



The National field research
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About innovative Environment Research

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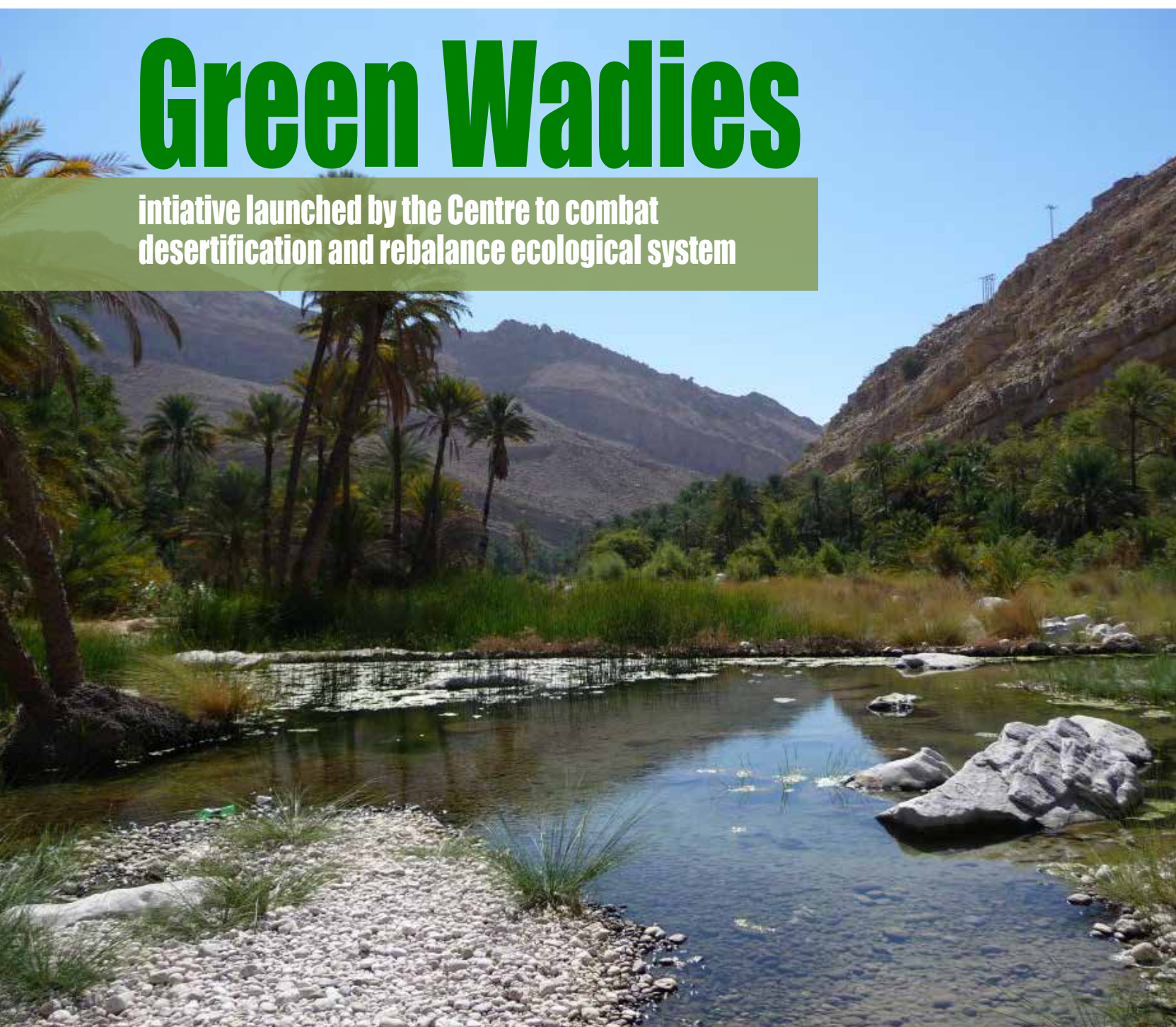


Sultanate of Oman
Diwan of Royal Court

Issue 11

Green Wadies

initiative launched by the Centre to combat
desertification and rebalance ecological system



**Mangrove
a four thousand
years old plant**



**Million Job
Opportunities in
Renewable Energy**



point of view

Trafficking of Animals and Birds

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Despite the great efforts exerted to raise awareness by different government entities responsible of the environment in the Sultanate about the importance of the wildlife preservation and its natural resources to guarantee their sustainability, there are some wrong practices and acts made by some civilians in wildlife poaching unintentionally in order to get animals trafficked in, turning their back on the environmental laws and legislations that criminalize their acts and practices at the same time, and that those may eventually lead them to entering into no-good ominous judicial mazes.

