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About innovative Environmental Research



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# Plastic Bags

**It's Environmental Damage is  
Greater than Social Benefit**



Under the slogan «A Cooperative Society for a Sustainable Environment» ...

## » The Sultanate Celebrates the Omani Environment Day

The Sultanate celebrated the Omani Environment Day in affirmation of the continuing efforts in preserving the environment and preserving its natural resources, under the slogan «A cooperative Society for a Sustainable Environment», to embody the importance of joint cooperation in protecting and defending the environment by various governmental sectors, private sector, civil society institutions, citizens and residents. The yearly celebrations on the eighth of

January, express the concern that the Sultanate gives to the environment, since the beginning of the Blessed Renaissance. The completion of the laws and legislations system, is an indicator that the Omani society is considering that preserving of environment is one of its interests and goals. Since the announcement of the celebration of the Omani Environment Day in accordance with the directives of the late Sultan Qaboos bin Said bin Taimur - may God rest his soul - the Sultanate recalls on this day what has been

accomplished in the environmental field and what will be built on it in the future. Through the «Oman Vision 2040», the environmental authorities seek to continue efforts to protect the Omani environment, to achieve sustainable development goals in preserving natural resources, to ensure a balance between the environmental dimension and the economic and social dimensions at all levels of development planning, as well as to emphasize the axes covered by «Oman Vision 2040».



## » The Sultanate Celebrates the Gulf Wildlife Day

The Sultanate celebrated the Wildlife Day of the Gulf Cooperation Council States under the slogan “Humans and wildlife are Partners in One Environment.” The celebration of the Wildlife Day in GCC comes on December 30 of each year. The celebration of this year comes under the slogan which is chosen by the General Secretariat of the Gulf Cooperation Council. The celebration aims to be an annual

platform in which efforts are combined to preserve wildlife, ecosystems and endangered species. The choice of the slogan “Man and wildlife are partners in one environment” for this celebration, indicates the affirmation of the harmony in preserving the values of man, the life and the nature as one thing. It also affirms the importance of the balance between the elements of nature and the human’s life, as well

as the important of the protection of wildlife from the dangers that humans cause by pollution and tampering that destroy natural landscapes. The celebration of this year’s Environmental Day sheds light on the human model that is based on the coexistence between human beings and wildlife. It also realizes the importance of the humans’ peaceful coexistence with the environment and the wildlife around them.



point of view

### Without a Plastic Bag

**Dr. Dawood Sulaiman Al Balushi**  
Editor-in-Chief

As usual, I never enjoy the trip to go shopping because it involves many expenses that burden the budget allocated to the monthly household needs. What makes matters worse is that when I stand in front of the cashier, I discover that there are no plastic bags to put the things in, and that I have to invent a way to carry these things from the shop «to the car and then to the house.» I feel a double upset about paying too much and then not having bags to carry the purchases.

But at the same time, this distress turns into joy for me, because I have been strongly demanding in previous articles to ban plastic bags because of their dangerous negative effects on human health, living organisms and the surrounding environment.

The Decision No. (23 / 2020) regarding banning the use of single-consumption plastic shopping bags in the Sultanate, which will be enforced on January 1, 2021, is a correct and timely decision. This is because it is one of the necessary and very important measures in order to protect the Omani environmental system and to bring it to the stage of sustainability.

If we go back a little, to the timing of the issuance of this decision, we will discover that it was issued 10 months before the date of the start of its implementation, specifically on March 14, 2020. Thus the decision allowed a sufficient period to find out healthy and environmentally beneficial alternatives within a period of 10 months, which is sufficient period for either importing or manufacturing eco-friendly bags, whether it is cloth, cotton, cardboard, paper or plastic bags that made of environmentally friendly materials which can rapidly degradable and do not affect human health and the environment, as well as having a degree of thickness that allows for multiple uses.

In fact, there is a huge shortage of suitable alternatives to the single-use plastic bags. Perhaps the matter is due to several reasons, including the failure of the competent authorities in the Sultanate to direct the owners of private companies and obligate them to manufacture or import alternatives that are healthy and environmentally beneficial and such alternatives available in large quantities in various markets before the start of the implementation of the decision. Or perhaps such directive exists, but there has been no response on the part of the private sector. Also, the lack of creating sufficient community awareness on this environmental decision and efforts to prepare the community to accept this decision and accordingly, be keen to use suitable alternatives of the plastic bags.

