

# Indicators of Success of Green Technology Strategies to Face Environmental Challenges in the Arab World

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#### Abstract:

The research aims to recognize green technology and its effective role in preserving natural resources and reducing their depletion for the future to overcome pollution of its types (water, air of climate change, soil) and other challenges that affect individual health, living and life in order to maintain a sustainable future. Sustainability, which includes land health, air and water for a better healthy life, to end the suffering from poverty, hunger and disease and to make land capable of supporting human life, by identifying these challenges and developing indicators of success for the strategies adopted to address and evaluate them through success indicators developed as standards.

The study concluded that green technology should support environmental sustainability and work on establishing policies and strategies to maintain the natural general shape of the environment, in addition to spreading awareness about the importance of energy conservation, training the working cadres in this field to carry out energy management and performance monitoring audits, in addition to organizing seminars and training workshops. Documented databases on energy production and consumption should be updated and developed, with standard indicators of energy efficiency and utilization of the product unit adopted and encouraging standards issued.

**Keywords:** Strategy; Green Technology; Environmental Challenges; Sustainability; Sustainability Elements; Environmental Sustainability.



#### **1.Introduction:**

The world today depends mainly on the consumption of many natural resources, the imbalance resulting from its consumption with the shortage or increase that results in environmental pollution of all kinds and the risks that it produces. In order to conserve resources for the future, technological improvements and changes must be made everywhere. Global growth and population growth as a result of the unique nature of the Arab region associated with the spread of environmental degradation and climate change, the challenge must be to achieve sustainable development for survival and quality of life (Jerdi et al., 2019), These resources must be used to reduce and combat environmentally friendly technology in various ways, and here lies Einstein's wisdom when he mentioned that the computer is a fast, accurate but unreasonably stupid machine, but the human is slow and inaccurate but intelligent, if you combine the two importance of information and communication technology (ICT) lies in its close association with all areas of human activity, so minds must be moved to think about green technology and switch to it to reduce the risks of conventional technology using fuel. The risks it entails are not taken into account.

The standard of progress in technology has become measured by environmentally friendly standards such as the rapid expansion of the use of clean energy sources for the sustainability of natural resources of the environment and the focus of sustainability on the balance between the calculation of needs, our need to use technology economically, and the need to protect the environments in which we live. Sustainability is not only related to the environment, but also to the health of communities and to ensuring that they are not suffering because of environmental legislation, while the long-term effects of human activities need to be tested.(Al Khawaja, 2016), has become measured by the degree of progress in technology with environmentally friendly standards such as rapid expansion of the use of clean energy sources.

By looking at the various sources on the subject of green technology and its relationship to the achievement of environmental sustainability, it was found that man plays a major role in increasing the risk of pollution through its use of traditional fuel-based technology that contributes to increasing environmental pollution through its various activities, And therefore bad effects on other organisms, which causes an imbalance in the natural balance of the environment and damage to its various components living and non-living,



and in order to sustain the environment must be eliminated from pollution and the use of green technology alternative to the traditional causative and reduce its harmful effects, The promotion of all that is new is linked to nature, climate, sound rules and all that takes into account the reduction of energy and resource use and the affirmation of its harmony with nature.

#### 1.1 Study problem

The study seeks to rationalize energy and green technology in the face of the challenges that technology has created for the environment to eliminate pollution of all kinds for a more beautiful and cleaner environment, and to preserve the future needs of natural resources, the relationship between technology and the environment close has two aspects negative and positive although the pros are more but the negative side has a devastating effect on environmental life, But with the adoption of environmentally friendly techniques and behaviors crystallized by the researcher with strategies to meet each challenge the negative side diminishes and remains what is useful for the sustainability of the environment and not draining its natural resources, hence this study came to highlight the use of environmentally friendly strategies for each challenge to reduce the phenomenon of pollution of all kinds, the researchers summarized the problem of research by answering the following question

-What is the role of green technology in reducing environmental pollution to promote environmental sustainability?