In many cases, when the different Omani media tell us that some civilians were captured poaching wildlife animals or birds exposed to extinction while tracing and premeditating these animals, and with publishing painful pictures having all the horrible crime tools in them, it cuts into our souls how assumed some single-handed acts are by some people who sell their conscience in return for some money or for enjoying hunting as a hobby and spending their leisure times. This foggy and dim picture portrayed by those individuals within the Omani society is nothing but an individual image for individual acts giving the hint of their deficiencies in recognizing the meaning of the national wealth of the wildlife and the importance of preserving the ecosystem with all its various elements.

This phenomenon has spread widely in the society ringing alarm bells and being a real threat to the wildlife in the Sultanate. Consequently, this requires the emphasis on the implementation of law against these horrible acts, so there must never be any complacency in this issue either by laws or traditions. There must be heavy adjudications upon those individuals in order to be made an example of for whoever would like to get himself into these fields, because complacency in such issues may destroy the wildlife in the Sultanate and may open the practice of breaking in to this issue as it has become an all the same easy pass to escape. The wildlife system in the Sultanate is a big responsibility that lies with us all to preserve it from disappearance and extinction.

In Addition to its High importance in keeping the environmental balance

Mangrove

tree that extends through Oman's history over four thousand years



The Sultanate is historically distinguished with its heavy forests of Mangrove plant, which the old Omani merchants used to trade its wood and seeds in their sea voyage around the world; Mangrove plant is considered to one of the most important seashore line plants that live on salt water. In the framework of the Sultanate care for environment and preserving its natural resources since the seventies of the past century, a punch of laws and legislations were issued, these law contributed preserving Mangrove plants for the belief in its high importance in keeping the environmental balance, as it provides habitats to many kinds of high value fish, it also has an attractive landscape that can be used in tourism. There is only one kind which is widely spread in the Sultanate, which is Avicennia Marina, it efficiently coexists with the hot-climatic lack of water Omani environment; this kind distributes in many coastal areas, from North-Batina, passing by the capital Muscat and the provinces of North and South Al Sharqya and Al Wusta, to Dhofar province in the south. The total area covered by Mangrove is nearly 1000 Hectares; moreover, the archeological excavations in the Qurm Nature Rserve in Muscat proved the existence of Mangrove in the area how the fishermen used it more than 4000 years ago.

Not only in Qurm Nature Reserve, this kind of plant is also wide spread in Bandar Al Khayram and Qurayyat in Muscat, Big Khor Al Qurm and small Khor Al Qurm in Dhofar, Shinas and Liwa in Al Batinah area, also in Khor Sur in South Al Sharqyah and other places. Furthermore, the areas of Mangrove is the natural habitat for 40 kinds of crustaceans, 200 kind of birds, more than 80 kinds of clams, and more than 100 kind of fish and sea creatures. Considering the importance of these plants, the Ministry of Environment and Climate Affairs in cooperation with the Japanese Agency for International Cooperation unleashed a project of farming Mangrove and habituating Khors in the year 2000, this project started by establishing the first plantation in Qurm Nature Reserve in Muscat, after six months 17250 saplings ready for farming were produced. It was also planted in Khor Al Sawadi in South Batinah province, now it represents huge natural forest that achieved good growth in few years. Afterwards, Mangrove was farmed in Sur to produce a new fantastic forest, also in the year 2003 the second plantation was established in Qurm Nature Reserve with production capacity up to 22500 saplings annually, in addition to Khor Al Batah plantation in Sur and another in Big Khor Al Qurm in Dhofar, each of them produces about 70 thousand saplings annually.

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According to "IRENA" report

8.1

Million Job Opportunities in Renewable Energy

Adnan Amin, General Manager of the Agency, stated that "This growth solaces the decrease of the Renewable Energy technologies costs and the impact of supporting policies. We expect this attitude to keep increasing with the continual of investment momentum in the renewable energy sector, and the seeking of countries to fulfill their climate goals that they promised in Paris Conference."

The report shows that the total number of available vacancies in the renewable energy sector has increased in 2015 all over the world, while the number generally decreased in the energy sector. For instance, the United States has witnessed an increase in the staffing level of the renewable energy level by 6%, while it decreased by 18% in Gas and Oil sector. Renewable Energy sector in China hired 3.5 million people in return for 2.6 million people in the Gas and Oil sector.

