Introduction

Let's go to the topic innovations directly.

(There is no need to explain what had been explained, recognize that what had been known and repeat the same words and expressions)

The introduction is a quotation from an article for

Mr. Emad El-Din Hussein.

Editor-in-chief of Al-Shorouk newspaper in Cairo.

(1-1)Innovative application to save islands and coastal cities from drowning by artificial lakes

Throughout the ages, the world has witnessed many upcoming climatic phenomena. The frequency of these events has increased recently, especially with regard to islands and coastal cities and the possibility of drowning them due to melting ice. Therefore, what is required is to get rid of the excess water that melted from the ice due to the rapid rise in temperature, so this disaster which had already begun to happen will be end. The alarm bell of the drowning of the islands was announced by the announcement of the transfer of the Indonesian capital from Jakarta on the island of Jawa, to the East Kalimantan province on the island of Borneo. The government announced that the project aims to preserve the fertility of agricultural lands on the island of Jawa, and save it and its residents from the environmental risks caused by the concentration of construction for decades on this island at the expense of the forests and soil in that region. Note that Jawa Island represents a reservoir for rice cultivation in Indonesia due to its soil being more fertile than other regions. Unless a feasible or sustainable solution is presented to save the islands and coasts from drowning, we have found that the best safe and economically beneficial methods are to dispose of the water resulting from the melting of ice through evaporation and leakage to the bottom of the soil through artificial lakes that can be established within the sandy coasts and launched by Al Farida Company under the title **((blue cover))**.

The project for this innovative application was previously prepared by a group of distinguished scientists more than a century ago, during the period from 1916 to 1964, with the aim of generating electricity, and none of them took into account the problem of melting ice and drowning cities. This project is known as (Al-Qattara Depression) to create an artificial lake. It received its due research, discussion, and documentation in technical files, meaning that it has been ready for implementation from more than half a century as an artificial lake for generating electricity, and we have done nothing more than that we have used this project in a new application as a model for lakes. The

industrial technology that we will present as a solution to save coastal cities from drowning through the property of water evaporating from the surface and leaking through the bottom.

Therefore, it is a prefabricated project, its credibility preceded it, and it will be established similar to the prefabricated buildings. It is the giant project in Egypt (Qattara Depression), the largest artificial lake made by nature and humans, and the fifth in the world. It is a coincidence that silences lovers of opposition and obstacles, to show their importance to every researcher, innovator or project is a solution to the crises in which they live.

It is a giant model project whose study took half a century until it was approved scientifically and internationally in the smallest details, starting from 1916 to 1964 with the intention of generating electricity, and the urbanization of the Western Desert only. It is the project of the Qattara Depression, with an area of 19,500 square kilometers, located in the Western Desert, with an average depth of 60 meters, and 65 kilometers from Al Alamein Beach. Scientific research was started by Dr. Penk Bank, professor of geography at the University of Berlin in 1916, and Dr. John Paul, director of deserts at the Geological Survey Authority from 1924 to 1927, and many Egyptian engineers and foreign expertise houses took over after him. The last of which was an agreement signed between the Egyptian and German side, with a total cost of 880 million pounds. The technical file was completed and days before implementation, the project was suspended for political reasons in 1964 during the rule of former President Gamal Abdel Nasser, and Germany still maintains the technical file to this day.

Here, we are not only going to talk about the Qattara depression, but we present the Qattara depression as a model previously studied, in order to instill confidence among the decision makers and the operating order is supposed to be issued during the conference, because by the end of this research, the reader will discover that the subject of artificial lakes is a pivotal topic through which it passes, all the problems of climate change, and they are on the way to solution, so we will give this topic more attention and more comprehensive details because if the Qattara

depression was not documented and studied in advance, it would consume more time.

Just as we have finished presenting and documenting it according to the disclosure of scientific research and scientists that followed it to lay the scientific and practical foundations for the artificial lakes and it is intended to present to the decision makers the project of the artificial lakes in a final, executable form, including the evidence and the initial technical details that must be taken into account when establishing so that the artificial lakes perform services required in all aspects of improving climate change and eliminating its problems, namely:

- ✓ Reducing the temperature from 3 to 5 degrees below the scorching winds of the forests, and to rest assured, sir, the reader, we will discuss this on the subject of forest fires.
- ✓ Active participation in climate reform in general in the northern hemisphere.

Artificial lakes are a practical innovation that has the ability to save islands and coastal cities from drowning within their sandy coasts, especially developing and poor countries, and a lifeline for these countries from the economic, social and climatic deterioration they suffer.

The scientists studied it during successive periods 1916-1964 are recorded and the research is in the following table:

Year	The researcher
1916	Dr. Penk Professor of Geography at the University of Berlin.
1924/1927	Dr. John Paul, Director of Deserts, Egyptian Geological Survey.
1927/1931	Engineer Hassan Sri, Geological Survey Authority.
1933	Dr. John Paul published a study on the Qattara Depression and the possibility of electricity generation.
1949	Swiss Engineers (Gruber Brothers) Report on the project.
1959	The German company Siemens conducted field studies for the project.
1960	The Department of Water Powers at the Ministry of Works prepared a report on the project.
1961	The project was included in the Technical Cooperation Agreement with the Federal Government of Germany.
1964	An agreement was signed between the Egyptian and German sides to determine the responsibility of each party for implementation, then the project was stopped for political reasons, and the technical file is still with Germany until now.

(1-2)Elements of constructing artificial lakes

(1-2-1) Determining the locations of artificial lakes within sandy coasts

The location is determined by technical committees by the country that owns the land. The committees usually consist of meteorology, agriculture, geophysics, hydraulics, and archaeology, and priority is given to lands that have the following specifications:

- ✓ Lands that are not currently or in the future planned for exploitation.
- ✓ Deserts with large areas.
- ✓ Porous soil which is easy to be drilled.

The importance of the technical committees comes in order to avoid any potential damage to the resources present in the ground, such as mineral resources and antiquities, or harm groundwater, taking into account the most important element in the formation of artificial lakes, which is the expansion of the water surface because it will maximize the amount of evaporation and the soil's leakage of water, and there is a great return on rainwater in agriculture. It was mentioned in the research of scientists who studied the Qattara Depression Lake that the amount of rain was estimated based on an average temperature between 33 and 37 degrees Celsius, or 1.4 cubic meters per flat meter. It was also estimated that the temperature in the vicinity of the lake would decrease from 3 to 5 degrees Celsius. This is the most important documentation of artificial lakes and their beneficial impact on climate change. An appropriate amount of rain will also be available to irrigate millions of acres.

(1-2-2) drilling

The method of drilling artificial lakes and canals connecting from the coast to the lake inside the desert is important in terms of cost and time, because choosing the lowest cost of drilling facilitates the approval and implementation process. On the other hand, time is of great importance before the flood attacks us and drowns our beautiful coastal islands and cities, and confirmation of this is what We see it in an unprecedented

acceleration in the melting of glaciers due to the high temperature that has not occurred for 1,200 years. In the financial study conducted in 1964 between Egypt and Germany to implement the project, the total cost was 880 million pounds, and some suggested to reduce this cost that drilling be done with limited clean nuclear energy. However, after more than 60 years of current scientific progress in the safe uses of limited-range nuclear energy, we can resume the research, and here the time element outweighs all elements, including the cost, because time is critical, especially for beaches and cities that are high above the surface. The sea after the drowning of an Indonesian village opened in July 2023. Perhaps if the drowning incident is repeated, the world may look at this documented research seriously. I will keep repeating that artificial lakes will be created voluntarily with the knowledge of the international community or involuntarily by climate changes above the cities that will drown below the surface and we will not be able to Who can compensate it or save its population and wealth?

(1-2-3) the area of lakes to be created.

Establishing artificial lakes is not an easy matter, but the investment and economic return, regardless of the climate, is a national project for every country that establishes it. It adds value to the global economy and developing countries and puts an irreversible end to poverty and famine. The area of the lakes to be created must take into account the value of the amounts of water lost through evaporation and seepage into the soil. It is equal or close to the amount of water melted from the ice, and what is not completely absorbed cannot be left entirely.

(1-2-4) Preferring the establishment of artificial lakes.

There is no actual project proposed to save the islands and coastal cities from drowning, until now, and the Qattara Depression prompted us to bring it as a model that can be replicated on the shores of the world, because it is scientifically documented and saves us time to establish artificial lakes. Most importantly, the Qattara Depression Lake has received ample research over half a century. The research is documented internationally, and although Egypt has turned a blind eye to this project

after generating electricity from the High Dam and modern stations, we are now in dire need to study the Qattara Depression to present it as a model to the world, especially developing and poor countries, to save coastal cities from drowning and to be a lifeline for countries, regardless of the incorrect implementation of it in Egypt.

(1-2-5)The unique economic and climatic benefits of artificial lakes

There is no exaggeration if we prove to you scientifically that it exceeds any expectations in climate, economic and social reform. Dear reader, this project will save developing and poor countries and solve all their economic and social problems, including illegal immigration. To clarify this, we will mention some of the comments of economic and climate experts:

- ✓ It ends the problem of developing and poor countries of debt, lending, and the spiral of interest that consumes most of the national product, and it ends the problem of dependency policy, as is proven in the research of scientists and think tanks from the Qattara Depression Project, which we considered a scientifically documented model for artificial lakes.
- ✓ Providing water to irrigate millions of acres. Scientists have calculated that for every flat meter of the lake, there is 1.4 cubic meters of fresh water rain for agriculture annually at a temperature of 33 to 37 degrees Celsius.
- ✓ Establishing an urban community with millions of people to move out of the traditional urban space and city capitals, reducing illegal immigration, eliminating unemployment, and the most important element is reducing the temperature from 3-5 degrees Celsius around the sandy beaches.
- ✓ Eliminating famines and providing food to poor countries, even if providing food has become a political issue and not a food issue that conflicts with the interests of large-scale production countries because it is against their interests in marketing their surplus food and pushes them to oppose such projects under the pretext of financing. I believe that this problem will not exist in In the

coming years, because most countries, including the northern countries, will not have an abundance of food or a surplus for export, because they have entered the club of water scarcity and desertification and have been forced to introduce genetic modification in food products to confront the water shortage.

(1-2-6) Financing for artificial lakes projects.

The funding here is not intended to save coastal cities only, but rather it is comprehensive funding for poor and developing countries in which artificial lakes are suitable for construction. The economic, social and recreational return far exceeds the amount of financial investment in it.

Artificial lakes are an innovative way out for poor and developing countries, as well as an economic way out of the cycle of poverty brought to us by the disaster of drowning islands and coastal cities. Perhaps you hate something that is good for you. Let us thank the climate disasters for bringing this disaster to us so that we can extract from its core everything that improves the climate and the conditions of the planet. Food, stability, and reducing the temperature from 3 to 5 degrees, and all of this is scientifically documented from well-established peaks in science over the course of half a century, and an increase in circulating fresh water on the planet, which we will list accordingly in the next chapter.

The issue is very serious, and so far no scientist or climate official has announced the extent of the catastrophe and danger of the accelerating ice melt. I call on everyone to read the future together and with a fair view. We will find that the statement of the Secretary-General of the United Nations is the true reading of reality and the future, which is that “the world is heading to its death.” ". Reading the future before it happens is not only the task of meteorologists, but also the responsibility of academics and executive authorities in cooperation with climate officials in each country. What do we expect from the melting of ice more than what we see in temperatures? Thus, logic calls us because the data is in front of us.

The glaciers that feed Europe are melting before their season, and in contrast, Canada's fires also occur before their season and are 16 times more severe than in previous years. The melting of ice is only a result of excessive warming in the north and south of the planet, whether in Greenland or Resurrection mount.

(1-2-7)A world without the creation of artificial lakes

Here are my expectations from my reading of the future. I hope that the opposite will be proven. Artificial lakes will be created whether we accept and initiate their creation or we refuse and neglect. The question is how they will be created if we do not establish them with our own hands, which are that they will be created by themselves, enter upon us of their own free will, and form above the coastal cities that will drown them in a flood.

The severity of climate change on humanity is demonstrated by the fact that it selected the best and most beautiful islands and coastal cities in the editorial of The Sinking. It is worth noting the islands and cities that are likely to be drowned first in the near future, out of 72 countries, most of which have zero sea level and some of which are protected by mangroves, such as the island of Seychelles, and its people say, "If the mangroves disappeared, Seychelles would disappear." And what I expected after writing these lines happened in Indonesia, and the news from the Emirati newspaper Al-Ittihad in its issue dated 7/24/2023 that an Indonesian village is sinking under the sea and with the news is a picture showing the roofs of houses touching the surface of the sea in the "Tempulsloko" area. It is a coastal area on the island of Java, which contributed to the sinking, as the news indicated, because the residents removed the mangrove trees in order to create fishing ponds. Scientists also indicated that the waters rose by 2 cm annually on the islands, and what the Indonesian government has reached by moving the capital, Jakarta, from the island of Java in the middle of the year 2024.

The Geological Society of America have published official statistics prepared by, and we have selected from them the first coastal cities

nominated first for drowning, and nature has been so cruel and punishing that it has made the most beautiful cities in the whole world - Venice in Italy, and in Egypt the bride of the Mediterranean - Alexandria - the charming Marina beach, As for Matrouh and Rashid, as well as Marina, they are all zero above sea level and many other coastal cities in 72 countries.

Climatologists and meteorologists have unanimously agreed that there is no specific time for the sinking of these candidate cities first, and that their sinking can take place overnight, and their vision is based on several possibilities; including the start of ice melting at dangerously rapid rates in Greenland in the north, where the ice sheet in Greenland was recorded, as it threatens the coasts of the northern world.

In the south, there are warnings about the melting of the glacier of the Resurrection River, and its name is sufficient for the end, and it is the resurrection because the sea will rise to 16 feet, and during the following lines a statement of the names of the coastal cities that have priority to drowning due to the melting of the ice.

** Drowning Cities First:

City	State	Height above sea.	Human damage.	Patrimony State damage.
Alexandria	Egypt	5 meters.	Displacing one million people.	The Library of Alexandria and many antiquities and folklore are drowned.
Marina	Egypt	Zero meters.	------	Marina Beach is drowned.
Matrouh	Egypt	Zero meters.	------	The Rommel museum is drowned.
Rashid	Egypt	Zero meters.	Displacing of 50 thousand people	Many Islamic monuments are drowned.
Port Said	Egypt	2.25 meters.	Displacing half a million people.	Drowning of the Suez Canal building and museums.
Venice	Italy	1 meter.	A quarter of a million people are threatened with displacing.	The city is completely submerged.

**** Follow Drowning Cities First:**

City	State	Height above sea.	Human damage.	Patrimony State damage.
Rotterdam	The Netherlands	Zero meters.	Displacing half a million people.	The museum, zoo and port of Rotterdam are drowned.
New Orleans	United States of America.	2 meters.	Displacing half a million people.	Drowning the National Museum and the French historic Quarter.
Miami	United States of America.	2 meters.	Displacing half a million people.	------
Gulfstone Island	United States of America.	2.13 meters.	Displacing of 50 thousand people.	Tourist Island will completely disappear.
Maldives Island	Maldives	30 cm	Displacing of 50 thousand people.	Will completely disappear**.**

** Follow Drowning Cities First:

City	State	Height above sea.	Human damage.	Patrimony State damage.
Rio de Janeiro	Brazil	2.1 meters.	Displacing half a million people.	Will completely disappear.
Bangkok	Thailand	1.5 meters.	Displacing half a million people.	Museums and national reserves will disappear.
Most of Australia	Australia	1.1 meters.	Displacing half a million people.	Flooding of thousands of properties and the airports of Brisbane.
London	England	11 meters.	Displacing of 8 million people.	Birmingham Palace and the National Museum.
Shanghai	China	4 meters.	Displacing of 10 million people	Will disappear a lot of city landmarks.

(2-1)Increasing the amount of circulating fresh water on the planet

Anyone who examines the history of climate disasters will clearly notice their harsh features since last year, as new members joined the community of water scarcity and desertification and question marks appeared at that time. However, the current year 2023 is considered a repetition of last year in Asia, Europe and the Mediterranean basin. Even the Netherlands, which is called the country of water, has not been spared from water scarcity and the drying up of rivers. Until recently, the bad effects of climate change, some of which were limited to the African continent and the countries of the South, especially water scarcity and desertification. However, in the countries of the North, the disaster has become more severe, which is the melting of the peaks of icebergs and the melting of glaciers before their due date and in larger quantities, which portends the depletion of sources of water supply, and this appears in quantities The ice that forms in winter has become simple and weak due to warming, and thus the southern half of the planet alone cannot bear the effects of these changes. Accordingly, Al Farida Company is launching an application with the aim of increasing the amount of circulating fresh water on the planet through **((the green cover of the planet and artificial lakes))**.

Man has always searched for water and obtained it in the purest form, passing through many stages. With the advancement of desalination technologies, the world continued to search for other methods until "clouds seeding" became one of the most important innovative methods that countries competed to obtain and spread with less complex and inexpensive technologies. The UAE has a pioneering role in this field, which we will list later.

We are now facing the most dangerous element of climate disasters, and its harsh features have begun to appear since last year, as new members joined the community of water scarcity and desertification, and question marks appeared, but this year 2023 is considered a repetition of last year in Asia, Europe, the Mediterranean basin, and even the Netherlands, which is being called... The country of water has not been spared from

water scarcity and the drying up of rivers. Until recently, the bad effects of climate change, some of which affected the African continent and the countries of the South, especially water scarcity and desertification. However, in the northern countries, the disaster has become more severe, which is the melting of the peaks of the icebergs and the melting of the glaciers before their due date and in larger quantities. Which portends the depletion of water supply sources, and this appears in the amounts of ice that form in winter, which has become simple and weak due to warming. The situation is therefore more dangerous than in Africa and all the countries of the South because what Africa faces is water scarcity resulting from fluctuations in the amount of river water and rain due to global warming. However, fear and terror grip any researcher or academic who reads the future of water in the northern hemisphere, which will undoubtedly be exposed to an interruption in the supply of water sources. Because mountain ice caps and glaciers melt and do not form again.

We believe that the practical solution to chronic problems, that is, those that the prevailing or traditional methods have not succeeded in addressing, is resorting to innovations, which is the UAE's approach to managing climate crises and disasters, to confront and confront them, most notably the water problem that we are dealing with.

Therefore, Al Farida Company will present its research and innovative solutions, whether it has been completed and documented or is being completed with the authorities in the UAE to be presented in COP 28.

(2-2) Increasing the amount of circulating fresh water on the planet

It means fresh water that cycles within the planet, and if we want to increase it, we must know its source, then develop and expand it to give us more quantities with which to overcome our increasing needs due to population increase, as well as overcome drought and desertification.

The source of water is rain that falls from cumulonimbus clouds that are formed from the evaporation of water and oceans. Therefore, the factor

affecting the amount of water is the area of the water body, whether it is from the seas or oceans. No one had thought before and the idea of this method to face the water shortage which did not occur before, Increasing water by creating artificial lakes to absorb excess water from melting ice, seeping it into the soil and evaporation instead of forcefully entering it, rising on coastal cities and islands and flooding them.

Hence, it becomes clear that the artificial lakes project is a pivotal project and participates in most of the innovations that address climate change, from saving coastal cities from drowning or contributing to increasing the planet's circulating fresh water by the amount of rain that falls as a result of evaporation from the lakes**.**

(2-2-1) Water desalination

An important source of water for all uses, and its benefit is greater when we use clean energy in treating water desalination, such as: wind energy, solar farms, hydrogen, and clean nuclear energy. Among our proposals in in-kind financing for developing countries and emerging economies will be that the financing provides a cash portion and a portion represented in clean energy and its equipment, As well as treating agricultural wastewater, sewage and reusing it in irrigation and agriculture.

Under the pressure of insufficient water in Europe, the issue of genetically modified crops and genetic modification techniques became agreed-upon topics in order to feed the continent in light of climate change. The disagreement became over formal issues such as labeling the product and making it mandatory, and the FAO should contribute to supplying developing countries with seeds that are resistant to salinity and less water consumption and new developments in agriculture and crops.

(2-2-2) Cloud seeding

Cloud seeding is an advanced technology that helps meet the challenges of water and food security, as well as improving the weather and achieving sustainability. The UAE was one of the first countries, and its

experience extends since 1982. The National Center of Meteorology has obtained the mark of readiness for the future. The center is considered one of the most important government projects, and as a result of rain seeding, the UAE has obtained the 280 million cubic meters of water in 2020, and on the occasion of the responsibility of the United Arab Emirates' presidency of the World Meteorological Organization this year, as well as its organization of the global event COP 28, We would like to inform those in charge of the Emirates Research Program for clouds seeding enhancement science, headed by Her Excellency "Alia Al Mazrouei", that our company, "Al Fariada for Technological Applications and Innovations," specializing in innovations to face climate change, is taking its first steps to achieve an innovative proposal, which is "Tackling destructive floods with early cloud seeding of cumulus clouds." Due to many difficulties and research that has not been achieved, we don't find time for him before COP 28.