To answer this question, it is necessary to answer the following sub-questions in order to enrich the content of the study:

- What is environmental pollution?
- What is the role of green technology in reducing environmental pollution?
- What are the recommendations for adopting environmentally friendly techniques and behaviors?



# 1.2 Importance of Study

The importance of this study stems from the data and information it will provide on strategies that adopt environmentally friendly technologies and behaviors and the exploitation of green energy in the Arab region to achieve environmental sustainability and highlight the latest technology pathways in providing everything related to nature and climate. The proper rules for the preservation of human beings and land and the manufacture of sustainable products without compromising the spare materials that must be preserved for future generations the research gains its importance from the seriousness of the topic it deals with, environmental pollution works to bring about changes that negatively affect the environment and the societies where such a problem is spreading the first affected is human and other organisms, and is an effective tool in spreading many epidemics, diseases and negative effects the importance of the study is also evident by coming up with recommendations and translating them on the ground.

## 1.3 Objects of the Study

The main objective of research is to achieve new environmental thinking that is more relevant to nature and sound rules for the conservation of land and human beings, to optimize conditions and to respond to human material and social needs, taking into account the rights and needs of future generations, and to determine the role of green technology in achieving sustainability through the following sub-objectives:

- A Identifying modern technological methods to reduce environmental pollution for a sustainable environment.
- B- Developing the means of getting rid of pollution of all kinds.
- C-Setting up environmental reserves in order to achieve sustainability.



## **1.4 Study Methodology:**

The process of collecting data and information to enrich the theoretical aspect was based on the contributions of writers and researchers collected from the sources of scientific references of books, journals, research and scientific studies and the use of the contents of the Iraqi Virtual Library related in the subject of research and the use of internet services and watching cultural films about environmental pollution and translating them into lines that culminate in research with all that is modern.

## **2- Previous Studies:**

## 2.1 Green Technology Strategies in the Arab World

This study tried to discover the most important axis through which the environmental challenges in the Arab world are met through green technology strategies to complement the findings of previous studies in accordance with the current research results including the study of (Nivine &saed,2015) "Sustainability in the Middle East: Achievements and challenges", which aimed to identify the achievements and challenges of sustainable development in the Middle East region, the study concluded that the Middle East region offers great opportunities to reduce environmental pollution and promote sustainable use of resources, we have tried to shift toward more sustainable design and construction practices.

Whether for existing buildings or new construction projects, as well as Corporate Social Responsibility (CSR) programs for regional companies, community involvement and sustainable development, and integrating sustainability concepts into the beautiful return of the community in which they work, Community investments include environment-friendly, health, safety and education solutions that have impeded natural and fundamental constraints political and social issues, and a comprehensive framework has been developed to reduce resource consumption, i.e. energy, water and other natural resources, and to reduce environmental pollution and promote sustainable use of resources. (Ibrahim H. et.al, 2017) "toward Green cities in developing countries: New Egyptian cities as case Study "Which collected case studies of several new cities in Egypt that were established as the center of development in the coming decades to accommodate future populations, to the hard impact of urban growth,



the evaluation adopted a number of official sources of data for 2015-2016 assess the extent to which these cities remain environmentally friendly and reflect their policies and management plans to achieve sustainability, the research concludes with the identification of green policy proposals to improve the environmental performance of selected cities and urban management.

Thus, our work is an update of the work (Edgar G. et.al, 2019) "Sustainable Development in the Middle East and North Africa In the Middle East and Africa region, there are common challenges and their societies to deal with them (unemployment, weak research and development, lack of participation in development decisions, insufficient institutional capacity and decision-making) and the study suggested some solutions to address them (Job creation, effective participation of non-governmental sectors, institutional and public political capacity-building, collection, monitoring, local science and data capabilities) the study highlighted modern national development strategies in Arab countries.

In part, which included sustainable development aspects at all levels, the most important findings of the study were that the Sustainable Development Goals (SDGs) enjoyed some form of international authority and recommended that these strategies be put to the ground and focus on the most pressing issues of interest in departments and society to obtain rapid positive results that would help motivate different groups of Actors to continue or even increase their participation.

