Globe Environmental Program:

(research of the atmospheric protocol), the Ozon Layer and the Corona Virus

The seventh and ninety-seventh secondary schools for girls - Jeddah

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Summarize:

The problem of ozone layer degradation is one of the global atmospheric pollution, which has imposed itself since the mid-1980s. it had become one of the major problems facing the world, and a persistent working effort is being made to resolve this problem, since the ozone layer is of great importance in protecting the planet from ultraviolet light that is harmful for humans, animals, and plants. It causes diseases such as cancer, blindness, lack of body immunity, and the inadequacy of the food chain for marine life, and effects on plant characteristics. The negative effects of the reduction of the ozone layer does not depend on humans alone, and the destruction of the ozone layer and its expanding increase the temperature of the Earth's surface, leading to what is known as global warming.

In the current research, many of the problems that could be caused by this phenomenon were discussed, and the role of the Kingdom of Saudi Arabia in reducing the harm and the Crown Prince's initiative for preservihe environment.

Keywords:
Ozone layer _ Global warming _ Corona Virus

What is the problem with the ozone hole?

What is the ozone?

The ozone is a special form of oxygen with the chemical formula 03, the oxygen we breathe, and which is very vital to life on earth is 02, and the ozone is considered a very small part of our atmosphere, but its existence is vital to the well-being of human beings. Most of the ozone is in the atmosphere, between 10 and 40 km above the surface of the earth, it is called the stratosphere and contains about 90% of all the weights in the atmosphere.

Ozone hole:

Following the publication in May 1985 of the British Arctic sea survey results, the phenomenon of ozone depletion over Antarctica was referred to as the "ozone hole", a phrase attributed to Nobel laureate Sherwood Rewound. The satellite image of the Ozone hole became a factor symbol of this environmental threat that helped mobilize public support for the Montreal Protocol. The work of atmospheric scientists and environmental researchers continues to play an extremely important role in the most extreme policy-making process under the Montreal Protocol.

The main causes of ozone depletion

Hydrochlorofluorocarbons:
Hydrochlorofluorocarbons are widely used in the refrigeration, foam, amyloid, aerosol, and firefighting as a transitional replacement for chlorofluorocarbons. Hydrochlorofluorocarbons are also used as intermediate substances (raw materials) in the production of chemical products, and hydrochlorofluorocarbons were introduced in the 1990s as alternative chemicals to chlorofluorocarbons and added to the list of permeable substances under the control of the Montreal Protocol. It was recognized at a time when these chemical agents with considerably lower ozone-depleting capabilities were transitional, and their production and consumption would be phased out under the Montreal Protocol. Although the potential for ozone depletion is much lower than chlorofluorocarbons, many hydrochlorofluorocarbons have high potential for global warming up to 2,000times the second Carbon monoxide. In 2006, global production of hydrochlorofluorocarbons reached 34,400 Tons of ozone depletion capacity and about 75 per cent of global horse use Hydrochlorofluorocarbon in the air conditioning and cooling sectors.

Hydrochlorofluorocarbon is the head, the user is the hydrochlorofluorocarbons 22- or chlorofluoromethane, and in the twentieth annual meeting for the Montreal Protocol on the ozone-depleting substances agreement at the Ozone Layer Agreement, an agreement was reached to amend the removed schedule of hydrochlorofluorocarbons for the Montreal Protocol to accelerate the elimination of the production and consumption of hydrochlorofluorocarbons. This decision will significantly reduce the depletion of weights as well as the warming of the workforce.

When does the ozone hole occur?

Clare Nolis, speak on behalf of a regime, said in a statement in Geneva that this spring-half phenomenon of the northern hemisphere was caused by ozone-depleting substances in the atmosphere, and from harsh winter in the upper layer of the atmosphere.