40 million plastic bags are annually consumed in every large shopping mall in the Sultanate. This number increases hundreds of times with the increase in the number of large shopping centers, markets, retail outlets, restaurants and other private sector establishments across the Sultanate. With this decision, we have protected the Sultanate’s environment from millions of plastic bags polluting the environment and harming human health and living organisms. We hope that other decisions will be issued, in the coming period, to ban all plastic bags of all kinds and forms and to obligate the private sector to provide suitable alternatives for all markets in the Sultanate.

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# Environmental Sustainability and "Oman Vision 2040"



The thought of sustainability was one of the most important pillars of the future visions and the successive five-year development plans in the Sultanate of Oman since the beginning of the seventies of the last century until the current century. In addition to that, the Sultanate is an active partner in all regional and international forums and conferences that resulted in the declaration of the Sustainable Development Goals in September 2015. Since then, the Sultanate has sought to translate its international commitment into achievable goals by the year 2030, through long and medium-term strategies, medium and short-term plans and programs of action. In fact, this keenness on the part of the Sultanate to achieve the goals and objectives set by the sustainable development agenda is not surprising, but rather a natural extension of the values and principles of sustainability, equality, justice, peace and participation entrenched in Omani society from its inception until now. This is clearly evident in the Basic Rule of the State and in the speeches of His Majesty Sultan Qaboos bin Said - may God rest his soul - which formed a governing frame work for all development plans and programs in the Sultanate since the First Five-Year Plan in 1976, and up to the Tenth Five-Year Plan (2021 - 2025) and "Oman Vision 2040", which advances with confidence, under the leadership of His Majesty Sultan Haitham bin Tariq -may God protect him- for drawing up a road map for the aspirations of the current generations and foreseeing the happy future.

## The Millennium Development Goals

When focusing on the environmental sustainability goals, and referring to the Millennium Development Goals that ended in 2015, it is not an exaggeration to say that the Sultanate has achieved most of these goals, especially the Goal No. 7, which is related to ensuring environmental sustainability with its three targets of integrating sustainable development principles into national policies and programs and reducing the loss of environmental resources, a significant

reduction in the rate of biodiversity loss, and a reduction in the percentage of people who do not have continuous access to safe drinking water and basic sanitation services, as shown by the indicators results in the fourth national report of the Millennium Development Goals issued in March 2016, by the National Center for Statistics and Information, which indicated that the area of land covered by pastures in the Sultanate amounts to one million three hundred and fifty thousand hectares.

In the field of preserving fish wealth as a pillar of environmental sustainability, many regulatory legislations have been developed and research projects have been conducted in order to develop and optimally utilize them.

In the field of water resources management and development, efforts have focused on achieving integrated water management represented by establishing a balance between supply and demand, enhancing water resources exploration, implementing surface and underground dam projects, and using water resulted from desalination and treated wastewater.

At the end of the eight Millennium Development Goals and the replacing of them with the seventeen Sustainable Development Goals in the Global Sustainable Development Plan 2030, the implemented of which started on January 1, 2016, it can be said that the Sultanate has so far achieved some of these goals, especially with regard to the environmental sustainability goals represented in the goals Number 6: Ensuring the availability of water and sanitation services for all, Number 7: Ensuring universal access to affordable, reliable and sustainable modern energy services, No. 11: Making cities and human settlements inclusive, safe, resilient and sustainable and No. 12: Ensuring sustainable consumption and production patterns and No. 13 : Take urgent action to combat climate change and its impacts, No. 14: Conservation and sustainable use of the oceans, seas and marine resources to achieve sustainable development and No. 15: Protect and sustain terrestrial ecosystems and enhance



their sustainable use, in addition to managing forests in a sustainable manner, combating desertification, halting and reversing land degradation and stop the loss of biodiversity.