#### 2.2 Comment on previous studies:

The previous studies sought to clarify the most important strategies and means for building a sustainable internal environment that paves the way for identifying appropriate policies to enhance the quality of systems for green cities within the context of the countries of the Middle East and developing countries and considers initiatives and guidance for other cities to promote environmental sustainability. Protecting and preserving the environment from pollution is everyone's responsibility, so efforts must be made to eliminate pollution to sustain and maintain the future balance of natural resources. All must be responsible for protecting the natural environment system and providing resources focused on environmental conservation.



The present study focused on environmental sustainability through environmentally friendly strategies to eliminate and reduce pollution for a sustainable environment and to clarify concepts that encourage eco-production, good consumption and recycling for a sustainable environment by contributing to waste reduction accumulated over the years and causing environmental problems.

The current study contributes to proving important elements that are the basis for the success of green technology strategies and their effective role in conserving natural resources (Jack Marsden 1996, p.42), and to reducing the loss of environmental impacts more systematically by (Letmahe & Doost, 1997, 427)). This study has demonstrated that these strategies are distinct in reducing the depletion of natural resources and finding innovative solutions to environmental sustainability issues by exploring multiple technical strategies to address environmental and social crises by addressing challenges and assessing confrontation with important success indicators for achieving a sustainable environment. (Dabbagh and Mansour,2015, proceedings of a conference)

#### **3-Theoretical**

#### 3.1 Strategy Concept

Business strategy known as (long term plan of action designed to achieve goal, including all sectors and departments established, choosing target markets and develop a mix of appropriâtes marketing policies, and allocate resources to achieve goals). (Younes, 2008, Internet)

Define (Khader, 2016) set of rules and principles that relate to a particular area, and help individuals associated with him from making decisions based on a set of plans, which depend on the correct strategies to reach a successful outcome. (Khader, 2016, Internet)

#### 3.2 Green strategy

The idea of green strategy or what is called the eco-friendly strategy based on product recycling and reuse to reduce the amount of waste and pollution that results in production and consumption, and aims to achieve sustainable development through providing products and environmentally friendly innovations and technologies.



Far from electronic waste accumulation in the environment, and through the use of a damaged appliance recyclers. And providing sustainable products in order to meet current needs, taking into account the ability of future generations to cover its needs, without depleting natural resources (Al-Batat, 2009, ) to solve environmental problems and problems of resources and energy is the companies present To become environmentally contributing to create a thriving community achieve environmental sustainability.

#### **3.3 Sustainability**

Sustainability was known by J. Conway (1990), an environmentalist who devoted great attention to the principles of sustainable agricultural development, whose concept of sustainability addresses the system's tendency to resist collapse in a crisis (as the ability to maintain productivity, whether it's a field, a farm, or a nation in the face of Crises or shocks) ,The International Union for Conservation of Nature (IUCN) defined sustainability as "improving the quality of human life by living within the capacity of supportive ecosystems' sustainability includes the health of the earth, air and water.(IUCN,2012), Al-Khawaja (2016) defined sustainability as a study of how natural systems work, diversity and the production of everything the natural environment needs to remain balanced.

The researchers believe that sustainability is to give the needs of the present without harming the right of future generations to cover their needs, i.e. to preserve resources for future generations and achieve balance and make the earth able to support human life by adopting science to use new and advanced technologies without prejudice. with spare materials that must be preserved and preserved for the future, That is, achieving a sustainable environment for a sustainable future, and building sustainability on three elements that are only right: the environment, the economy and the meeting.

#### 3.4 Sustainability elements

The elements of sustainability are the three pillars of imbalance, one of which is affected by the main objectives of sustainability (environment, economy, society), if we want to create sustainable societies, we must achieve the following goals: responsible economic growth, equitable social growth, and effective environmental protection.



These three elements are the keys to the success of any sustainability in any society. The study will focus on the sustainability of the environment and its areas of achievement.