Montreal Protocol:

Montreal Protocol on ozone-depleting substances (Montreal Protocol) is an international treaty aimed at protecting the ozone layer by phasing out the production of a number of materials which is believed to be responsible for the depletion of the ozone layer. The treaty was signed on September 16. On 1987, started by force on January 1, 1989, followed by the first session in Helsinki, May and 1989. And since that time, it went through seven revisions, in 1999 (Lebanon), 1991 (Italy), 1992 (Copenhagen), 1993 (Bangkok), 1995 (Vienna), 1997 (Montreal) and 1999 (Beijing). It is believed that if the agreement was committed to be applied, the ozone layer will recover by 2050. Due to the adoption and implementation on a scale Broad, hailed as an exceptional example of international cooperation, as Kofi Annan said: "It may be the Montreal agreement is one of the most successful international conventions to date." The Vienna Convention for the Protection of the Class has become Ozone and the Montreal Protocol on September 16, 2009, the first two treaties in UN history to be ratified of all Member States of the United Nations.

One of the terms and objectives of this is the Treaty:

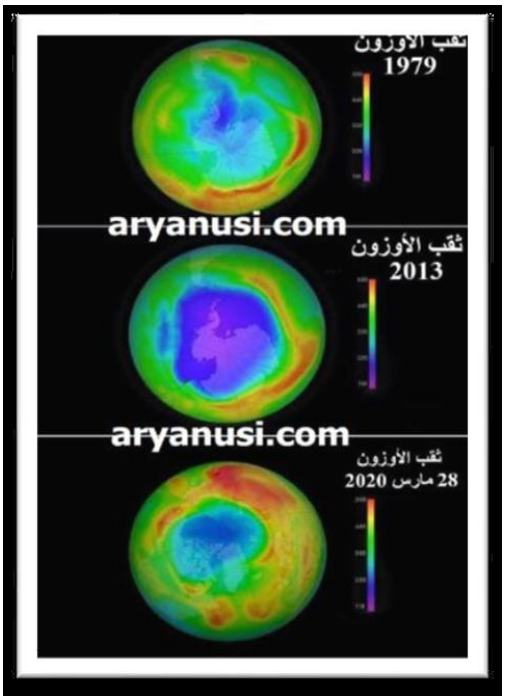
The treaty revolves around several groups of hydrocarbons that have proven to play a role in depleting the ozone layer. All these ozone-depleting substances contain either chlorine and bromine (only the amalgamation of the container on the fluorine is harmful to the ozone layer). The treaty provided for a gradual timetable for the quilts, the production of each group of materials and eventually eliminate them.

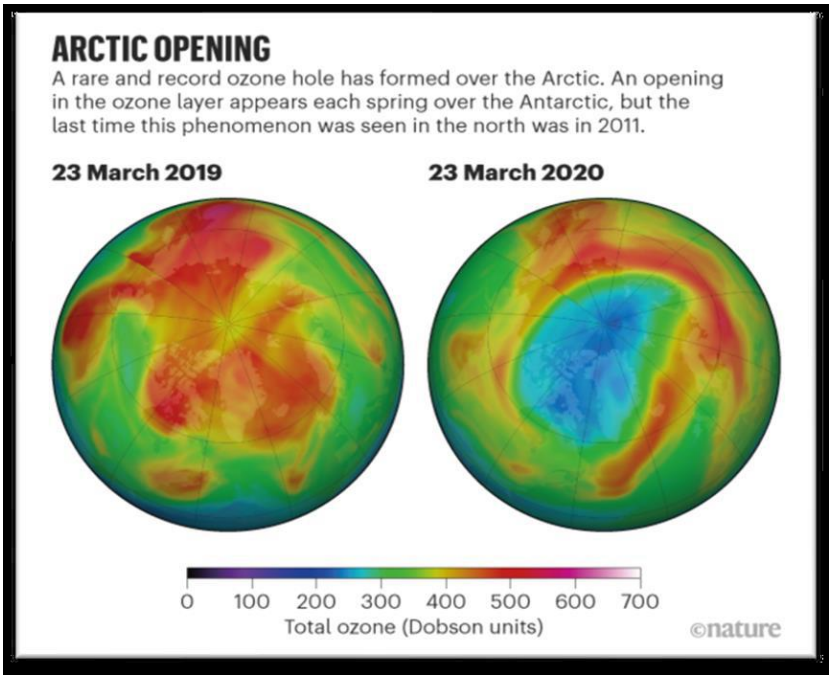
How did the Corona virus help to close the ozone depletion?