We will continue working after the conference and we are pleased to kindly cooperate with everyone who has experience, laboratories, equipment and technologies. We know that the situation requires development in everything, but it will be a bilateral achievement and innovation that prevents a disaster with the possibility of benefiting from the excess amount of water from the floods by falling in places that are more in need than others. Water is positive instead of being tools of destruction and displacement.

Our mission in this regard is to be continuous and alert for any technological development that solves the problems of early clouds seeding of rapidly forming cumulus clouds during storms and hurricanes. We must not forget that thousands of innovative applications remained trapped in integration into various sciences from medicine and astronomy until nanotechnology was appeared. May God have mercy on "Dr. Ahmed Zewail".

Clouds seeding are an accomplished technique for increasing rainwater. The UAE is advanced in this field and has won awards. We have research in this field to avoid the dangers of devastating floods through early rain seeding of cumulus clouds, which is currently being prepared.

But this technology has not been used by poor countries yet because it is expensive, digitally advanced and requires equipment, materials, aircraft, or cannons. I believe that cloud seeding will be a very effective technology for irrigating Europe and the North, especially after the melting of ice shelves and mountain peaks and the scarcity of water with the proliferation of cumulonimbus clouds.

Finally, recycling agricultural wastewater and sewage and reusing it for its appropriate purposes. Many countries use this technology, including Egypt.

It is known to everyone interested in the field of clouds seeding enhancement that the United Arab Emirates has increased experience and interest in this field, due to the interest of the wise leadership in providing water security, as well as the continuous support of His Highness /Sheikh "Mansour bin Zayed Al Nahyan", Deputy Prime Minister and Minister of the Presidential Office, who is the patron of progress in the field of clouds seeding enhancement, this enhances water security not only in the region but also at the global level by encouraging and disseminating best practices and cooperation in the field of clouds seeding enhancement, from an article by Her Excellency Alia Al Mazrouei, Director of the Emirates clouds seeding enhancement research program.

We are at the heart of the research carried out by Al-Farida Company, the results of which confirm that climate change, especially in the last two years, will have great importance for the northern world, and Europe, because in the coming years, and by 2030, water scarcity will begin for the 2 billion people who depend on it. On the glaciers and snow of the mountain peaks that melt in the summer and form in the winter, unfortunately, they will not be completely recreated again due to the rise in temperature, and they will begin to decrease until they disappear, and these countries will have no choice but to rain down the cumulus clouds that form frequently most days of the year. This is a mercy from God by harnessing the technology of clouds seeding to save these people. According to a United Nations report, half of the planet’s population will suffer from water scarcity by 2030.

** The leadership of the United Arab Emirates in clouds seeding enhancement.

Clouds seeding enhancement operations began in the United Arab Emirates in 1990, and were developed at the end of the nineties in cooperation with a number of organizations, followed in 2015 by the Emirates Research Program for Clouds seeding Enhancement Sciences, an international research initiative launched by His Highness/ Sheikh "Mansour bin Zayed Al Nahyan", Deputy Prime Minister and Minister of the Presidential Office. In continuation of the state's innovation strategy and its seven pillars.

The three researches of Professor Linda Zhou, Professor Volker Wolfmeyer, and Dr. Bradley Becker are considered scientific breakthroughs in this field, water resources for the country and the world if they are sought out and followed in their footsteps.

Professor Linda Zhou's study, at Khalifa University of Science and Technology, about "Using nanotechnology to accelerate water condensation nucleation and growth" is one of the most important pieces of research that won the award for the first session of the UAE Research Program for Clouds Seeding Enhancement Science. The results of her research have been published in more than 150 scientific articles and conference presentations. Her research study on clouds seeding was also published in the New York Times in 2017.

Through her research project, Professor Linda Zhou seeks to improve the effectiveness of techniques used to increase rainfall amounts for manufacturing nano-processed particles to replace pollination materials.

In order to increase the concentration of water vapor condensation rates inside clouds as a basic process for raindrop formation, the goal of this project is to apply high-quality knowledge in nanotechnology to manufacture innovative pollination materials, to increase the efficiency of raindrop formation. The project is based on an innovative method of field monitoring to evaluate water absorption and condensation of pollinators.

* Nano technology

Professor Zhou has designed new cloud-seeding materials that can absorb much larger amounts of water vapor than pure salt, and these new materials can help form much larger water droplets, thus increasing the likelihood of rainfall. The results showed that in the presence of 100% humidity, the new impregnation materials led to the formation of 300% more large-sized water droplets, which represents an important achievement.

With the deepening severity of drought in the world and the decline in the levels of lakes and rivers in Europe, Africa and Asia due to scarcity of rain, the importance of clouds seeding has emerged as an alternative solution to save people from water scarcity and scarcity. According to United Nations reports, nearly half of the world's population will face significant water scarcity by 2030.

The UAE has prepared with diligent work in clouds seeding enhancement research, from which 3 research papers have emerged that will shape the future of rain enhancement locally, globally and also constitute scientific breakthroughs in this field.

Water security is one of the most prominent components of national security, which increases the need for countries to work to support and encourage research, development and investment in new technologies that will ensure water security.

The UAE has a dry climate and a rainfall rate of less than 100 mm per year, according to climate statistics. In addition, the rate of surface evaporation is high and the rate of groundwater recharge is significantly lower than the rate of water consumption in the country. Continuing population and economic growth also places more pressure on water resources. The current rains in order to provide food and water.

Although the percentage of rainfall in the country has increased relatively in the past few decades, most of the rain falls in the winter months extending from December to March, and in the hot summer months, the monsoon winds in the Arabian Sea cause the formation of

cumulus clouds in the eastern mountainous regions of the country. Current cloud seeding operations may increase rainfall by up to 20%.

* Remote sensing techniques

The project by Professor "Volker Wolfmeyer", entitled “Improvement of the airport through remote sensing techniques and modification of the Greek cover,” it aims to study areas of convergence and the extent of wind intensity with its multiple gusts required for stability as a good candidate for the airport.

This method is characterized by its effectiveness in monitoring, as the movement of the wind must be monitored and found before clouds begin to form, and this research focuses on enhancing monitoring and forecasting where the winds meet and gather.

The framework of Professor Volcker's project, the first observatory to study atmospheric air particles, wind and clouds in three dimensions, was created.

Not only Professor Wolfmeier's team used the large impact and its data regarding the start of listening, but he combined this where it started with the source of the radioactive cream, and reached the final results that this has the ability to cause the invention of clouds and the airport, and he was able to do that, and it is possible to create rain so that you can get it. They can also be incorporated into processes to improve length capability.

* Electrical cloud seeding

In the fourth session of the UAE Research Program for Cloud Seeding Enhancement Science, which was announced at Expo Dubai 2020, the research of Dr. Bradley Baker, an expert in cloud physics and who has decades of experience in cloud physics, measurements of airborne devices and cloud radar information, won. In 2018, Baker returned to work on SPEC projects as an independent contractor and assumed the position of principal researcher at the company in 2020.

SPEC will cooperate with other researchers from the Finnish Meteorological Center and the University of Reading who received the second cycle grant, with the aim of building on the results achieved by previous research work in the UAE.

This project will include advanced numerical simulation of cumulus clouds and conducting their measurements using an “Erjet” research aircraft belonging to the “Speak” company, in coordination with the “King Air” aircraft of the National Center of Meteorology, which is used in cloud seeding operations.

Dr. Abdullah Al Mandoos, Director General of the National Center of Meteorology and President of the Asian Meteorological Union, said: The program managed by the National Center of Meteorology is an example of unique innovative initiatives, as it is a pioneering regional and global home for scientific research and development in the fields of climate and environmental phenomena.

Dr. Al Mandoos added that the National Center of Meteorology plays a fundamental role in managing this program, which aims to support local efforts to implement one of the main strategic axes in the UAE for innovation related to water and achieving water security.

He added, since the launch of the program, the researchers who received his grant have been working to implement a unique group of innovative research projects that have achieved and will undoubtedly continue to achieve a qualitative shift in the field of rain enhancement, which had not previously received the attention that expresses the extent of its importance.

Pointing out that in order to enhance the ability of researchers who received its grant to implement their research projects, the program has been keen since its inception to establish a global network of partners, which now includes more than 3,000 researchers belonging to more than 500 prestigious international institutions, including the European Organization for Nuclear Research, The European Space Agency, NASA, and establishing permanent links with research institutes in more than 70 countries around the world.

(2-3) Proposed innovation to face devastating floods

This innovation has been haunting us for years, but with the recurrence of devastating floods in several countries and with the rise in human losses and casualties, we were encouraged once again based on a technological breakthrough in equipment, namely drones, because among the dilemmas of confronting floods is the premature fall of cumulus clouds, and it is preferable if the fall occurs on land that needs this heavy rain.

These floods are always accompanied by storms, and the appearance of drones facilitates the process of seeding cumulonimbus clouds. Among the facilitations is also the completion of the world's meteorological centers in 2027, which is the most important for ensuring early warning.

Those who are skilled at innovations do not have a characteristic of despair. How much research remained powerless and locked away until (nanotechnology) appeared. May God have mercy on Dr. Ahmed Zewail.

We have to present this innovation, not only that, but there is another innovation that will be made at your hands, even if the offering is from Al Farida Company which is:

Dissipate destructive storms before making landfall

There is also hope in this matter with the emergence of drones, and we hope to place it on the research table until the materials used and modern methods that have not yet appeared are identified.

Let us all make it our principle (there is no problem that does not have a solution). This is the principle of Al-Farida Technological Innovations Company, which has created innovative solutions to most, if not all, climate problems:

- ✓ End of the problem of sinking islands and coastal cities due to melting ice.
- ✓ The end of the problem of increasing rotating fresh water in the universe.

- ✓ Stopping forest fires and devastating floods.
- ✓ Cooling of the planet while continuing to use fossils.
- ✓ Cultivation of dates high in the natural stimulant arginine (by genetic engineering).
- ✓ Planting mangroves outside 30^{th} latitude by genetic engineering.
- ✓ Climate changes, drugs, and poverty can be eliminating them through scientifically documented researches.

(This latest innovation in particular will be presented alone to His Highness Sheikh Mohammed bin Rashid Al Maktoum, may God protect him, the world's foremost campaigner against the spread of deadly drugs for young people).

*Innovative ways to eliminate forest fires and devastating floods

The innovations of Al Farida Company deal with the reality these forces us to use fossil fuels, which are the effective cause of raising the percentage of carbon in the atmosphere as well as raising the temperature. We have addressed these three elements (fossil - carbon - temperature rise) with the green and blue cover of the planet and with artificial lakes, in addition to the innovations of the UAE., and the expansion of renewable energy from green hydrogen, solar and wind energy, energy storage batteries, and carbon capture.4

Let it be clear that Al-Farida's innovations are not sufficient alone to address climate change, nor are the UAE's innovations, as well as renewable energy, sufficient alone to eliminate the rise in carbon and temperature levels and eliminate forest fires and devastating floods.

It is wrong to say that hot tropical and subtropical winds are the cause of forest fires and devastating floods because tropical and subtropical winds did not burn or drown in the past because their mission and role is that they are a means of transportation or an animal that was previously regular with its load and landing stations and its function did not differ from before as it was a vehicle. Transport, and since the load was different from before, the means of transport was disturbed, just like the means of transporting a load of ten tons that it carried with double the declared load, so it was damaged and the speed and place of unloading the load were disturbed.

If you want to stop forest fires or devastating floods, let us return to the previous load of climate for all types of winds.

Before the rise in temperatures and carbon, all types of winds, including equatorial, tropical, and hot winds, were blowing over dense forests, extended crops, humid atmosphere, and bodies of water. They carried the characteristics of what they passed over and carried to the arrival stations, whether of cool moist air or evaporation water of moderate

temperature and quantity, and in front of this moderate load, speed, temperature and weight. There were no forest fires and floods.

But now the balance and speed of the winds have been disturbed because they carry a load other than what they were accustomed to before the industrial revolution and before climate changes. As we described, the winds have no choice in what they carry. They carry what the climate or climate changes bring, so they pass over land that has been afflicted by desertification and drought due to humidity, and they pass over the surfaces of the ocean seas. Hotter, and if it got hotter, it burned and increased in speed than usual, and reached dry, diseased forests. The trees could not withstand the hot, jet winds because they were like wildfire. Everything went wrong, and they missed their dates early before the summer, as happened in Canada, and they came sixteen times more intense than before.

It will continue like this for years to come until we return it to its first course in terms of the moderate climate materials and water vapor it carries. This is what Al Farida Innovations Company provided, spreading beneath these winds the green, heat-reducing cover of the mangrove tree (the mangrove), the Great Green Belt, and the moist and heat-reducing artificial lakes in order for it to reach a station. Achieving a lower temperature, moderate humidity, non-breathing speed, and non-burning forests in the north, and these winds also pass over the green and blue cover, moderate temperature, moderate amount of evaporation, and balanced speed, which prevents the occurrence of devastating floods, especially in Asia and its east.

Below we will explain the innovative ways to eliminate forest fires and devastating floods while continuing to use fossils

(2-4) Fossil fuels

They are the main introduction in the editorials of the academic conferences from the West to east, where they criticize the use of it and extraction as a passport to have an entry for the climate change world, and recommends stopping exploration for production and consumption, while the human cannot fly without fossil fuels, and he hears and sees those around him from the international community, especially after the Russian war. The Ukrainian government demands the pumping of low fuel, and some of countries return to using clean radiation fuel after the stations are stopped from a long time because cautions and safety.

For those who do not know, fossil fuels are not only a consumer commodity, but rather a political innovation and an economic and social force, and it is not easier to control them than to copy them as long as there is a single oil operation inside a previously drilled well. For reading, the economy of international companies and organizations is a touch based on this pace, and the most important of them are the armies of workers and technicians. Therefore, Al-Farida hastened to present Innovative solutions to reality and its treatment of reality.

How do you specialize in fuel safety with the application of fossil wires, that is, how to reduce the percentage of carbon, heat and reduce them that are healthy for humans and nature while using the modern method that allows the world of fossil fuels, which is the new thermal substitution.

One of the most important benefits of carbon that we have researched is that there is a realistic end to talking about fossils and their harms through the unique innovation that adapts to real fuels, not dispensing with fossils while providing easy ways to eliminate the harms, and concluding our talk with how to peacefully coexist with fossils.

- ✓ Fossil fuels will continue to be used as long as there is no clean energy available in the market that is competitive in price.
- ✓ Fossil fuels will still be used in large quantities if they are used in quantities other than (steel, cement, aluminum).

- ✓ Fossil will continue to be used in linear vehicular transportation, which operates deliberately at a cost.
- ✓ Important information: Despite the many announcements about renewable energy production stations, solar farms, wind turbines, and green hydrogen), what has been produced up to this time does not exceed 3% of the global consumption of doctors in countries of abundance such as the Kingdom of Saudi Arabia, and especially the United Arab Emirates, which promises to reach 80% of clean fuels in 2030, and the contributing factor to reaching these two superior countries, the Kingdom of Saudi Arabia and the United Arab Emirates, before the eastern and industrialized countries, is that they are among the first countries to spend generously on precision energy projects and to reach zero carbon before the year 2050, with the help of the mangrove tree, and Egypt. It is also advanced in the field of clean energy and has spent generously despite global economic conditions.
- ✓ What can lead to good and simple energy production for countries, which leads to success and poor countries
- ✓ The production of global cuisine from clean energy, a large part of which is consumed by population growth and industrial development, and for these reasons, there is no combustion in the heat, and this can happen in a nearby place, and even the temperature is not stable without unique innovations.

Fossil fuels are a political innovation before they are a smart innovation, and it is an effective factor in speeding up private subscriptions, in line with the depletion of fossil fuel wells. It will not be allowed to fill an oil well with a single barrel in it. This is an undeclared policy, and behind it are giant companies and workers estimated at millions.

(2-5) Carbon

Scientists have attributed most of the climate problems to an increase in carbon emissions in the atmosphere above the safe limit (400 units per million), and studies have confirmed that it is a major cause of the accelerating rise in temperatures. Therefore, carbon is also a major cause of drought, desertification, and water scarcity, high mortality in young people, forest fires, floods and devastating hurricanes.

(Carbon and its main source in fossil fuel's emissions such as petroleum, gas and coal)

There is nitrous oxide (N_2O), methane gas and their irreversible risks from the atmosphere hundreds of years ago are the main cause of 50% temperature rise and the principle that not all is left behind. We leave Nitrous oxide (N_2O), and methane gas aside to tackle the carbon problem and fossil fuels.

It is worth mentioning that one of the reasons for the increase in the proportion of carbon in the atmosphere is not only fossil fuels, but also the spread of the use of traditional fuels in poor countries and emissions from waste, gas flares and forest fires as well as an increase in the proportion of carbon in the atmosphere because the same forests that were burned were absorbing carbon dioxide in the process of metabolism It provided us with food and oxygen, so it was not the forests that were burned, but the lungs of the world that were burned.

A study published in the journal **Current Biology** found that fungi consume more than two-thirds of the world's annual fossil fuel emissions. As such, fungi may be key players in the processes of conserving and recovering carbon from the atmosphere, co-author Katie Field, a professor of biology at the University of Sheffield, said in a press release “The numbers we discovered in this are amazing,” according to what was published by the American website “The Hill.” The team of researchers discovered that carbon fungi reduced global fossil carbon emissions by 36 percent - enough to cancel out the offshore carbon spill that comes out of China - the world's largest non-

carbon exporter. China outperforms its fastest competitor in environmental television, the weak United States.

Fungi are a vastly productive kingdom, and they are the fruitful organisms that are much larger and can take place underground. While they are elementally similar to plants, fungi are more similar to animals and share with us the need to find new nutrients, attracting metabolic chemicals, rather than simply manufacturing nutrients from sunlight and dioxide carbon.

*** Fossil fuels And the remaining battle with carbon**

Everyone ended up acknowledging that fossil fuels were a major cause of increased carbon in the atmosphere and the problems of climate change.

For the accused fossil fuels:

Q: Can it be dispensed with?

Answer: No

Can we live with such a high percentage of carbon?

Answer: No

Q: Can coexistence and adaptation with fossil use avoid increasing carbon in the atmosphere?

Answer: Yes

Solution

In the topic's forefront, we have replied that fossil fuels are indispensable, especially in current circumstances. For a number of years, they are determined by alternative green energy prices, market mechanisms and prices that end on fossil.

The current conditions are even worse because of the Russian-Ukrainian war, the scarcity of energy supplies, and even worse, the expansion of the use of the most polluting coal.

Therefore, the use of oil, gas and coal is a compulsive use due to the lack of available energy sources that are less polluting and at competitive prices.

And companies producing fossil fuels do not need their support because demand exceeds supply, and Europe is afraid of the coming winter, not finding its needs in the market.

Accordingly, the neutral realistic view supports the use of fossil fuels in order for life to proceed in the interest of both the producer and consumer sides, bearing in mind that oil companies are huge economic entities on which the economies of oil countries are based, and that fossils represent the largest proportion of their budget and income.

This is in addition to the rights of shareholders in stock exchanges, money houses and workers' rights. All of this cannot be canceled by decisions, but it can be lived with by adaptation as long as we can bring the carbon percentage down to a safe limit and adapt to reality by not dispensing with fossils.

The fact of the importance of fossil fuels cannot be denied, as long as there are companies that are still excavating for it and celebrating when finding it. This is in addition to employment and investments, and most importantly, industries such as iron and cement, whose factories cannot be closed or dispensed with, as they so far depend on fossil fuels and are not suitable It has others, not to mention the shortfall in supply caused by the Russian-Ukrainian war and the begging of consuming countries for producers to raise production to meet their needs due to the Russian-Ukrainian war.

We are dealing with reality and looking for an alternative that reduces or absorbs excess carbon from the safe limit and distributes the cost to the elements of the problem.

That is why we support the call of the Secretary-General of the United Nations that a percentage must be imposed on the huge and unprecedented profits achieved by oil and fossil fuel companies to spend on improving the climate and addressing its problems.

“And upon it”

This is a package of measures that we resort to putting forward as a proposal to bridge the gap resulting from government inaction and indifference, which brought us to where we are in the last months remaining on COP27 and reached what was unimaginable (water scarcity and drought) in England and European countries (Netherlands, Germany and France) and fires Forests also in many Mediterranean countries.

This package of measures is capable of reducing the carbon ratio to zero carbon, not as planned in the year 2050, but before that and with the full implementation of the plan.

This package of measures is capable of reducing the carbon ratio to zero carbon, not as planned in the year 2050, but before that and with the full implementation of the plan.

Yes, all elements of the plan are activated in parallel simultaneously. Here are the most important items of the plan. I remind you that we have all concluded that carbon is the basis and underlying of all the calamities and disasters of the climate is the beginning, the key and the first line of the climate problem system.

The plan is simple, but it does not bear the slightest individual disregard, and I say individually, because the disadvantage of this proposal is that it depends more on individuals than on States, which have already recorded their failure to contain and solve climate problems.

First: every individual in human society in the globe cultivates two fruitful trees per year or otherwise depending on the nature and needs of each State under the supervision of the UN General Body and the organizations represented by FAO. This undertaking is binding and a fine is imposed in addition to denial of international contributions and assistance and the World Bank and increased sanctions in this regard.