## Environmental Sustainability

There are still many goals in relation to environmental sustainability 2030, which require serious work to overcome many challenges and require concerted efforts and integration by all concerned parties and sectors to achieve these goals through the enactment of legislation and the strengthening of procedures, capabilities, initiatives and national projects to achieve the rest of the goals of environmental sustainability 2030. As well, the importance of alignment of strategic directions for "Oman 2040 Vision", and its interconnectedness with the trends of the 2030 Sustainable Development Goals, especially with regard to the natural resources and environmental sustainability axis in "Oman Vision 2040".

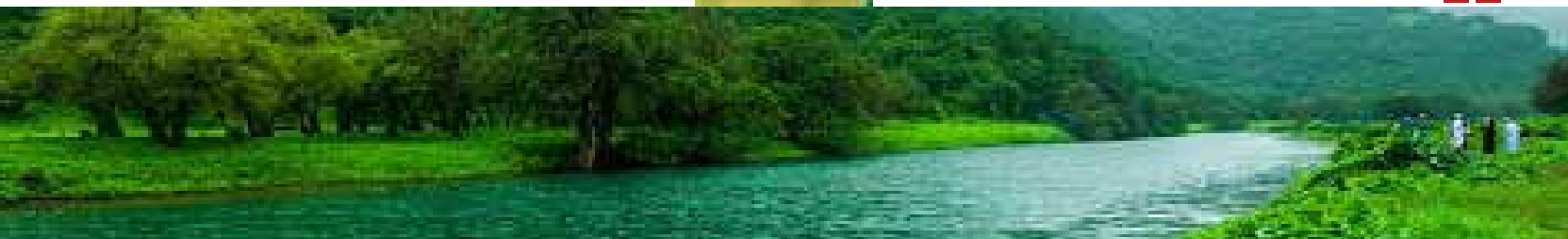
## Preserving of the Natural Resources

From the beginning of the tenth five-year plan (2021 - 2025) within "Oman Vision 2040", the Sultanate aspires to achieve these trends through a number of goals. The most important of such goals are high-quality and pollution-free environmental zones, sustainable use of natural resources and wealth, investment in a way that ensures high added value, an environment that achieves a balance between environmental, economic and social requirements, and the principles of sustainable development, so that it is achieved through different projects and programs that focus on enhancing the sustainability of the agricultural sector, increasing the economic return, increasing and raising efficiency of fish production in a sustainable manner, as well as managing water and increasing the efficiency of its uses, and expanding the establishment of triple treated wastewater plants. As well as researching and finding alternative sources of energy, and rapid expansion of low-cost uses of renewable energy. "Oman Vision 2040" will seek to have livable cities and societies that preserve the Omani identity and sustainable use of resources while preserving

food and water security, protecting the environment and adapting to the impacts of climate change with the availability of a transportation system with a sustainable infrastructure.

As well, "Oman Vision 2040" gave special priority to ensuring the existence of sustainable production and consumption patterns through the sustainable use of natural resources and wealth for all sectors, in addition to providing environmental awareness associated with the effective application of the rules of sustainable consumption and production. In the field of environmental protection and the preservation of its natural resources, many achievements have been made, which will be strengthened in "Oman Vision 2040", including the intensification of programs to protect the environment, combating pollution, preserving natural resources, implementing various environmental studies and projects, and develop a system of national legislations, strategies and plans, especially with regard to Goal No. 14 of the 2030 Sustainable Development Goals related to underwater life, Goal No. 15 related to life on land with the directives of "Oman Vision 2040". The Sultanate is also keen to cooperate and develop links with various organizations, conventions and environmental organizing protocols.

In sum, preserving environmental sustainability and achieving the goals of sustainable development 2030 and "Oman Vision 2040" is not limited to governmental institutions related to environmental affairs, but the responsibility includes all sectors, government institutions, the private sector, civil society organizations and members of society in the diversity of its segments and classes, which deepens the concept of partnership and active citizenship, to reach future aspirations towards protecting our unique environment and natural resources, so that its components are safeguarded and sustainable, and their systems are effective and balanced according to an integrated and comprehensive system of governance..



