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**NATURAL RESERVES AND SUSTAINABLE DEVELOPMENT / AN  
OVERVIEW OF THE KASIBEH RESERVE / IRAQI ECOSYSTEM : A  
REVIEW ARTICLE**

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**Annotation**

This article talks about Iraq has sought to develop its natural reserves and forests to sustain natural diversity and preserve rare wild animals and plants from the danger of extinction and overview at a reserve in eastern Baghdad and tracking the living creatures protect them from extinction and promoting sustainable management of living natural resources through the adoption of practices that would integrate the needs of biodiversity conservation and development priorities.

**Keywords:** Natural reserves, Sustainable development, Kasibeh reserves.

A review Article Problem: The Iraqi environment faced many aggravating problems, which led to the emergence of environmental pollution, which included most of the environmental aspects, which negatively impacted sustainable development in the field of environment and biodiversity, especially in natural reserves.

A review Article Objective: This research aims to shed light on the concept of a system of natural reserves and biodiversity, in addition to promoting sustainable management of living natural resources through the adoption of practices that will bring about integration between the needs of biodiversity conservation and development priorities.

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The method Article: Analytical method by reviewing sources and research and gathering relevant information, international reports and approved statistics to provide important recommendations and suggestions for the development of the Kasaiba Nature Reserve in Baghdad /Iraq .

## INTRODUCTION

The environment and biological diversity in Iraq were subjected to deterioration, which caused the loss and decline of many important plant and animal species, which resulted in an imbalance in the environmental balance. Natural reserves are expressed in areas that include natural ecosystems that are preserved and whose borders depend on any human activity. The Kasibeh is a nature reserve located in the Madain District of Baghdad Governorate, Iraq, with an area of 157 yoke. This reserves it is affiliated to the Iraqi Ministry of Agriculture, Department of Forestry and Desertification. It was established to save Iraqi species and varieties from the danger of extinction. The reserve contains farms for breeding various animals, including Reem deer, ostriches, turkeys, quail and others, in addition to nurseries for the cultivation of different plants and rare and perennial trees. The reserve was rehabilitated in cooperation with the FAO in the year 2008 (Domínguez and Luoma, 2020).

### 1-1 Most Important Protected Animals are Kasaiba

A-Ghazal Al Reem: Is known as the doki deer or the black-tailed deer. The Arabs named it the Reem deer, and it is one of the types of deer that resides in a wide area of Central and Western Asia, and these deer are considered one of the extinct animals in Georgia, Syria, Kuwait and Yemen, and they are near Extinction in Jordan.

B-Ostrich: It is one of the birds of the ostrich genus, and the ostrich is one of the large birds that cannot fly, and its original home is the Middle East and Africa, and these animals have been subjected throughout the ages to overfishing, and the ostrich is characterized by the strength of its massive legs, and it is the only bird that has two toes Per foot, male ostriches weigh about 100-150 kg and may reach 2.4 meters in length.

C-Turkey: These birds are bred mainly for their white meat, and their original habitat is the two continents of America, and turkeys have two types, namely: Wild turkey: native to eastern and central North America.

Two-eyed turkey: It is native to the Yucatan Peninsula.

D-Quail: The quail is one of the medium-sized birds of the order of chickens, and there are two types: New world quail and Old world quail.

Often these birds are domesticated to take advantage of their meat and eggs, and wild quails are hunted to raise them in places other than their original home in order to spread on a larger scale.

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### **1-2 Most Important Protected plants are Kasaiba**

A-Neem tree: It is one of the plants belonging to the Azodarchae family of the order Saponites, and has types High neem and Common Neem or Indian Neem.

B-Milk thistle flowers : known as milk thistle or milk thistle, this plant is one of the camel's favorite meals. It is also known as one of the annual winter thistle plants. It is carried on a thick stem. The branches begin to branch from the bottom of the stem to the top. The plant is characterized by large leaves with a thick texture. And prominent veins, and the leaves contain strong and sharp thorns at their ends, and the height of these plants ranges from about 30 cm to 120 cm.

### **1-3 Investing in Reserves and Attracting tourists**

Economic experts, believe that “natural reserves are unique biological assemblies that are often devoted to the propagation of rare and endangered animals or to give a micro-environmental picture of a natural area, which is considered a point of attraction for tourists (Andrade and Rhodes, 2012). Iraq has lost, during the past four decades, dozens of these nature reserves due to wars, neglect and deliberate sabotage, and on top of the reserves that were vandalized the marshes in southern Iraq, as a unique water formation found in Iraq only and was attracting hundreds of thousands of tourists, and includes unique organisms within different ranks In the animal and plant kingdoms, many of which have been classified as extinct, which is a great economic and biological loss for Iraq (BirdLife International and Handbook, 2018). The rest of the reserves suffer from neglect in different ways, as some of them enjoy continuous care, especially in northern Iraq and some central and southern provinces, but it is necessary to put some of them for investment in order to develop and exploit them for tourism under tight environmental conditions to preserve their rare creatures." And one of the most important reasons that lead to the loss of reserves is the continuous hunting of the Iraqi wild falcons called the free bird, which is witnessing a serious decrease in its numbers due to the lack of protection for it and its high price in the Arab Gulf states, the rehabilitation of natural reserves in Iraq, and their presentation for investment will support the national economy, as they are considered at the global level, national treasures that attract millions of tourists and generate foreign currencies on the one hand, being a heritage aspect associated with Iraq that can be linked to the manufacture of tourist souvenirs, as in the American eagle.”. Natural reserves are natural areas with specific borders that enjoy legal and legitimate protection to preserve their animal and plant biodiversity from overexploitation or devastating natural changes. He said that “the number of reserves in the world reached (6930) until 1990, covering approximately 5% of the land area, and the interest of countries in the reserves reached the point of allocating a national day (Dudley, 2008). The development of existing reserves and the creation of new ones. And interest in some countries has reached the establishment of a council or a higher authority for nature reserves, while nature reserves in Iraq suffer from neglect during the era of the previous and current regime, and because of the pollution of the