Second: Fossil fuel companies pay for the cost of a solar unit for each particular amount of crude petroleum, quantified by the size of the solar

unit - or the number of trees and paid for each ton as agreed by the parties and the agreement is voluntary and pledged by OPEC and from outside (these compensation are directed to the less emitted countries).

Fortunately, COP28 delegations from OPEC will attend the Conference and our previous proposals will bleach the face of the Organization and increase its cooperation in funding. With this proposal, we return to nature before the industrial revolution when there were no climate problems, neither carbon nor temperature increases, despite carbon emissions from conventional fuels and coal, as well as petroleum, but in low quantities and were absorbed at the time, digesting and emitting, instead of pure oxygen. Population density doubled from the beginning of the industrial revolution and trees and forests should have doubled, but the opposite occurred.

The previous proposal paves the way for the cultivation of a large lung for the world similar to the natural lung before the Industrial Revolution. How many trees belonged to each individual before the Industrial Revolution, and how many now? Give nature its right, return what you stole from the mother land and make justice between her children.

The usual thing is that governments undertake the obligations of their subjects, and we here have violated this rule in order to make the commitment of the members of the international community before each other a training program for what is to come in the future, which is to be a jealous friend or protector of the environment, and for the son to show the family's behavior, and to show the community to each other. Watch closely and the rest will be done by the media and education.

What the climate is like now is made by us all with our own hands and we are partners in this lesson that must not be repeated and stopped by practical training since childhood, planting two fruitful trees, which will have benefits other than the economic aspect, which is getting used to the protection of common property, i.e. training to preserve everything that is common from Ways and means of transportation and get used to seeing beauty.

Second: This second and most important element, with a great degree of importance, is solar energy, whose importance is due to its lower cost by about 15% than it started with, with the continued low cost. In the future, it will be the backbone of cheap clean energy. Green hydrogen energy sources and wind turbines, it is certain that all African countries hope to obtain the necessary funding to establish solar energy farms and other clean energy sources.

The importance of solar energy in reducing carbon emissions, as it replaces fossil fuels in electricity generation, water desalination, lighting and many other things.

“Conclusion”

The use of solar energy with the policy of abundant afforestation can bring us to a safe limit of less than 400 units per million by the end of 2030, with the rational use of fossil oil - because heavy afforestation performs the task of strong carbon absorption and moistening the atmosphere through transpiration and creating fresh currents from the movement of branches And the winds as well as the intensification of the mangrove forests.

With the trend to increase the production of clean energy from green hydrogen and Egypt's endeavor - exploiting gas burners as well as algae oil, continuing research to extract energy from sea waves, expanding the production of energy-saving devices, expanding the production and use of transportation with clean energy, in addition to expanding the use of materials Environmentally friendly, especially in construction, all of these models are not only for display, but for implementation in all countries where the conference attendees have not yet started.

And combating noise pollution, spreading affection and communication between the rich and the poor, individuals and states each other. Hence, I invite the world’s millionaires to donate voluntarily, they and everyone who wants to implement the artificial lakes project because it needs hundreds of billions. It is the cornerstone to save the world from the evils of climate change that we will eradicate absolutely and without

return this time we are not paying for the treatment but for the final recovery.

We also call on everyone to think about creating new sources of voluntary financing without burdening the developing and poor people with more burdens. Otherwise, donations are limited only to the very wealthy, but extend to most businessmen, with the thought of imposing fees on extracting precious and radioactive minerals such as gold, cobalt, and diamonds. The United Nations directs its proceeds towards the production or infrastructure of green fuels, as well as related research.

In the context of mentioning carbon and afforestation, we cannot fail to mention Egypt's leading role, as the political and executive administration took a decision earlier to our proposal at the beginning of this year 2023, which is to plant one hundred million fruitful trees in all of Egypt's governorates.

The reality testifies that Egypt deserves to hold this important conference at this critical time, as it has preceded many developing and developed countries in all aspects of the climate, such as afforestation, solar energy, green hydrogen, and environmentally friendly means of transportation. Despite all the austerity conditions that Egypt is going through.

What should be mentioned, and we have singled out a section for it and re-mentioned its benefits are the mangrove forests, and in this book we will not tire of repeating it in every topic that has a role and treatment of climate changes, and in this regard it is for carbon and its elimination is number one and takes precedence over any element Another in reducing the proportion of carbon in the atmosphere, and it suffices to mention that the mangrove tree absorbs four times more carbon than other trees and has the ability to absorb and store it. The mangrove tree is the oil companies' weapon to offer to exchange its cultivation for fossil fuel production. It is a fair barter worth thinking and implementing.

(2-6) Hyperthermia

It is the last element in the three evils of the environment (fossil - carbon - heat). The easiest way to eliminate temperature rise is to eliminate or reduce its negative aspects, as it is necessary to introduce an innovation or a package of innovations that reduces temperature. Here we can say that we have defeated climate change, and from here Al Farida Company For technological applications and innovations, it says with confidence, based on previously documented scientific rules, that we will conquer the main cause of climate disasters, just as we have triumphed in research over the problem that no one has come forward to solve, which is the sinking of islands and coastal cities due to the melting of ice, and also overcoming the problem of water scarcity by increasing the circulation of fresh water on the planet.

**** Why do we say that the problem of high temperatures is the basis of problems in climate disasters?**

- ✓ Because had it not been for the rise in temperature, we would not have been exposed to the drowning of the islands and coastal cities.
- ✓ Also, had it not been for the rise in temperature, we would not have been exposed to desertification and drought.
- ✓ Also, had it not been for the high temperature, we would not have been exposed to forest fires.
- ✓ Also, had it not been for the high temperature, we would not have suffered from food shortages.
- ✓ Also, had it not been for the rise in temperature, we would not have been affected by the deterioration of marine life.
- ✓ Also, had it not been for the rise in temperature, the temperature of the water surfaces of the seas and oceans would not have risen and caused devastating storms and floods. However, what is not common information is that due to the rise in temperature of the oceans, they have stopped absorbing carbon, causing it to recoil and global warming to increase.
- ✓

**** What is strange and shameful about this issue?**

We have not yet been able to stop the rise and acceleration of temperature. I am not talking about reducing the temperature, but only stopping its rise annually. Therefore, the truest statement, as described by the Secretary-General of the United Nations, is that "the world is heading to its death." Despite all the climate conferences, they have not yet succeeded in stopping the temperature rise that is supposed to be reduced.

(2-6-1) Spain disasters

For the second year, Spain recorded high temperatures that it had never been accustomed to before. It is noticeable that it did not direct its fear towards the deterioration of health or tourism, but all its fears were directed towards the disaster in the olive cultivation sector due to the deterioration of olive oil production for the first country in the world because of the high temperature, the interruption of rain and the impact of the drought for the second year on Olive trees.

The disaster is double in Spain. With the absence of rain from January to May, there is a rise in temperature, which increases the severity of the drought and the fatal impact of small olive trees with weak roots due to their shortness.

What is important in this regard is what was mentioned that this situation is impossible to occur without the influence of climate change in Africa. Now, neglected Africa in most cases has become the reason for what is happening to the people of the North, Spain and Europe, as scientists mentioned. Likewise, here is Singapore recording the highest temperature in 40 years, 37 degrees Celsius. Likewise, Vietnam recorded 44 degrees Celsius. All this, and we had not reached the middle of May at that time.

All of these climate disasters cannot be faced except with comprehensive and fair financing under the rule that whoever spoils something must fix it before it ruins his life and his climate. This is the case, whether in Spain or the floods in Italy and the landslides in which

the rain continued for 36 hours, dropping an amount of water equivalent to 6 months of rain.

The solution is to provide generous financing in cash and in-kind materials to all developing and poor countries for the sake of a better future for the huge industrial countries in the north, which have been wrapped around their necks by climate change due to over-saturation coming from the south.

*** Features of Al Farida innovations to save the world from climate disasters**

- ✓ It is distinguished from others in that it is easy and quick to implement, so that we can avoid losing time and failing to fulfill its promise that will destroy us before the years 2030 and 2050.
- ✓ It can be implemented with minimal financial funding, which has not been achieved since 2009 (one hundred billion dollars) and if it is paid for with the efforts and mediation of the UAE in COP28.
- ✓ Assuming regularity in annual financial funding (one hundred billion dollars), it is meager and insufficient funding in light of the acceleration and proliferation of climate disasters and the entry of new members into the community of water scarcity and desertification from the people of the North and Europe, which preoccupies the world and keeps it away from confronting carbon and temperature rise. Here the importance of the company's innovations appears. The unique one that exploits nature's bounty in confronting humanity's negatives, such as consumption of fossil fuels, emissions of gases and carbon, and rising temperatures.
- ✓ Without supporting and implementing unique natural innovations, clean renewable energy alone will not be able to achieve a tangible and effective impact
- ✓ Spending and financing on all innovations is a high-return investment characterized by sustainability, as the spending is made once at the beginning of the implementation of the green cover, blue cover, and artificial lakes.

- ✓ The double benefit of innovations because they carry out two basic tasks, which are combating harmful climate changes to reduce them, allowing the use of fossil fuels until a safe alternative is provided, and procedures are maintained to achieve a high investment return, especially developing and poor countries, in raising the gross national product, achieving food sufficiency, and protecting marine life, while raising the rate of investment. Blue economy production.
- ✓ It encourages everyone to contribute to the implementation of our innovations because the international community will not mind participation that will not cost much, the technical capabilities required for implementation are modest and well-known, and the economic return is large and sustainable.
- ✓ These innovations, which are easy and quick to implement, save the face of countries with high levels of carbon emissions and gases, and fulfill their duty before their people, who have the right to breathe clean air, especially industrial cities and the capitals of crowded countries.
- ✓ By implementing it, the international community will see, for the first time since the beginning of the industrial revolution, a real decrease in the percentage of carbon and the degree of pollution, and its beginning will be COP 28.

I repeat the saying of many scholars and heads of state that the COP28 conference is a last chance.

(2-7) Facing climate disasters with innovations is a necessity, not a luxury

Al Farida Company's innovations do not directly confront temperatures, but rather confront their causes of fuel and carbon, rehabilitating water bodies in absorbing heat and carbon. All of this will be done in very simple and easy-to-implement methods, and we leave technology and complex and expensive matters to those who are able to afford it and to finance it. It is indispensable because we will consider it among the auxiliary and complementary elements of our innovation, which is modern clean energy (hydrogen, solar energy, wind energy, and clean nuclear energy). Modern clean energy will put it in its normal size, away from praise and cheering, because according to the countries that produced it and scientists have stated that it will be completed by the end of the year 2050, as if they made a covenant with climate change to give them until the middle of this century and it will stop the acceleration the likes of which we have not seen in 1,200 years!

(2-8) the global energy mixture by 2050

Renewable sources tend to penetrate more into the global energy mixture by the middle of the current century (2050) in all scenarios, putting pressure on the share of fossil fuels. The share of renewable energy in global primary energy consumption is expected to grow from 10% in 2019 to between 35% and 64%. By 2050, depending on the pace of the transition away from fossil fuels, according to data from the British oil company BP.

Overall, BP expects global primary energy consumption to reach 630 exajoules in the carbon neutral scenario and 733 exajoules in the new momentum scenario by 2050, compared to 627 exajoules in 2019. Overall, BP estimates that the share of fossil fuels in the global energy mix will decline from 80% in 2019 to 55% and 22% in the New Momentum and Carbon Neutrality scenarios, respectively.

Last year (2022) witnessed severe disruptions in fossil fuel supplies, which raised their prices to historic levels, which made the world realize

the importance of diversifying energy sources. Natural gas is likely to remain the most consumed source of fossil fuel by 2050, in all scenarios, followed by oil and then coal, according to what was monitored by the Energy Research Unit. The share of natural gas in the global energy mix is expected to reach 23% in the New Momentum scenario, but it drops to only 9% in the carbon neutrality scenario, while the share of oil may reach 19% and 6% in the new momentum and carbon neutrality, respectively, by 2050, compared to 29% in 2019. BP expects global oil demand in the carbon neutral scenario to fall to 21 million barrels per day by 2050, compared to 98 million barrels per day in 2019. Because it is the most polluting of fossil fuels, the share of coal in the global energy mix may fall from approximately 25% in 2019 to 13% and 3% in the New Momentum and carbon neutrality scenarios, respectively.

(2-9) clean energy innovations to help achieving carbon neutrality

Innovation to reduce carbon and temperatures is based on clean energy and supporting efforts to reduce carbon and temperature increases as follows:

- ✓ **The green cover of the planet.**
- ✓ **The Great Green Belt in Africa.**
- ✓ **Blue cover.**

I hope the reader does not think that we are eliminating the importance of clean, renewable energy or underestimating its importance, but the bottom line is that neither the innovations of the Al-Farida company are suitable alone in addressing climate change, nor are clean renewable energy of all kinds (green hydrogen, solar energy, wind energy, clean nuclear energy.... etc.) will lead us alone to zero carbon, as evidenced by the reality of the situation.

(2-9-1) The green cover of the planet

No one disputes that the United Arab Emirates was the first to uncover this treasure and draw attention to it with its great interest in the mangrove tree from neglect. Many scientists warned that it was on its way to disappearing, and the great awakening begun when the world found that the Emirates was continuing to complete the 100 Million Trees Project by the end. 2030. The Kingdom of Saudi Arabia followed this path and embarked on the One Hundred Million Trees Project as well.

Mangroves are a treasure and gift from nature to create balance in the air and sea. They carry out maintenance and repairs that have been damaged by climate changes, especially in marine life, although we mentioned it in several chapters in our book last year about climate in COP27 under the title "Climate... Do you have other problems?" "The book has a legal filing number 21372/2022, but this year we are returning the topic with a new development and innovation to spread its cultivation on a wider scale due to its great and great benefits, especially in devouring carbon, and because of its importance, we are proceeding with the following:

- ✓ Performing genetic modification through genetic engineering on mangrove cultivation so that it can be grown outside the 30th parallel, because the cultivation of this tree is limited to this area only, and development with modern methods enables us to grow it in a climate outside this line to intensify its spread.
- ✓ One of the good conditions for planting this tree is that it is suitable for cultivation in developing southern countries and poor islands, which already plant it to protect their shores and islands from drowning.
- ✓ To have an international sovereign body under the umbrella of the United Nations and sponsors from countries of abundance such as the United Arab Emirates and the Kingdom of Saudi Arabia.
- ✓ To be included in in-kind financing because we are preparing a new proposal on the subject of financing developing countries to

address climate change with financial and in-kind financing such as solar energy panels and mangrove forests.

- ✓ International laws should be enacted requiring that an equivalent compensation be paid from mangrove trees or solar energy units for every ton of fossil fuel produced, so that the agreements are not subject to cash financing only, which has not been implemented since 2009, which is one hundred billion dollars annually, and was re-recommended at the 2015 Paris conference, etc. Finally, the UAE succeeded in a year-long effort to urge donor countries to fulfill these hundred billion dollars for the first time.

The great importance of mangroves lies in the fact that it is the first means in the world that rids the planet of carbon and its harms, and on top of that, it generates economic income, whether in the blue economy or marine life and its preservation. I thank the UAE for directing the world's attention to the importance of mangroves, as it is another green tree that takes its place next to the above. Brush it down the scorching hot tropical winds and take their place.

But the mangrove is a unique tree with features that are not available to others, and uses on both land and oceans that only mangroves can do. Nature has been kind to us if we infect ourselves with the disease (climate) and it prescribes treatment for us.

The idea of condensing mangrove forests is because one tree is scientifically equivalent to four in absorbing carbon and releasing oxygen, and its features include the following:

- ✓ They are considered incubators for raising fish, especially shrimp, and their roots protect the fish fry where they live and are considered homes for many rare and endangered aquatic and terrestrial animals and animals.
- ✓ It is also in its nature that it lives on salt water. It is also grown in tidal areas of the beaches and absorbs 90% of the salts. These salts that it absorbs appear on the leaves in the form of crystals. The suitable environment for them is between latitudes 30 north

and south. Mangroves tolerate high salinity and drought and have yields. It is very economical, especially in raising and producing honey and hive products. Its leaves are used in the manufacture of dyes and medicines (liver and teeth).

- ✓ As for our use of mangrove forests here, it is an extensive use, especially on all the coasts of the Pacific Ocean where it is suitable for agriculture. It is present on some coasts and islands of the Pacific Ocean, as well as in the Red Sea in Egypt, the State of Qatar, the Kingdom of Saudi Arabia, the Sultanate of Oman, and others, but not in large quantities, but its presence in the Emirates is intense.
- ✓ In the Seychelles islands, which are threatened by drowning, the government is planting them extensively on the coasts to protect them, **with the saying that if the mangroves disappear, the Seychelles will disappear.**
- ✓ Establishing forests is hard work, but it is not impossible, like artificial lakes. We here in the Conference of the Parties have only two ways to escape: spending hard work and creating mangrove forests are not a luxury.
- ✓ Whether growing it on the shores of seas and oceans, or on the Pacific Ocean, because mangrove forests are one way to confront the hot winds heading to Asia, carrying evaporation and excess water, drowning it with floods and destroying it with storms, as happened in Pakistan and India this year months ago, and mangroves have a great economic return, which What is more remarkable is that if this tree were planted densely, it would help achieve zero carbon in the shortest time due to its quadruple capabilities in absorbing carbon more than any other tree, in addition to all clean renewable energy.
- ✓ As for an adult tree, it is the size of ten fruit trees, and we recommend planting it around artificial lakes to protect their shores, as it does not require a lot of care and does not need fresh water.

We will not forget the position of the United Arab Emirates at COP 27 in Sharm El Sheikh last year regarding the global launch of the Crimean

Climate Alliance in partnership with Indonesia, with the aim of expanding the areas of mangrove forests globally as one of the natural solutions to confront climate change, which enhances the absorption and sequestration of greenhouse gas emissions globally.

(2-9-2) The Great Green Belt in Africa

I will mention what I also wrote last year about the Great Green belt, but more important than this wall is the call for it to be repeated on all continents and major countries, especially industrial ones, in order for their people to breathe healthy air. These countries have large cash reserves that they have built up from capitalist industries that are carbon-intensive.

We will not deprive it of investing these funds, as we have provided it with inexpensive means such as planting mangrove forests or green fences like many countries, including Egypt, such as the belt of the administrative capital and others.

Here is what was mentioned in the edition of COP 27 in Sharm El Sheikh 2022 about the Great Green Belt in Africa, “under legal registration number 21372/2022” in both Arabic and English:

Researchers say what Africa needs, and I say what the whole world needs, and now more than before, it is not only Africa, but the people of the North, the first of whom is Europe, as well as the countries of the Mediterranean to stop forest fires and moderate the winds, and the project was an initiative of the African Union in 2007, and until Now, only 15% of it has been exhausted, due to the slowness and failure of funding, thinking that it belongs to Africa only. Now, with the laws of open skies, the “Great Green Belt” has become related to the entire world because the winds will pass over it, and very hot wind blowers will pass over it to cool it and tame it before it burns or drowns.

Fortunately, the “Great Green Belt” began fifteen years ago, and all the requirements for management and expertise are in place, waiting for funding from COP27, in order to improve the atmosphere for them and prevent them from illegal immigration from Africa, because the project

is climate afforestation, food, social, and anti-unemployment, and the Great Green Belt has an agency allocated to it.

In particular, it is the African agency for the Great Green Belt, Mr. Timo Fante, founder of Green up Gambia, agrees with us in saying that the belt is an African initiative to solve global problems - because this project is planned to feed 9 million people in the future. In short, the Great Green Belt is great in its benefits for everyone. Countries around the world help reduce carbon and greenhouse gases, provide food, lower temperatures, fix scorching winds, and prevent illegal immigration.

Now, perhaps the idea has crossed the mind of many readers, and why should there not be a great green belt on every continent? These giant, bold projects are the way to the well-being of peoples and changing their climate-destroying behaviors, because the mere participation of an individual in such projects or in the project of planting two trees for each individual Regardless of the economic benefit, it is enough that this person will grow up caring for the environment and zealous for it so that he does not go backwards in the future, after it has become clear to us that relying on members of society is sometimes more beneficial than relying on negligent governments.

The Great Green Belt deserves immediate and adequate support, especially since those in charge of it are committed to its completion.

(2-9-3) Blue cover

The blue cover through artificial lakes is mainly for another application, which is saving cities and coastal islands from drowning due to the loss of ice-melting water through evaporation and leakage to the bottom of the lakes. One of its most important benefits is planting its shores with mangrove trees to protect the lakes from encroaching sand and stabilize the sandy beaches. This innovation will We will present it to the Suez Canal General Authority in the future to enrich the marine life of the canal, stabilize the beaches and protect them from the sides leaking to the bottom, and as an alternative to lining the sides of the beaches.

Returning to our main topic, which is reducing heat and absorbing carbon, artificial lakes are an area addition to the oceans and seas that absorb 90% of the heat and 30% of the carbon. It has been scientifically proven in research on artificial lakes that they reduce the temperature in their surroundings by 3 to 5 degrees Celsius in addition to rain and their good effect on Atmosphere and global warming.