The whole world has been affected by the Coronas virus, but on the other hand it has had a positive impact on the atmosphere, filling its effects with controlled changes from scientists and professionals during the period of the epidemic's spread and the applying the quarantine around the world. Images monitored by the European Space Agency (AUS) and the United States Space Agency (NASA) through satellites showed a 70% reduction in pollution from its

previous rate before the outbreak of the epidemic in Greece. Corona allows scientists to hear the tone of satisfaction with added that the health measures including home isolation - contributed greatly to fighting disease and protecting the lands at the same time, which gave the globe a satisfaction a chance to renew its youth. The quarantine came to end the biggest natural problem that threatened the earth and human, the ozone hole that raised the world's fears and scientists for years, to be corona the healing doctor for the ozone hole, who began to recover and shrink. On the Arctic side, we note from the images the study of the ozone layer, which recovers by between 1 and 3%. Every decade, perhaps the disasters caused by Corona over the past few months have been as fearless as it has been.

the globe of ozone.





Disadvantages and Advantages closing the ozone hole during the Corona pandemic

- From the disadvantages of closing or minimizing the ozone hole during the Corona pandemic:
- Lack of productivity, which led to the loss of the weather.

Of the advantages:

- Reducing vehicles that harm the environment due to quarantine and disrupting many factories.

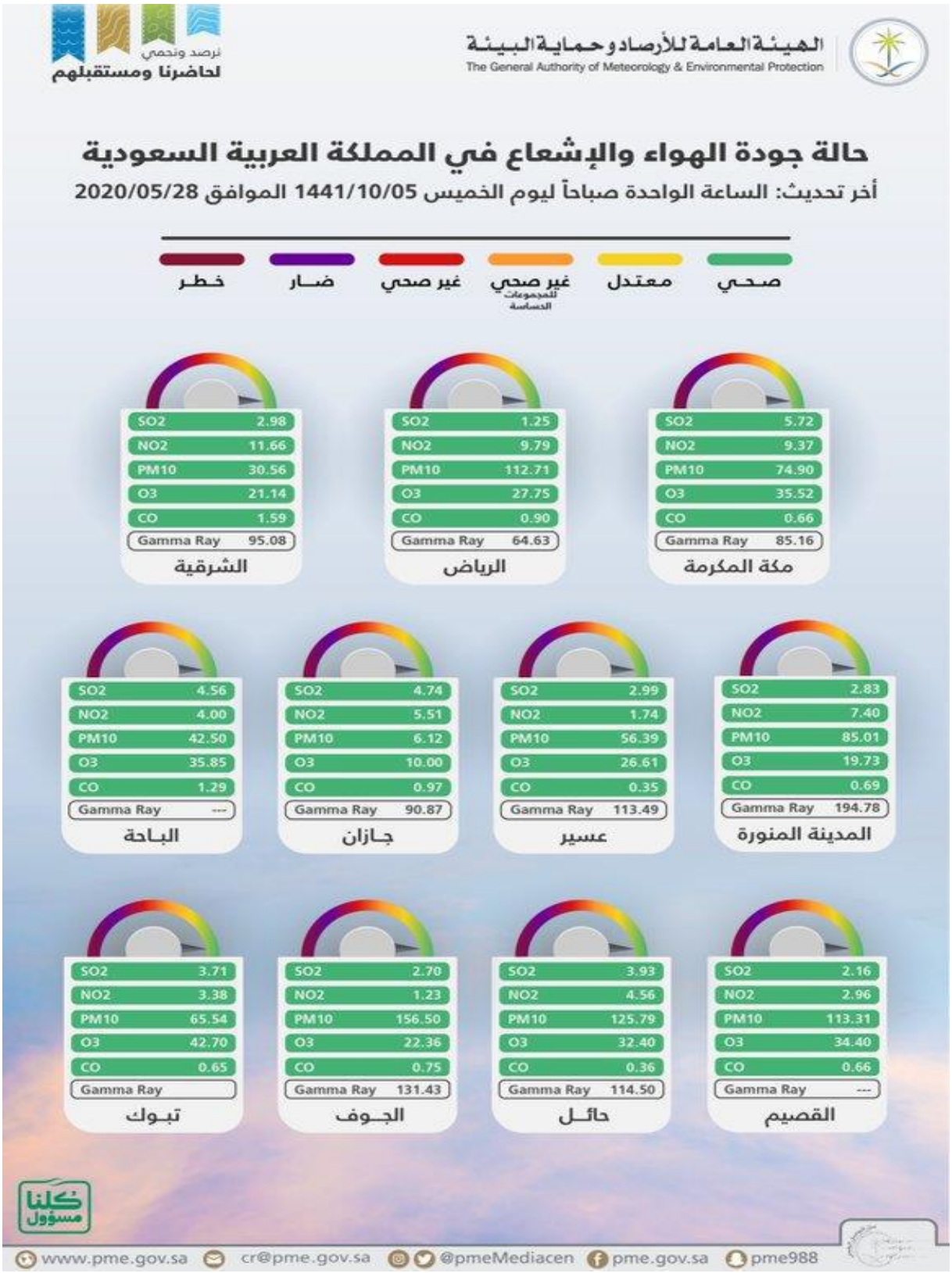
Saudi Arabia's role during the Corona pandemic:

Saudi Arabia also has a role to play since it is a member of the Montreal Convention, which aims in Its protocol to close the ozone hole, through the following:

The Kingdom of Saudi Arabia also has a role as it is a member of the Montreal Convention, which aims in its protocol to close the ozone hole through the following:

Statistics of the closing the ozone hole and the pollution of the environment during the Corona pandemic:

In Saudi Arabia, air pollution dropped by 43% during the curfew period, as the General Chairman of the General Authority for Meteorology and Environmental Protection said that the Kingdom of Saudi Arabia recorded low rates of air pollution during the curfew period, as part of the measures and measures taken to confront the corona virus as "Covid-19". The rate of decline in pollution in the Kingdom during the embargo was 43%, and the highest drop in the Riyadh area was observed at a rate of reduction by 62%. The General Authority for Meteorology and Environmental Protection declared that the air quality in 11 Saudi regions includes Mecca, Riyadh, Eastren Province, Al-Medina, Asir, Gazan, Qassim, Al-Baha, Ha'il, Goff, And Tabouk has been characterized by the health quality. The organization classified the air quality and radiation according to several indicators, including the green colour of the fertile, to which most of its areas, were mild, unhealthy, harmful, and dangerous were tilted.


الهيئة العامة للأرصاد وحماية البيئة
The General Authority of Meteorology & Environmental Protection
نرصد ونحمي
لحاضرنا ومستقبلهم
حالة جودة الهواء والإشعاع في المملكة العربية السعودية
أخر تحديث: الساعة الواحدة صباحاً ليوم الخميس 1441/10/05 الموافق 2020/05/28
صحي
معتدل
غير صحي للمجموعات الحساسة
غير صحي
ضار
خطر
مكة المكرمة
SO2 5.72
NO2 9.37
PM10 74.90
O3 35.52
CO 0.66
Gamma Ray 85.16
الرياض
SO2 1.25
NO2 9.79
PM10 112.71
O3 27.75
CO 0.90
Gamma Ray 64.63
الشرقية
SO2 2.98
NO2 11.66
PM10 30.56
O3 21.14
CO 1.59
Gamma Ray 95.08
المدينة المنورة
SO2 2.83
NO2 7.40
PM10 85.01
O3 19.73
CO 0.69
Gamma Ray 194.78
عسير
SO2 2.99
NO2 1.74
PM10 56.39
O3 26.61
CO 0.35
Gamma Ray 113.49
جازان
SO2 4.74
NO2 5.51
PM10 6.12
O3 10.00
CO 0.97
Gamma Ray 90.87
الباحة
SO2 4.56
NO2 4.00
PM10 42.50
O3 35.85
CO 1.29
Gamma Ray ---
القصيم
SO2 2.16
NO2 2.96
PM10 113.31
O3 34.40
CO 0.66
Gamma Ray ---
حائل
SO2 3.93
NO2 4.56
PM10 125.79
O3 32.40
CO 0.36
Gamma Ray 114.50
الجوف
SO2 2.70
NO2 1.23
PM10 156.50
O3 22.36
CO 0.75
Gamma Ray 131.43
تبوك
SO2 3.71
NO2 3.38
PM10 65.54
O3 42.70
CO 0.65
Gamma Ray
كلنا مسؤول
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Kingdom of Saudi Arabia's goal of vision 2030,30, pending in the environment:

The visionof the Queen2030 seeks to achieve environmental sustainability and advanced levels of environmental safety, altered of a vibrant society in which its members enjoy a sound lifestyle and an environment that allows living in a positive and attractive environment. According to the vision, it states: “maintaining our environment and our natural capabilities is our religious, divine, and human duties, and our responsibilities toward the next generations, and among the political genius of our quality of life. We will therefore reduce pollution by improving the efficiency of managing waste and reducing pollution of all kinds, and we will resist desertification and work to optimize our wealth through rationalization and the use of reprocessing and renewable materials, establish an integrated plant that normally rotates waste, and we will protect and prepare beaches, mansions, and islands. This will enable all to enjoy them through projects financed by government funds and the private sector".

Prince Mohamed Bin Salman Initiative, "Middle East, Green":

The Green Middle East Initiative, in partnership with the countries of the region, aims to grow 50 billion trees as the largest the world's reforestation program, blessed by many countries, including the President of the Sovereign Council Sudan's transitional Abdul Fattah al-Barhan, "Blessed during a contact with the Crown Prince of Saudi Arabia this initiative", considering that it will benefit the region and the world, expressing Sudan's readiness to work with Saudi Arabia to succeed, achieve its goals, and review Prince Mohammed bin Salman with Iraqi Prime Minister Mustafa Al-Kadhimi benefits the project for the region and the world, the most important of which is to meet environmental challenges and improve the quality of life, in addition to achieving a reduction in global carbon rates.

Al-Kazemi confirmed working in support with his country to achieve this initiative to accomplish its goals. The Crown Prince also continued to discuss his initiative with the Prince of Qatar, Sheikh Tamim bin Hamad, and Bahrain's King Hamad Bin Ais, and offered their full support to this initiative, and expressed their countries' readiness to support all efforts to achieve the goals of this initiative. The Crown Prince has revealed the ambitious program that aims at to plant ten billion trees during the coming decades, the cooperative has developed another 40 billion trees to reduce carbon emissions, combat pollution, and land degradation. A gesture also aims to "enhance the efficiency of oil production, increase the contribution of energy to renewable energy, as well as multiple efforts to preserve the marine and coastal environment and increase the proportion of natural reserves." “Green Saudi Initiative” is part of the crown prince’s 2030 vision to reduce the kingdom’s dependence on oil revenues and improve the quality of life in the country.

Recommendations:

- The need to take care of agriculture, irrigation, environment, and increase green lands.

Pay attention to dumping waste in a suitable place, especially the waste of a manufacturer.

Identification badges**:**

STEM

- Science: Sciences reviews the damage and benefits of the expansion and contraction of the ozone layer.
- Technology: Microsoft Office Technology, Internet.
- Engineering: Engineering illustrations.
- Maths matHS: Statistics.
- Community appreciation: Solving the problem of the expansion of the ozone class and the role of the Koruna pandemic in that on the States and the meetings.
- Cooperation: Joint cooperation with the Globe student team in taking the Al-Daghaalat and daily readings of the Al-GAAAAAAAAAAAALOA protocol and searching for
- information

Thanks:

We thank our parents very much for providing us with a helping hand and contributing to our progress in this research, and for our teacher Nouf Al-Janhi for all the support and assistance you have provided, and we thank the administration of the school for your dedication to motivate us.

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