

New fungi species

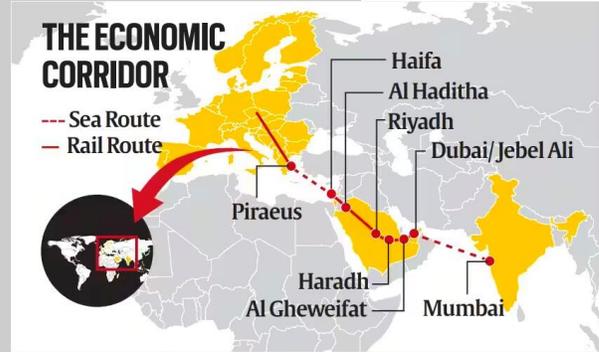


A tiny, fragile looking mushroom sporting a honey yellow 'cap' found on the campus of the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) at Palode in Thiruvananthapuram has been identified as a new species.

The new species has been named *Candolleomyces albosquamosus* 'albosquamosus' for the white woolly scale like structures on its pileus or cap. Delicate in build, the mushroom grows to a height of just about 58 mm.

The Hindu

India- and Israel Palestine



India has explained its decision to abstain at last week's vote at the UN General Assembly (UNGA) for a ceasefire in the Israel Palestine conflict as its way of protesting the omission of any "explicit condemnation" of the heinous October 7 terror attack by Hamas militants on Israel.

India's principled stand on terrorism, which the Deputy Permanent Representative to the UN articulated, cannot be questioned.

India's abstention indicates a shift in the Modi government's stand, seeking a 'safe' position, rather than taking a stand on the violence in Israel and Palestine.

This is a departure from India's UNGA vote in 2018 that called for Israel to cease "excessive force" in retaliatory strikes on Gaza at the time, and is more in line with its decision to abstain on votes at the UN in 2021 on resolutions

critical of Russia's war in Ukraine.

The government lost an opportunity to make India's voice heard in the growing geopolitical conflict.

Abstaining on a matter of global importance without making efforts to forge a consensus is out of sync with a desire to be the voice of the Global South, or for a seat at the global high table.

While we have always stood for a two state solution, India has rightly been wary of the fallout of terror acts in Israel on its neighborhood.

India is in sync with the Arab world in its normalisation with Israel, with groupings such as the I2U2 (India, Israel, the United Arab Emirates, and the United States).

While we do not have a direct role yet, since it is time the U.S. and the West and the Gulf and the Arab world showed leadership first, any regional fall-out will affect us.

Therefore, going forward, it is important for India to come out not just against terrorism but also more forcefully against the human tragedy playing out in Gaza. In this, its proximity with

Israel and the U.S. will only be an asset.

China USA



China has undoubted influence on Iran, which virtually controls the Hezbollah in Lebanon.

The Hezbollah's entry into the war in Gaza could really complicate the situation in the region

The U.S. is currently speaking from a position of strength. Its economy is doing well while that of China is stumbling.

In foreign policy, the Biden administration has been able to revive America's traditional alliance in Europe on account of the Ukraine war, and strengthen the hubandspoke alliances into a larger matrix covering the Indo Pacific.

This involves strengthened ties with India, upgraded ties with Australia, Vietnam and Japan,

and revived ties with the Philippines.

But the Biden administration has not relented on the tough line it adopted towards Beijing from the outset.

It maintains the Trump-era tariffs, and initiated a policy of export restrictions designed to hobble the growth of the Chinese high tech industry. Its National Security Strategy of last October said that China was “the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military and technological power to advance the objective.”

The U.S. continues to tighten its export controls to Beijing and is talking tough on the China Philippines standoff at the Second Thomas Shoal in the South China Sea.

It is also tightening controls on its outward investment to China and restricting Chinese investments in the U.S.

China's stance

China believes that the U.S. remains a formidable military power but is in inevitable decline.

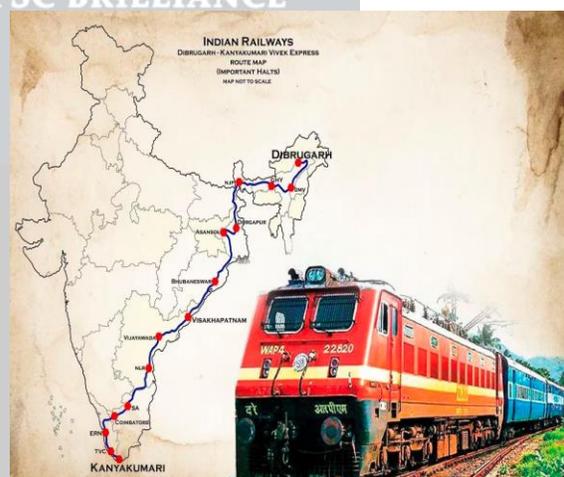
But it would like to maintain the façade of cooperation and peaceful coexistence rather than deal with the competitive and confrontational posture that the U.S. has adopted.

