

Iraq's green between reality challenges and potential Economy

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Abstract

Planet Earth is facing challenges that have become a concern and the focus of international attention. These challenges are summarized in environmental impacts. The potential economic climate change in the light of unprecedented rates of population increase prompted the United Nations to launch the green economy initiative. Sustainable development has not overlooked the need for positive interaction between the environment and the economy in order to build sustainable population complexes where conditions for sustainable production and consumption are met in a clean, waste-free environment with low carbon emissions. Global situational developments have contributed in a way effective in highlighting the green economy as one of the basic solutions in facing the challenges of this stage and establishing the foundation to meet them. Through the Rio Conference 2012, Iraq is part of an international system that can only coexist peacefully with its requirements. Including the green economy, the path towards which must have great obstacles and challenges that will be misled by various aspects of life at all stages of implementation. These effects may be harsh at first, but they will eventually be in favor of sustainable development in Iraq.

I.An Introduction

No one forgets that energy is the basic element for all sectors of the economy and a companion of human life, nor is it. No one forgets that most of the energy used in the whole world is traditional and unsustainable energy that serves the economy, especially in the major industrial countries, with the escalation of these challenges, the concept of green economy began to appear. It means achieving growth and sustainable development without disturbing the ecosystem, as well as providing aid and grants to countries the poor in order to advance education, health and infrastructure, thus achieving justice and equality in development, van

Such traditional energy does not allow for sustainable development, as well as polluting the environment and causing harmful emissions

And since sustainable development is primarily based on protecting the environment, ensuring optimal use and distribution Equitable resources between the current generation and subsequent generations.

1-Research Importance

The importance of the topic is embodied in the fact that the transition from the traditional economy to the green economy An indispensable matter in light of the efforts of the United Nations through the Sustainable Development Goals (2030), which was set on Its impact is many steps to reduce environmental damage and build an economy based on clean energy and technology green.

1.1-Research Problem

The research problem is that the increase in emissions resulting from industries based on energy sources Non-renewable fossil fuels, as well as the depletion of resources threatened in a short period and then concentrated the research problem is how to reduce its effects and find alternative sources such as sun, wind and water energy

In order to achieve sustainable development that includes all economic, social, environmental and political aspects.

1.2- Research Hypothesis

The research stems from the hypothesis that there is a close relationship between the green economy and production renewable energy in Iraq..

1.3- Research Aims

The research seeks to achieve a number of objectives, the most important of which are:

1-Learn about the relationship of the green economy with renewable energy sources

2- Knowing the foundations of the relationship between renewable energy and the green economy in Iraq**1.4**

Research Structure of the research:

_To achieve the objectives of the event and verify the cities of its hypothesis, the presentation of the event is divided into two topics.

The first topic: Theoretical frameworks of the green economy:

With the increasing environmental risks, the old economic concepts that neglected the importance of the environmental dimension in development are no longer appropriate for economic analysis, as new economic concepts (green economy) have been formulated in order to

Correcting environmental imbalances and exacerbating global environmental risks as a result of the folds of the built economic model

Basically, on economic growth measured by gross domestic product, without caring about its negative cost on the environment

All attempts tended to take into account the environmental dimension in the analysis by reformulating some Economic concepts such as gross domestic product and the integration of environmental effects into the theoretical foundations of the law of supply

Demand and positive integration between the global dimensions of environmental impact on the one hand, and economic policies and concepts National, on the other hand.¹

Green economy concept Scientifically, the United Nations Environment Program defined it as a performing economy to improve human well-being and social equity, while at the same time significantly reducing from environmental risks. As for the field level, the green economy is defined as an economy in which growth is directed in Income and employment through investments in the public and private sectors that will lead to enhanced utilization efficiency resources, reducing carbon emissions, waste and pollution and preventing biodiversity loss and system degradation Eco.)²