Opinions of community members diverge regarding the application of the Ministerial Decision No. 23 / 2020 that bans the use of single-consumption plastic shopping bags. Some people supported the decision and others asked about the availability of appropriate alternatives. The 1st of January 2021 is the starting date to implement the decision in the Sultanate. The decision specified penalties in case of violation. The Environment Authority believes that the decision came to protect the environment from single-consumption bags, which are distinguished by their light weight, thickness, and cheap price, the matter that have led to their overuse. In turn, such over use has led to overburdening the environment, affecting lakes and soil, causing the death of many organisms and plants. It also has led to distorting and contaminating of the beautiful natural places, their and the water.

# Plastic Bags

## It's Environmental Damage is Greater than Social Benefit

**Some people wonder about the decision to ban the use of single-consumption plastic shopping bags, and whether there are suitable alternatives**

### Exceptions

The Environmental Authority published an explanation on the social media about the specifications and alternatives to the single-consumption bags covered by the ban according to the Decision No. 23 / 2020, as well as the bags that were excluded in the first phase of the implementation of the decision. The Authority indicated that the bags that are covered by the ban are light weight single-use plastic shopping bags which thickness is about 35 microns, as well as all kinds of decomposing bags, which are able to disintegrate and decompose quickly in nature, and their chemical properties remain harmful to the environment.

The Authority reviewed the alternatives which are the paper and cardboard bags, fabric bags, cotton bags, and the thick reusable plastic bags which are available in markets and shops.

The Authority also mentioned the bags that were excluded in the first phase of the implementation of the decision, which are plastic bags intended for waste collection, bags for planting agricultural seedlings, and bags for vegetables and fruits available in commercial centers. In addition, the Authority mentioned the bags used for meat and fish available in commercial

centers, and bags for laundries, as well as bread packaging bags. The Authority noted that this aforementioned exception came on a temporary basis, and called on all community members to search for suitable alternatives, including paper and cardboard bags, and alternative containers for meat and fish until the time this exception ends. To say more about the details of plastic bags, we can mention that they are made of polyethylene, which is a material derived from crude oil refining and natural gas processing, and these oil and chemical materials have several risks. They need nearly 100 years to decompose.

Yes, many members of the community questioned this decision with a stonishment, due to the lack of alternatives to replace these bags and provide the same characteristics and uses. There were many methods of questions ranging between publishing videos and tweeting on social media platforms. Some even found their way into public media.

### Important Statistics

In its thirty-second issue, the "Lynx" published a main topic entitled "Who is Responsible?, wondering about the consumption of more than 40 million plastic bags annually in every major shopping center." In that topic, important statistics were reviewed. Dr. Hamad bin Muhammad al-Ghailani,

### Plastic waste damage extended to

- Human
- Animal
- Plant
- Soil
- Air
- Water

■ **Each major commercial center in the Sultanate consumes about 40 million plastic bags annually**

■ **Multiple risks to humans and the environment are caused by the use of the single-consumption plastic bags**

■ **One of the most effective solutions is to encourage local community to produce multi-consumption bags made of recyclable material**

## Suggested Solutions

**T**he solution of the damages of plastic bags is to reduce their use and recycling them. Among the solutions that can reduce the use of plastic is the use of multi-consumption bags instead of single-consumption bags. The difference between them is that the single-consumption bags are mainly made of plastic, and are of light thickness because they are used one-time only. Multi-use bags are made of cloth, paper or other organic materials as well as of thick plastic that can be used continuously up to 100 times. In this regard, the private sector and members of the local community, such as craftsmen and entrepreneurs, can be encouraged to produce multi-consumption bags. They should be provided with the appropriate opportunities and conditions for innovation in such products and present them to various institutions and individuals in different molds and at prices that suit everyone.

Plastic recycling can be done by working on innovative solutions such as spreading the culture of sorting plastic waste and handing it over to institutions working in recycling. Also one of the solutions is to intensify campaigns and community initiatives on a large scale to get rid of the plastic waste in any location of this good land.

plants by preventing sunlight and air from reaching them. They also reduce soil fertility, which affects the plant environment. The presence of these bags between grass or hanging on trees branches, put them in the path of animals that search for what they eat, so, they get affected. The spread of plastic bags in pastures and rural areas leads to the death or disease of many animals, such as cows, sheep, goats and wild animals. plastic bags also affect the productivity of animals. In addition to that, increasing of plastic in the soil at landfill sites by more than 5% makes

this soil unsuitable for construction or for building facilities on top of it. Some dangerous chemical materials, that is used in the manufacture of polyethylene granules, may decompose. seep into the groundwater and lead to ground water pollution. Part of plastic bags damages, they cause floods in the event of blockage of water ways, as well as blocking sewage pipes. All this will affect the health of the human being in a direct and indirect way.

