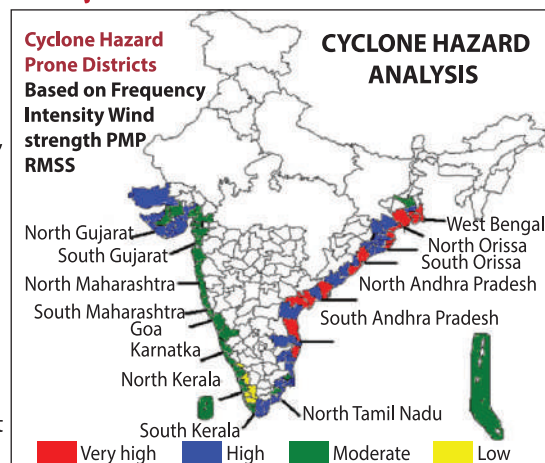


NEWS TODAY

INDIA METEOROLOGICAL DEPARTMENT TO LAUNCH A DYNAMIC, IMPACT-BASED CYCLONE WARNING SYSTEM

- It will use **meteorological data in combination with geospatial and population data** to assess the impact of the cyclone in a particular area.
 - With this, **district-specific tailored warnings**, which factor in the local population, infrastructure, settlements, land use and other elements, will be disseminated.
- IMD is **partnering with National Disaster Management Authority**, Indian National Centre for Ocean Information Services and respective state governments for this.
 - This aims to **reduce the damage and economic losses** to property and infrastructure.
- Currently, **cyclone warnings are provided** from the Area Cyclone Warning Centres (ACWCs) at Calcutta, Chennai and Mumbai and Cyclone Warning Centres (CWCs) at Bhubaneswar, Visakhapatnam and Ahmedabad.
- Warnings are issued to state government in following four stages:**
 - PRE-CYCLONE WATCH** issued 72 hours in advance contains early warning about development of a cyclonic disturbance.
 - CYCLONE ALERT** issued at least 48 hrs. in advance contains information on the location and intensity of storm.
 - CYCLONE WARNING** issued at least 24 hours in advance of the expected commencement of adverse weather over coastal areas.
 - POST LANDFALL OUTLOOK** is issued at least 12 hours in advance of expected time of landfall.



INDIA NEARLY HALVES TRADE DEFICIT WITH CHINA

- India's **trade deficit with China has shrunk to \$12.6 billion** between April and August of FY21, from \$22.6 billion in the year-ago period.
- Reasons for this**
 - Lower imports to India** due to sluggish domestic demand.
 - China's **imports continued to expand** compared to other nations which are contracting.
 - Imposition of **anti-dumping duty** by India.
- However, experts predict that **narrowing of trade deficit may not be sustainable**. Doing away with the dependence on China for critical items like active pharmaceutical ingredients will take years and **require medium-term strategy**.
- Steps taken to boost exports/reduce import dependency**
 - India continues to treat china as non-market economy** (allows it to impose steep anti-dumping duties) and have put **tighter restrictions on import of 371 items** (ranging from toys to electronics).
 - Government has also **announced Nirvik (Niryat Rin Vikas Yojana) scheme** to provide enhanced insurance cover and reduce premium for small exporters.
 - Atamnirbhar bharat across sectors, which provides boost to exports and curbs imports.

INDIA, UK TO SIGN DEFENCE LOGISTICS SHARING PACT

- Logistics pact with United Kingdom (UK)** will enable reciprocal use of bases and airfields for fuel, supplies and spares, along with joint training.
 - It will, for the first time, offer India access to **naval facilities in the Atlantic Ocean**.
 - This also signifies **enhanced India-UK strategic ties**.
- India signed similar agreements with **USA, Australia, France, South Korea, Oman and Singapore**.
 - Pact with Russia is under consideration.
- Significance of these pacts**
 - These pacts can give **India access to a range of ports and military bases in the region** – from major garrisons in the Gulf to the remote Keeling island in the South Indian Ocean, and strategic military locations like Okinawa and Busan (see map).
 - Considering China's fast opening up bases** (e.g. in Djibouti) in **Indo-Pacific region**, such pact can expand operational reach of Indian navy, **without setting up its own expensive overseas military bases**.
 - It allows their **militaries to access each other's bases** during bilateral training activities, United Nations Peacekeeping Operations, Humanitarian International Relief etc.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH'S 'HIGH FLOW RATE FLUORIDE & IRON REMOVAL TECHNOLOGY'

- This Community Level Water Purification System **has a Flow-Rate capacity of 10,000 Ltr/hr and uses commonly available raw materials** such as sand, gravel and adsorbent materials.
 - It comprises a **three-stage purification process which purifies water within permissible limits** (1.5 ppm & 0.3 ppm for Fluoride and Iron respectively).
 - It uses a combination of **Oxidation, Gravitational Settling and Chemisorption process**.
- Excess intake of fluoride causes fluorosis**, which results in major health disorders like dental fluorosis, skeletal fluorosis and non-skeletal fluorosis.
 - High levels of Fluoride were reported in 230 districts of 20 States**. Rajasthan, Gujarat and Andhra Pradesh are worst affected states. Punjab, Haryana, Madhya Pradesh and Maharashtra are moderately affected states.
- Overload of iron may cause severe health problems** such as liver cancer, diabetes, diseases related to heart and central nervous system etc.
 - Iron is the **most common contaminant of drinking water**, with over 18,000 rural habitations affected.
- Steps taken**
 - National Programme for Prevention & Control of Fluorosis**.
 - Jal Jeevan Mission** to provide safe drinking water to every rural household through functional household tap connections by 2024.