¹ Abu Al-Qasim Zayani and Al-Hussein Shukrani, Green Economy: Between the Development of Theoretical Frameworks and Their Institutional Activation from Global to National, Arab Future Magazine, Issue 451, 2016, pp. 92-93

²-United Nations Environment Programme (UNEP), "Towards a Green Economy, Pathways to-2 Sustainable .Development and Poverty Eradication", 2011. last view: 24/5/2020

- Scarcity of primary natural resources, as the economic model that focused on raising consumption without interest was harmed

The limited natural resources lead to severe damage to the environment, due to the increasing excessive consumption of natural resources

Limited and the expansion of economic production Some economists called for adapting the concept of growth according to the requirements of the province

The concept of the green economy appeared for the first time in 1989 when the two British researchers

Markandya and Barber By submitting a report to the UK government entitled Blueprint for the Green Economy (

Blueprint for green economy) The emergence of this concept is a response to multiple crises through Seeking to transform the drivers of human economic growth and social equality, and trying to reduce disparities

The increasing social and environmental risks and responsibilities associated with current consumption and production patterns

Emerging green sectors, to green existing sectors and change unsustainable consumption patterns. And he waits

That this transformation generates the sustained economic growth needed to create jobs and reduce poverty, as well as reduce poverty

Energy intensity, resource consumption and production.³

As well as searching for the cause of the emergence of global crises and conducting an in-depth analysis of current economic models and their extent

Its ability to increase well-being. Today, economic activity consumes more biomass

Earth's capacity to produce them sustainably, undermining ecosystem services that are a key component

It is one of the essentials for the life of the poor, and then leads to the continuation and exacerbation of poverty and economic disparities. It also caused this

Activity in external effects, such as pollution, climate change, and scarcity of natural resources, threaten the Earth's productive capacity

To generate wealth and ensure human well-being through the search for clean energy sources and cleaner production

Energy and ways to sustain environmental performance and First Amendment methods on these issues and environmental issues in 1991,

1- Solar energy

Green energy - such as solar energy - can greatly help reduce energy imports and reduce energy exports Oil, and reduce the burden of subsidies on the government, especially since Iraq enables it to promote solar energy in the country In two ways, namely: photovoltaic modules that can reduce the burning of oil and gas, and solar panels on surfaces that help families reduce their reliance on “expensive and polluting bio generators,” but even so, There are many solutions related to distributed generation to take advantage of solar energy on a small or small scale Mediterranean which has not been exploited in Iraq yet, which is more than just the use of solar panels on Roofs are up for solar energy utilization on the utility scale, and these solutions can help mitigate solar energy The burden on the national network, decentralization, job creation, and the development of small and medium enterprises, And reduce electricity bills in the long term, during the Iraqi Energy Forum for the year 2019 last September, Many Gulf independent power producers (IPPs), including the Saudi energy group ACWA Power, have expressed Their willingness to sign a long-term power purchase agreement (PPA) with the Iraqi government to finance power plants Extensive PV is built and operated in the southern part of Iraq near the Saudi border. What The future of the first round of investment in solar energy is still unclear. The fragile security situation is not The only factor affecting Iraq's plan to attract foreign investment is the poor organization and mismanagement of renewable energy by successive governments since 2005 has led to weak investment in renewable energy. Iraq's solar energy potential is high, with an average radiation of 5.6 kilowatt-hours per meter square a day over 3,000 hours a year, however, the state's approach has not been to attract investment in energy Al-Shamsiya was very successful, and Iraq actually started to take a more decisive step in mid-2019 with the help of International organizations to formulate a solar energy policy aiming to deploy several thousand megawatts of power plants utility-scale solar power, as well as 5 megawatts of photovoltaic capacity by 2028.)6(as The United Nations Development Program aims to ensure better delivery of sustainable energy services to Iraqis, through Effective use of solar photovoltaic energy, this project focuses on improving the lives of the poor in Iraq, no Especially those who live in semi-urban and rural areas, in addition to achieving tangible gains in reductionpercentage of greenhouse gases emitted, and the United Nations Development Program works, in partnership with the government and universities Iraqi and private sector companies, to conduct systematic reviews to address regulatory, legal and technical constraints that impede the use of clean, sustainable and affordable energy in Iraq. The program is also working on Solutions to these gaps including policy documents, technical standards, and legislative reform. The possibility of reducing gas emissions in Iraq has been demonstrated by stimulating the use of solar energy through Install pilot facilities that can meet the energy needs of offices, small businesses, homes and services Municipality, and this was achieved by using small devices to harness solar energy and connect them to operable networks and suspension, and technical and economic capabilities can be highlighted in terms of their use to support efforts to encourage energy use Solar panels as an alternative environmentally friendly solution to reduce the use of fossil fuels currently used to produce electric power in Iraq

