



STATE PCS CA CONSOLIDATION

WEST BENGAL



JUNE
2025



C-171/2,
Block-A,
Sector-15,
Noida



641, Mukherjee Nagar,
Opp. Signature
View Apartment,
New Delhi



21,
Pusa Road,
Karol Bagh
New Delhi



Tashkent Marg,
Civil Lines,
Prayagraj,
Uttar Pradesh



Tonk Road,
Vasundhra Colony,
Jaipur,
Rajasthan



Burlington Arcade Mall,
Burlington Chauraha,
Vidhan Sabha Marg,
Lucknow



12, Main AB Road,
Bhawar Kuan,
Indore,
Madhya Pradesh

Content

✦ Bacillus ayatagriensis: New Soil Bacteria Species	3
✦ Death Anniversary of Dr. Syama Prasad Mukherjee	4
✦ Historian Chittabratan Palit, Pioneer of Agrarian History, Dies	4
✦ DRUM Web App	6
✦ India's First Indigenous Polar Research Vessel	7
✦ City Gas Distribution Project in West Bengal.....	8
✦ Sikari Utsav	9

Bacillus ayatagriensis: New Soil Bacteria Species

Why in News?

Researchers at Raiganj University in Bengal have discovered a **new species of soil bacteria** that shows powerful antimicrobial activity and the **ability to enhance seed germination**, offering promise for sustainable and eco-friendly agriculture.

Key Points

About the Bacteria:

- ✦ *Bacillus ayatagriensis* – derived from “Aayat” (from Sanskrit Ayata, meaning extended or vast) and “Krishi” (meaning agriculture), symbolizing its potential contribution to sustainable farming.
- ✦ Researchers isolated the newly discovered bacterium from the rhizosphere of mulberry plants, which play a vital role in the region’s **sericulture** and farming systems.

- ✎ The study, focuses on applied microbiology and its impact on **sustainable agriculture**.

Sericulture:

- ✦ It is the process of **farming silkworms to make silk**. Silkworms are raised on **mulberry, oak, castor, and arjun leaves**.
- ✦ After about a month, they **spin cocoons**. These cocoons are collected and boiled to soften the silk.
- ✦ The silk threads are then pulled out, **twisted into yarn, and woven into fabric**.
- ✦ This careful process turns small silkworms into shiny silk.
- ✦ **Silk production in India:**
 - ✎ India is the **second-largest producer and consumer of silk globally**.
 - ✎ India’s **raw silk production** increased from **31,906 MT in 2017-18 to 38,913 MT in 2023-24**.
 - ✎ The **area under mulberry plantations** grew from **223,926 ha in 2017-18 to 263,352 ha in 2023-24**.

Life Cycle of Moth



Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App

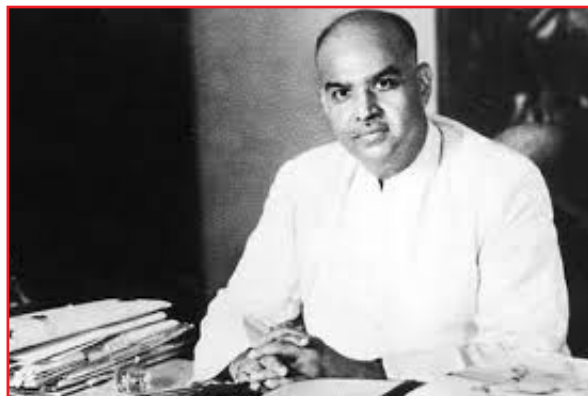


Death Anniversary of Dr. Syama Prasad Mukherjee

Why in News?

The **Vice-President of India**, Shri Jagdeep Dhankhar, paid homage to **Dr. Syama Prasad Mukherjee** on his death anniversary (24th June).

Key Points



About & Achievements:

- ✦ Syama Prasad Mukherjee was born into a Bengali Hindu family on 6th July 1901, in Calcutta.
- ✦ He was an Indian politician, barrister, and academician who served as the Minister for Industry and Supply in Prime Minister Jawaharlal Nehru's cabinet.
- ✦ He started "Bang Wani", a Bengali journal, in 1922 and The Nationalist in 1940's.
- ✦ At the age of 33, Syama Prasad Mukherjee became the youngest vice-chancellor of Calcutta University in 1934 and held the office till 1938.

Post Independence:

- ✦ He supported the **partition of Bengal** in 1946 to prevent the inclusion of its Hindu-majority areas in a Muslim-dominated East Pakistan
 - ✍ He also **opposed a failed bid for a united but independent Bengal made in 1947** by Sarat Bose, the brother of **Subhas Chandra Bose**, and Huseyn Shaheed Suhrawardy, a Bengali Muslim politician.