The presence of artificial lakes is necessary to create a balance by increasing the water surface of the planet in proportion to the increase in population and consumption that has resulted in an increase in emissions. Artificial lakes are an expansion of the blue economy. They will also alleviate the degradation of the oceans by reducing the increase in greenhouse gas emissions and reducing the acidity of the oceans, which causes the amount of oxygen decreases and thus the surface temperature of the oceans rises.

This is consistent with the Abu Dhabi Marine Plan 2030, which includes a promising framework for the blue economy and the Zayed Network of Marine Reserves, and that the blue economy is an integral part of sustainable development, and this is one of the first missions of the marine research ship (Jeon) and biological studies, and therefore the UAE's support for the innovation of artificial lakes is tantamount to... In addition to a large area of oceans, saving islands and coastal cities from drowning, developing the blue economy, and working alongside the green cover of the mangrove tree and the great green belt and repeating

it on the continents and around the city capitals, all of this works in parallel at the same time in absorbing and devouring carbon and also working to reduce heat and global warming. .

I pray that the international community will not be led by false propaganda about the possibility of fixing climate change through clean energy alone, as evidenced by the fact that it has been talked about since 1975, and everything we have produced from it barely covers the consumption of the population increase and the increase in industrial production during the past half century with the entry of the state of China and the East. Asia is about to double industrial production, double carbon dioxide output, and double their reserves of gold and currencies. As for waiting until 2050 to reach zero carbon, I call on all scientists interested in climate to say their word that climate disasters will not be patient with us until this date, and that the statement of the Secretary-General of the United Nations Antonio Guterres' belief that the world is heading toward its doom is true to this day, and we will be lucky if climate catastrophes allow us to complete the systems of mangrove forests and artificial lakes.

No one denies that the UAE, Egypt, and the Kingdom of Saudi Arabia have the largest solar energy farms, and the UAE is ranked first in the world, and also with them are some African and Asian countries in green hydrogen, but we should not forget that some European countries have abolished work with clean nuclear energy, to increase safety, and the developing and poor countries that aspired to produce clean energy. It has tied itself up in debt and will not return to it until it feeds its people and pays its debts, or the major industrial countries and abundant oil-producing countries follow the UAE's example by helping and supporting emerging countries and economies with modern energy projects. In the past years, the UAE has spent $50 billion on 70 countries on clean energy projects. It announced that it would repeat this by spending another $50 billion on development projects and clean energy production to reduce pollution.

In summary: Neither Al Farida Innovations Company's innovations alone can face climate change (green cover and blue cover - artificial

lakes - pre-flood seeding - increasing fresh water), nor can clean energy alone (green hydrogen - solar and wind energy - clean nuclear energy - carbon capture). It can confront climate change and disasters, but activating both intensely and in parallel enables us to triumph over climate disasters (heat, carbon, fossils, forest fires, devastating floods, upcoming diseases and epidemics).

“Don't shoot yourself in the foot and don't turn your backs on Cop 28 after it ends”.

(3-1)Food

On the other hand, there is a basic pillar of life, which is food. What concerns us primarily in the food problem is the filling material that takes away hunger from the poor, which is known to everyone as wheat and rice. In this regard, we will supplement it with palm dates, which our ancestors in the Arabian Peninsula lived on as a basic food alongside milk, and they were strong and healthy. The path to sufficient food depends first on poor and developing countries to regulate birth control with social awareness, especially those suffering from population explosion.

The most important scientific points in providing food in our current era are the trend towards biotechnology and genetic engineering, especially with regard to low-water consumption and disease-resistant seed technologies. Here, Al Farida launches its laboratory research **((producing dates with a high percentage of the stimulant arginine and using the climatic map of dates to spread its cultivation))**.

What concerns us primarily in the food problem is the filling material that relieves hunger from the poor, which is known to everyone as wheat and rice. In this regard, we will add to it, the palm dates that our ancestors used to eat them on the Arabian Peninsula as a staple food alongside milk and they were strong and healthy. Within basic food, based on a scientific development that we will mention later, the path to food sufficiency is based first on poor and developing countries to regulate birth control by societal awareness, especially those suffering from population explosion. As for the most important scientific points in providing food in our current era, it is the trend towards biotechnology and genetic engineering. Especially with regard to seed techniques that are low in water consumption and resistant to diseases.

We must provide developing and poor countries with these seeds and technologies. The field of genetic engineering is dominated by the United States of America by 70%, Argentina by 14%, and Canada by 9% (Ref. Dr. Salem Safar Al-Ghamdi and Dr. Abdullah Abdul Rahman Al-Saadoun, College of Agriculture, King Saud University).

He suggested that legislation be issued by the United Nations or the FAO that would allow everyone to research filler foods, such as wheat, rice, and corn, at least.

Food can also contribute to the proposed methods for reducing emissions, which is reducing the consumption of red meat and moving to other dietary methods, because raising cows produces a gas more dangerous than carbon (methane).

Using the latest agricultural, food systems and supporting them with the necessary technology. Among the guaranteed sources for providing food are the artificial lakes proposed to prevent the drowning of islands and coastal cities. They provide rainwater and reduce temperature and they can also be developed as a source of fish with the addition of mangrove trees to their shores.

(3-2)Date innovations

It consists of two main topics:

First: Producing genetically modified dates that contain a higher percentage of the general stimulant amino acid (arginine) instead of industrial and chemical stimulants that are fatal to humans.

Second: The environmental, food, health and economic changes impose the inevitability of spreading dates agriculture, especially in Arab developing countries and poor countries, by changing their reality and contributing to the elimination of hunger in the world, as stated in the UAE Declaration on Food Systems, Agriculture and Climate Action at the thirty-fourth meeting of the Committee for Agricultural Cooperation and Food Security for the Gulf Cooperation Council countries, with the participation of Her Excellency Minister "Maryam Al Muhairi".

Genetic modification by raising the arginine acid in dates to prepare it as a vital stimulant food for the body as an alternative to industrial and chemical stimulants that are harmful to humans and they are fatal to youth and people from an economic, health and social perspective. This

modification will have an effective impact in spreading the cultivation of date palms at a high density throughout the Arab world. Every individual will work to exploit any available space in the courtyard of his house or next to his residential complex in order to grow regular or genetically modified palm trees, so we expect to double its area in one year, especially in Egypt.

The elimination of stimulants and drugs will be one of the unique and great services provided by "the blessed tree" to humanity in our modern era, as arginine acid is a legitimate, safe and healthy stimulant that is taken by bodybuilders. It is also known to scientists for its effectiveness as a general stimulant and an important element for fertilization. It is involved in the composition of semen and works to preserve on the arteries and maintaining blood pressure in the body. The success of this genetic modification of dates is no less important than the difficult success achieved, thanks to God, in the past years in cultivating genetically modified strains of wheat such that they are irrigated with salt water, at the hands of Professor "Dr. Abdel Rahman Al-Najjar", Professor of Genetics at Suez Canal University. In addition to the benefit the greatest goal for genetically modifying arginine is to spread the culture of palm agriculture and the habit of feeding on dates. Thus, it is possible to provide healthy, balanced, and integrated food for all people, so that there will be no famines after starting to intensify palm agriculture in developing and poor countries. This must be preceded by presenting the global climate map of dates agriculture so that each country can be known. Among the people of the South there are types that are suitable for it, such as the map he made of Egypt with the efforts of scientific figures from Egypt and the Emirates. Palm agriculture is suitable in arid lands and lands of water scarcity, instead of leaving it to desertification, but despite the abundance of research on palm trees in Egypt and abroad, we did not find any serious response in poor and developing countries to intensify palm agriculture with the exception of Egypt. Three years later, it began a large, giant project. With one hundred million palm trees, even though Egypt is first in the world, this was done under the directives of the President of the Republic, and I believe that all developing and poor countries need to implement such a

bold project. Then, in the same research papers, I presented an incentive for both the producer and the consumer to make dates the number one food in the world. I found this incentive by chance that I found one of the athletes taking a capsule that he said was a stimulant arginine, and immediately an element jumped to my mind - the amino acid arginine found in dates, since we take it as a nutritional supplement. It is best to take it from its natural source by raising the percentage of arginine in dates using modern genetically modified methods and tissue culture, which are usually used to raise certain percentages that improve the taste by increasing sweetness and resistance to pests. It is also possible to raise the percentage of arginine acid in dates, and this part I included in a research specializing in combating drugs and chemicals. Stimulant: This natural stimulant created in dates will limit the use and smuggling of stimulant grains, and most importantly, it will entice the producer for the profits he will make, and the consumer will accept it, thus reducing the consumption of wheat, rice, and stimulant grains that destroy health.

Until the Egyptian scientist, Dr. Abdel Rahim Al-Najjar, a full-time professor of genetics at the Faculty of Agriculture in the Suez Canal, came to us in October 2017. Through his research and business, he succeeded in producing the salty smart with a new strain under the name (Ismailia 1), which is the special name for the strain that can withstand salinity and drought in temporary success. .

I communicated with him and he welcomed the idea and allocated it to Dr. Muhammad Hassan Mubarak. He accompanies me on this plane at the Other Agricultural Center for Agriculture, and with a team of young people from the Agriculture institute, we started the project that it is indeed worth importing some materials from the advanced country, especially India, but at present it begins in Al-Arish seriously. The assistance and advice of Dr. Muhammad Awad participated in the consultation and Dr. Mona Muhammad Hassan, Undersecretary of the Central Laboratory for Research and Development of Date Palms.

Here is an overview of arginine:

- ✓ It is classified as one of the semi-essential amino acids rich in nitrogen, which the body cannot synthesize.
- ✓ As the body needs it to produce nitric oxide by breaking down arginine by the enzyme Citrulline.
- ✓ Research has proven that arginine increases the secretion of growth hormone and insulin and reduces cholesterol levels when they are high.
- ✓ Helps the body burn fat.
- ✓ It is used to treat blood pressure and heart disease because it expands blood vessels.
- ✓ I nominate arginine for use as a substitute for chemical stimulants after raising its percentage in dates.

** Recommendation:

We invite all delegates participating in the COP28 conference to pay attention to the applications of the last part of date researches, which is the production of high-arginine dates, in order to get rid of a large part of the chemical and industrial stimulants that destroy youth and nations.

(3-3) Variables and developments that impose the inevitability of expanding palm cultivation

Steroids are an attractive incentive sought by individuals in all countries, especially poor and developing countries, and now stimulants will be an incentive for the production of stimulant food (arginine-amended dates).

Many developments have emerged that have made palm cultivation a mandatory option because there is no alternative to it as an ideal option to compensate for the environmental losses of agriculture due to climate changes. Date palm cultivation is the economic compensation for the individual and the state for lands with poor water resources that emerged from traditional cultivation, to the fact that date palm is the best crop for the lands which began to suffer from water scarcity, as well as the lands located on the outskirts of the cardoons of agricultural centers, which have weak water reaching them.

The benefits of date palms require encyclopedias, including nutritional, economic, health, and educational. Yes, I say educational, because proper nutrition for the students is part of the elements of the educational process for academic achievements.

There was a dry meal of dates and peanuts served in Egyptian schools until the beginning of the sixties. As for the health aspect, the poor and developing countries that are always unable to provide treatments and medicine for their people, the easiest way is to put the medicine for these people within their food, which is dates, because it is the best way for prevention and treatment from diseases, in accordance with the saying (Put your medicine in your food). Economically, it has been proven that an acre planted with medium-quality date palms gives a net income twelve to fourteen times that of traditional crops such as cotton and rice.

Dates fill a large gap in the shortage of food in poor and developing countries and they does not require many working days, and palm cultivation contributes to alleviating unemployment because the fruiting palm currently consumes a work period that takes from four to five days in agricultural services, harvesting and marketing, and it can also rise to ten working days if it is introduced into the mechanized industry.

I would like to clarify that my goal is not the subject of a date palm trees or a general stimulant, but it is my tools to reach a specific, nominal goal (**providing food**) and filling the shortage in all countries of the world, especially Egypt. Governments alone, with their efforts, are not enough, and individuals who are scientifically and financially capable must participate, for each is abundant from God's grace upon it. It contributes under the banner of the sister UAE, which is sufficient to revive the Khalifa International Award for Date Palm and Agricultural Innovation and encourage innovation in mangroves and date palms, in addition to cash financing.

The most important thing is to prove the seriousness of the issue by making the global map for date palm cultivation, which Egypt and the Emirates had previously worked on for the Egyptian map, which was

done under the supervision of Professor Dr. Abdel Wahab Zayed, Secretary General of the Khalifa International Award for Date Palm and Agricultural Innovation, and Professor Abdel Hamid Al-Demerdash, Chairman of the Council. Export of agricultural crops, written by Professor Dr. Sherif Fathi Al-Sharbasi, former director of the Central Laboratory for Research and Development of Date Palms, Professor Dr. Reda Mohamed Rizk, Professor of Plant Ecology, National Gene Bank, Agricultural Research Center at the Ministry of Agriculture in Egypt, and expert in plant genetic resources and biodiversity, and Professor Dr. Mohamed Ahmed Al-Amin is a research professor in the Agricultural Applications Department at the National Authority for Remote Sensing and Space Sciences and a remote sensing expert at the Arab Organization for Agricultural Development, League of Arab States.

The final say on the seriousness of spreading dates in countries of the world to provide food is because replacing a portion of the food stuff filled with dates will, in return, save a portion of the consumption of wheat, rice, and corn. Without a global climate map for dates similar to the map prepared for Egypt with the scientific figures mentioned above, it is difficult to succeed and spread the cultivation of date palms because each climate and temperature has a specific type of date palm that is difficult to determine without the cooperation of experts from the UAE and Egypt. This means that the world's food sufficiency and the elimination of famines are in the hands of Egypt, the UAE, the FAO, as well as the scientific bodies that prepared the Egyptian climate map for dates.

We know that the topic is difficult and expensive, but it is possible.

*** Climatic map of date cultivation in Egypt**

The aim of the climate map of the most important date palms grown in Egypt is to provide recommendations and guidance plans that how to withstand the effects of climate changes at the local and global levels, as well as to expand the cultivation of suitable varieties of date palms in climatically appropriate areas with the aim of obtaining a high-quality products.

This is done by matching the temperature and humidity with the cultivated date palms, for example:

Region	Recommended Types
West Minya	Siwa – Amri – Al Majdool – Bargi – Al Salmai.
Farafra Oasis	Siwa – Bargi.
Siwa Oasis and Qattara Depression	Amhat - Siwa– Al Majdool – Bargi – Al Salmai – Zaglol – Samani.
Wadi Natrun	Bargi – Bent Aisha – Zaglol – Samani.

(3-4) Stevia

In advance, I think that the project to grow this plant in large quantities will not see the light because it will affect countries and many economic entities with a sharp decline, the first of which is the sugar-exporting countries and pharmaceutical companies specializing in diabetes and stress treatments, which at the very least will lose 70 to 80% of their production.

As for sugar-producing countries, the demand will decrease and the price will decrease, and will search for cultivation of other crops beside sugar. And whoever does not believe, let him try. The plant is present in the market and its research and doctoral thesis on it from more than one researcher are present in universities and the refined production is in the form of a powder similar to sugar found in the market and natural leaves, also available to perfumers.

As for those who tried to grow it for the first time, including us, the Ministry of Agriculture stated that it does not have seeds and that it sells seedlings only, and this is difficult in large areas and uneconomical. And those who went to import seeds, including me and Dr. Mohamed Hassan

Mubarak, the professor of stevia, the seeds arrived to us invalid and did not produce anything to mention. We still keep the greenhouses and farming tools for remembrance, and the statistics mention that Egypt cultivates 5 thousand acres of stevia.

This plant has fantastic features. A kilo of leaves is equivalent to 140 kilograms of sugar, and others estimated it at 250 kilograms. If a kilogram equals one kilogram of sugar, it must be cultivated, because it treats diabetes and does not deprive the patient of tasting sweets. Surprisingly, it is a treatment for diabetes itself, which is a strange coincidence about sugar that treats diabetes. Sugar, which is the disease of the age, is a divine gift. We scientists are remiss not to spread it, and perhaps many of us do not know that there is even a product called stevia. I did not know it until I joined the owner of a doctorate in stevia during the research of arganine dates, Dr. Muhammad Hassan Mubarak Al-Sharqawi.

After the propagation - of the cultivation and consumption of this plant, whether in its natural form, and the best after refining it as white powder like sugar, within a few decades, something called diabetes will disappear, as well as pressure and relieve the symptoms of heart disease. This is proven in all scientific theses and periodicals, as it will provide large areas of agricultural land grown with sugar cane or beets for other crops that help in providing food.

We hope that the countries that have announced their intention to plant fruitful trees in cities and governorates and in the available spaces will not neglect this matter due to its economic, psychological and health benefits.

(4-1)Drugs, Poverty and Climate Changes

this research can eliminate drugs addiction, which is the direct cause of poverty in developing countries and their inability to confront climate change, and if COP28 conference and this book don't do nothing but also eliminate drugs, that will be enough.

We have to announce "Drugs are massive destructions", They lead to poverty, bad climate, social consequences, and the loss of nations' wealth, not only in hard currencies, but also what is more important and precious that is the youth nations. The latter is a statement that stands for His Highness "Sheikh Mohammed bin Rashid Al-Maktoum" who is very hostile to drugs and we count on His Highness to support our research. We place our hopes on him, after God, to eradicate drugs in the world without return and we believe that His Highness is capable of activating this research around the world.

Drug corruption is comprehensive, widespread, and shameful, because drugs do not spread without authority, starting with some high officials South America and down to low levels in popular neighborhoods. Abuse and addiction are widespread in poor countries and they have a bad impact on the economic level, especially countries that consume and do not produce drugs, such as Egypt, because it is imported within hard currency.

Countries are making a lot of efforts to combat addiction and its importing, as it has been known, the rate of those arrested does not exceed 10% of those working in the drug market. The rate became 15% after the weakness of the fight and the discovery of a hotbed of corruption in shipping ports in 2015.

As for its impact on the climate in poor countries, bringing drugs to developing and poor countries, which are paid for in hard currencies, limits the ability of it to spend on combating climate change with clean and modern energy, especially since most of these countries have established green projects with taking a lot of debt and will not expand in clean energy, except within the limits of its available capabilities.

For your information, if any country spent what addicts spent over a century, it would be enough to make the cash reserve four trillion, at 40 billion annually. If we add to it spending on diseases caused by drugs and smoking, it would reach twice this amount, not to mention the loss is incalculable and affects countries economically, which is our lost youth wealth due to addiction or drug abuse.

(4-2)Drug eradication research

The summary of this innovation, which we will present, is that it is done voluntarily by the new generation and subsequent generations, and it will stop the demand for drugs, as long as the demand stops, production will stop. This transformation will take place peacefully and gradually, without harming anyone, especially the producers.

It is similar to our innovation of gradually replacing clean energy instead of energy produced with carbon and a replacement that does not harm without fossil producers in it.

**** Innovative research**

It began more than ten years ago, but the intensification of research began after the 2015 Paris conference, and in view of what we found that spending on drugs in poor countries exceeds what is spent on combating climate change and contradicts logic and the intense need for the activity of the youth of these countries, which is wasted in abuse and addiction.

The beginning of the search We have made several observations that anyone can verify on the ground, which are that there are people who are addicted and others who are not addicted, as well as there are people who are smokers and others who are non-smokers, but what is observed and confirmed by a large percentage is that there is no drug addict who is not a smoker, and the non-smokers I have met are counted on the fingers among tens of thousands whom we met, but the basis on which the research was based is that there are smokers who are not users or drug addicts, unlike other smokers who are addicted to drug use, and they are the ones the research focused on.

The research has addressed many different aspects of smokers who are abusers or addicts, as well as those who were in correctional facilities (prisons) due to drug abuse crimes, especially murders of a parent which are rare. We found from the research forms that 87% of smokers, including those who committed drug crimes, because of addiction, which is harassment and assault. Theft, bribery, murder, and the killing of a parent are due to the mental and nervous absence of the addict. This percentage all started smoking at an early ages from 12 to 17 years. Smoking leads them to abuse and addiction, although some of them became addicted to drugs after the age of twenty or later but they did not stop. They smoked after the age of 17 years, so they are a smoker only without drug abuse or addiction, and there is a percentage of 10% of the previously mentioned segment. After 17 years, they tried smoking, but it did not reach the stage of addiction and they stopped immediately, and there was a percentage of 70% of the same segment who stopped smoking. Smoking is varying between 30 and 45 years old, noting that smokers after the age group of 17 years did not exceed 10 cigarettes daily.

(4-3)Eliminate drug abuse and addiction

If we know the path well towards a life free of drugs, whether from abuse, addiction, or drug production, it is to tighten the grip to prevent and criminalize smoking before the age of 17 only. The weakness in this matter is that the perpetrator is a juvenile (the smoker). I consider him strength because this juvenile has become under guardianship. The society is responsible for monitoring, advising and even forcing him to stop smoking if he starts smoking; because it turns out this juvenile smoker is a little devil's project and a fertile ground for drug abuse or addiction in the future. Most of the prisoners in democratic countries are because of drugs and their negative and destructive effects on youth.