#### **3.5 Environment**

The environment is the system around us with all its living and non-living organisms such as plant, water and soil as well as human beings is a component of the environment as well, and all these components are connected to each other and affected and affected and affect, any increase or decrease in one of the components of the environment causes a major disruption affecting our lives , Caring for the environment and making it clean is a very important thing that is advocated by the associations and institutions concerned in all countries of the world. (Mohammed, 2018, Internet) at the United Nations Environment Conference in Stockholm in 1972 defined the environment as the asset of available natural resources, in a specific place and time to satisfy the needs and aspirations of the human being. (Nasser al-Saarn, 2017:22)

The previous definition indicates that the environment is everything that surrounds man or other organisms and affects their existence and survival, whether they are vital or non-vital factors, it is the place where the organism lives and affects the environment of two types:

**1-** Land environment covering a quarter of the earth's surface such as forests, deserts, pastures and fields

**2-** The aquatic environment is three-quarters of the earth's surface, ocean, rivers, fresh water and salt.

The ecosystem is living to ensure the continuation of life affected by it and is affected by the disruption of the natural balance of the components of the environment that affects the life of living organisms, resulting in the risk of pollution, the environment must be protected by science, renewable energies and green environmentally friendly technology.



#### 3.6 Environmental sustainability

Environmental sustainability is one of the important pillars of sustainability means leaving the floor in good condition for future generations without depletion of natural materials or waste of natural environment and tampered with and this is achieved through the protection of natural environment (such as reducing waste, using renewable raw materials free of fuel, eliminate Of toxic substances), the protection of human health and nature, and at the same time creating innovations that don't affect the way Our livelihood and our environment. (Altahan, none, p:14), custom (Alkarman, 2016) environmental sustainability is a State of positive interaction between man and environment components to ensure sustainability, with the aim of conserving resources and protecting the environmental components. (Alkarman, 2017, p:2).

Environmental sustainability from the point of view of the Finder and see previous literature is the right to use the natural wealth and resources in a way that preserves the environment, contribute to the local economy, support the needs of future generations and to find ways to stretch less wasteful to current needs without compromising The needs of future generations by increasing efficiency and recycling as a tool to protect the environment (such as take advantage of leftovers, glass bottles, cans, plastic bottles, and Peel some food) using green technology.

#### 3.7 Arab countries' position on environment and development

Since 1986, Arab countries have signed several agreements on environment and development, in 1992 after the Rio Summit. Adopting a regional programme of action on sustainable development under the banner of the Arab League in 2002, various countries committed to the Sustainable Development Initiative in the Arab Region aimed at developing strategies to achieve the seventh Millennium Development Goals on Environmental Sustainability (UNDP, 2011, 38).

Most of these countries now have national strategies for sustainable development, but the inclusion of this concept in decision-making, day-to-day management and practice, and thus its impact on the ground, varies according to these countries, as it is weak in those with a high level of non-compliance.



Political and security stability in particular, a study (H. Khordagui, 2004), showed that concern for the sustainability of environmental works and technical capabilities in the Arab world remains weak, and that the legal framework for environmental protection, environmental legislation is not well prepared, it tends to be a response to environmental damage, not proactive and with a future vision, and laws are not well implemented, and the absence of regular monitoring and reporting and the absence of the powers of political and economic actors further undermine Law enforcement. Many environmental cases are settled in civil and commercial courts that do not understand the seriousness of environmental degradation.

#### The role of green technology in reducing pollution:

This will be addressed in research into the role of green technology in reducing environmental pollution by answering the following questions that have been asked in the study problem:

- What is environmental pollution?

-What is the role of green technology in reducing environmental pollution?