- ✦ He founded the Bharatiya Jana Sangh (BJS), the predecessor of the modern-day Bharatiya Janata Party (BJP), and became its first President.
- ✦ He was **against Article 370** and such other restrictions barring entry into Jammu and Kashmir without prior permission.
 - ✍ He was in favour of the **complete integration of the State of J&K with the Indian Union.**
- 💡 **Death:**
 - ✦ He died in mysterious circumstances during **detention in June 1953** while protesting against the **special status given to Kashmir.**

Historian Chittabratan Palit, Pioneer of Agrarian History, Dies

Why in News?

Chittabrata Palit, a renowned expert in the agrarian history of **colonial Bengal**, as well as in indigenous science, technology, medicine, and American history, passed away in Kolkata on 13 June 2025 at the age of 82.

- 💡 He is remembered for his **significant contributions to academia**, particularly in the areas of **Bengal's rural society** and the history of science.

Key Points

- 💡 **Early Life and Education:** He was born on 18 October 18 1941, in Khulna, Bangladesh.
 - ✦ He completed his PhD on the **land system** in agrarian Bengal at Cambridge University.
- 💡 **Career:** He began his teaching career at Burdwan University before joining the history department at Jadavpur University, where he spent a significant portion of his professional life.
 - ✦ He retired from Jadavpur University in 2010, later being appointed Emeritus Professor in 2012.

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



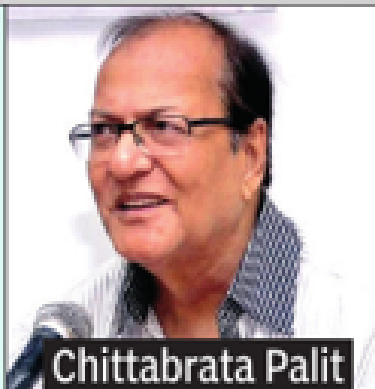
Drishti
Learning
App



- ✦ He was also a member of the **Indian delegation to the International Conference of History of Sciences** in 2013, where he presented a paper on **Girish Chandra Bose** and Indian Botany.
- ✦ In January 2015, he was awarded the **Legend of History of Science** at the International Conference of History of Science Kolkata Chapter.
- 💡 **Academic Contributions:** In 1996, He founded the **Corpus Research Institute** with his former students, which has published over 50 titles.
- ✦ He authored more than 100 books on various subjects, including the **economic history of Bengal**, science and nationalism, and the history of medicine in India.

OCT 18, 1941- JUNE 14, 2025

➤ Did his PhD on the land system in agrarian Bengal at Cambridge before taking up his first teaching assignment at Burdwan University



Chittabrata Palit

➤ Awarded Legend of History of Science at the International Conference of History of Science Kolkata Chapter Jan 2015

➤ Elected a fellow of the Royal Asiatic Society, London in 2005

➤ He joined JU's history department from where he retired in 2010. He was Emeritus Professor of History, JU since 2012

➤ Chosen as a member of the Indian delegation to the International Conference of History of Sciences, held in Manchester in 2013

➤ Founded Corpus Research Institute with his ex-students in 1996. It has published more than 50 titles

➤ A former director of Institute of Historical Studies, Kolkata

➤ Wrote over 100 books specializing in economic history and history of science in Bengal

➤ He has guided more than 100 students in PhD and MPhil

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App



DRUM Web App

Why in News?

A team from [IIT Kharagpur](#) developed the **Dynamic Route Planning for Urban Green Mobility (DRUM) web app**, which functions like Google Maps but with an added advantage—it **lets users choose routes based on [air quality](#) and energy efficiency**.

Key Points

💡 Purpose of the App:

- ✦ The DRUM app offers five route options which are calculated using real-time air quality and traffic data.
 - ✎ Shortest route, Fastest route, Least Exposure to Air Pollution (**LEAP**), Least Energy Consumption Route (**LECR**), Suggested route (a balance of all four factors).
- ✦ DRUM uses GraphHopper, a Java-based routing engine, and **Mapbox** for live traffic updates.
- ✦ The team tested DRUM across **Delhi's major corridors**, factoring in traffic, road conditions, and pollution levels.
 - ✎ The system supports multiple vehicle types and is designed to scale to other cities beyond Delhi.
- ✦ It **eliminates high-pollution and high-energy routes** to suggest a balanced path based on time, distance, air quality, and energy use.