After laboratory documentation of the changes in the structure and nerves of the smoker by knowing reasons for the genetic and biological transformations, Regardless of the differences that laboratory analyzes will reveal, it is sufficient that we guarantee future generations without smoking that are strong in structure, sound mind and health. The

diseases of smoking, drug abuse and sexual impotence had been confirmed at an early age. We place this innovative research, after documenting it in the laboratory, in the hands of His Highness Sheikh Mohammed bin Rashid Al Maktoum, after being convinced of the effectiveness of research in eliminating drugs and production. Egypt was honored to be a member for combating drugs office at the United Nations General Assembly.

"Conclusion"

Confronting drug abuse and addiction is no less important, but more important than confronting climate change and disasters, both of which lead to environmental, health and economic deterioration and death in poor countries.

Laboratory research in this age group (from 12-17 years) will open new horizons for us to express the path of indicators in the structure of youth, behaviors and how to control their modification for the better, whether in education or talent development, every cloud has a silver lining.

(5-1)Finance

Voluntary financing to face the effects of climate changes will not succeed except through documented scientific research, while laying the foundations for its equitable distributions. What happened after 2015 Paris Agreement to provide one hundred billion dollars annually, which was previously approved in 2009 and will be fully paid through the efforts of the UAE after eight years to the most countries damaged. Thousands of people have spoken and written about this issue but no one has come forward with codified solutions based on justice that everyone agrees on, the first of which is determining the amount of responsibility for each country according to the amount of carbon gases or fossil fuels it produces, because in the issue of financing that grants are paying poor countries in which, in their view, payment Without scientific and logical convictions, it is blackmail or begging for the benefit of poor countries.

* Scientifically, fair financing must be based on:

- ✓ **First**: Limiting the amount of **gases** and **carbon** emitted by capitalist activity or economy.
- ✓ **Second**: Limiting the amount of **fossil fuels** issued by countries and international companies, while doubling the compensation in financing for replacement the coal and limiting its use.

Taking into consideration that one hundred billion dollars and its multiples in the circumstances of current and expected climate changes (disasters) are not enough, especially since in the coming years it will be spent on Europe, which will suffer from desertification and drought more severe than the Horn of Africa and Somalia.

In a few years, the reserve of peaks will weaken and then be depleted. Mountains, valleys, and rivers snow year after year. This is not just a word, and any beginner in studying the climate will find that the levels of snow loss during the years 2022 and 2023 increase at a sharp rate, and if they continue, unfortunately, as the amount of

heat and emissions have been produced since the industrial revolution will not be lost at all. Rather, part of it is stored in the ground and the other part is at the bottom of the seas, oceans, and surfaces of bodies of water, and this reserve is called **"stored bombs"** by climate scientists.

A financial budget will be created with harmful emissions numbers, whether by non-capitalists, with the exception of international companies, in addition to fossil fuel producers. This is not duplication.

*** What will these countries or companies pay?**

They will pay whatever the world deserves. Since everyone always offers complete solutions, as happened in reducing Caribbean islands and coastal cities from drowning or increasing the universe's rotating fresh water resources and other climate problems, in the end we will propose a realistic and practical solution allows the use of indispensable fossil fuels on the ground and, at the same time, the creation of innovations and actions that could lead to final replacement of toxic gases and carbon.

More than that, these businesses will not be rich in advanced or expensive technology, and they will not such as green hydrogen, solar and wind energy farms, they will be identified that each ton of fossil fuels from gas or benzene and methane gas from red meat farms that will be compensated.

(5-2)Everyone prefers compensation or financial financing

I agree on this, but that the material compensation in cash should precede the compensation in kind, meaning that we place a quantity of mangrove trees in exchange for burning a ton of fossil fuel (according to the mangrove map that we will prepare with the UAE between latitudes 30th), and also the placement of a quantity of date palms (For poor and developing countries) in exchange for a ton of fossil fuels, according to the global date map that Egypt and the

Emirates will develop, cultivating an area specified in the Great Green Belt in Africa, constructing a number of solar panels, establishing a number of wind energy farms or establishing carbon capture stations in exchange for burning an amount of fuel.

What is important is that there be regulation followed by immediate payment, because reducing carbon means reducing temperature, and most important of all, everything mentioned above reduces temperature even though it is directed to carbon. All mangrove and date palm plantations and the Great Green Belt in Africa are all heat reducers and devourers for carbon.

*** We widely announced the previous proposals are based on scientific foundations:**

I have succeeded in researching the extent of the wealth and reserves of developed countries until they fail to invest and gold is high in the countries that produce the most gas and carbon, despite the fact that most of these countries spent a lot of money in futile wars and the greatest evidence is that wealth advances with the rise in the use of fuel in industry, with the exception of harmful emissions are the country of China. It came very late in the industrial revolution, but now its production is huge and it has the highest emissions after the United States, and we now see the size of everyone and the reserves are only at a level in (China), unlike Africa, South America and the people of the South.

Completely emissions are limited and unnecessary. This is enough, except that we will not open the files of slavery, colonialism and dispossession. Riches, but the skies are open to justice, and all of us in the same boat are suffering from disasters, starting with climate disasters.

So it is wise for the funding to be voluntary. Europe and the North are in a worse situation than the South, the greatest countries and were invented based on discovery, if not because of the West then because of conflicts and herd immunity was restored and the trial of

saturation may have stopped the speed of the emerging beginning. It began with the North and neared to the North.

(5-3)Open skies and diseases

As we mentioned previously, the open skies spread their justice in distributing the effects of climate changes on the planet from its south to north. Africa has overtaken Europe, not only in climate changes in terms of temperature, gases, water scarcity and drought, but also in diseases that were limited to the African continent, and here is this Scientific proof and what was stated by European scientists and researchers, including researcher Stefan Zinta, in a statement to the ANSES agency (We never imagined that this disease could one day reach Europe). The subject he means is epidemic hemorrhage, "the killer of livestock." He attributed the responsibility for transmitting it literally to change climate control by fleas (Agave species). It has also begun to spread in Australia, Asia, and Europe, as it is (the open skies that everyone currently shares in the scourges of climate change without discrimination, even in diseases).

What is new about climate change is that the acceleration in temperatures and climatic disasters in Africa and the South has become less than in the North and Europe because the South has become saturated and expels changes to the North, due to what we discovered, because it has become repetitive and we will call it "the theory of the saturation of the South from climate changes" and we will provide a chapter on it. In it, we explain that the disasters have moved to the north and that it will face a worse fate than the south because it has the problem of water drying up for 2 billion affluent citizens who are not accustomed to austerity and the subsequent instability that no one would ever wish for.

The major industrial countries and the people of the North and Europe have received funding first for them as donors and then for the countries of the South as recipients of grants to mitigate their excess emissions from the elements of the bad climate in order to saturate these countries with heat and carbon where the land and

oceans can no longer accept or absorb because they have reached the point of warming that does not allow absorbing carbon or heat. This is simple talk, but reality supports it. The beginning of reform starts from the south and the open skies answer the equation.

(6-1)Pioneering initiatives and projects in the United Arab Emirates

Our world has become in a competition to create new ways and outlets to shape a reality and a future characterized by sustainable development that allows the optimal use of our natural resources. Therefore, many initiatives and projects for sustainable development have emerged to preserve the rights of the current generation and future generations and put an end to resource depletion, and the efforts of countries and community organizations are integrated. To mobilize ideas and visions and draw up action plans and projects to achieve development that is safe and lasting for all.

* Innovative models from the United Arab Emirates

The UAE's interest in the climate backs half a century. As for COP 28, we will mention the facts and events in order to ward off the suspicion of applauding and praising the hosting country. The innovation that the UAE followed in preparation is innovative and it has its own vision as well as new innovates to face climate changes, and build on the innovations that preceded it.

It is one of the first statements in which the UAE was keen to build on the outcomes of COP 27, which was held in Sharm El-Sheikh, the UAE's follow-up to implement its most important outcomes, which is the COP 27 Conference of the Parties, which was attended by delegations from 190 countries and various international and regional organizations, with the participation of 120 world leaders, and among its most important outcomes:

- ✓ Establishing a compensation fund for countries affected and poor by climate change (it will be activated in COP 28).
- ✓ Stop forest loss and land degradation by 2030.
- ✓ Promoting climate technology in developing countries requires limiting damage to 1.5 degrees.
- ✓ The need to reduce greenhouse gas emissions.
- ✓ Eliminate useless subsidies for fossil fuels.

- ✓ Develop a $3.1 billion plan to protect every person on the planet.
- ✓ Accelerating the clean and just transition to renewable energy and other issues expected to be resolved during the next session in the Emirates.

No one denies the extent of the strong and long-rooted relationship, whether with governments or with people and the United Arab Emirates, which was represented by repeated meetings and consultations at all levels and the exchange of a group of presidential meetings during the climate conference.

Just as Egypt presented to its guests in COP 27 many giant projects for green hydrogen and solar energy, the UAE has spared no effort for decades with the following:

The Abu Dhabi Fund for Development works inside and outside the country, and clean fuel stations outside its borders. It has proven to the world that its approach, which provides practical innovations, is capable of saving humanity, because it has called on all institutions of the world and all sectors, including the private sector, in the whole world, to come forward with their innovations.

The intelligence of the Emirates prompted it to present giant models on the ground capable of stopping the effects of climate changes, so that the twenty countries and the seven major countries can emulate them.

Otherwise, these giant countries will face embarrassment and anger from their people for not imitating their governments with the UAE in reducing heat, carbon, saving water, and reaching the point of carbon neutrality, and the UAE also surpasses them in mangrove research, solar energy and cleaning panels with robots, and cooperates with Egypt in making a map for the Egyptian date palm, which will contribute to eliminating hunger with dates as a filling material after preparing it as a climate map of dates for the countries of the world.

The UAE continues to work around the clock and make efforts towards achieving a carbon-free future. Opening the field of recording innovations to the private sector has prompted us to provide everything we have that would reduce carbon and heat to reach carbon zero before the 2050 date in order to protect humans and, most importantly, save islands and coastal cities from drowning.

The goal of the UAE is to be the first in all aspects of life, and that the one who will rise is the Emirati people first, and the one who will also do it is the Emirati people with their wise leadership. This speech is not for the sake of praising the Emirates, but rather for the sake of answering a question hidden in the souls: “How did the Emirates come to be among the top ten in global competitiveness? And it has including the first place in investment.

The evaluation came from bodies known for their impartiality. The UAE also has the largest solar energy complex in one location in the world, which is the Mohammed bin Rashid Al Maktoum Solar Energy Park in Dubai, in addition to the Shams and Noor projects. Abu Dhabi and Al Dhafra, it is the future vision that began twenty years ago to diversify the national economy. "Masdar" is considered one of the first global companies in the field of renewable energy, and all of this is preceded by good education.

Some inventions of the United Arab Emirates Close to prestigious directions of advanced technology such as Airport Research Department, General Authority of Meteorology, Dates Advanced Research Department and Green Hydrogen.

The method of invitations was difficult for any country to undertake. No invitations were sent, but rather personal interviews from Their Highnesses and Excellences.

What is beautiful, and I will not forget it, is that the invitations to travel to the Comoros began in the beginning and did not begin with one of the 20 countries or the Big Seven.

I think those who do not know that it is for handing out invitations, but what the UAE has achieved in 2023, the year of sustainability and COP 28, needs years to achieve and should be studied and became a protocol for upcoming conferences and how to manage global research.

The UAE, from our observations and follow-up of the meetings of officials with world presidents, is that none of these personal meetings were devoid of climate, economic agreements, projects, the consolidation of diplomatic relations with all countries of the world, discussed establishing peace, reducing global tensions or ending a controversial climate agenda. All these efforts were done under the hosting for cop 28 and a long time before.

Therefore, the presence of the UAE in the top ten and global competitiveness is due to the smart management. I hope the countries of the world which will take over the post-COP28 administration learn from the UAE and collect billions instead of spending millions?

We previously mentioned that the UAE has invested more than $50 billion in renewable energy projects in 70 countries, and is determined to repeat the investment with about another $50 billion over the next decade.

It is known that the UAE promotes and supports developing countries in the use of renewable energy and the world states that the initiative to achieve climate neutrality is a precedent and this is not new for it in helping developing countries and building clean energy.

The Abu Dhabi Future Energy Company (Masdar) is the best witness to the state's spending of more than $30 billion to support sustainability goals and clean energy projects.

Abu Dhabi has established its global position as a smart and sustainable city and in 2017 it launched the first unified energy strategy, the goal of which is "to triple the contribution of renewable energy by 2030." The UAE also supports the "Global Cooling Pledge for the rapid transition to energy-efficient and environmentally friendly cooling systems".

**** The UAE launches a global mangrove initiative**

This mentioned in Al-Ittihad newspaper through 21-9 edition during Climatic Week in New York, entitled "**The mangrove tree is a treasure of the Emirates**".

The UAE launched the Mangrove Development Initiative and announced the holding of a high-level ministerial meeting about mangroves during the COP28 Conference of the Parties, which will bring together mangrove host governments, various partners, civil society organizations, philanthropic institutions and financial institutions, as well as the global community to expand the scope of mangrove development. The aim is accelerating the process of restoring them to nature again and preserving their ecosystems. This came through the participation of His Excellency/ Maryam bint Mohammed Al Muhairi, Minister of Climate Change and Environment, in Climatic Week in the United States of America.

The Mangrove Development Initiative, which is a collaborative effort between the Global Mangrove Alliance, aims to reach a global level by 2030, as the world today has 14 million hectares of remaining mangroves, half of its original area.

The main objectives of the initiative are to stop the losses, restore half of the currently lost numbers of these trees, and double their protection at the global level, in addition to calling for an investment of 4 billion US dollars by 2030 to preserve and expand mangrove ecosystems.

We have previously devoted a section in our book recorded in COP 27 about the mangrove tree by Al Farida Company, in this regard, has researches and activities on the ground regarding the mangrove tree.

The research is still in laboratories, the results of which are under documentation, and it is extremely important (cultivation of mangroves outside the two lines of latitude30) for the first time by genetic modification so that the tree can withstand the different climate.

This will allow the “treasure tree” to be multiplied many times with the addition of new areas, so the mangrove will cover most of the world and become an essential pillar of marine biological life and it will reduce the amount of carbon and heat on the planet.

(6-2) Sustainability initiatives in the United Arab Emirates

There are many federal and local strategies within the United Arab Emirates that set clear goals for the future of the country in order to shape its future to be more sustainable. Sustainability initiatives in the United Arab Emirates include UAE Vision 2023, UAE Centennial 2071, and UAE Energy Strategy 2050. , which sets 50 clean energy goals in the country, as well as the UAE’s sustainable development goals that serve as a guideline for most upcoming projects.

In addition to the above, the state has made many efforts to create a sustainable environment to ensure the success of development towards a fully sustainable city, the most notable of which is the establishment of 46 stations to monitor air quality, the establishment of 33 desalination plants to provide water needs and also the complete elimination of the consumption of chlorofluorocarbons by the year 2040 and others a lot.

On the other hand, there are two main systems in Abu Dhabi and Dubai that work to unify construction projects to enhance sustainability in the Emirates, especially in the real estate sector, and we explain them below:

(6-2-1) Abu Dhabi: Sustainability Law and Pearling System

"Estidama" company was established in Abu Dhabi in 2009 and became one of the first organic sustainability frameworks in the Middle East, implementing a “pearl” rating system for all new developments to ensure that the project is set up by a sustainable manner.

New developments in Abu Dhabi are subject to a development review process, so that the applicant must present a “**sustainability**” vision for the project once planning permission is granted. The development must also comply with the standards of the Pearl Rating System, which

include rationalizing water, electricity consumption and even reducing the amount of waste depending on the type of property as a building, villa or residential compound.

The Abu Dhabi Government requires that all government buildings have a minimum pearl rating, while new buildings must meet a minimum unified pearl rating.

(6-2-2) Dubai: Green Building Law or Al Safaat

"Al Safat" in Dubai is the latest initiative to lead sustainable development in the United Arab Emirates, as the Dubai Municipality's "Green Building Specifications" became mandatory for new government buildings in 2010, and these standards have also become mandatory for developers of all new buildings. These regulations focus primarily on ensuring the way buildings are constructed, how they function after they are built and following these standards stems from sustainability considerations such as the use of solar reflective materials, the inclusion of "green" elements such as indigenous species of plants or "green" walls. As environmentally friendly architectural elements, which is reflected in improved performance and rationalization of energy consumption, increasing the efficiency of electrical and mechanical systems and thus reducing carbon emissions.

(6-3) Sustainable projects in the United Arab Emirates

(6-3-1) Masdar City - Abu Dhabi

Masdar City, which began in 2006, is one of the most prominent sustainable urban projects in the Middle East. It is considered one of the pioneering companies in sustainability practices, as it uses technology and solar energy to help reduce energy and water consumption to preserve the environment. The development also includes educational, recreational and residential spaces. The retail, manufacturing and office spaces powered by renewable energy as well as the way they are constructed using 100% recycled aluminum and steel.

For example, in homes, water consumption is ensured using high-efficiency appliances, low-flow flush units, water tariffs, as well as smart water meters and even treated wastewater which is later recycled to irrigate plants.

Masdar city is home to the headquarters of the international renewable energy agency. The intergovernmental organization that supports countries in their transition to a sustainable energy future, along with the Masdar Institute of Science and Technology, which aims to promote sustainability in the UAE.

(6-3-2) The Sustainable City - Dubai

According to Dubai government's plan, which aims to make it a smart and sustainable city, with a cost 1.1 billion dirhams to develop and is located in Dubai land. It is the first step of this plan in Emirates. This city is established in 2015 and extended over an area of more than 5 million square feet, this eco-friendly project focused on social, economic and environmental sustainability with covering all aspects of energy conservation and providing a healthy lifestyle for its residents.

If you want to live in the Sustainable City in Dubai, you should know that the homes include many architectural and technical innovations to ensure energy conservation, without compromising on luxury, such as solar panels on the roof, architecture inspired by nature, lots of green spaces, and vacant areas.

Cars and energy-efficient appliances in residential and commercial units are a few examples of how a sustainable city works to be friendly environment. There are also natural “biological” greenhouses, organic farms and individual gardens for local food production.

(6-3-3) Mohammed bin Rashid Solar Park

Mohammed bin Rashid Al Maktoum Solar Park, supervised by the Dubai Electricity and Water Authority (DEWA), the largest single-site solar park in the world based on the independent energy producer

model, and is one of the most ambitious sustainability projects in the United Arab Emirates.

The park aims to develop projects worth 50 billion dirhams in order to increase sustainability in the United Arab Emirates. The station uses more than 152 thousand photovoltaic panels connected to about 13 transformers in reflective buildings that convert the voltage to 33 kilovolts, and produces about 28 million kilowatt-hours of electricity. Annually, it also contributes to reducing more than 15 thousand tons of carbon emissions annually.

(6-3-4)) Sharjah Sustainable City

We continue with the first sustainable residential complex in Sharjah, which was designed according to the highest standards of social, environmental and economic sustainability, as it relies entirely on zero-emission energy sources in addition to fully treating wastewater to irrigate green spaces and works to recycle the largest possible amount of waste.

Waste to avoid adding more to landfills, not to mention the production of vegetables completely free of chemicals, which encouraged residents to walk and use clean means of transportation, and on the other hand, it became ready to receive electric cars, for an inspiring and brighter future.

(6-3-5) Green construction in Ajman

Since the beginning of June 2018, the Department of Municipality and Planning in Ajman has launched green building requirements for its buildings to be among the sustainable cities, in order to preserve the environment. In addition, it is keen to strengthen exemplary relations with the sustainable city of Dubai, so that the experience in Ajman is bright and contributes tremendously to build a green economy throughout the Emirates.

(6-3-6) The typical villa in Ras Al Khaimah

Emphasizing the importance of sustainability in the Emirates, the Municipality of Ras Al Khaimah cooperated with the Abu Dhabi Future Energy Company, “Masdar”, in order to launch the model villa initiative, which aims to enhance energy efficiency and build more sustainable housing Emirates, in particular saving energy by 30% and saving water by 30% and generate 20% of energy from renewable energy sources by 2040.

(6-4)The pioneering role of the United Arab Emirates in spreading sustainable development

With these developments and the many sustainability initiatives in the UAE that have been implemented, the fast-growing country is moving steadily in the right direction to ensure that growth does not come at a cost to the environment and that the UAE continues to pave the way for a more sustainable future.

While the UAE is doing its bit to conserve the environment, individuals can also do so by converting homes to solar energy or taking steps to make the home eco-friendly.

The UAE’s initiatives to protect the environment and preserve biodiversity locally and globally have contributed to strengthen its position on indicators for achieving global sustainable development goals, as the UAE seeks to achieve environmental sustainability within a legislative and regulatory framework and the country has adopted many initiatives related to achieving sustainable development goals.

The UAE Foreign Aid Initiative provides assistance to communities around the world with the aim of continuously creating effective partnerships. The UAE's aid always aims to eradicate poverty by enhancing security and stability at the international level, and ensuring improved living standards for all individuals.

The country launched the Air Quality Index initiative, in line with "the 11th Sustainable Development Goal", which specializes in creating sustainable cities and communities.

The UAE also launched the Sustainable Wildlife Initiative in the country, in line with Goal No. 14 of the Sustainable Development Goals, related to life under water, and Goal 15, related to life on land, and aims to ensure sustainable wildlife in the country, in addition to raising awareness about the importance of preserving biodiversity. .

