

# ENVIS - NB



Vol. 02, September 2017

# NATIONAL BOTANICAL RESEARCH INSTITUTE, LUCKNOW

News

#### China to halt new projects in pollution 'red zones'

China will halt major projects in regions with high levels of pollution, the official Xinhua news agency reported late on Wednesday, underscoring an environmental crackdown that is starting to hit business around the country.

Chinese authorities will roll out a new pollution alert system for regions ranging from the cleanest "green non-alert zones" to the most severe "red" zones, where the environment and natural resources are severely strained.

"For red-alert areas, government authorities will stop granting approval on relevant projects," Xinhua reported, citing a document from the ruling State Council, China's cabinet.

"(Meanwhile), enterprises causing severe environmental and resource destruction will face punishment, including fines, production restrictions and shutdowns."

Regions will also be categorised as "overloading", "near overloading" or "not overloading", depending on the level of strain on their environmental and resource capacity.

China's war on pollution has ramped up steeply this year, rattling the country's ports, commodities markets and factories across the country's smog-affected north. Even firms in higher-tech sectors like autos have started to take a hit....Read more...

Date: 21 September 2017 **Source:** http://uk.reuters.com/

## Alarm as study reveals world's tropical forests are huge carbon emission source

Forests globally are so degraded that instead of absorbing emissions they now release more carbon annually than all the traffic in the US, say researchers. The world's tropical forests are so degraded they have become a source rather than a sink of carbon emissions, according to a new study that highlights the urgent need to protect and restore the Amazon and similar region.

Researchers found that forest areas in South America, Africa and Asia – which have until recently played a key role in absorbing greenhouse gases – are now releasing 425 teragrams of carbon annually, which is more than all the traffic in the United States.

This is a far greater loss than previously thought and carries extra force because the data emerges from the most detailed examination of the topic ever undertaken. The authors say their findings – published in the journal Science on Thursday – should galvanise policymakers to take remedial action.

"This shows that we can't just sit back. The forest is not doing what we thought it was doing," said Alessandro Baccini, who is one of the leader authors of the research team from Woods Hole Research Center and Boston University. "As always, trees are removing carbon from the atmosphere, but the volume of the forest is no longer enough to compensate for the losses. The region is not a sink any more."

The study went further than any of its predecessors in measuring the impact of disturbance and degradation – the thinning of tree density and the culling of biodiversity below an apparently protected canopy usually as a result of selective logging, fire, drought and hunting....Read more...

Date: 28 September 2017

**Source:** https://www.theguardian.com/

### Arbuscular mycorrhizal fungal communities exposed with new DNA sequencing approach

The roots of most land plants are colonized by arbuscular mycorrhizal fungi, which help their plant partners to grow while also influencing the wider environment. Their hidden nature has meant these fungi are poorly understood, but researchers from the Chicago Botanic Garden and Northwestern University have developed a new approach to detect and identify the many species involved in these ecologically vital communities.

Arbuscular mycorrhizal fungi partner with around 65-75% of land plants to provide them with nutrients from the soil in return for sugars made during photosynthesis. These fungal communities have a big impact on the types of plants that can grow in a particular location, and scientists are keen to learn more about their diversity and their ecological effects. However, the nature of arbuscular mycorrhizae means that the fungi grow within the plant tissues, so it can be tricky to tell which species are present in a particular environment.

Although DNA sequencing has been used to identify around 350 of the most abundant arbuscular mycorrhizal fungi in certain regions, these approaches are unlikely to give a full picture of the species in a particular environment. To better characterize the diversity of the arbuscular mycorrhizal fungi, PhD candidate Benjamin Morgan and his supervisor Dr. Louise Egerton-Warburton developed a new technique capable of detecting the rarer fungal species in a community, paving the way for future insights into how they might vary in response to environmental changes. Their results are published in a recent issue of Applications in Plant Sciences.....Read more...

Date: 29 September 2017

Source: https://www.sciencedaily.com/

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