💡 Technical Challenges:

- ✦ Integrating **real-time traffic and air quality data into the app** was a major technical challenge, requiring efficient data fetching and processing to ensure quick response times.
- ✦ The team used the [Central Pollution Control Board \(CPCB\)](#) and [World Air Quality Index](#)

[data](#), applying segment-wise interpolation to estimate pollution in sensor-free zones.

💡 Future Plans and DRUM 2.0:

- ✦ **Field Testing & Data Expansion:** IIT Kharagpur's MUST Lab plans real-world DRUM trials and aims to **integrate crowdsourced data from low-cost sensors** on vehicles, street poles, and commuters, enabling support for micro-mobility modes.
- ✦ **DRUM 2.0 Development:** A predictive version using **machine learning** (like Long Short-Term Memory (LSTM) and Prophet) is in progress to forecast air quality, traffic, and energy use, offering smart, real-time route and timing suggestions for urban commuters.

Central Pollution Control Board (CPCB)

💡 About:

- ✦ The CPCB was **established in September 1974** under the [Water \(Prevention and Control of Pollution\) Act, 1974](#).
- ✦ In 1981, it was also empowered under the [Air \(Prevention and Control of Pollution\) Act 1981](#).
- ✦ It functions as a statutory authority and a field formation for the **Ministry of Environment, Forest and Climate Change (MoEF&CC)**.
- ✦ It also provides technical support under the provisions of the [Environment \(Protection\) Act, 1986](#).

💡 Functions:

- ✦ Under the Water Act, CPCB is **responsible for maintaining cleanliness of streams and wells** through prevention and control of water pollution.
- ✦ Under the Air Act, it works to **improve air quality by preventing, controlling, and reducing air pollution** across the country.

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App



India's First Indigenous Polar Research Vessel

Why in News?

Garden Reach Shipbuilders and Engineers Limited (GRSE) Kolkata, a Government of India undertaking, has signed an MoU with Norway's Kongsberg firm to develop India's first indigenously built Polar Research Vessel (PRV).

Key Points

💡 About the Polar Research Vessel (PRV):

- ✦ A PRV is a ship that supports research in the polar regions (around the North and South Poles) and ocean areas, tailored to the needs of the **National Centre for Polar and Ocean Research**.
- ✦ PRV will support India's **polar and ocean research missions**, strengthening its existing three research stations: **Bharati** and **Maitri** in **Antarctica**, and **Himadri** in the **Arctic**.
 - ✍ The vessel will be equipped with **advanced scientific instruments** to explore marine ecosystems and **deep-sea biodiversity** in polar and southern ocean realms.
- ✦ The project will reinforce India's commitment to **MAHASAGAR (Mutual and Holistic Advancement for Security Across the Regions)**.
 - ✍ Under **Sagarmala 2.0**, India aims to become a **global maritime leader** by bridging infrastructure gaps and **enhancing shipbuilding, repair, and recycling**.
- ✦ The collaboration with Norway also aligns with India's **'Make in India'** and **Atmanirbhar Bharat** goals by boosting **indigenous shipbuilding capability**.

National Centre for Polar and Ocean Research (NCPOR)

- 💡 It was established as an autonomous **Research and Development Institution** of the **Ministry of Earth Sciences** on the **25th May 1998**.
- 💡 Earlier known as the **National Centre for Antarctic and Ocean Research (NCAOR)**, NCPOR is India's **premier R&D institution** responsible for the country's research activities in the Polar and Southern Ocean realms.
- 💡 It is the **nodal agency** for planning, promotion, coordination and execution of the entire gamut of polar and southern ocean scientific research in the country as well as for the associated logistics activities.

MAHASAGAR

💡 About:

- ✦ It is India's **strategic initiative launched in 2025** to expand its security, trade, and development cooperation beyond the Indian Ocean Region to include the broader Global South—covering **Africa**, **ASEAN**, **Latin America**, and **Pacific Island Nations**.
- ✦ MAHASAGAR **builds on the 2015 SAGAR (Security and Growth for All in the Region) doctrine**, which focuses on maritime security, sustainable development, and regional collaboration in the **Indian Ocean Region (IOR)**.

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App



💡 **Key Focus Areas:**

- ✦ **Trade & Connectivity:** Strengthens maritime and economic linkages across the Global South.
- ✦ **Maritime Security:** Enhances domain awareness and ensures free and secure sea lanes.
- ✦ **Disaster Resilience & Humanitarian Aid:** Promotes rapid response mechanisms and regional support systems.
- ✦ **Economic & Cultural Engagement:** Deepens partnerships with island and coastal nations through shared heritage, capacity building, and mutual growth.



City Gas Distribution Project in West Bengal

Why in News?