### Global Reports and Studies

A scientific report published by a team from the Australian Industrial and Scientific Research Institute, showed that a large number of marine animals suffer from the effect of plastic waste on their diet, which harms their health and leads to their death. According to the report published by the Journal of the National Academy of Sciences, 99% of sea birds are exposed to ingestion of plastic particles along with food until 2050. The researchers based their assessment on studies that were published between 1962 and 2012 which included 186 bird species, as stated on the German «Zeit Online» site. According to a scientific research published on the UN Environment website, plastic pollution represents a greater threat to plants, animals and humans, as researchers in Germany warn that the impact of micro-plastics in soil, sediments and fresh water may have a long-term negative impact on these ecosystems. A German study conducted by the German Environment Ministry and the Robert Koch Institute revealed that 97% of the urine and blood samples of 2,500 children contain a high percentage of toxins as a result of plastic products, and the ages of the children studied range from 3 to 17 years old. Despite these dangerous results, studies and research on the impact of plastic materials on children's health and development are still in their infancy and research is still ongoing. In the study, the results of which were published in the journal Nature Nanotechnology, the scientists talked about «results that provide clear evidence that plastic can accumulate in plants.» warning of the danger to food safety and agricultural sustainability.

Director of Community Affairs and Environmental Awareness at the Environment Society of Oman, pointed out that the consumption rates of plastic bags in the Sultanate sometimes exceed the global average consumption. He explained that the world consumes 60 thousand plastic bags every 6 seconds, and two million plastic cans are used every 5 minutes. 100 thousand cans of the canned food are used every 30 seconds around the world. The statistics indicated that the annual plastic production ranges between 500 thousand to one billion tons annually.

### Multiple Risks

The dangers of single-use plastic bags have varied, including that they cause pollution to the marine environment, and thus lead to the death of a large number of fish and other marine organisms. Sea turtles and whales are also affected when they eat plastic bags. In addition to that, plastic bags pollute the air through the spread of plastic particles in it. Also damage coral reefs, as plastic bags wrap around them. As well as they cause the death of birds, distort the general view and tourist places. The spread of plastic in the soil impedes the growth of

## » «Oman's Whales and Dolphins» on Five New Oman Post Stamps

Oman Post has issued a new set of postage stamps called "Oman's Whales and Dolphins", with the aim of increasing awareness of the rich marine life that abounds in the Sultanate. These stamps were designed in cooperation with the Environment Society of Oman, as they embody five unique and endangered marine creatures swimming near the coast of the Sultanate. They are: the Arabian Sea humpback Whales, Indian Ocean Humpback Dolphins, North Indian Ocean Blue Whales, Spinning Dolphins, and the Bottle nose Indian Ocean - Pacific Ocean Dolphins. Philatelic and wildlife enthusiasts can enjoy this special edition that includes a set of stamps, first-day cover, commemorative card and postcards. The seas of the Sultanate of Oman occupy an isolated part of the Indian Ocean and are among the most prominent waters of unique marine diversity and the most productive in the world. According to estimates by Environment



Society of Oman, there are about 20 different species of marine mammals living in the coasts of the Sultanate, including whales, dolphins, and porpoises, some of which are vulnerable to extinction. The list of dangers facing these marine organisms and cause their numbers to decrease, include the remnants of fishing nets and equipment, noise pollution, collision with boats and ships and the loss of the natural environment due to the continuous

development activities. The Environment Society of Oman is making strenuous efforts to protect these marine creatures and focusing on increasing their numbers through scientific research, defining their places of spread, assessing risks and contributing to reducing them by developing recommendations and implementing action plans for their conservation, as well as increasing the level of community awareness and enhancing environmental education efforts in the Sultanate.