While the national project for the list of threatened species “Red List” relies on the Red List methodology of the International Union for Conservation of Nature (IUCN) to identify and evaluate birds, mammals, amphibians, reptiles, and a number of marine animals (sharks and coral reefs).

The initiative to rehabilitate coastal and marine life areas is in line with Goal No. 14 of the Sustainable Development Goals regarding life under water, and Goal 15 to support life on land. The Ministry of Resources’ strategy framework for climate change and environment included creating a sustainable natural ecosystem, preserving marine life, rehabilitating coastal areas and restoring coral reefs.

The initiative to improve environmental performance reflects the commitment to Goal 11 of the Sustainable Development Goals towards creating sustainable cities and communities, as the state launched this initiative to create an integrated central system that works to improve the state’s environmental performance and enhance it to improve the global competitiveness index, in line with the UAE Centennial 2071, through Creating a diversified economy that contributes to sustainable development based on innovation and research.

In line with the 11th goal of creating sustainable cities and communities, the 12th goal of responsible consumption and production, the UAE launched the integrated waste management initiative. The country has worked diligently towards reducing the number of waste landfills so it aims to treat 75% of local solid waste.

The initiative also contributed to issuing the federal law for integrated waste management, launching the national waste management database, in addition to opening "Managim project" waste collection centers in neighborhoods and residential areas.

(6-5) Climatic research

"The Emirates Network for Climate Change Research" brings together a group of climatic scientists and researchers to facilitate the dissemination of knowledge and promote the development of research cooperation. Network members are selected from various government agencies, universities and research centers.

Climatic research is considered extremely important for understanding short-term and long-term changes in temperatures and levels of climate change such as sea surface, precipitation, air quality, extreme weather events and etc.

The UAE University is keen to promote the concept of sustainability in all sectors, by establishing an integrated infrastructure to achieve a balance between economic and social development while ensuring environmental sustainability, noting that the university's research office has established the Sustainable Development Goals (SDGs) research program, which aims to increase awareness of the goals of Sustainable development of the United Nations among university students and society. The program also aims to find comprehensive and sustainable solutions to the world's problems and challenges, as it attempts to improve students' research capabilities so that they become active members of their society.

The university has strengthened its participation and interaction with society through initiatives to create research projects concerned with the 17 sustainable development goals, as the university is funding 104 research projects with the participation of 468 male and female students from various colleges to develop scientific solutions to issues related to the development goals.

The Sharjah Research, Technology and Innovation academy confirmed its work to promote environmental innovations and clean technology by coordinating and harmonizing its activities with the goals of the COP28 climate conference and providing a supportive environment for innovative start-ups with a seeking to achieve positive change, contribute to efforts of facing climate changes and achieve sustainable development at the global level.

The academy participates in major projects aimed at reducing environmental impacts, developing natural networks, hydrogen-related projects include cooperation with Sharjah university of Sharjah in the field of green food energy, in addition to supporting solar-powered vehicles and other clean energy projects through cooperation with global partners.

The academy revealed its promotion of environmental friendly designs to represent the main face of innovation, including the new “Usky” project for suspended trains, which represents the generation of modern intelligence technologies that has reached advanced stages of integration, testing and aims to provide a good means of transportation for infrastructure.

There are projects in high-tech green energy generation, additive manufacturing (3D printing), virtual reality project and emerging evidence of innovative technologies.

(7-1)Egypt, Africa and Climate Change

The Egyptian Government has prioritized projects to combat climate change, with targeted programs costing an estimated $202.5 billion over 28 years, which include "mitigation", or "adaptation", of projected adverse impacts of climate change.

Sources from the working groups of the National Council for Climate Change, which includes officials and technical experts from Egyptian government agencies, said that the first package of programs and projects proposed for financing to address climate change, includes projects related to "green hydrogen" and "electric transport", programs for what is known as "carbon capture and storage", the production of climate-friendly crops, the protection of beaches, and desalination of sea water as a first priority.

Egyptian President Abdel Fattah El-Sisi has directed the strengthening of national efforts to increase reliance on new and renewable energy, including the integration of green hydrogen projects into the Egyptian energy mix, and the state's cooperation with the private sector in this area.

The sources indicated that the Egyptian Government had agreed to set a "target" for each project, and an estimated value for its targeted funding, within the framework of institutional planning for the implementation of such plans on the ground.

The total cost required for mitigation and adaptation programs and projects, according to sources, amounts to $324 billion, according to official studies, including $211 billion for "mitigation" and $113 billion for "adaptation".

(7-1-1) Beach Protection

The first targeted projects in the "First Package of Programmes and Projects Proposed for Financing" start with beach protection projects, and the duration of their implementation until 2027 has been estimated as a priority at a cost of $12 billion with a length of 3500 kilometres.

The Egyptian state is working on an "integrated plan" to protect Egyptian beaches from the repercussions of climate change and protect them from drowning and incursion into water, which the sources linked to the projects being implemented and targeted to be implemented to protect the beaches at a cost of $ 12 billion, and the sources clarify, that the state will implement all projects simultaneously whenever possible, and according to the available funding.

(7-1-2) Electric Transport

Among the second projects to be completed shortly, according to the sources, is the "Electric Transport" programme, which is intended to end in 2028 at an estimated cost of $45 billion, including $20 billion expected to be received by Egypt in the form of financing.

The third project targeted for completion is the New and Renewable Energy Programme, including green hydrogen, and energy control systems, at an estimated cost of $122 billion, which is set to expire in 2035, with the Egyptian state requiring funding of an estimated 109.5 billion pounds.

(7-1-3) Desalination of seawater

The Egyptian State aims to finalize two other projects by 2050, namely, crop development, the production of genetic structures and climate-harmonious varieties for 200 plant species, with a target implementation time to 2050 at an estimated cost of $15 billion, and a seawater desalination programme to 2050, also at an estimated cost of $8.5 billion.
The working groups of the National Council for Climate Change have not yet determined the timing or cost of the "carbon capture and storage" programme, but it is one of Egypt's priority projects in climate change mitigation.

(7-1-4) International Studies

The former Undersecretary of the Egyptian Ministry of Environment, Amal Taha, explains that the State has been cooperating with international institutions in the profile of climate change since the

1990s. and completed several studies on the different effects of the phenomenon of climate change on Egypt in various sectors, Starting from studies on flooding of areas in the delta, proposed projects for their protection, The impact on the health, agriculture, energy and other sectors has been pursued by the National Climate Change Council that chaired by Mostafa Madbouly, Prime Minister, for the preparation of projects.

The former Undersecretary of the Egyptian Ministry of Environment, in a special talk to Sky News Arabic, asserts that Sisi, one of the most interested Presidents of the Republic in the file of climate change, thus the political will that Egypt has lacked for many years to confront that phenomenon and its changes, is now present.

(7-1-5) Active role

Amal Tasha's hopes point out that Egypt is not one of the countries causing the phenomenon of climate change, as it contributes less than 1% of the greenhouse gases leading to the phenomenon of climate change, but it is one of the actors in confronting the phenomenon globally, in coordination with Arab and African countries.

(7-1-6) Pathology Map

Amal Taha affirms that the projects targeted by the "Egyptian package" aim to confront the negative effects of the phenomenon, and mitigate them as much as possible, calling for the inclusion of projects in the "health map" in the priority projects of the Egyptian state in the face of the phenomenon of climate change, given the results of studies that indicate that the changes may affect the "disease map", which should be prepared in advance.

The Egyptian state is working not only to help itself in the face of climate change, but also to help the countries of the African continent of which Egypt is a part, as Egypt has left a mark in all development fields on the continent, which we monitor in the context of the following:

** Solar Energy

Egypt has recently inaugurated the first phase of the solar power plant at the Egyptian-Tanzanian joint farm, which is one of the successful experiences of joint farms in Africa, which will be the largest solar power plant in Tanzania when completed, which will contribute to doubling the capabilities and productivity of the joint farm and enhancing its efficiency in the development of drip irrigation systems, in order to achieve a great agricultural and food benefit for the citizens of "Zanzibar", with the aim of relying on renewable and clean energy to reduce harmful emissions exported.

** Electrical interconnection

This project is one of the largest projects that Egypt is launching on the African continent, where the Ministry of Electricity launched the electricity supply at the beginning of last year in the first phase of the electricity interconnection line between Egypt and Sudan with a capacity of 50 megawatts, where the cost of the project is approximately $ 56 million, as the project aims to provide African countries with clean electricity, where the Egyptian state is working on a close footing in order to reach the highest quality of the use of renewable energies.

The project to connect the navigational course between Lake Victoria and the Mediterranean Sea includes the establishment of development corridors that include river streams in the Nile River and Lake Victoria, railways, land routes, Internet networks, logistics centers and commercial and tourism development between the Nile Basin countries, with the aim of achieving the vision of the project «One continent - one river - a shared future», where the cost of implementing the project in full is estimated at $ 18 billion, and the main goal of the connection is to solve the problem of water scarcity, and to face the threat of climate change on water.

** Cairo-Cape Town Project

The Cairo-Cape Town road is the longest project to connect North African countries to the south, as this project connects Egypt to South Africa, with a length of 11,000 km, and passes through 9 countries from the north of the continent, and enables investors to transport their goods to any of the countries that the road passes through in a period of no more than 4 days, unlike the sea, which takes months, where Egypt began to implement the first phase of the project within its borders, and Egypt depends on lighting this road through panels Solar.

** Land Connection Project "Railway"

The project of connecting the Egyptian railway to Sudan comes as an idea demanded by President Abdel Fattah al-Sisi with the aim of serving the areas of transport of goods from the port of Alexandria to Sudan via Aswan depending on the railway axis, to ensure the arrival of Egyptian products, goods and meat to Sudan and Africa and vice versa, especially after the success of the land link with Sudan through the ports of Qastal and Arqin land, which were opened in 2014.

** Flood Risk Prevention Project

The Ministry of Water Resources and Irrigation carried out approximately 90% of the total work under the flood risk prevention project in western Uganda's Kasese province, which included surveying work to determine the necessary paths for drilling and carrying out drilling and clearing of the riverbed path and fragmenting and removing large rocks away from the riverbed path, In addition to the Geonate Protection work for accidental sectors on the riverbed, all drilling and clearance work along the Nyamumba River was completed in full according to the approved accidental sectors and initially received and delivered to the Ugandan side for operation and maintenance.
Protection work has also been completed for the site of the Katiri School and Church, Madara, Rod Barrier and Clembe Hospital and is currently in the process of drilling for the construction of the gabions at the site of

the Plumbia Primary School, the last site of the operation and expected to be completed in February 2018.
The project is an urgent response to the request of the Ugandan Ministry of Water and Environment for urgent assistance in mitigating the negative effects of flooding in the Kasisi region of western Uganda, which in the past twenty years has been hit by waves of massive flooding that have wiped out the green and dry in most areas of Ksese County.

** The project of drilling underground wells in the Nile Basin countries:

The Ministry of Irrigation announced the implementation of a project to drill and equip underground wells in the various areas of the State of Uganda, within the framework of Cairo's keenness to develop its brothers from the Nile Basin countries and their wave of water scarcity, as this project comes within the framework of the memorandum of understanding signed between the Egyptian and Ugandan Ministries of Irrigation on January 12, 2010 with a sum of $ 4.5 million to implement development projects that include the construction of a number of dams to harvest rainwater, the drilling of wells for drinking water and the training of Ugandan technical cadres.

** Establishment of a tripartite investment fund between Egypt, Ethiopia, and Sudan

Egypt has agreed with Ethiopia and Sudan to launch an investment fund aimed at financing infrastructure projects to achieve the common interests of the three countries (Egypt, Sudan and Ethiopia), especially in the field of health, education, and technical and engineering expertise possessed by Cairo in the field of security, water and health.

** Stigler Dam

In December 2018, Dr. Mostafa Madbouly, Prime Minister, participated in laying the foundation stone for the construction of the Stigler George dam in Tanzania, at the invitation of Tanzanian President John Magufuli,

in recognition of the historical relations between the two countries and the significant role played by President Sisi in promoting cooperation between the two countries.

The Stigler George Dam is located on the 600-kilometer-long Rufengi River, and the Arab Contractors Company is carrying out the construction work of the "Stigler George" Dam after winning the tender for the project, the "Stigler George" Dam will contribute to the generation of electricity with a capacity of up to 2100 MW, a height of up to 134 meters, along with 4 other dams complementary to increase the generation of new electricity generated from water.

"The Stigler George" dam will not negatively affect neighbouring States' share because it is situated on an inland river, and construction of a dam is expected to be completed "Stigler George" by 2021, the storage capacity of the dam after its completion will be 34 billion cubic meters, the cost of its construction is up to $3.6 billion, and the Government of Tanzania will fund it, a Swedish company that is a shareholder in the implementation of the Stigler George dam, its role includes electricity generation in coordination with Arab contractors.

President Sisi had a major role in Egypt's acquisition of the right to implement the dam, which prompted the Tanzanian president to demand that Sisi personally follow the steps of its construction, the Tanzanian government has been studying the project of building the dam since the sixties, and indeed a Brazilian company in 2011 was going to take over its implementation but negotiations failed, the dam helps Tanzania to get out of the bottleneck and end the state of deficit of electricity generation.

** Unity Bridge in Tanzania

Eng./ Amer Abou El-Kheir, Commercial Counsellor of the Embassy of Tanzania in Cairo, stressed that based on the directives of the Egyptian political leadership to move towards Africa and through the good relations between President Sisi and his Tanzanian brother John Pompeii Magufuli, he began to think about strengthening this cooperation by implementing a few development projects on Tanzanian soil.

He said that there is a strong Egyptian will to invest in Africa, as this is strongly in the interest of our beloved Egypt, pointing out that with the beginning of the new year 2020, a global press conference will be held to announce the largest project in the African continent, the Unity Bridge, which is the second largest project in Tanzania with Egyptian hands, ideas and design in Dar es Salaam and in the presence of political leaders and those interested in investing in the Tanzanian land allocated to this project.

** Julius Nyerere Dam and Station in Tanzania:

The Julius Nyerere hydroelectric dam, which is implemented by the Egyptian alliance of Arab Contractors and Elsewedy Electric on the Rufiji River in Tanzania and enjoys continuous follow-up by President Abdel Fattah al-Sisi, given the great importance it represents to the brotherly Tanzanian people to achieve development for the people.

Egypt has achieved significant and remarkable implementation rates, where all elements of the project have reached advanced stages of implementation where the main dam body is nearing completion in most of its sectors, and work is currently underway on the concrete structure above the dam body where the main gates of the flood will be installed on top of the dam, and the work in the main intakes of the canals connecting the water to the turbine building is proceeding according to the planned rates where the construction of the main canals inside the mountain has been completed with lengths exceeding 1500 meters and concrete lining works are currently underway For the three main channels.

The main structure of the turbine building, which is one of the most important large units of the project to face the threat of climate change, is being completed, where the civil works of the turbine assembly building (Erection Bay) have been completed and three giant cranes have been installed with a load of up to 400 tons per winch in preparation for receiving the main units of the turbines, and the installation of the supplied parts of the turbines is currently under way, which are being carried out according to the highest quality required.

Work on the electrical installations of the Switch Yard area, the main area connecting the electricity grids produced from the dam and the Tanzanian national grid, is nearing completion, after the construction of these units has been completed in full and operational trials of the feeder motherboards of the network have already begun.
It is worth mentioning that the project includes the construction of a dam with a length of 1025 meters at the summit with a height of 131 meters and the storage capacity of the dam lake reaches 34 billion m3, and also includes a hydroelectric power plant with a capacity of 2115 megawatts, and the plant is located on the side of the Rufiji River in a nature reserve in the area of "Morogoro" southwest of Dar es Salaam (the commercial capital) and the largest city of Tanzania.
The project consists of: the main dam, the hydroelectric power plant and the outlet works, 3 tunnels for the passage of the necessary water to the turbine building, a power interconnection station, 4 sub-dams for the formation of the water reservoir, a permanent concrete bridge on the Rufiji River, the construction of permanent roads to facilitate movement and connect the components of the project, the permanent camp of the customer.

It is worth mentioning that the Egyptian alliance Arab Contractors Company and El Sewedy Electric, the executor of the project, signed in December 2018 in the presence of the former President of the Federal Republic of Tanzania, and Dr. Mostafa Madbouly, the Egyptian Prime Minister, a contract worth $ 2.9 billion, in Dar es Salaam, Tanzania, to implement the project of building a dam, and a hydroelectric power plant with a capacity of 2115 MW, on the Rufiji River, Tanzania, with the aim of generating 6307 thousand MWh per year, sufficient to consume about 17 million Tanzanian households.

The dam also controls flooding to protect the surrounding environment from the dangers of floods and swamps, and to store about 34 billion m3 of water in a newly created lake to ensure the availability of water permanently throughout the year for agriculture, and to preserve the surrounding wildlife in one of the largest forests on the continent of Africa and the world.

(7-2)The role of the African continent in confronting climate change

(7-2-1) Harmful Emission Reduction Projects in South Africa:

In South Africa, the government has embarked on a large-scale environmental experiment to restore vast areas of degraded land by growing a native plant called Spikbom, because it increases water intrusion into the ground, enhancing groundwater supplies and reducing flooding.

The plant also absorbs carbon dioxide faster than most other trees in dry conditions.

Anthony Mills, CEO of AfriCarbon, says new green jobs were created through the restoration, which began in 2008. "We hope that the restoration of spekboom will be a pilot programme of the United Nations Decade for Ecosystem Restoration," he added, adding that the United Nations Decade for Recovery, launched in June this year, is a global call to action to restore the world's ecosystems.

(7-2-2) Climate Change Response Projects in Gambia

In northeaster Gambia, drought, irregular rains and rising temperatures coupled with deforestation have increased desertification and thus increased climate change Nearly 4 % of the country's population left The Gambia and entered Europe via the Mediterranean between 2009 and 2019, the highest rate of any African country.

But now, one of the largest development projects in Gambia's history aims to restore more than 10,000 hectares of land and improve water security.

"He hopes the project will not only support farmers but will also create 25,000 green jobs to help provide local opportunities for young people risking their lives on a perilous journey to Europe," commented The Gambia's environment minister.

(7-2-3)Facing climate change by African peoples

People of African countries are helping with projects to reduce emissions harmful to forestry to counter climate change such as the Seychelles, a country of 115 islands off the east coast of Africa that are vulnerable to sea-level rise, but mangrove forests provide natural sea fences that act as a barrier against floods and storms.

If the mangroves disappear, the Seychelles will disappear, and a member of the island of Seychelles has set up his own volunteer organization to help reforest his country to reduce harmful emissions and we recommend spreading its cultivation around the world.

(7-2-4) Projects by major companies to reduce harmful emissions in Africa

Companies have worked to help and redefine their role for a cleaner world and automakers have embarked on this path as they have improved fuel consumption rates to meet performance standards and developed electrically powered cars with low levels of harmful emissions to meet demand.

*Harmful Emission Reduction Projects in Egypt :

Air quality in Greater Cairo has recently improved; however, ambient air pollution remains the city's most important environmental health problem – a problem that severely affects the quality of life of residents and the Economy.

Recent studies have estimated the annual economic cost of air pollution to health in the Greater Cairo region alone at about 1.4% of Egypt's GDP.

The six-year Greater Cairo Air Pollution and Climate Change Management Project aims to support Egypt's efforts to reduce air pollution and climate pollutant emissions in line with the country's Sustainable Development Strategy: Egypt's Vision 2030.

The project will contribute to Egypt's key environmental goal of halving particulate pollution and towards the development and implementation of a robust and economically feasible climate mitigation programme that would meet Egypt's 2030 emission reduction targets.

To reduce air and climate pollution from critical sectors and increase air pollution resilience in Greater Cairo, the project will focus on reducing vehicle emissions, improving solid waste management and strengthening the air and climate decision-making system.

Dr./ Rania Al-Mashat, Minister of International Cooperation in Egypt, said: "This project supports our green recovery plan to mitigate and adapt simultaneously, and to promote new methods and technologies that help reduce air pollution and reduce climate change." "In this way, we prioritize integrated climate solutions that promote resilience, protect Egyptian health and promote an economically productive society."

Dr./ Jasmine Fouad, Minister of Environment, said, "The risks of air pollution and climate change are endless and can extend for decades." "Through this partnership with the World Bank, we aim to give our children and young people a healthier future, where they can thrive, grow and reach their potential."

Marina, World Bank Country Director for Egypt, Yemen, and Djibouti, said: "Egypt is taking steps to accelerate the transition towards a greener, sustainable, resilient, and inclusive development model."

Egypt demonstrates its commitment to the climate agenda as it finalizes the National Climate Change Strategy to support the 2030 Agenda for Sustainable Development. It is also preparing to host COP27 – the twenty-seventh session of the United Nations Conference of the Parties on Climate Change.

In preparation for the climate conference, the Egyptian presidency is organizing 5 regional preparatory activities.

These activities focus on enabling climate finance and channelling investments to support international efforts in the field of climate change.