To answer these questions, the following paragraphs are concerned with the format:

#### 4- Environmental pollution

#### **4.1 Pollution**

Pollution that damage to the ecosystem because human quest to maximize material saturated with less effort, making it difficult for the system to provide a healthy life free from contamination. (Ramadan et al, 2004, p: 365) ,Defined by the EPA Environmental Protection Agency (EPA) America that air pollution water or soil resulting from human activity or remnants of industry or an error in the design process or misuse of equipment, representing a loss in manufacturing. (EPA ,1995,P:1)

Researchers use allah said (all things we have created by meaure) (Surah Al-Qamar, ayat 49) to interpret the meaning of pollution I said says he created us all by it mansions and spent, Allah created everything by measure to provide appropriate ways of life for all living things, if Not so much to increase or decrease the human induced pollution obtained using industrial and agricultural resources and inflation and resulting life-threatening damage living organisms including humans, causing damage and damage to the natural environment



classified sources (ISO) pollution by the medium in which it occurs three Main types( water pollution, air pollution, soil contamination). (Gharaybeh , 2000, p:180) To achieve environmental sustainability and optimal use of natural resources for effective environmental protection and a better life while keeping the needs of future generations must eliminate pollution or take preventive measures to prevent using environmentally friendly technology. Environmental pollution has a direct impact on human existence, as they lead to direct effects on humans is increased mortality due to epidemics through air pollution and drinking water.

Also cause environmental devastation to many environmental hazards is running out of natural resources and the task of human existence as a result of excessive use. (Al Marzouqi,2004, p. 46) in order to understand the nature of environmental destruction and kept out some of the pollutants and researcher reviewed the role of environmentally friendly technology at their disposal and achieve the sustainability dimensions. And because of the many writings and research traditional display types of pollution researcher approach has other ways of showing pollutants circulating at present taken to expand during the past decade due to the constant change of technological developments will address Finder to some types and review how to get rid of them Modern means environmentally friendly:

#### 4.2 Environmental pollution by electronic waste

Every industrial process outputs of either commodity used and either be remnants or emission caused by industrial process and customer bears cost without his knowledge, as well as a loss of organizations resulting misuse of resources or an error in design or production processes. (Al-Omar, 2000, p: 13), electronic wastes include residues of cell phones and computers and printing and air conditioning and all sorts of other electronic materials, given magnitude are facing the world but exacerbated in developing countries especially Arabic States and causing health risks And contamination of the environment so that advanced industrial countries are countries are disposed of due to their aging and sent to developing countries and when not performing for the purposes of the intended and made difficult to get rid of them and thus become piles and become contaminants affect the environment in all components exacerbated this phenomenon and began to appear over the past decade due to the continuous change of electronic devices with the development of technology without.



This is accompanied by an improvement in the disposal of obsolete equipment. There is no awareness that appears to be in line with its risks, especially as it includes toxic substances such as zinc and mercury. Waste of electronic devices contributes to all types of waste. That results in the second gas and carbon dioxide and copper oxide and iron, which leads to air pollution and when exposed these gases to moisture and rain acid rain consists, as well as toxic gases that are a threat to health and the environment as well as the negative impact on the mental development of children.

#### **4.3 E - Waste disposal strategy:**

In view of the environmental impact of the linear economy and the depletion of its natural resources, many intellectuals and scientists interested in the environment to find alternative visions more compatible with nature and more sustainable, among those ideas in the world now the idea of circular economy, Circular economy is a general term that refers to the industrial economy that does not produce waste or pollutes from the beginning of its design and since its establishment, which reuse, recycle, and recycle the old equipment to avoid waste and waste that are contaminated with the environment (Saed, 2016, Internet)

The circular economy is a regenerative system that minimizes waste, emission and energy leakage by slowing, closing and closing energy rings and materials. This can be achieved through long-term design, maintenance, repair, reuse, recycling, regeneration and closed recycling rings. (Geissdoerfer, Martin, 2016, 143: 757). This is not consistent with the linear economy in which we dig for resources we manufacture, consume and then dispose of in landfills or incinerators (Wikipedia, 2017, internet)

The leading companies in this field is a French factory that produces engines and spare parts since 1949. It recovers the used pieces and separates the pieces that cannot be reused and can be defrosted, it can be repaired and refurbished so that the plant today does not produce waste at all. The circular economy in this company starts from the production stage by making mechanical parts in such a way that it can recycle later and restore as much as possible with the participation of large groups of workers and make changes in production and consumption patterns. They want environmentally friendly products. Many studies in the field of marketing have proven that more than 80% consider it the first criterion of purchase, which has increased the company's returns due to the low cost of providing raw materials, Designed by environmentally friendly way.