The **Prime Minister** laid the foundation stone for a new **City Gas Distribution (CGD) project** in Alipurduar, West Bengal marking a significant step in expanding India's **CGD network**.

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App



Key Points

City Gas Distribution Project:

✦ **About:** Under the **Petroleum and Natural Gas Regulatory Board (PNGRB) Act 2006**, PNGRB grants authorization to the entities for developing a CGD network in a specified Geographical Area (GA) of the country.

- ✎ Over 2.5 lakh households are expected to benefit from this project, which **aims to deliver clean, safe, and affordable piped natural gas** while generating employment opportunities across the region.
- ✎ The project aligns with the government's **Minimum Work Programme (MWP)** targets.

- City gas services have expanded **from just 66 districts in 2014 to over 550 in 2025**, reaching even rural areas and small towns.

✦ Benefits:

- ✎ The initiative will reduce reliance on **Liquefied Petroleum Gas (LPG)** cylinders, offering a more secure and convenient gas supply.
- ✎ Expansion of **Compressed Natural Gas (CNG)** stations will make **eco-friendly fuel** more accessible for vehicles.

💡 Impact of Other Clean Fuel Government Initiatives on West Bengal:

✦ Pradhan Mantri Ujjwala Yojana:

- ✎ The Ujjwala Yojana (launched in 2016) was praised during the event for **promoting the use of clean fuel in households**.
- ✎ The scheme has improved the health and dignity of poor women by freeing them from hazardous indoor air pollution caused by traditional cooking methods.
- ✎ LPG distributors have **risen from 14,000 to over 25,000**, greatly improving rural access to clean cooking fuel.

✦ Urja Ganga Project:

- ✎ The Urja Ganga Project (**launched in 2016**) to cater energy requirements of five states namely Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal.
- ✎ The initiative **marked a transformative leap in strengthening gas infrastructure** across eastern India, significantly improving regional energy access.
- ✎ It also generated widespread employment opportunities, ranging from pipeline construction to grassroots-level gas distribution.

💡 Infrastructure Boost in West Bengal:

✦ Key central government infrastructure projects include:

- ✎ Purva Expressway and Durgapur Expressway
- ✎ Modernisation of **Shyama Prasad Mukherjee Port**
- ✎ Expansion of Kolkata Metro
- ✎ Upgradation of New Jalpaiguri Station
- ✎ New train services along the Dooars route

Sikari Utsav

Why in News?

South-west Bengal faces ongoing **wildlife protection** challenges, including the ritualistic hunting celebrated during the regional festival **Sikari Utsav**.

Key Points

💡 About Sikari Utsav:

- ✦ The event takes place during the dry season, specifically from March to May, across the districts of **Jhargram, Paschim Medinipur, Bankura, Purulia, and Birbhum**.
- ✦ During this period, thousands of villagers participate, joined by people from neighbouring districts and states, including Jharkhand, Odisha, and Bihar.

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App



- ✦ The primary activity involves **entering the forests to hunt small wildlife species**, such as **wild boars and wild hares**.

💡 Issues:

- ✦ It **harms wildlife populations** in the short term and has long-term **ecological consequences**.
- ✦ Since the festival coincides with the peak season for **forest fires**, it exacerbates environmental damage.
- ✦ The **vast, open forests** in this region, **located near human settlements**, are **easily accessible** and thus **vulnerable to exploitation**, especially during festivals.
- ✦ The **Forest Department** has **limited manpower**, which **hampers its ability to enforce conservation laws** effectively, resulting in the continued allowance of destructive activities.

💡 Way Forward:

- ✦ **Community-Based Forest Management:** Building on the success of West Bengal's Joint

Forest Management (JFM) committees, it is essential to broaden this participatory model across more regions.

- ✦ **Intensify Awareness and Education Campaigns:** Shifting the narrative from **exploitation to coexistence** through dialogue and education will cultivate a shared commitment to protecting ecosystems for future generations.
- ✦ **Enhance Law Enforcement and Infrastructure for Forest Protection:** Strengthening legal frameworks, enforcing existing forest protection laws rigorously, and **investing in infrastructure** are necessary to curb destructive human activities such as encroachment and overexploitation.
- ✦ **Foster Multi-Stakeholder Cooperation for Long-Term Sustainability:** Collaborative **action plans and continuous dialogue** must **prioritize ecological balance**, ensuring that environmental protection remains a collective and sustained priority for the future.

Prepare with DrishtiIAS

UPSC
Mains
Test Series
2025



UPSC
Classroom
Courses



IAS Current
Affairs Module
Course



Drishti
Learning
App



Key Points

Details

Summary

--

[illegible][illegible]

Summary