Just like the past years, the empowering policies have acted as a main support for providing job opportunities. Many factors contributed in the increase of hiring rate, as national and governmental auctions in India and Brazil, in addition to tax exemptions in the United States and the appropriate policies in Asia.

The list of the highest hiring rates countries in 2015 included China, Brazil, United States, India, Japan and Germany. The solar PV energy sector is still the most prominent provider of new vacancies worldwide with actual 2.8 million jobs, compared with about 2.5 million in the last statistics, distributed all over industrialization, installing, operation and maintenance fields. The liquid biofuels sectors is number 2 in providing jobs globally, with a rate of 1.7 job vacancies, followed by Wind sector that witnessed an increase by 5% to reach 1.1 million job vacancies all over the world.

IRENA estimated that the doubling of the renewable energy share in the international energy combination by 2030 may be enough for fulfilling the international goals in both climate and development fields, which will lead to providing more than 24 million job opportunities worldwide.

• The following are the most prominent points mentioned in the report of "IRENA"-
The solar PV energy sector is the biggest

◆◆ **1.3 Million Additional Direct Jobs all over the Globe provided by Grand Hydroelectric Power Projects**

◆◆ **An Increase by 24 Million Job Opportunities globally is expected if the Renewable Energy share got doubled in the Global Energy Combination by 2030**

◆◆ **The Solar PV Energy sector is the Greatest contributor in providing job opportunities in the Energy Field**

shareholder in providing job opportunities in the renewable energy field, as it added 2.8 million job opportunities across the globe with an increase of 11% compared with the last statistics. The hiring level rate witnessed an increase in Japan and United States, stability in China and a decrease in the European Union States.

• The increase in the wind energy projects in China, United States and Germany has led to the increase in number of job vacancies by 5% in this sector reaching 1.1 million jobs, noting that the United States has witnessed an increase of 21% in its jobs vacancies on its own.

• The rate of hiring in liquid biofuel sectors, solar heating and cooling as well as big and small hydroelectric projects decreased. This is because of many different factors, as the increased reliance on machines, the slowdown of the housing market, the abolition of subsidies and the decrease in new installation projects.

• China has topped all the world's countries concerning the hiring level in 2015, scoring 3.5 million jobs and withholding more than one-third of the additions of the renewable energy capacity all over the globe.

• In Europe, Britain, Germany and Denmark topped the list of the world countries in the number of available vacancies in the marine-wind power sector. The number of available vacancies dropped down for the fourth year in a row because of the weakness of the economic growth as it decreased with about 3% to reach 1.17 million jobs in 2014, and that is considered the last year for such provided data about it. Germany is still the biggest contributor of the number of renewable energy jobs, as it provides almost the same number as that is provided by France, Britain and Italy all rolled into one.

• The hiring rate of the renewable energy sector in the United States has witnessed an increase by 6% with regard to the growth of both wind energy and solar energy sectors. The number of available vacancies in the solar energy sector increased by 22%, which means 12 times faster than the growth rate of job opportunities in the American economy, excelling in both Gas and Oil sectors. The wind energy sector got to an increase in the number of jobs by 21%.



Green Wadies

◆ **T**he National Field Research Centre for Environmental Conversation at the Diwan of the Royal Court, being a centre for scientific researches in the environmental field in the Sultanate, has launched a national environmental initiative under the title of “Green Wadies” Initiative I the Sultanate” aims at saving different valleys in the Sultanate from the desertification phenomenon restoring the natural and environmental balance by planting local Omani wild trees, achieving environmental, touristic, enlightening, economic, social and sporting goals.

initiative launched by the Centre to combat desertification and rebalance ecological system

This initiative comes as part of the Sultanate celebration of the World Day to Combat Desertification, and with a great contribution of so many governmental and private authorities, academic research institutions and civil society organizations in the Sultanate, local communities , there include. The Ministry of Environment and Climate Affairs, The Ministry of Agriculture and Fisheries, Ministry of Regional Municipalities and Water Resources, Muscat Municipality, National Field Research Centre for Environmental Conversation at the Diwan of the Royal Court, the Public Authority for Scouts and Guides, Omani Garden of Plants at the Diwan of the Royal Court, the Committee of Sport and Environment at the Omani Olympic Committee, Oman Holding Environmental Services, Hayah Company for water, Occidental Company, serenity food Co., Al Namaa Poultry Company, Sultan Qaboos University, German University, Higher College of technology in Al Khuwair, ESO group clean Oman, the Environment Backers Group, Busher Sports Club, representatives of Al Ansab area community at Bucher state

◆◆ **The importance of the contribution of all the local society members lies in implementing this initiative as a sort of actual partnership between the authorities and the society**

and representatives of the families of some of other states in the Sultanate.