#### 4.4 Environmental pollution with daily waste (garbage)

Daily waste include waste and recycling material and waste food and what results from the accumulation and not addressed to damage human health or life, biology or health and safety of natural resources (Nasser &Alsaran, 2017, p:132), rubbish which cannot be recycled is disposed Her indifference through burial in soil leading to pollution of land by the inability of some decomposition.

## 4.5 Waste Disposal Strategy (Garbage)

Best available technology that has been developed and successfully implemented in Scandinavian countries where waste is separated from the source to the two tracks to waste: 1. daily waste (waste and recyclable materials and waste food) and special large waste wastetwo, residuals Green, electric and electronic equipment waste and hazardous materials. Rotor waste management process includes the collection of waste-friendly manner (which is enough to separate food waste glass before sorting), sorting (consists of two parts: the food waste and recyclable waste) and relevant treatment methods: biogas from waste food, Recycled and recyclable materials, the production of energy from waste.

Also from the leading companies in this field Swiss company in the United Kingdom, which made it a source of income and household waste energy as waste transferred to factories or treatment complexes part burn to produce high value ash ashes contains many minerals and material value that You can sort it and reuse it. The next step is to conclude the economic cycle of these wastes each year produces the complex 300 tons of ash is recycled nearly 10% in the form of precious metals either remaining 90% is from minerals that have been used for the manufacture of bricks to rebuild the streets and sidewalks, as well as the Netherlands vision To Amsterdam in the Netherlands hopes to recycle 30% of waste at present and 65% in the year 2020, the world's most densely populated, most countries in Western Europe populous, (Which number about 16 million people on a land area of 41 thousand kilometres , which produces a population density of 389 people per kilometre per square meter) (Mustafa, 2016, Internet)



# 5-The role of green technology in addressing environmental challenges in the Arab world:

The concept of the environment is confined to the Arab world within narrow and limited limits except the Countries of the Maghreb, Qatar and Abu Dhabi, the activities of these countries will be reflected on the rest of the Arab countries because the concept of the environment from the point of view of UNESCO the concept of natural and cultural heritage says that we are one world that has been destroyed in a country that matters to the whole world. The loss in a country is not a loss for the country itself, but for the whole world, the researcher will review some of the challenges to the environment in Abu Dhabi, one of the most active countries in achieving environmental sustainability. In terms of defining its mission to protect and preserve the environment for a better life, it has developed a strategy from 2016 to 2020 to become a key element of Abu Dhabi's action plan to address environmental challenges and strategies designed to meet them with clear visions for a sustainable environment for a sustainable future.

## 5.1 The decline of groundwater

In a country such as the Arab Emirates is a very limited bio-resource and natural recharge rates are not sufficient to meet the growing demand for groundwater due to increased soil salinity.

<u>To meet this challenge</u>, groundwater depletion is monitored throughout the uae and this information is used to promote policies and planning as it cooperates with industrial companies to achieve a better balance on the use of groundwater and recycled and sweetened water, and to apply strict measures Related to drilling permits and raising awareness about reducing waste in water use and providing new strategic water reserves.

<u>Assessing success by meeting this challenge</u> by reducing the total amount of water extracted and consumed.



## 5.2 Climate change

Is of a desert nature, with dust and dust abounds when dust storms blow, and the real particles stuck in the atmosphere pose a threat to public health, and population, industrial and urban growth contributes to increased levels of pollution.

<u>Meet the challenge</u> of expanding the network of air quality monitoring stations and connecting them electronically with other stations and when pollution levels exceed the permissible limit, this information is immediately disseminated electronically and informed and in cooperation with companies from the industrial sector to reduce emissions reinforced by policies Advanced and strict implementation of emission standards.