2- Wind energy:

Wind energy is the kinetic energy derived from air currents resulting from varying temperatures Earth's surface to generate electric power, is an indication that wind energy is that wind energy is Energy can vary in its production, depending on the geographical location and climatic factors of different countries. It seems that the technological role can play a major role in its production. It is obvious that the state of interest is devoted Global wind energy, as a result of interest derived in protecting the environment from pollutants that emanate from energy sources fossil fuels that have been used for a long time, leaving behind a number of pollutants, the most important of which are emissions Carbon dioxide, and the resulting global warming phenomenon by expanding the ozone layer.(8) As for the capacity of the Iraqi army, the number of Iraqis is limited, and Iraq can be divided into three regions. Various winds, spreading in the third region, covering 8% of the country's cities, with relatively high wind speeds. We define 5 meters per second (m/s) with an energy density of 378 watts/m². Extend the extension of the two other regions, and it will vary The repellent shield is between 0.2 m/s and 4.9 m/s, and its energy densities range from 174 to 337 watts/m². And stumped In the call to tour the evidence of the first raids in Iraq in 2010 in Baghdad (Al-Jadridah) with a production capacity of 20killdow. The Iraqi Ministry of Science and Technology has established a number of different data sources to provide different information. Madden Al-Badalad. They would have envied the wind industry, neither technically nor economically, because of the weak activity and volatility of the wind In addition, Aden makes it difficult to connect the electricity generators to the national electricity grid. Despite this, the cities have some energy potential The vitality of the number of Iraqis, the government's threats to this issue have been determined so far, and a few studies have analyzed The use of hydroethanol and methandol in the types and limits of mixed internal combustion, such as dididyl and benzodine. Fretted Therefore, due to the limited availability of water in the number of cities, it is expected that the use of biomass will be used to generate energy limited

3-Hydroelectricity:

It is a form of renewable energy in which energy is produced by The rapid flow of water, this is done through generators that operate using turbines, which convert The energy arising from the speed of water is converted into mechanical energy, and it is considered one of the most widely used types of energy at the time Present. Hydroelectric power stations provide water tanks that contain a pump that controls the amount of water Flowing water, and below there is a mouth of water into which water flows, and during this process the water gains energy potential, and this energy is transformed into kinetic energy by the flow of water, and through turbines electricity is generated, Thus, it is distributed to power plants Iraq owns many dams on which it builds stations to produce electricity through hydropower, which contributes more than 2500 megawatts in the country's electricity system. Iraq has about 8 dams on which power generation stations have been built. Hydroelectric power, the oldest of which is the "Dokan" dam, which was established in 1959 and produces about 400 megawatts of electricity, according to To monitor the Iraqi News Agency. In 1986, Iraq established its largest dam on the Tigris River, and the most energy-producing hydroelectric power with a capacity of 1,050 thousand megawatts. The country also established "modern" dams on the Euphrates River in 1986, in which the second largest hydroelectric power station in Iraq is located, with a design capacity of 660 megawatts, and Iraq also has the Darbandikhan Dam with a capacity of 240 megawatts of hydroelectric power, and the Samarra Dam on the Tigris River with a generating capacity of 84 megawatts, the Hamrin Dam with a capacity of 50 megawatts, and the Hindiyah Dam with a generating capacity of 15 megawatts. megawatts, and the Kufa Dam with a capacity of 5.44 megawatts. As for the potential of Iraq, hydroelectric power projects are based on Certain stations have existed since the nineties of the last century, and the concerned authorities have not expanded to invest or develop these stations The stations have only slight increases in production rates, knowing that most of the production of these stations supplies electricity to Kurdistan Region of Iraq as two stations (Dokan and Darbandikhan), which contribute (69%) of the total energy Hydroelectricity produced in Iraq, and in September 2020, a strategic cooperation took place between the Engineers Syndicate