During the coordination meeting among different contributing authorities in this national environmental initiative which was headed by the CEO of the National Field Research Centre for Environmental Conversation at the Diwan of the Royal Court Dr. Seif bin Rashed Al Shakasy, the initiative goals were discussed with all their dimensions as well as there importance of this initiative regarding the environmental, touristic, economic, social, enlightening and sporting aspects. In addition, the working mechanisms, the timed schedules for execution and the focus on the importance of contribution in this initiative as a sort of real partnership between the authorities and the society were all discussed as well. The first stage of this initiative will be executed in Al Ansab area at Bucher state in Muscat provenance as a kick off for the state’s launch with the contribution of its members in the work field in which many other authorities contribute. The natural and environmental balance of this Wadies will be re-set by planting local wild trees as Seder, hills, Ghaf, Alhua and many other types of trees along one of the routs near the Wadies,

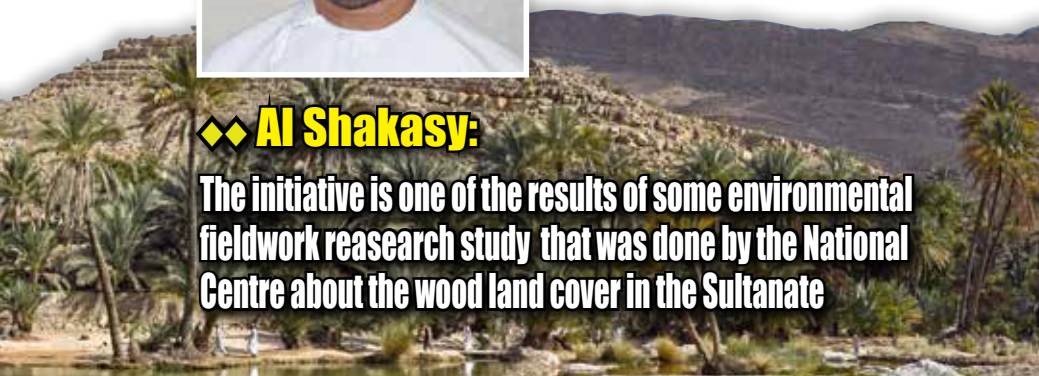
◆◆ **They seek planting Omani wild trees to achieve environmental, touristic, economic and social goals**





◆◆ Al Shakasy:

The initiative is one of the results of some environmental fieldwork reasearch study that was done by the National Centre about the wood land cover in the Sultanate



benefitting from the shallow water collected on the banks of the Wadies in order to water these trees in the first stage and then to be left to grow naturally in its natural habitate. The CEO of the National Feild Research Centre for Enviromental Conversation at the Diwan of the Royal Court Dr. Seif bin Rashed Al Shakasy stressed that adopting this national environmental initiative by the National Centre is because that it's one of those scientific research centres in the Sultanate specialized in the environmental aspect, under the pretext of its interest in the wood land in the Sultanate and its work on the preservation of the Omani wild trees from deterioration and extinction; as this initiative forms one of the environmental fieldwork research results which is done by the National Centre on the wood lands in the Sultanate. It seeks the contribution of different governmental and private authorities as well as academic research institutions and civil society organizations in planning and executing processes, the thing which it has succeeded in doing previously in its environmental fieldwork reasearches and studies on the wood land in the Jabel-Al Akhdar area and Jebel Shams as well as the studies of the ecosystems of fresh water in the Sultanate.

Dr. Seif Al Shakasy pointed out that the Sultanate has a unique green land cover owed to its unique geographic position, as more than 1295 kinds of plants were recorded all over the Sultanate, 136 plant species of which are endangered with extinction and deterioration. This is because of natural reasons as climate changes, drought, lack of water and desertification; in addition to human reasons as poached logging, pollution, development, running vehicles randomly on the green land cover and overgrazing. This all led to the decrease of the green patch in the Sultanate and the exposure of some local wild trees to the danger of extinction and deterioration.

