر لتجسيد تحولها الطاقوي*, 20, 06 Consulté le 2021, sur <https://www.aps/dz/ar/economie/106603-2021-05-18-14-05-53/>.
23. علي، ع، (سبتمبر 2003). *تقييم سياسات واستراتيجيات الاقلال من الفقر في عينة من الدول العربية بحث فرعي*.
24. ميسين، ب & هنتر، ل. (2009). *الشرق الوسط واستراتيجية الطاقة المتجددة بدائل الطاقة النووية* (تر: عماد شيحة). (المركز العربي للدراسات الاستراتيجية).
25. وزارة الطاقة. (جانفي 2016). *برنامج تطوير الطاقات المتجددة والنجاعة الطاقوية*.