The Iraqi General Company for Iraqi Exhibitions and Commercial Services and the Baghdad Center for Energy and Sustainability for Energy Development renewable energy in Iraq, but the Corona pandemic hindered this cooperation, and the Ministry of Electricity has prepared a national road map For renewable energy projects, with the idea of involving several major energy companies in sector rehabilitation projects Energy in Iraq, including (Siemens and General Electric), and in May 2019 (Siemens) signed a contract An agreement to implement a number of projects worth \$14 billion. The spread of renewable energy types should in turn result in other benefits, given that renewable energy technologies create jobs and reduce air pollution at the local level, as well as the need for less of water. Indeed, renewable energy technologies are almost limited to the use of local resources, which helps to Protecting our economies from external shocks in terms of energy security and, more importantly, for many of our countries Members and 173 signatories, renewable energy also represents one of the fastest ways to In particular, expanding access to electricity is so typical of many of these technologies Solar photovoltaic patterns and offshore wind also mean that, for the first time in the history of the electricity sector, There is an effective role played by individuals and societies in providing them with

the electricity they need. And with that Renewable energy technologies are at the forefront of a change in a more democratic system in Energy distribution

Obstacles and solutions facing the green economy in Iraq.

1- Water scarcity

Here you go through the water resources coming to Iraq, through the SameHillwho are you coming from rivers and through the Iraqi borders or the financial rivers from within, too. Ara The one you see Because of the spigum of the gham, mma, it was reflected in the tributaries and groundwater, and with the meaning of the in dams and Anal, as Iraq presents it with a major challenge in providing subsistence resources.

A - External challenges

First - the Al-Iradal Al-Maa'i.

Second – theclimatic and geological tirals

B- Internal Challenges :Among the most important are:

First- Increasing the percentage of wastage in the water of the towers, as it

LRM of 50% due to field damage and low

The ease of movement and transportation as a result of the use of old methods in water management.

Secondly - means a political and legalistic mother, and a person who no longer has the ability to resist challenge

The bird that our subconscious resources.

Third - Contamination Percentage of contamination resulting from entering the sanitary water treatment plant, Tsrin Mia Trowel.

Fourth - The loss of a large amount of available yen due to the war operations of terrorism, which affected

Rather, it is negative to the environmental group, opinion, blood, and humanity

Fifth - The increase in the rate of leakage of groundwater, which has reached approximately 5.243 billion m³, which 8.8% of bottled water sources were used

2- Desertification, its causes and the possibility of reducing it ERA and steps to reduce desertification

Combating desertification requires concerted efforts between the concerned governmental and local agencies, which may require a group of integrated and rational lands that mainly aim to restore the desertified areas, restore the fertility of the lands in which they are located, and restore the ecological balance in the deteriorating areas of its health condition. And the peacefulness that he saw before desertification. 3- Plowing agricultural land: Some of the challenges faced by the cat, who do not think about it, are:

a- If the freedom of choice, the productive opinion of the lawyer and the producer of the flag, is reflected in the context of the condition of the bride from nothing, and thus to the blood of the ability to fulfill the requirements of the unconscious security.