GROWING GLOBAL FOOTPRINT

Major military logistics sharing pact signed by India give access to warships and aircraft across the Indo-Pacific region, a capability that never existed in the past. From multiple options in the Gulf to the deep Indian Ocean and the sensitive South China Sea, these pacts will enable easy movement of the military, whenever the need arises.



EPCA DIRECTS DELHI, OTHER STATES TO IMPLEMENT GRADED RESPONSE ACTION PLAN (GRAP) FROM OCTOBER 15 IN DELHI-NCR

- Environment Pollution (Prevention and Control) Authority (EPCA) directed **Delhi, Haryana, Rajasthan and Uttar Pradesh to implement Graded Response Action Plan (GRAP)**, to combat air pollution in Delhi-NCR.
 - GRAP is a set of **stratified actions** that are taken once the pollution level reaches a certain specified limit. (see Infographic).
- Supreme Court (SC) had mandated the **Environmental Pollution Control Authority (EPCA)** to come up with such a plan.
 - EPCA is **SC mandated body** notified under Environment Protection Act, 1986.
- Reason for implementation of GRAP before winter**
 - Stubble burning** in neighbouring states of Punjab and Haryana
 - Trapping of pollutants closer to the ground by **slower winds and cooler temperatures**.
 - Other causes such as **emissions from vehicles and industries**, construction dust and the burning of waste etc.
- Recently, Indian Agricultural Research Institute (IARI), Pusa, Delhi has **developed a decomposer capsule, "Pusa bio-decomposer"** which could be converted into a liquid solution and sprayed on fields to decompose the stubble.

FIGHT AGAINST POLLUTION

A look into the city's Graded Response Action Plan to fight air pollution

STAGE 1
MODERATE-TO-POOR QUALITY AIR (PM2.5 above 61ug/m3 or PM10 above 101ug/m3)

- Mechanized sweeping, washing roads with water
- Enforcing ban on firecrackers, increased scrutiny of vehicles for pollution standards

STAGE 2 VERY POOR AIR (PM2.5 above 121 ug/m3 or PM10 above 351 ug/m3)

- Ban on diesel generators
- Parking fee to surge by 3-4 times
- Stop use of coal/firewood in eateries
- Urge people with respiratory or cardiac problems to stay inside

STAGE 3 SEVERELY POLLUTED AIR (PM2.5 above 250ug/m3 or PM10 above 430ug/m3)

- Increase frequency of road cleaning and washing
- Shut down of brick kilns
- Restrictions on operation of coal-based power plants in NCR

STAGE 4 EMERGENCY (also known as severe+, PM2.5 above 300 ug/m3 or PM10 above 500ug/m3)

- Ban entry of trucks (except for essential items)
- Halt construction work
- Begin odd-even road scheme for private vehicles

ALSO IN NEWS

Aatmanirbhar Skilled Employee-Employer Mapping (ASEEM) portal	<ul style="list-style-type: none"> It is Artificial Intelligence-based platform which will map details of workers based on regions and local industry demands and will bridge demand-supply gap of skilled workforce across sectors. It is developed by National Skill Development Corporation and launched by Ministry of Skill Development and Entrepreneurship. About 60,000 people have been employed in just over two months through the platform.
Special Accelerated Road Development Programme in North Eastern Areas (SARDP-NE)	<ul style="list-style-type: none"> It is an initiative of Ministry of Road Transport and Highways for development of road network in the north eastern States. It envisages providing road connectivity to all the district headquarters in the north eastern apart from providing road connectivity to backward and remote areas, areas of strategic importance and neighbouring countries.
Television Rating Points (TRP)	<ul style="list-style-type: none"> Mumbai police is looking into TRP manipulation scam. TRPs represent how many people, from which socio-economic categories, watched which channels for how much time during a particular period (India follows international standard of one minute). TRPs are the main currency for advertisers to decide which channel to advertise on by calculating the cost-per-rating-point (CPRP). For calculating, Broadcast Audience Research Council (BARC) "BAR-O-meters" have been installed in 45,000 empanelled households. <ul style="list-style-type: none"> BARC is an industry body jointly owned by advertisers, ad agencies, and broadcasting companies to carry out television ratings in India.
Google faces new antitrust case in India on smart TVs	<ul style="list-style-type: none"> Antitrust laws are those laws that prevent companies from working together to control prices unfairly or to create a monopoly. Competition Commission of India (CCI) is examining a complaint that search giant Google abused its dominant market position in smart television operating systems. CCI was established under Competition Act, 2002 which monitors any economic activity that monopolizes competition within the market; <ul style="list-style-type: none"> It aims to protect consumers and small enterprises, and ensures the freedom of trade.
Dragonfly fossils unearthed from Jharkhand	<ul style="list-style-type: none"> It is the first dragonfly fossil from India dating to 2.5 million years ago (Neogene period). <ul style="list-style-type: none"> Dragonflies are "wetland bio-indicators" and are carnivorous, feeding on other insects such as moths, flies, mosquitoes etc. It is smaller than giant dragonflies' fossils found elsewhere. Discovery suggests that dragonfly thrived in tropical, warm, humid climate and since they spend most of their lives near fresh water bodies, a freshwater body might have existed on Chotanagpur plateau.
Earthshot Prize launched by Prince William (of the British royal family)	<ul style="list-style-type: none"> It is a new global prize for the environment, designed to incentivise change and help to repair our planet over the next ten years. Starting in 2021, Earthshot Prize will be awarded annually to five people, organizations or groups, aiming to provide at least 50 solutions to some of the world's environmental problems.

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