

ENVIS - NBRI





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R-NATIONAL BOTANICAL RESEARCH INSTITUTE, LUCKNOW

News

Study Shows Wetter Climate Is Likely to Intensify Global Warming

A study in today's issue of Nature indicates the increase in rainfall forecast by global climate models is likely to hasten the release of carbon dioxide from tropical soils, further intensifying global warming by adding to human emissions of this greenhouse gas into Earth's atmosphere. Based on analysis of sediments cored from the submarine delta of the Ganges and Brahmaputra rivers, the study was conducted by an international team led by Dr. Christopher Hein of William & Mary's Virginia Institute of Marine Science. Collaborators include Drs. Valier Galy of the Woods Hole Oceanographic Institution, Muhammed Usman of the University of Toronto, and Timothy Eglinton and Negar Haghipour of the Swiss Federal Institute of Technology in Zurich (ETH Zurich). Major funding was provided by the U.S. National Science Foundation.Read more...

May 06, 2020 Date:

Source: Environmental News Network (ENN)

Biotechnology project to reduce mercury pollution in marine sediments

The UAB participates in the MER-CLUB initiative to develop a technology based on the use of marine bacteria capable of degrading a toxic mercury compound that bio-accumulates in the trophic network. The project is made up of a consortium of seven international partners and has a budget of one million euros. Sediments play a key role in marine ecosystems, as they provide nutrients that are part of the diet of aquatic species, and mineral resources that guarantee biological wealth and diversity. Unfortunately, the pollution resulting from industrial effluents and wastewater accumulates in these sediments, converting them into a pollutant reservoir. Until the onset of the application of the Dumping Law (in the 1990s), the sediments had accumulated large quantities of metals, including mercury.

May 07, 2020 Source: Mirage News

COVID-19 lockdowns significantly impacting global air quality

Two new studies in AGU's journal Geophysical Research Letters find nitrogen dioxide pollution over northern China, Western Europe and the U.S. decreased by as much as 60 percent in early 2020 as compared to the same time last year. Nitrogen dioxide is a highly reactive gas produced during combustion that has many harmful effects on the lungs. The gas typically enters the atmosphere through emissions from vehicles, power plants and industrial activities. In addition to nitrogen dioxide, one of the new studies finds particulate matter pollution (particles smaller than 2.5 microns) has decreased by 35 percent in northern China. Particulate matter is composed of solid particles and liquid droplets that are small enough to penetrate deep into the lungs and cause damage.

Date: May 11, 2020 Source: Science Daily

What can we do to preserve our cleaner air?

In the past weeks, there have been dozens of scientific papers and thousands of news articles that focus on the links between this pandemic and air pollution. Dramatic work lockdowns and decreases in travel and in industry have significantly reduced air pollution to unexpectedly low levels. Major cities that suffer from the world's worst air pollution have seen reductions of deadly particulate matter by up to 60 percent from the previous year. Cities studied, including New Delhi, Seoul, Tel Aviv, Wuhan and Mumbai, saw significant improvements in air quality as a result of the quarantines. Satellite images of the U.S. have revealed dramatic changes across the country and especially in the northeast. People in India can see the Himalayas for the first time in decades as the lockdown eases air pollution.

Date: May 12, 2020 Source: phys.org

The revolt of the plants: The arctic melts when plants stop breathing

The vapor that plants emit when they breathe serves to lower land surface temperature, much like watering the yard on a hot day. Until now, the greenhouse effect has been blamed for the rise in global temperature. But an interesting study has shown that the Artic temperature rises when the moisture released by plants is reduced due to the increase of carbon dioxide (CO2) in the atmosphere. The joint research team led by Professor Jong-Seong Kug and doctoral candidate So Won Park of POSTECH's Division of Environmental Science and Engineering, and Researcher Jin-Soo Kim of the University of Zurich has confirmed that the increase in atmospheric CO2 concentration closes the pores (stomata) of plants in high -latitude areas and reduces their transpiration, which ultimately accelerates Arctic warming. The findings, which were studied through the Earth system models (ESM) simulations, were recently published in Nature Communications, an authoritative journal in science.Read more...

May 14, 2020 Date: Source: phys.org

& D on Assessment,

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