B- It means the investment environment in the agricultural sector, and the limited volume of continuous capital.

In the opin-

T- This means control and control of the border crossings, which led to the growth of unbridled competition for the imported producers and al-Rayyah oceans to the account of the locally-produced and al-Rayyah oceans.

W- The supply of raw cotton to a recipient of imported black burr, and the high rate of supply for fertilizers and pesticides, led to the recession of Taklin, the entrance to the field.

c-h-

Integration means opinion-arts (transformational and broadcast art).

The deterioration of the productivity of natural mirrors, the spread of desertification and the weight of sand dogs and animals The wells that negatively affected the cotton, the opinion(15).

4 -Industrial waste management

Chemical materials, dyes, sludge, reconstituted materials, ash, paint, paints, polluted fig pots, and other contaminated materials Pain through the sclera

The industries, and the fuel consumed and the like.

Proposed economic strategies to enhance the national theoretical frameworks of the 2030 development plan

1- The vision of Iraq 2030 in its contents has been completed Establishing a permanent agreement between the state and the citizen that aims

He cherishes his confidence in the government, and an escape is available to develop the family and the family and the income stream.

Developing economic activities and drawing a course for others that address the impact of the water challenge.

country to

2- Referring to substantive resources and rationalizing istekhar and preventing it from being distracted and neglecting to resort to In follow-up

The scarcity of agricultural resources of the Dallah River and the silos and coordination allowed the source countries to supply Iraq with its share of water and to treat the raw water and sifts dumped in the water from the industrial sewage and the aqueous water.

3- Awareness of respect for the national policy in the control and management of natural resources, and encouragement to increase its prosperity. Environmentally sustainable system, avoiding the full use of renewable and non-renewable resources, and this includes protection

Livestock and machinery

Biology, soil productivity, and other natural environmental factors that do not make crops are economic resources production supportive and sustainable.

4-At A patterns Alantar and Istkhir after a

A shift with many countries to patterns of sustainable exploitation and exploitation,

And the use of resources in a quick and unstudied way, and this can be measured by production, the Through rate of an understanding of the use of resources in waste energy consumption, the amount of palm trees and their recycling, the length of

Conclusions:

1- It has a large number of electrical outlets, and it has a number of electrical production facilities, as there are many

The number is 8, which is the number of stations for the generation of hydroelectric power, which are provided

"Dukddan", which was established in the 1959 issue, and in this issue, it was dubbed 240.

Megawatts of hydroelectric power, in terms of electricity, with a generation capacity of 84 megawatts,

The Indian authorities have a capacity of 50 megawatts, the Indian authorities have a capacity of 15 megawatts, and the Kuwaiti authorities With a capacity of 5.44 megawatts.

2- Renewable energy is represented as the largest possible shield by expanding the electricity supply as it happens.

That the nature of the high-technology model is very much affected by these technologies, and the practices are not always For the first time in the history of the country, for the first time in history Electricity. They need electricity.

3- The increase in environmental risks due to the multiplicity of old economic concepts The importance of the dimension

The economic environment is suitable for economic analysis, as it is formulated in terms of economic concepts.

New (Economics) A newer method for correcting environmental conditions and addressing risks global environmental.

Recommendations:

1- The fixed and clear number shall be renewed if the country wishes to specify the exact number of the universal amendment. Number of focus on achieving the stated sustainable development goals and interest in providing a source of energy Environmentally friendly

2- A list of environmental standards and indicators against a number of environmental standards and indicators approved by the state in order to allow For domestic and foreign investment inside the country, with the aim of not harming the environment and the rights of subsequent generations.

3- Pay attention to the definition of sources, energy expenditures, investment indications, and intentionality regarding the reform of the system. Institutional development uses the developmental effort to explain the specific causes of the economy specifically environmental problems and reduce pollution resulting from traditional energy

sources.

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