### Qatar

#### The Launch of a Monitoring Program for the status of the Marine Environment in the State of Qatar for the Year 2021

The first phase of the field environmental monitoring program was launched for the status of Qatar's marine environment monitoring program for the year 2021. The field monitoring teams at the Environmental Monitoring and Laboratory Department at the Ministry of Municipality and Environment collected samples from the marine environment for analysis at the Environmental Laboratory and conducted the necessary environmental measurements in a number of coastal sea water monitoring sites of the status of Qatar, using modern monitoring devices. The first phase includes

covering (14) of the coastal water sites distributed in different regions in the status of Qatar. It is noteworthy that the Monitoring and Laboratory Department issues a detailed semi-annual report on the state of the marine environment in the status of Qatar, including environmental indicators. Efforts to protect the Qatari environment and its resources and their sustainability come within the framework of the attention and care given to the environment in the status of Qatar and it is setting as the fourth pillar of "Qatar National Vision 2030".

### Kuwait

#### Following-up the Work Developments and Preparation of the Gulf Environmental Portal

Headed by Eng. Samira Al-Kandari, Deputy Director General for Environmental Supervision Affairs, a meeting was held to follow up the developments of work and prepare the Gulf Environmental Portal. The project came as an initiative by the State of Kuwait and funded by the General Secretariat of the Gulf Cooperation Council. The meeting was attended by representatives of the Environmental Data Department and the company which is implementing the portal. The portal aims to display data and spread Gulf environmental knowledge through the applications it contains, such as air quality, maps, and the Gulf Cooperation Council's achievements in the environmental field and the Wildlife Convention.

### UAE

#### The Launch of the Environmental Tolerance Initiative

As part of its participation in the Tolerance Week activities and as part of its efforts to enhance work efforts for the environment, the Ministry of Climate Change and Environment launched the «Environmental Tolerance» initiative, which aims to raise community awareness of environmental protection behaviors and efforts of preserving it, as well as to ensure the sustainability of its natural resources and its biodiversity. The Environmental Tolerance initiative includes several sub-initiatives, each of which includes a variety of activities, events and campaigns. Among the initiatives there is: «Let Us Tolerate Our Marine Environment» and «Tolerance Our Wild Environment.»

### Saudi Arabia

#### Memorandum of Understanding to Implement Environmental Programs

The Ministry of Environment, Water and Agriculture signed a Memorandum of Understanding with the University of Tabuk at the Ministry's headquarters in Riyadh, to implement environmental, academic research, training and development programs, as well as to exchange experiences, in order to achieve the goals of the National Environment Strategy and to contribute to sustainable development and community well-being, in addition to provide job opportunities for graduates, in compliance with the goals of «2030 Vision».

### Bahrain

#### Installing of Solar Energy on Eight Schools

Dr Abdul-Hussain bin Ali Mirza, Chairman of the Sustainable Energy Authority, announced the official launch of the initiative to install solar energy systems to be distributed on the roofs of facilities and buildings of eight public schools as the first package of schools and government buildings to use solar energy systems. This came during the ceremony of signing of the energy purchase agreements to produce 3 megawatts of solar energy

between the Ministry of Education and a number of private sector companies that won the bids which was previously put forward by both the Sustainable Energy Authority and the Ministry of Education in early 2020 as a pilot project, in cooperation with the Ministry of Education, the Ministry of Finance and National Economy, the Economic Development Board, the Tender Board and other competent bodies.



## A New Satellite that Allows a Clear View of Any Part of the World

Washington – ONA: The American «Capella Space» company has launched a new satellite with extraordinary capabilities that can capture high-quality images without being hindered by any conditions such as darkness, rain, fog, and even building walls. The British newspaper «The Sun» said that the company launched the new satellite «Capella 2» a few months ago, pointing out that these exceptional

capabilities of the satellite are due to the so-called synthetic aperture radar (SAR), an imaging technology that can be more effective than optical imaging. For his part, the CEO of «Capella Space» Payam Banazadeh said that 75% of the Earth's surface at any time is cloudy or at night, or both together. Therefore, the new satellite aims to combat this problem and provide observations around the clock, seven days a week, in any weather.