- ✓ Adopting a comprehensive approach to achieving sustainable development.
- ✓ Focus on the areas of equitable energy transition and food security.
- ✓ The Role of Green Hydrogen in Reducing Harmful Emissions in Africa
- ✓ The continent of Africa has made strong strides that testify to a bright future for green hydrogen projects in Africa, taking advantage of the potential of renewable resources scattered throughout the continent that awaits investments that support the projection of its best potential.

Egypt, Namibia, Mauritania, Morocco, Algeria, Kenya and South Africa had a significant share of the development of these projects during the first 6 months of this year, raising ambitions that Africa will conclude the year by reshaping the clean fuel map regionally and globally, enabling the expansion of exports, as monitored by the specialized energy platform.

The gradual expansion of green hydrogen projects in the brunette continent has several benefits, most notably the reduction of fossil fuel dependence and the harmful carbon emissions rate, and meeting energy deficit demand.

(7-2-5) Mauritania: Noor Project

The Noor project in Mauritania is a strong supporter of Africa's green hydrogen production and export plans, as it constitutes a huge export deal for the British Chariot Energy Group operating the project in coordination with the Nouakchott government.

Charriott Energy has recently concluded a deal that allows the supply of 600 1,000 tons per year of plant production to the Dutch port of

Rotterdam, depending on electrolysis of up to 10 gigawatts of clean energy.

Across the Dutch port of Rotterdam, the supply of green hydrogen from Noor Station is planned to invade European markets, making the Mauritanian project -- with investments of $3.5 billion -- Africa's largest export gate for green hydrogen.

Project Noor is seen not only as Africa's largest green hydrogen project, but also as it is making strides to become the world's largest by 2030, Energy Capital & Power estimates.

(7-2-6) Suez Canal Projects

In the first half of this year (March, April and May), the Economic Authority of Egypt's Suez Canal signed 6 memorandums of understanding for the production of green hydrogen and ammonia with a total investment of $10 billion, which included 4 projects with international companies and 2 projects with international companies.

The 4 global agreements include collaborative projects with Norwegian Skatek to establish a green ammonia plant with a capacity of 1 million to 3 million tons per year.

This is in addition to a cooperation project between Total Erin of Total Energy of France, the Egyptian Capital Lighting to produce 30 1,000 tons of green hydrogen annually, and 300 thousand tons of green ammonia in the first phase, reaching 1 1/2 million tons per year in the subsequent stages, according to the Economic Authority.

Cooperation with the Danish company Maersk to establish a green fuel plant to supply ships, and an agreement between the French "EDF Reiniobles" and the Egyptian company Zero West to produce 350 thousand tons of green fuel per year to supply ships.

(7-3) UN efforts to sustain climate change

UNEP is at the forefront of efforts to achieve the goals of the Paris Agreement, to keep global temperature rise below 2°C, preferably 1.5°C, compared to pre-industrial levels.

To this end, UNEP has developed a six-sector solution to reduce emissions.

The solution provides a map of how to reduce emissions across sectors to meet the annual reduction of 29-32 gigatons needed to reduce overheating.

The six specific sectors are agriculture, food, forestry, land use, buildings, cities, transportation, energy and cities.

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Personal requirement of (COP28)

Climate in Fayoum governorate

**Introduction

They all crave to Muscat Raseh, and the city in which it is raised, no matter how far or blatantly and always tends to take care of the interest of his country and its people, especially in his field of specialization.

Qarun Lake is one of the monuments of Fayoum Governorate and the largest known of the governorate. During the ancient Egyptian era, its area was about 2800 km2, almost 100 times the current area of about 55 thousand acres at an average depth of 60 metres.

The lake has a capacity of 800 million cubic metres at a level of 45 metres below sea, and at a level of 43.5 metres below sea, the lake has a capacity of 1150 million cubic metres, with 605 boats with 5,500 fishermen who market their production through 11 collection centres spread across the lake's coast.

The Qarun Lake is a closed indoor industrial lake located in the northwest of Fayoum province and had fresh water before the introduction of a permanent irrigation system in the 19th century (Muhammad Ali Pasha era).

Salinity increased to 12 thousand parts per million in 1928, and increased steadily year after year, reaching nearly 31 thousand parts per million in 2013.

As a result of AMSAL's apparent effort to extract dissolved salts from the water of the lake. This shows that salinity increases by 330ppm per year. **The lake has transformed from a drinking water surface (semi-saline) into a saltwater surface close to the water of the seas and oceans to**:

1. The lake is closed and not reached by fresh floodwaters that may raise its fertility.

2 - Increase evaporation by heat of the sun and this has helped the expansion of the lake flat.

3- It was a store for drainage salts.

Study on the area to be established:

(Why the Qarun Lake Reserve Area?)

Previous studies have been conducted on the area of Lake Karun with actual fayoum, for example (Norah Abdul Tawab 1995) on the water sources of the lowland and (Jehan Mustafi 2003) on the geomorphology of Lake Qaroun as well as (Azab2001) on the geology and geomorphology of the area around Lake Qaroun and dar (2009)

(Azza Abdallah) about the geomorphology of the environment in the Lake Caron area.

The Qarun Lake area is located in the northern part of the Low Fayoum and the region's importance is that it represents a natural ecosystem affected by the human component and its interventions. The region has many geomorphological phenomena, and Lake Qaron, which represents the water environment of many species of local and migratory rare fish and birds and rare wildlife.

There are water marshes around the lake that contain a variety of plants to which migratory birds come, the sandy shores of the lake and archaeological sites on the coasts, the geological formations contain plant and animal fossils, and the area of tourist origin is spread. Human intervention and the transformation of the lake into a bank to which agricultural wastewater is transported by agricultural banks have created many environmental problems in the region.

**Environmental changes in the region:

Change of lake levels:

1- The discharge of large quantities of wastewater to the lake, where the amount of wastewater accumulated for the banks of Bats and the Valley during the period from 1988 to 1991 between 447 million cubic meters and 575.5 million cubic meters.
2- The occurrence of sediment at the lake floor and the sediment carried by the drains at the lake floor, as evidenced by the rise in the lake floor level in the eastern basin in 2005. In general, the rise in the lake's level resulted in the tyranny of its waters on the beaches and the sinking of the land and surrounding buildings and the formation of slurries and the emission of bad smells, which led to the closure of a tourist village on the north shore and the emergence of problems lavishing the soil, Higher lake levels are also associated with higher surface water levels land ", where there is a depth of 80 cm from the surface of the land adjacent to the lake, This has caused negativity on crops with surface roots such as wheat and barley.

The lake level decreased after 1991 as a result of the reduction in the amount of wastewater from 1992 to 1995, resulting in the reduction of the lake level to -43.8 metres, after which the amount of wastewater increased to 453 million cubic metres in 1998. In general, the decrease in the lake level has negative effects on fishing and tourism operations and turns the lake into an inadequate environment for migratory birds. In order to maintain the ecological balance of the lake, previous studies have identified the best level of the lake to be suitable for hunting, tourism and receiving of migratory birds -43.8 metres, with the maximum oscillation of the lake's 60 centimetres.

**Objective of this study

The study presented aims at the development and development of the Qarun Reserve Area, which is of great importance to Fayoum Governorate. The Qaroun Reserve in Fayoum Governorate was

declared a Natural Reserve by Prime Minister Decree No. 943 of 1989.

Despite the Karun Reserve's excellent potential as a tourist attraction, the number of tourists it currently receives is not commensurate with its tourist potential.

Therefore, we hope from the conference

The establishment of a natural forest under the supervision of the Ministry's Reserve Department in the Sahara area north of Qarun Lake, with an area of approximately 1100 km^2, where the terrain varies and is characterized by the spread of gravel-covered flats, sand dunes, shelves and rock formations, which are dotted with alphabets, terraces, tarts, sane and cynical Mangrove Forest ", which is a mangrove forest because of its natural characteristics, contributes to the disposal of environmental pollutants and the excess salts of the lake and attempts to make the area a tourist attraction and receive migratory birds.

** Mangroves adapt to urgent conditions:

Salt water can kill plants, so mangroves should extract fresh water from their surrounding seawater, Many mangroves can filter up to 90% of the salt found in seawater as they enter their roots and some of them release salt through the glands in their leaves, finding these leaves covered in dry salt crystals and there are some mangroves that can concentrate salt in old leaves or bark, so when the leaves fall or imply bark; The salt in stock goes with them.

There are currently two types in Egypt, the grey mangrove and the red mangrove (shury and kandal), but their area is small and very far from large urban areas where mangroves are found in Sinai in the Gulf of Aqaba in the Nabq and Ras Mohamed regions and are also found in various places along the Red Sea coast in islands within the waters and the Marsa Alam and El Gouna area near Hurghada.

One of the benefits of the expansion of mangrove projects is that it is highly economically viable, due to the multiplicity of productive activities it provides, as mangrove forests form farms to produce bee honey, livestock, and fishery.

One of the advantages of mangrove forests is that they store 3-4 times more carbon than tropical forests, which is called blue carbon, and the annual rate of degradation of mangroves globally is estimated at about 1% per year.

** Intensifying mangrove cultivation

It means planting the mangrove tree densely around the lake, and without any exaggeration, it is a magical treatment for it, especially after it is cleansed of the fungus that infected the fish more than ten years ago, which affected its productivity. It is a source of livelihood for thousands of families, and this is what prompted us to contact those responsible for the area "Nile Valley Fish Resources Authority" and we started with the Director General of the region in preparation for presenting the issue with the contribution of Al Farida Company as well as introduced the topic to the Executive Director and the Chairman of the authority, so that the issue can be discussed with the knowledge of the reserves management and to supervise the implementation.

We hope to return the lake to its previous era and its first history in doubling production. It is enough that the mangrove absorbs 90% of the salts, which is one of the most important reasons for the deterioration of the lake and the lack of tourist demand to the extent that is commensurate with the established tourist facilities. This book of ours contains a lot about the climatic and economic impacts of mangroves and that it is one of the pillars of increasing fish wealth.

(8-1) Alarms

The Secretary-General of the United Nations, Mr. Antonio Guterres, has said that climate change is a major disaster if not addressed as soon as possible, and the world has come out of the Glasgow Climate Summit with some "Naive optimism". Although reference is made to the progress made at last year's summit, such as commitments made to end deforestation and commitments to reduce methane emissions, "But the main problem has not been solved, and this main problem is the gap in massive emissions.
Maintaining 1.5 ° C is the rapid disposal of coal and all fossil fuels and the implementation of a rapid, equitable and sustainable energy transition, as well as the implementation of the Glasgow Summit by strengthening national climate plans each year to conform to 1.5 degrees Celsius by achieving concrete results this year on climate alliances to help emerging economies phase out coal, To be the end of coal and fossil fuels, before they destroy our planet, by accelerating decarbonisation of key sectors such as shipping and aviation, steel and cement, as well as protecting the most vulnerable and ensuring an equal focus on adaptation to climate impacts.

Maintaining this target would require a "45 per cent reduction in global emissions by 2030 and carbon neutrality by mid-century - this problem has not been resolved in Glasgow".
The truth is that the problem is getting worse, but if we join forces now, we can avoid a climate catastrophe.

The Secretary-General noted that we are all asleep towards a major climate catastrophe, as global emissions are set to increase by approximately 14 per cent during the current century, as in the past year alone, carbon dioxide emissions associated with global energy increased

by 6 per cent to reach their highest levels. In history coal emissions have risen to record levels.
He pointed out that in 2020, climate disasters have forced 30 million people to flee their homes, three times more than those displaced by war and violence, and just two weeks ago, the Intergovernmental Panel on Climate Change confirmed that half of humanity is already living in the danger zone for climate change.
António Guterres emphasized that small island states, least developed countries, the poor and vulnerable are “on the verge of doom,” warning that in our globally interconnected world, no country and no company can isolate itself from “these levels of chaos,” warning that if we do not do what needs to be done To cut emissions, “we can give the 1.5-kiss target, even a couple of degrees Celsius may be out of reach. That would be a disaster."

He stressed that “climate scientists warn that we are dangerously close to reaching tipping points that could lead to successive and irreversible climate effects, but governments and companies responsible for the highest levels of emissions are not satisfied with turning a blind eye to this situation, but go further as if they are pouring oil on a fire. It has no qualms about clamping down on our planet, as dictated by its own interests and historical investments in fossil fuels, at a time when there are cheaper, renewable solutions that contribute to green jobs, energy security, and more price stability.”
He said: “We concluded the twenty-sixth Conference of the Parties to the United Nations Framework Convention on Climate Change in Glasgow with a sense of naive optimism, due to the new promises and commitments made, but the main problem - represented by the huge and growing gap in emissions - was to be ignored, the science is clear.

He said that in order to be able to maintain hope of achieving the 1.5°C target as agreed in Paris, we would have to cut global emissions by 45 percent within this decade, but current climate pledges would lead to a 14 percent increase in global emissions.

He explained that most major emitters are reluctant to take the necessary steps to fulfil these broken promises, and climate activists are sometimes described as dangerous extremists, but the fact of the matter is that countries that increase fossil fuel production are the dangerous extremists.

He pointed out that "investment in new infrastructure for fossil fuels is a form of moral and economic madness, and that such investments will soon turn into abandoned assets - just a stain on the public landscape and a distortion in investment portfolios, but things can go otherwise."

And that the transition to renewable energy sources will restore our current array of global energy sources and give hope to the millions of people who suffer today from the effects of climate, and we must act now to transform climate promises and plans into reality and tangible measures and that it is time to stop burning our planet, and start investing in energy Renewables are abundantly available around us.

The Secretary-General of the United Nations called on politicians to take swift and drastic action, following reports that raise concern about the consequences of global warming, saying that the alarm bells are deafening, and the evidence is overwhelming. Climate change in the poor regions of the world, and the previous pledge to raise $100 billion annually for this purpose must be fulfilled, as there is no longer any room for delay or excuses, calling on world leaders to provide answers when the next World Climate Change Summit is held.

The Secretary-General of the United Nations stressed that the UN report indicated that global warming is expected to reach 1.5 degrees Celsius compared to the pre-industrial era around 2030, ten years earlier than

the last estimates made three years ago, according to the new report issued by Climate experts at the United Nations.
The rise in temperatures thereafter will continue to exceed this threshold and one of the key provisions of the Paris Agreement by 2050, even if the world manages to significantly reduce greenhouse gas emissions, according to the report of the Intergovernmental Panel on Climate Change.
At the COP26 climate conference, the United Nations Secretary-General invited the participants to do everything in their power to “save humanity” in the face of climate change, saying, “Stop violating biodiversity, stop killing ourselves with carbon, stop dealing with nature.” As a landfill, enough of burning, digging and extracting to greater depths, we are digging our own graves."
British Prime Minister Boris Johnson opened the historic COP26 conference on Monday by warning world leaders that they will face harsh judgment from future generations if they do not act decisively. "The world's anger and impatience can only be contained if we make this COP26 in Glasgow the moment we get really serious about climate change, and that includes coal, cars, money and trees," he said in his opening speech.
Johnson echoed 18-year-old climate activist Greta Thunberg, who is in Glasgow with thousands of other protesters, in urging the summit not to indulge in "gossip". The prime minister said that if the leaders failed to achieve the goal, the unborn generations "will not forgive us". "They will judge us with the bitterness and resentment that overwhelms climate activists today, and they would be right."

The UN official also called for rich countries to meet their commitments to provide $100 billion annually to help the developing world confront the growing threat posed by climate change, saying that revised climate pledges from some G20 countries do not inspire confidence.

He added that the climate crisis is taking place in a context of challenges, especially for the most vulnerable groups, noting that the recovery from Covid-19 is grossly uneven and developing countries are suffering the brunt of record inflation, high interest rates and looming debt burdens, and warned that the repercussions of the Russian war in Ukraine threaten to volatility Global food and energy markets with major repercussions on the global climate agenda, and he explained that even if the recent pledges are clear and credible, there are serious questions about some of them, that we are still heading towards a climate catastrophe.
In a related context, Kim Cobb, director of the Institute of Environment and Society at Brown University, USA, said, "Global heat waves and multiple floods caused by precipitation levels and extreme weather events have caused widespread disruption over the past few weeks," noting that new studies chart An alarming bleak picture regarding climate change.

And the American newspaper The Washington Post reported that a study published by the scientific journal Nature in which scientists examined the status of the ice sheet in East Antarctica, which is a giant mass almost the size of the United States and contains most of the glaciers in the world, where it was long believed that it is less likely to rise Temperatures from the West Antarctic ice sheet, which is exposed to warm waters from below or the so-called "Greenland Ice Sheet", but some areas of East Antarctica are already showing signs that raise questions about this hypothesis.
The study noted that based on evidence from historical periods of warming, the researchers expected that the global temperature increase would be less than two degrees Celsius above pre-industrial levels, the upper limit set in the Paris Agreement.. Most of the ice cover is likely to remain intact. , but could lead to a sea level rise of 1.6 feet by 2050.

Meanwhile, another study in the journal “Nature”, conducted by researchers at “NASA's” Jet Propulsion Laboratory and the University of “Tasmania”, estimated that Antarctica's ice shelves have lost 12 trillion tons of mass since 1997, which is twice as much. The previous estimate, which raises new concerns about the stability of ice shelves, which are necessary to ensure that glaciers do not collapse into the ocean.

On a related level, researchers in the journal “Communications Earth & Infirmity” found that over the past four decades, the Arctic region has warmed four times faster than the rest of the world, much higher than expected.

The paper concluded that "after decades of indifference to the climate disaster, As United Nations Secretary-General Antonio Guterres described the global impasse, The United States finally found the political will to enact climate legislation, but the window for action to achieve the goals of the Paris Agreement is closing rapidly. This new research reminds us that there is more work to be done locally and externally, whether we wish to preserve it.

We thank the scientists and officials and the Secretary-General of the United Nations for all these warnings and clarifications of the climate changes caused by fossil fuels, especially coal, and for guiding their phase-out before it destroys our planet.
But, sir, the scientific solution is the market mechanisms in offering low-cost alternative energy without advice and guidance that the consumer will go to, whether for transportation, shipping or aviation, even steel and cement is facing competition and looking for cheaper energy sources and definitely not a clean card. Unless it is provided as aid in kind, and this is its right, because it is not the main reason for the

production of greenhouse gases and pollutants, but rather it swallows the mistakes of other industrialized countries.

The solution is to continue research to reduce the cost of clean alternative energy or lower emissions to be competitive with fossil fuels in price. Unfortunately, these are market mechanisms that operate automatically either at the lowest price or provided as aid to poor and developing countries, and otherwise fossil fuels will remain on top of the most consumed energy.

(8-2) Earth's temperature and problems caused

Some information explaining what caused the increase in the world's temperatures:
Since 1880 to 2012, the average global temperature has risen by 0.85 degrees Celsius, with each 1 degree increase causing the grain level to drop by 5%, according to the website of the National Climate Change Authority.
According to a report, maize and wheat crops declined their productivity globally by 40 million tons between 1981 and 2002 due to the warmer climate, also warmed the oceans, decreased snow and ice, and sea level rose from 1901 to 2010 by 19 centimeters as oceans expanded due to warming and melting ice.
Arctic sea ice also shrank in the years since 1979, with a loss of 1.07 million square kilometres of snow per decade, and given the current concentrations and persistent emissions of greenhouse gases, by the end of this century the increase in global temperature is likely to exceed 1.5 degrees Celsius compared to the period from 1850 to 1900.
Ocean heat will also rise and ice will continue to melt, sea level rise is expected to average 24-30 cm by 2065 and 40-63 cm by 2100, and most aspects of climate change will last for centuries even if emissions cease.

In the same vein, global carbon dioxide emissions have risen by almost 50% since 1990, and emissions grew more rapidly between 2000 and 2010 than each of the previous three decades. and it is still possible, using a wide range of technological measures and changes in behaviour patterns s average temperature ", reducing the increase in global average temperature to 2 degrees Celsius above pre-industrial levels.

(8-2-1) Effects of global warming on animals

The rise in temperature, known as global warming, leads to the stress of animals and disturbs their behaviour and instincts. Among the effects of high temperatures on animals are the following:

The migration of animals and changing their natural habitats in which they used to live, and where they spent millions of years, due to the lack of water and food, which leads to a decrease in their ability to meet their needs.

Impact on the life cycle of animals, where the migration of animals leads to tampering with the timing of natural life cycle events, such as: the times of bird migration, reproductive times, and the duration of hibernation for some animals.

Some animals are threatened with extinction.

Note: The effects of rising temperatures are not only affected by humans, but also by animals, such as:

Migratory birds and insects arrive in areas with the right temperature earlier than usual.

(8-2-2) Effects of global warming on plants

Rising temperatures affect rainfall, and thus change the geographical areas in which plants can live, affecting the timing of life cycle events for plants, such as: bud emergence, leaf fall from trees, and pollination.

An imbalance in the distribution of vegetation cover, an increase in agricultural pests, an increase in allergens and harmful plants.