Abu Dhabi's Air Quality Compliance Index is a key criterion in assessing success and achieved a 91% excellence in 2014.

#### **5.3 Global warming**:

Caused by greenhouse gases that reserve heat in the atmosphere increased emissions of gases is an inevitable product in urban life today, especially with the unprecedented increase in demand for energy, water and transportation, as the rise of sea level that causes the phenomenon is the challenge it faces Continue to grow while ensuring sustainability.

Monitoring the emission continuously and taking the necessary measures to protect threatened species and work to raise awareness about the need to reduce emissions in addition to clarifying the benefits of this realand commitment to the implementation of the laws in this regard, Meet the challenge by reducing emissions, especially carbon dioxide, year after year.

#### 5.4 Waste

production rate of about 12 million tons in 2013 and there is no infrastructure that absorbs these huge quantities, 64% of the waste is disposed of in irregular landfills, and a new waste classification system is developed with industrial companies (recycling), To identify the types of waste that can be reused or recycled, recover resources from it or dispose of it and manage waste properly with waste disposal in sanitary landfills, meet the challenge by managing waste properly with waste disposal in sanitary landfills.



## **5.5 Fisheries**

Are considered local fish as common, healthy and nutritious foods but they have become vulnerable to overfishing and suffer from a threat and studies in Abu Dhabi have shown that twelve species are exposed to overfishing that can expose them to disappear from the water once and for all and fishing takes place before the stage of the species C And the ability to reproduce which severely affects the stock.

Cooperation with partners to highlight problems to promote sustainable fishing practices and take steps to ensure legislation at the federal level to prevent off-border fishermen and since recreational fishing accounts for about 20% of all fishing populations, community awareness, compliance with relevant laws and the development of techniques are enhanced Innovative fish farming to relieve pressure on natural fisheries

Assessing success by meeting the challenges by increasing the stock of (12) twelve species and strengthening the sustainable fishing index.

#### 5.6 The forests

Of most forests of Abu Dhabi are scattered in 400 different sites and include 19 million trees considered as a buffer zone of desert creep and a valuable habitat for plants and animals and a refuge for thousands of animals that may be endangered outside the forest, but with the expansion of forests is no longer sustainable without a distinct system of industrial irrigation where the. The current destruction of water used in forest irrigation is 214 million cubic meters per year.

Management plans to address critically and maximize the benefit of water use where research suggests that many trees can grow in smaller amounts of water, improve irrigation systems, increase the use of recycled water, replace non-native plants with local ones, in addition to strengthening facilities Forests to suit recreational activities. Success is assessed by reducing the amount of water used for irrigation.



## **5.7 Habitat loss**

Habitat loss and fragmentation in desert ecosystems and the vulnerability of many species to extinction or threat of extinction to the pressures of biodiversity.

In the Environment Monitoring Authority, a complete and clear picture of the current situation of biodiversity is drawn up and plans for the conservation of species are drawn up to ensure healthy combinations of plants and wildlife, as well as a regulatory framework for the protection of endangered habitats and species, as well as the establishment of new reserves, research and development. Endangered species and research and development of contingency plans to deal with endangered and endangered species such as Arabian boa and sea cows and work to strengthen outstanding efforts to ensure the survival of these species.

<u>Success is assessed</u> by the growth of land and marine habitats and the development of more plans to conserve target species and their continued increasing numbers.

## 6. Conclusion:

- 1- The environment around us with its trees and seas and its beauty is threatened by a great danger caused by it is man and not animal and the first victim of 1- environmental pollution is human and living things, pollutes the air from the factors of cars and gas factories, pollutes water from waste and sanitation pollutes food with pesticides And fertilizers. One of the most important actors in this development is the information technology component because it has a role to play in accelerating and facilitating access to data and information to implement the axes of the development strategy that achieves the standard of living that is in line with international developments.
- 2- Recycling in general, is a strategy to meet the challenge of waste and hazardous industrial waste in order to produce new goods, help to reduce the amount of waste that is normally collected in landfills and cause pollution of the environment and the resulting serious damage to organisms and the risk of depletion of natural resources And not to preserve it for the future.