environment in Iraq and the Second Gulf War, many plant and animal neighborhoods became extinct, and although the state of extinction of animals It is a state of nature, but it happened very quickly compared to the normal state of affairs (Dudley, et al. 2010). As the number of plants in Iraq is estimated at 2,937 plant species, three of which are threatened with extinction, 81 species of mammals, nine species of which are threatened with extinction, and 145 species of birds, of which 17 are rare species threatened with extinction, and the natural reserves in Iraq were more than 20 A protected area has reduced a lot and efforts are being made to increase it (Coetzee, et al. 2014). The tourism benefits among the benefits of establishing nature reserves and taking care of them is that they provide a financial return for the state resulting from eco-tourism, as it attracts the largest number of foreign tourists due to its biological diversity and beauty of its environment. For students of studies and research, nature reserves help prevent the dangers of soil desertification, promote sustainable development for future generations, provide job opportunities and jobs for not a small number of people, and help spread environmental awareness (Coetzee, et al. 2014).

#### **1-4 Kasibeh Protectorate in Al-Madain is the largest of the reserves.**

The Ministry of Agriculture announced earlier that the reserve, which the Ministry considered as a starting point for agricultural and tourism projects in the capital, Baghdad, which is considered one of the most important in Iraq, with an area of 157 acres, which is a natural landmark,” noting that the reserve “works to protect rare and extinct birds and animals, as well as It will contribute to reducing desertification and resisting dust storms, and it is considered a tourist resort because contains more than 45 deer and 30 ostriches, in addition to the water surface and more than 60,000 trees (Coetzer, et al. 2014).

The establishment of this reserve comes to protect endangered birds and wild plants. The reserve also contributes to limiting desertification and resisting dust storms. It is considered a springboard for tourism, including ostrich breeding, which contains 30 ostriches, as well as the breeding of deer, Iraqi type, in which the number reached 50 gazelles. The reserve also contains 16,000 species of trees and plants, in addition to the establishment of a lake in the reserve with an area of seven yoke, the aim of which is to attract migratory birds and create a suitable environment for them to breed because of its many benefits, namely providing vegetation cover, developing the cultivation of desert plants, preserving livestock, improving races, investing groundwater and other advantages generated from these reserves (Corrigan, et al. 2018).

#### **1-5 The Concept of Sustainable Development**

Several definitions developed of sustainable development, including meets the current needs without compromising the meeting of the future needs of future generations and balanced and harmonious economic and social development concerned with improving the quality of life while protecting the vital system with

continuous economic and social development without compromising the quality of the natural resources that are used in human activities and on which the process depends development (WHO, 2013). The principles of the environment and social and economic services to the residents of the community without threatening the vitality of the natural structure and order social and needs of the present without compromising the ability of future generations to meet their own needs. Natural assets for future growth and development a broader definition of sustainable development as “the management, conservation and guidance of the resource base” (FAO) 6. The World Food and Agriculture Organization has given the process of biological and institutional change in a way that ensures the continuous satisfaction of human needs for present and future generations in all sectors (Kukkala AND Moilanen, 2013). The standard of living of the society as a whole from all aspects, economically, socially and globally, within the framework of the available resources, and sustainable development can be defined

It is also the ability to grow, change and evolve, and these three forms of development are inseparable in every effort made to understand the phenomenon of development and deal with her. Sustainable development is defined as: the development process that meets the aspirations and needs of the present without compromising the ability of future generations to meet their needs at risk. In practice, sustainable development is a multifaceted term, which can be viewed from multiple angles, but is often determined in relation to the time period in question (i.e. in years, decades, centuries or millennia) and the proportion, function and content of the ecosystem structure that should be preserved (Leberger, et al. 2020).

## **2- Conclusions and Recommendations**

Achieving the sustainable development of nature reserves and supporting them for economic and social development with integration of the national action to preserve biological diversity in order to preserve the flora and fauna.

The strengthening institutional, technical, legislative and executive capacities to protect nature with increasing exports and attracting investments in the field of nature protection and nature reserves, the outside world to achieve sustainable development goals through cooperation with donor countries and organizations and activating agreements international organizations and benefit from it and using advanced technology and modern capabilities to improve the communications network, the developing information systems for natural reserves and biodiversity and modern methods of monitoring and providing innovative and unconventional solutions for government spending and the budget and economic methods for self-financing. These carrying out environmental awareness and information to achieve the requirements of sustainable environmental development with protecting biodiversity and developing natural reserves within the framework of national strategies and the solidarity of the various sectors of the state in National and international commitments towards reducing biodiversity loss. Achieving sustainable financing and strengthening

partnership and cooperation among all concerned sectors conservation of biodiversity and reserves.

In the extent of progress and regression in the value of these indicators, hope we have found the answer in this article, which indicates the policies of countries in the field of sustainable development, whether they are on the way, is it right towards achieving sustainable development, or is it still slow and hesitant as it is in most countries of the world.

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