(8-2-3) An economic effect of Earth's warm:

Higher temperatures than normal result in economic losses in some parts of the globe, resulting in increased costs, as this rise affects many areas, including:

- ✓ -Adversely affects the agriculture sector.
- ✓ -Adversely affects fish trade due to changing distribution and productivity of fish.
- ✓ -Positively affects the timber trade if the rise is moderate.
- ✓ -Affects water sources, increasing in some areas and decreasing in some areas.
- ✓ -Increased temperature rates and maximum temperature change.
- ✓ -Melting snow and reducing snow cover in some regions of the world.
- ✓ -Sea level rise increases acidity of seas and oceans.
- ✓ -Impact on human society.
- ✓ The experts of Egypt's National Planning Institute have warned of the negative effects of climate change on different sectors, calling for a clear strategy to counter climate change and work to reduce the rate of "greenhouse emissions" affecting aspects of life and natural resources in Egypt.
- ✓ Advisor to the Egyptian Minister of Tourism Dr./ Mahmoud Al-Qaysouni noted that the tourism sector will be the first sector affected by climate changes, noting that tourism is the largest source of hard currency and earned revenue during the last year 2007, amounting to $7.5 billion and the number of tourists reached 9 million from many countries of the world, employing 12% of the labour force.
- ✓ Al Qaysouni drew attention to the United Nations report on Egypt, which confirmed the rise in Mediterranean and red sea levels by about one metre by 2025 as a result of melting ice in the

Arctic, drowning more than 205 acres of the delta's most fertile land and displacing 6 million citizens from the region.

During a symposium at the Planning Institute in cooperation with the World Bank, Al Qaysouni warned of the negative repercussions of rising water levels on tourist establishments on the Red and Medium Sea coast of more than 600 international tourist and hotel resorts in addition to the giant projects in Marsi Matrouh, saying: Most of these projects and investments will be drowned out, pointing out that warming water in the Red Sea will affect coral reefs and lead to the flight of marine organisms to the depths and thus make fishing difficult.

The Adviser to the Minister of Tourism proposed the establishment of a National Climate Change Council, comprising relevant ministers, to meet periodically every month and have its decisions in force and binding ", noting the possibility of confronting that problem by building walls on the coasts or by building dams and manes at both the Bab el-Mandeb Strait and Gibraltar, To control rising water levels, coastal States must share construction costs with a view to saving these countries, stressing that such solutions are not impossible.

Al-Qaisoni stressed the importance of States taking serious steps to address these repercussions from now on and not waiting for disasters to occur Dr. Samir Mustafa, adviser to the Planning Institute, emphasized that Egypt's contribution to the production of thermal emissions caused by the phenomenon is minimal and does not exceed 6% globally. Egypt's production amounts to 2.2 tons per year compared to 13 tons of China, 9 tons of America and 7 tons of the United Kingdom. Dr. Nafisa Abu Saud, an adviser to the Institute, agreed that Egypt's share of emissions is minimal compared to other countries. He stressed that there are many negative effects, including population displacement and harmful environmental changes, and called for addressing these

expected impacts in all sectors, and called for the adoption of scientific models of the phenomenon and the development of treatment programmes that complement Egypt's overall development strategies and plans.

Dr. Ola Al-Hakim, Director of the Planning Institute, confirmed that there is a link between climate change and climate disasters such as drought, floods and hurricanes as a result of greenhouse gases, where one of the 19 individuals in developing countries is affected by the consequences of such disasters According to the United Nations Human Development Report 2008/2007, the negative repercussions on Egypt were rising sea levels, lack of water resources, lack of agricultural production and the disappearance of certain crop varieties.

Dr. Salwa Al-Antree, Director of the Centre for Environmental Studies and Natural Resources Management at the Planning Institute, said that studies suggest that climate changes will lead to a reduction in rainwater resulting in a reduction in river water, including the Nile River, affecting planted squares.

Mahmoud MohyEldin, Executive Director of the International Monetary Fund (IMF) and Climate Leader of the Egyptian Presidency of COP27, stressed that there is a serious shortcoming from developed countries in the issue of climate change towards Africa, saying that "some coastal cities in Africa are threatened by drowning due to climate change in the world", explaining that "Africa is the continent most affected by climate change".

MohyEldin stressed the need to invest in new energy areas to cope with climate change, adding: "Carbon emissions increased 14% before the Russian-Ukrainian crisis, and water, energy and food are highly linked to the issue of climate change," noting that there are 800 million people around the world without electricity, including 600 million in Africa.

In another context, a team of researchers at Nanyang Technological University, Singapore, working with a group at the Jet Propulsion Laboratory of the United States Space Agency (NASA) found evidence showing that parts of major coastal cities were drowning faster as a result of sea level rise.

Research has shown that global warming is melting ice around the world, leading to rising sea levels, and this increase in sea levels is a major concern for cities and towns on the edges of water coasts, but many cities - according to the study - Another problem is the decline of the Earth, where the Earth is drowned by the removal of groundwater or gas or the Earth's compression from the immense weight of the buildings above it.

In this new practical effort, researchers noted that rising sea levels as land sinks can lead to major problems for coastal cities in the next few years, and to learn more about the depth of the problem, researchers were able to access and analyse radar data from NASA satellites that measure Earth's height worldwide.

(8-3) Usual and unusual weather phenomena

The researchers also measured subsidence in 48 of the world's largest cities over the years from 2014 to 2020, and found that nearly all the cities they studied had some degree of subsidence in 44 of them; some areas were sinking at a faster rate due to sea `rise.

Among those phenomena, in the beginning, it depended on earthquakes and volcanoes, an energy latent in the earth’s interior, which is present as a result of solar radiation, but at great depths, adding that earthquakes and volcanoes are natural phenomena, human does not interfere with them, but when the earthquake coincides with low atmospheric pressure values And climatic changes, the phenomenon will be more violent.

Among the unusual climatic phenomena such as drought and torrential rains are caused by climatic changes that strike different countries of the world, and climate changes have affected water, climate and heat, and the frequent exit of carbon dioxide due to industry has led to global warming, and the accumulation of these gases in a large density has led to raising the temperature of the planet, where The temperature in the Middle East rose 3 degrees above normal, and the temperature over Europe increased by one to one and a half degrees.

During the last year, the flooding of the Nile River is very heavy, although Ethiopia reserved 16 billion cubic meters of water, but Egypt did not feel any impact at any level, as if the floods of the Nile River basin belong to God in Egypt, but southern Ethiopia was hit by drought.

(8-4) The country's adaptation to climate phenomena

Regarding the phenomenon of climate change that causes coastal cities to sink, Dr. Maher Aziz, a climate consultant and environmental expert, says that there is a new agenda that will be presented to the climate conference that will be held next November, explaining many measures to stop climate deterioration and protect the Earth from climate change. The agenda will also include many measures in the field of reducing emissions or adapting to the harmful effects of climate change phenomena

He added that among these phenomena is the rise in sea level and the intrusion of water to the highest coastal areas, and therefore there are measures to adapt by building barriers on beaches exposed to water intrusion, the most important of which are:

A project in cooperation with the United Nations Framework Convention on Climate Change and the Global Environment Facility.

Aziz pointed out that this project is for the protection of coastal areas in the Mediterranean in the Egyptian state, and these efforts are based on

building beach barriers to prevent water ingress on the land, as it is considered one of the projects through which beach areas can be protected.

He continued, "Therefore, the agenda contains many measures that help address the causes of climate change from its roots, namely reducing emissions or addressing the effects of climate change, and trying to coexist with it."

(8-5) United Nations Climate Convention

He concluded: "With the steady global increase in greenhouse gas emissions, the intensity and frequency of extreme weather events such as successive heat waves are increasing, despite the efforts made by all countries under the United Nations Framework Convention on Climate Change, which have not yet reached the desired goals seeking to reduce greenhouse gas emissions and bring it to 2000 levels. Previously, climatic changes have affected the rise in the level of the Nile, which has caused great damage to the city of Ashmoun in Menoufia Governorate, where the rising water level in the two branches of the Nile, Rashid and Damietta, may lead to flooding of most of the lands of the river, as well as for buildings erected on the sides of the stream.

The center and city of Ashmoun in Menoufia Governorate issued a statement calling on citizens and farmers residing in the lands of the river to evacuate these lands as well as the houses, and this comes due to the high water level in the two branches of the Nile River, Rashid and Damietta, which may lead to flooding of most of the lands of the dumping river, as well as the buildings built on the sides of the stream. And they stressed that it was necessary to alert and stress all citizens in the villages of Ashmoun Center and those residing on the lands of the river that lie within the center of the center to be careful, and to avoid planting any crops currently, and to quickly evacuate their homes in order to ensure their safety as a result of what will happen from the

rising water levels, and the occurrence of flooding and drowning of those lands, And take all necessary precautions.

** A project to confront environmental risks and disasters

It is worth noting that, according to World Bank estimates, disasters such as floods, earthquakes and droughts cause Morocco to lose more than $575 million each year; Moreover, rapid urbanization and climate change herald an increase in the frequency and severity of weather-related phenomena.

A World Bank report revealed that the Integrated Disaster Risk Management and Response Project helped enhance Morocco's resilience in the face of disasters and climate change by strengthening efforts to prepare a national strategy for disaster risk management, and this international project also supported investments in structural measures to reduce risks to serve more than 174,000 beneficiaries.

In order to address the challenges of increased disaster risk and climate change in Morocco, the project seeks to improve the institutional framework for financing disaster risk reduction activities and enhance financial resilience to natural disasters for the target population.

To achieve these goals, the World Bank relied on a combination of financing and technical assistance tools; two of its loans for construction are financing a comprehensive program using the Financing for Results instrument, the first time that the World Bank has used this financing tool in disaster risk management operations.

(8-6)The importance of Time

Innovations are not important, but what is more important is how long the study and research will take to ensure credibility and accreditation from a technical standpoint, the possibility of implementation, economic and climate returns, then funding estimates and their sources.

These innovations have no value after five or ten years to start implementing them, Daring or modern innovations that have no precedent on the ground always take years to study.

But after we saw the accelerating of climate events in the second half of this year, there is no benefit in approving it, then starting to implement it after the changes have destroyed the green and the dry land, here innovation loses its limits in rescue and reform, especially if it is related to climate problems with accelerating events and disasters, and especially Noting the innovation of artificial lakes, fortunately, they were subject to study and review several times at the hands of well-known previous scientists at the time who approved them more than once.

During the study period, which is estimated at fifty years, and a statement is attached with the names of the most important scientists and countries that participated in the research of the Qattara Depression, and its economic return, that this conference and this generation are fortunate because they have saved time estimated at about ten years before digging.

The importance of this project (artificial lakes) is that it is pivotal, whether in Egypt or in the countries where it will be built, and pivotal here means that it has an effective role in disrupting and solving most climate problems.

We have taken it as an approach for most of the bold innovative solutions that we present, because our proposal, any solution or giant innovation, requires technical, technological discussions and studies that consume a long time and require tens of millions of pounds. Accordingly, we have limited the innovations and suggestions that we

present to matters that have previously been approved, including proven economic and scientific figures in person or on his behalf, and in this regard, we particularly mention the heads of states and governments from the General Assembly of the United Nations and its organizations.

The presence of these people and thousands of others who have identical opinions, whether with us or with each other, and we especially mention first the guests - Mr. Secretary-General of the United Nations, Antonio Guterres among the similarities that we will mention at the time is what was stated by Dr. Mahmoud Mohieddin and Mr. Bill Gates, both of whom are rich of definition, their statements about poverty and climate change were identical, and the international community is aware of their interest in all the problems of the poor and climate problems.

Therefore, when we issue something that fights extreme poverty and provides food, and at the top of these innovations is the cultivation of wheat with salt water, and even with ocean water. We will not waste time proving this because we have the research of the late Egyptian scientist Dr. Ahmed Al-Mustajir, and the country of India, which has reached sufficient wheat production and has become an exporter after if they are imported. Rather, the suggestions or innovations we offer are quick to implement, such as pre-built buildings (ready-made) to solve the rapid housing crises.

Here the time importance appears after the end of the conference, as the largest percentage of the projects that were agreed upon can be implemented in a record time. It is better for immediate committees to emerge from the conference and from the host country to follow up on a time plan and implementation, otherwise if this conference will become similar to previous conferences during the past half century, it will not be allowed by UAE.

What is important in projects is their implementation to eliminate disasters, and here comes the importance of the early warning network of the Meteorological Authority and satellites.

Q: Why do we view the element of time with such importance and dread?

A: Because in the previous year, 2022, the months of July and August were not like this year. In short, what if climate changes accelerate in the year 2024 to the same extent as between 2022 and 2023, are there anything after the drying up of rivers in Europe and the scarcity of fresh water? What if European countries neglect our innovation and proposal regarding the increase in swirling fresh water on the planet? What if we relented on our innovation to stop forest fires by changing the characteristics of the wind from very hot to hot and humid? What if the bodies relented because the proposals were not issued by a famous scientific institution, but rather by an individual company in one of the governorates of Egypt that stopped all its activities and spending on the success of climate conferences?

We do not have time, and my message to the United Nations and its President, Mr. Guterres, is not to adjourn this conference and to remain in a state of permanent meeting from the day following the end of the conference with the presence of 5% of people entrusted with the task of implementation and follow-up in all countries because after what happened this year we do not have many Time and COP 28 is a last chance.

Although we all have a lot of money together if major events occur that we do not know about it. For the first time, and due to the open skies, Africa is equal to other developed countries in terms of the damage caused by changes. Africa has become accustomed to austerity and a life of herd immunity, whether in the Corona pandemic or climate change. However, economically and democratically prosperous countries will not tolerate the austerity of climate change and will lose stability.

As for the new guest on the disasters of fresh water scarcity and drought, those who are not accustomed to austerity are the inhabitants of the North, the people of scientific, industrial and technological progress, the countries of prosperity and food abundance (France, Spain, England, the United States, Canada, Portugal and the Mediterranean countries), who have been lax in saving humanity and many of them did not fulfill its commitments at previous COPs.

One of the things that proves that the whole world is a small village and the sky is open to everyone, in my view, here it is (the justice of the sky) is that it is open to everyone, with its good and its evil, is that all the great disasters that befall the masters in the north are the open skies, and also the poor countries. It is not transmitted words, but rather with scientific evidence and the testimony of meteorologists, the authority on open sky data, the sky of justice in distribution and the theory of intersecting vessels in distributing the content fairly of the open world to each other.

We all live under the same sky, and therefore, facing the climate change will begin from Africa, from which emerged the factors of forest fires in Europe and the North in general, just as from its womb emerged the factors of drought, water scarcity, and food shortages in Europe. For many years, it was not believed that food shortages and desertification in Africa will pour on the people of the North because the seas and oceans separate them, so how can desertification and drought creep in? But it has crept up on them by air and not by land due to the open sky!

Yes, the sky achieves fair distribution on Earth, and we have shown how Africa will remove all climate change disasters from the Northern Hemisphere in research on forest fires, high temperatures, and drought, especially the drying up of rivers and lakes.

Returning again to the time factor, Time importance in saving the climate problem is similar to the importance of time in saving a drowning person. Otherwise, treating the climate becomes like recovering the body of a drowning person instead of saving him. In both cases, the cost is high. Yes, the cost is the same. The cost of saving us from climate change is equal to the expenses of treating destruction weather changes.

Therefore, it is necessary to get attention to the importance of time and to quickly take the necessary steps to shorten the time needed to save the world or mitigate the disasters of forest fires, floods, drying up of rivers and lakes, high temperatures, food shortages, and famine in the Horn of Africa. By shortening time, we mean that there are concrete measures on

the ground in a maximum period. Next month of May, because everyone has noticed that every year is worse than the one before it and brings us unexpected new things such as water scarcity, the drying up of rivers in Europe and elsewhere.

Time is running out for us due to our previous neglect for years. We had plenty of time and some imagined that they were safe from the evils of climate change. We must devise ways to speed up implementation, whether in rescue projects with artificial lakes inside and outside Africa, especially in the countries of forest fires themselves, to provide part of the moisture, and to be completed by the agricultural revolution for projects. Giant trees, which are included in detail in this book (the Great Green belt - mangrove forests in the Pacific Ocean - artificial lake crops).

The proposed project, which is immediately implementable on the last day of Cop28, is to oblige every individual in the international community to plant two fruit trees or non-fruit trees, because of their great benefits in addition to absorbing carbon and increasing oxygen in the atmosphere, which is humidifying the atmosphere, through transpiration, combating desertification, food shortages, and exchanging clean, moist air. Between countries and each other until it reaches the north to the countries of Europe and to the south, west Asia and Australia due to the open skies.

The task is heavy, it is not air conditioning a room and a hall, and it is the entire atmosphere starting from the surface of the earth to ten thousand meters in height, the last of which is the home of the jet winds that have the power to cause floods, droughts and fires.

We have previously challenged nature to destroy, and now it challenges us to rebuild. At COP28, we have no choice but to triumph over climate change.

The world has recognized that COP 28 is a last chance.

(9-1)After COP28

COP 28 heralds that it is a conference of positive decisions that were prepared in advance through the efforts UAE people and its wise leadership, on the condition of obtaining the hundred billion dollars that was approved in 2009. It was recommended that its payment be completed in Paris in 2015, and it will be paid in COP 28 in accordance with the pledge of donors to the efforts of the UAE.

** What will happen after the end of COP28?

This is the most important because it means activating that was agreed upon during the conference period regarding the payment and distribution of donor funds. What is most important are the innovations presented and sponsored by the host country, the UAE, which would reduce climate change disasters and quickly respond to them in the event of a recurrence that happened in 2022 and 2023.

The first measures that must be followed are to have a permanent monitoring committee for the process of cooling the planet, because without starting it before mid-December 2023 means the continuation of the disasters of the past two years, in addition to the rate of acceleration and rise in temperature, leading to a doubling of destructive storms and floods. We hope to reduce them by completing the early warning centers before the year 2027.

Likewise, the meager financing, the hundred billion dollars, must be reconsidered, as it must reach ten times that amount, perhaps enabling developing and poor countries to do something effective in combating climate change. Research has shown us that 50% of global inflation is due to the causes of climate change and its impact on production.

(9-2)The most important necessities after the end of the conference

Immediate preparation of the climate map for mangrove cultivation before the end of December 2023 globally, and starting to place seedlings and seeds in tidal lands on the shores of all oceans and seas

between latitude 30, and this is with the completion of genetic engineering research on the mangrove tree to plant it outside this space, given its importance. Climate extreme, especially in carbon consumption and its economic impact on the blue economy.

In the field of food, the climate map for growing date palms must be distributed in all countries where it is suitable for cultivation. The wisdom behind this is that dates are used in poor and developing countries as a filling food material that reduces the consumption of wheat and rice, even by a small percentage, which contributes to achieving self-sufficiency in global food.

(9-3) Elimination of poverty is one of the most important components of combating climate change

We notice that empty stomachs do not have the slightest interest in climate change and this is logical because surviving death from starvation is more important than others reasons due to the effects of climate change, as it is a possibility, and before educating poor peoples about climate damage, they must be removed from the line of poverty and destitution first.

(9-4)Transforming climate change from a curse to a blessing

No one disagrees that the impact of climate change is a curse that has befallen all countries, and its impact is more severe on poor and developing countries, but one of the innovations that we have proposed has turned this curse into a blessing and economic prosperity for those who use it from the coastal countries of the world, which is:

* Artificial lakes

It is the gift of climate change to the countries of the world, especially the poor and developing countries, to save them economically and socially, as well as to save the countries of the world from climate disasters. It is pivotal to solving all the world's problems, regardless of its primary call for saving islands and coastal cities from drowning due

to the melting of ice, which is considered the only practical achievement that saves this problem.

In addition, scientists have proven that it reduces the temperature in the vicinity of lakes from 3 to 5 degrees and with the frequency and expansion of artificial lakes in most coastal countries, this will greatly help in cooling the planet, among other proposals of green and blue cover.

High-ranking scientists have proven that these lakes will contribute to providing food for agriculture from rainwater which was determined based on the temperature of the Western Desert in Egypt at 33-37 degrees Celsius with 1.4 cubic meters of rainwater per square meter of the surface of the lakes, as well as contributing to increasing fish wealth, especially with the spread of mangroves on the banks of these lakes to secure their coasts.

We have shown that modern clean energy alone is not sufficient to combat carbon and temperature rise. Mangroves, green belts, artificial lakes, and artificial clouding must be involved and this must be done with high intensity after the end of COP28.

* Most importantly steps, in order to save time:

- ✓ Resort to clean nuclear energy in safe countries to establish stations there.
- ✓ Expanding spending on environmental, climate and food technology research imposed on us by water scarcity.
- ✓ Increase spending on establishing early warning meteorological stations due to their importance in reducing losses from climate disasters.
- ✓ We must all remember that what happened in the past two years of climate disasters in the north proves that we are all in the same boat and we must not turn our backs on the UAE's innovations after the end of the COP28 Conference of the Parties.
- ✓ Al-Farida Company's innovations that contribute to confronting climate disasters within the private sector. Be careful. What has already happened that no one wished for, which is that the climate

knife has been drawn and reached the necks of the people of the North with the Open Skies Law and in support of the theory of saturating the South with climate change and currently re-exporting carbon and gases to the north. There is also high temperature above the ground, underground, under ice shelves, and above ice caps.

- ✓ We should follow the approach of the UAE as innovations, then innovations, as well as spending, more and more spending generously for those who have it.

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