- 3-To achieve sustainability, it is necessary to integrate its three elements, which are responsible economic growth and equitable social growth that contributes to the achievement of local economies and returns and ensure a better life in order to achieve a sustainable environment for a sustainable future.
- 4-The main reason for the decline in the development of green technology projects in Arab countries with the exception of the Maghreb countries, the Uae and Qatar is due to the lack of ICT infrastructure characterized by a low skill base due to low levels of technology use.
- 5-Chemical agriculture drains the soil due to added chemicals, agricultural crops are full of deadly chemicals and their cultivation leads to soil contamination and damage to the health of the individual.

#### 7. Recommendations:

The researcher recommends the following recommendations for achieving a sustainable environment for a better future

- 1. Encourage the experience of some countries and follow the pattern of successful life as a successful policy in the capital Amsterdam and encourage recycling and environmental awareness to contribute to sustainable development and application of industrial symbiosis programme which means that waste produced by someone that can be a valuable material for someone That there be a policy for waste collection and sold to owners of companies, thereby closing the loop of circular economy and create jobs, to enrich the local economy.
- 2. Encourage technological plants green in various fields, for the Arabic States applied to be prepared in all respects of installation space technology as remote and isolated areas so that they can implement the necessary infrastructure and various pilot projects and easily To determine the best methods that can be followed for waste management in the region and the most appropriate and relevant, an infrastructure helps to collect and sort waste at source which are generally easier to implement compared to amendments to existing collections and appropriate educational programmes to ensure the participation of All categories of waste-producing community, whether domestic, industrial and commercial waste.



- **3.** Develop a documented database on the production and consumption of energy, and the adoption of energy efficiency standard indicators and rates of use of the product and promotional standards unit, so in addition to the need to adopt a national strategy for energy efficiency and conservation include commitment to the goals of a specific quantity efficiency Energy and integration with national development strategies in General and tourism in particular.
- 4. To spread the culture of environmental agriculture based on natural environmental agriculture and finance environmentally friendly projects that increase the fertility of the soil year after year on its own and move away from the chemical agriculture that drains the soil by adding chemicals, relying on crops that are grown without chemicals and natural agriculture achieves self-sufficiency In most vegetables, and deviate from markets and feed them full of preservatives and deadly chemicals and thus achieve this sustainability by preserving the environment and the individual, the circulation of green food.
- **5.** Developing environment-related legislation and to apply the principle (action for public benefit) applied some Arabic countries including Algeria which proved the success of this punitive machinery contribute to protect the environment in Algeria and introduced as a punitive system alternative to deprivation, In order to make use of them for environmental sustainability and environmental awareness have a soul transplant for a sustainable future.
- **6.** And develop a documented database on the production and consumption of energy, and the adoption of energy efficiency standard indicators and rates of use of the product and promotional standards unit, so in addition to the need to adopt a national strategy for energy efficiency and conservation include commitment to the goals of a specific quantity efficiency Energy and integration with national development strategies in General and tourism in particular.
- 7. Promote a culture of environmental agriculture by relying on natural environmental agriculture and environmentally-friendly projects that increase soil fertility year after year on their own and stay away from chemical farming which depletes soil chemicals added, depending on the crop Grown without chemicals and natural farming fulfills the individual self in most vegetables, and dispense with the markets and fed her, filled with deadly chemicals and preservatives so check this sustainability in preserving the environment and the individual, green food.



8. Development of environmental legislation and to apply the principle (action for public benefit) applied some Arabic countries including Algeria which proved the success of this punitive mechanism to contribute to environmental protection and development of Algeria as a punitive system alternative to deprivation, in order to take advantage of them. To environmental sustainability and environmental awareness have a soul transplant for a sustainable future?

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The Holy Quran

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