## Two dwarf giraffes astonish scientists



JOHANNESBURG – Reuters: Giraffes are distinguished by their long stature, which enables them to pick up leaves from the top of trees, but scientists were puzzled after they found two dwarf giraffes in two different places on the African continent. «What our researchers found on the ground is amazing, we are very surprised,» Julian Vinicy, co-founder of Giraffe Conservation, told Reuters in a video link. Most giraffes grow to between 4.5 meters and 6 meters,

but in 2018 scientists working with the foundation found a giraffe two meters and 60 centimeters long in Namibia. Three years earlier, they had spotted a giraffe just 2 meters and 80 centimeters high in a wildlife park in Uganda. The scientists published their findings in the British Medical Journal at the end of last month. The magazine said that the two giraffes were known to have long necks, but their legs were short and chunky.



## The «Tasmanian Devils» Return to the Shores of Australia after an Absence of 3,000 Years

Sydney – Reuters: The Tasmanian Devil, the world's largest surviving carnivorous marsupial mammal, has returned to mainland of Australia for the first time in 3,000 years. The Tasmanian Devil is about the size of a small dog and was included in the United Nations' Red List of Endangered Species in 2008. This animal was made famous by the character Taz in the cartoon series

(Looney Tunes). Australian actor Chris Hemsworth and his wife, actress Elsa Pataky joined environmental groups last month to release 11 Tasmanian devils in a wildlife reserve in New South Wales, with more to be released later. This is «the first time in 3,000 years or so that Tasmanian devils roam the mainland forests,» said Tim Faulkner, president of the Aussie Arc Environmental Group.



Environmental Vocabulary

## The Stake

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The wadis that lush with surface water thrive with different types of green landscape. Trees vary in shapes, sizes and benefits, while they all share the same resources. The beholder to these trees can distinguish between them even if their name is unknown to him. The name itself differs from place to place and from area to another, but the pure Arabic name remains the reference to which it is agreed, especially since it is mentioned in the Great Holy Qur'an, and recited in the verses. It is a clear signal that my pen will spill its ink to frame the brief words about a tree mentioned in the Holy Qur'an and widespread everywhere.

In the lush wadis you find it predominant to the place with its permanent greenness, and its unique shape from other familiar trees. It loves water despite its medium height. Some of its species overcome thirst, salinity and alkalinity, especially those above 18 meters high. This tree belongs to the Tamaricaceae species and has many types. Its leaves are small in size, scale-like, almost like that of junipers. Its flowers are pink to white and appear in dense masses very beautiful and beloved to honey bees. Its stems bleed a sweet sugary liquid that is used as a summer food because of its large nutrients. It is a perennial and fast-growing tree, even if its stem is cut off to use its wood for many industries, it grows again and again. Users of the wood are keen to cut its branches in extreme cold or extreme hot, believing that the wood harvested during these periods is characterized by extreme hardness and high resistance.

This important tree has many benefits and uses, including therapeutic, vital and social uses, whether the use of its soft or dried leaves, fruit or strong wood, all of which are of great benefit to humans and animals, in addition to its lush shades. Sticks and leaves from this tree have been found in the pharaohs' monuments, indicating the ancient importance of this tree. Antient herbalists have described its medicinal benefits and explained its therapeutic properties, such as Ibn al-Bitar, Al-Antaki and others. Some recent studies have also pointed to some of these benefits. Because of abundant of literature written about it we have to abbreviate and restrict on what we have mentioned. Its mentioning in the Great Holy Qur'an gives us clear indications of its importance, and its suitability for the circumstances that followed the flood of the dam, and overcame harsh conditions and stabled on the ground like the stake. This encourages us to decipher its secrets and deepen the search for its benefits with precise research and scientific tools to provide the pharmacy with natural medical products as a desirable alternative and treatment. The questioner about it will be informed, when its name is recited in the sixteenth verse of Surat Saba. To avoid any prolongation and boredom, we tell you that this tree is called; «Tamarix».

# Arabian Oryx

Hello friends, I am the Arabian Oryx, I have a distinct hump on my shoulders, two long straight horns and a tail that ends with a tuft of hair, and I am the smallest of all Oryx

I am a graceful animal weighing up to 130 kg and my height is about 170 cm

We live in herds consisting of a male and a number of females, and we settle in the deserts and steppes of the Arabian Peninsula and Mesopotamia. We are found in Oman in Jeddah Al Harasis

I eat herbs, leaves and plants especially those containing large amount of water in their leaves