He referred that God has gifted the Sultanate wadies with running water all over the year in addition to the presence of watercourses reservoirs beside it which formed a home for human, social, economic, environmental and touristic life in the Sultanate. However, it has lately suffered from some issues that made its role decrease, such as the desertification phenomenon, the accelerated development and shoveling the soil and fossils, but these valleys have become a dumpster for rubbish and remnants of buildings that affected its environmental and touristic roles negatively in the Sultanate. The CEO of the National Feild Research Centre for Enviromental Conversation at the Diwan of the Royal Court emphasized that this national environmental initiative will be generalized all over the Sultanate, as it will contribute in preserving and developing the green land cover, in addition to preserving the Omani wild trees from extinction and deterioration as well as returning the environmental, touristic and economic importance of the wadies in the Sultanate. Moreover, this initiative is not costly expensive, it contributes in preserving the green patch in the Sultanate and it supports the different types and kinds of biodiversity. It also contributes in decreasing air pollution and global warming, creating appropriate places for practicing walking sport, helps in promoting the interior tourism and enhances the environmental awareness for all society groups and segments regarding the importance of protecting the Omani environment and preserving its natural resources.

Including Many Species of Birds

The National Field Research Centre For Environmental Conservation finished producing its new documentary on birds in the Sultanate. It includes many scenes that express how rich the Sultanate's environment is with rare elements of nature. The documentary highlights the efforts exerted by the Sultanate to preserve different types of birds, whether resident or migrant. Migrant birds come to the Sultanate annually among the lines of bird migration; that is why the Sultanate is a safe station for all birds in the world to stop in. The documentary is based on the official list of birds of Oman, which states that the number of recorded birds has reached 526 types. This is an impressive number, it reflects the environmental and geographic diversity in the Sultanate. There are eighty types of those birds resident in the Sultanate, and the other types of birds migrate to the Sultanate in spring and autumn, or stay for winter. The staff of the documentary searched in all the Sultanate's governorates for the resident birds the country is rich with like Kittiwake, Roller birds, Francolins, Bee eaters, Bulbuls, Crows, Passeridae and Myna birds. And rare types of ducks like the endangered Egyptian eagle. Moreover, the staff visited agricultural areas around the North Batinah coast. Those places are considered to be magnetic to birds, they attract birds around the year. Among these birds are: Larks, different types of Bee eaters, the magpie and the hoopoe. The documentary shows Musandam governorate which is regarded a station for many migrant birds during the spring, and many other types of birds like: types of Grey Shrike, Cuckoo and Silvoidea birds which reproduce in Musandam during this season. It also shows different types of birds in the governorates of Dhofar, Ad Dakhiliyah, Ad Dhahirah, Al Buraimi, North and South Ash Sharkiyah and Al Wosta.

The National Centre Produces a Documentary on Birds in The Sultanate



Natural Disasters Cost Insurance Companies 27 billion dollars during 2015

Natural disasters caused the death of 23 thousand human being in 2015, this is a big number larger than recorded back in 2014, when it reached 7700 deaths. However, the financial damages were less, according to what came in the annual report by German Munich Re for reinsurance, which is considered to be an international reference in this field. Adding that the number of deaths is still below the rate of the past 30 years which is 54 thousand annual deaths. Insurance companies declared that 94% of the losses during 2015 was caused by natural disasters related to climate.

The value of financial damages all over the world decreased to its lower level since 2009, as the financial damages were about 90 billion dollars, compared to 110 billion in 2014. Moreover, the average of recorded damages through the past 30 years is 130 billion dollars per year. However, from all the damages in 2015, insurance contracts only covered 27 billion.

The report points out that the value of insurance is higher in industrial states, as disasters like the cold wave that struck the United States on the beginning of this year, Cyclone Nicholas in Europe, or California Fires, impose big losses on insurance companies. In return, the earthquake that struck Nepal last April is considered to be the highest in death toll during 2015 with number of 9000 deaths, the losses value was about 4.8 billion dollars, while the insurance money is only 270 million dollars.

Moreover, many tropical cyclones struck many places with low population during 2015, as for the Northern area of the Atlantic, the Nino phenomenon prevented the presence of intense cyclones, according to the report of Munich Re.

The company whose climatic, geological hazards and natural disasters sections is analyzing deep analyses, intensified the necessity of that the low-cost damages won't lead to decreasing the precautionary measures.

April 2016, the hottest month ever!

National Aeronautic and Space Administration (NASA) has declared that April was the hottest, ever since the beginning of international record of temperature 130 years ago, it was also

the sixth month a set a 1% raise higher than the temperature records between 1951 and 1980. The metrological expert Eric Holthaus said that the past 12 months broke all the registered records of temperature in

every month, adding that the raise of temperature registered by expert from all over the world means that during the past year the temperature raised to reach 25 percent from the overall rise rate registered since 1880.