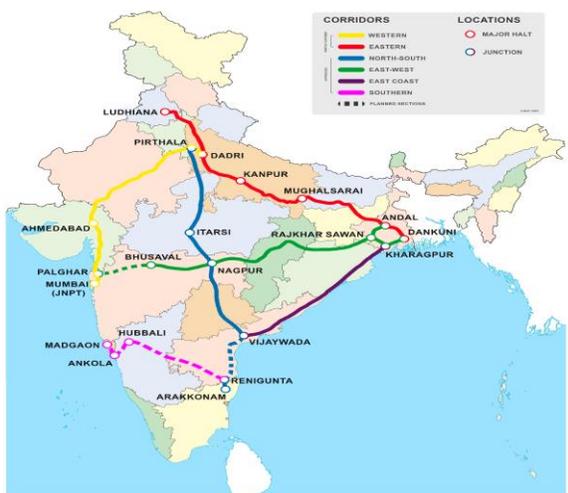
China has long sought U.S. acceptance of its economic and political system, which means the supremacy of the Chinese Communist Party.

Militarily and politically, China has sought to establish its regional dominance in the western Pacific.

But its neighbours such as Japan, the Philippines, and Vietnam, which are backed by the U.S., contest this. Taiwan occupies a difficult position in this situation.

Indian Railway cargo





DEDICATED FREIGHT CORRIDORS OF INDIA

Identifying infrastructure investment in the sector as a key thrust area, the Government of India has formulated two policies the PM Gati Shakti (PMGS) policy for a National Master Plan (NMP) and the National Logistics Policy (NLP). The PMGS aims to bring synergy to create a seamless multimodal transport network in India, with the NMP employing technology and IT tools for coordinated planning of infrastructure.

The NLP focuses on building a national logistics portal and integrating platforms of various ministries

In PMGS In reference to the Indian Railways (IR), the Department for Promotion of Industry and Internal Trade's website mentions three things:

integration of postal and railway networks, one station one product and the introduction of 400 Vande Bharat trains without anything about increasing the IR share in moving cargo.

Increasing bulk cargo

The IR has taken some initiatives in the bulk cargo arena.

It relaxed block rake movement rules to provide a facility to load from/to multiple locations, permitted mini rakes, introduced private freight terminals (PFTs) and relaxed conditions in private sidings.

The Gati Shakti Terminal (GCT) policy has eased the stipulations for the operation of these terminals and progressively all PFTs and private sidings are being converted into GCTs.

The IR has also partnered with freight operators in recent years, encouraging them to invest in wagons for movement of their cargo thus helping in the induction of more than 16,000 privately owned wagons to facilitate specialised traffic like automobiles and fly ash.

A railway siding is a capital - intensive high cost proposition and only large industries can manage them with others having

to cover large distances to load their cargo.

This increases the logistics costs and hence the reluctance to patronise the IR.

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Environmental constraints

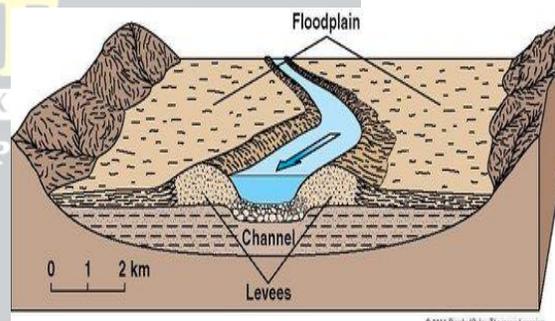
The IR must also look at new commodities like fly ash environmental considerations are constraining loading by the

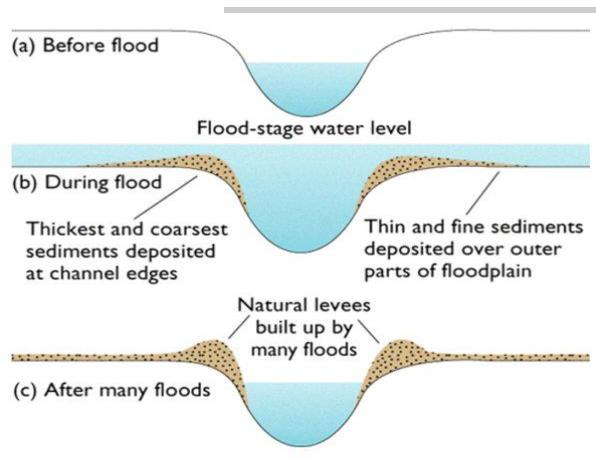
IR. As per recent government regulations, environmental clearance for rail loading/unloading facilities has been made mandatory but the same has not been imposed on road loading/unloading facilities.

These restrictions have made some users move cargo by road due to high transaction costs involved with environmental clearances.

Such instructions should be mode agnostic, based on the quantity of cargo loaded and the potential for environmental degradation.

Flood plain





India. The study also found that middle income countries like India have more urban settlements in flood prone zones than low and high income countries.

How is India at risk?

India isn't among the 20 countries whose settlements are most exposed to flood hazards, but it was the third highest contributor to global settlements, after China and the U.S., and also third after China and Vietnam among countries with new settlements expanding into flood prone areas, all from 1985 to 2015

India's urban areas have been flooding more and more often, destroying lives — and livelihoods.

Yet, according to a study led by the World Bank and published in Nature on October 4, flood risk in many cities is rising because they are expanding into flood prone areas.

According to the paper, since 1985, human settlements in flood prone areas have more than doubled.

Experts say the findings spotlight the risk of unsustainable urbanization in

When environmental regulations are applied to new constructions, they are often applied only to big infrastructure projects and not to medium and small scale modifications of localities.

This contradicts the notion that certain localities are more flood prone and that flooding and flood risk are locality level issues

What is to be done?

Market forces tend to push expansion into flood prone areas," sustainable urban planning urban governments

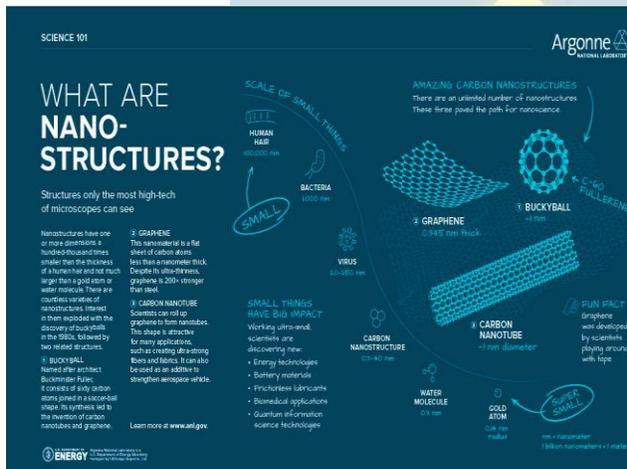
need to make housing in such areas more flood resilient and protect low income housing.

Example of riverside settlements that use stilt houses, like those used by the Mishing and the Miyah communities along the Brahmaputra.



The Hindu

Nano florets



The carbon nanoflorets' high efficiency comes from three properties. First: the nanoflorets absorb three frequencies in sunlight infrared, visible light, and ultraviolet.

Other common materials for solar thermal conversion, like photovoltaic materials used in solar panels, absorb only visible and ultraviolet light. More than half of the energy in sunlight arrives to the earth as infrared radiation.

So the nanoflorets can absorb much more energy from the sun.

The other two properties responsible for the material's high light heat conversion efficiency are a result of its shape.

As light falls on the material, the carbon cones ensure that very little is reflected back. Instead, most light is reflected internally.

- Carbon nanostructure that was “blacker than black”,
- The structure of the silicon particles 501,200 nanometers in size resembled spikes arranged around a sphere

Current Affairs 31st October 2023 by Saurabh Pandey

- Second, one risk with a material that can convert sunlight into heat is that it can also lose it to its environment.
- The carbon nano florets don't, however, thanks to long range disorder: parts of the structure at some distance from each other possess different physical properties. A
- the researchers reported that a 1 m sq. coating of carbon nanoflorets on a surface could vaporize 5 liters of water in an hour.
- “India is a country that is blessed with a lot of light, but also has areas that have low temperatures,”
- In such regions, the nanofloret coatings can help heat up housing and sterilize surfaces in hospitals
- Given that the material can be coated on a vast variety of surfaces, it can heat up those using sunlight. If one were to use a coating of this material to heat up their homes, they would be doing so in an ecologically sound way while reducing the carbon footprint.
- The nano florets pose no risk of inhalation: “once coated, the

adhesion is nearly as good as paint on a wall

[The Hindu](#)
