



## Mountain Ranges in World

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### India and the New Eurasia

**Prelims:** Russia-Ukraine, NATO, QUAD, Indo-Pacific, AUKUS, INSTC

**Mains:** India and the New Eurasia, Challenges and Potential.

### Why in News?

As 2023 begins, the world is embracing a 'new normal' where old and new fault lines are being **reconfigured in Eurasia and the Indo-Pacific.**

## What is Eurasia?

- The idea of Eurasia is not new. Many used it as a neutral term to describe the **vast landmass that connected Europe and Asia**.
- Despite continental continuity, **Europe and Asia emerged as separate political and cultural spheres** over the millennia.
- Geographically, **Eurasia is a [tectonic plate](#)** that lies under **much of Europe and Asia**. However, when it comes to the political boundaries, there is no **shared international understanding of what constitutes the region**.

## How has been the New Geopolitical Dynamics in Eurasia?

- **Japan** is trying to build strong military partnerships with Europe, while South Korea, which does not always see eye to eye with Japan, is **also trying to raise its profile in Europe**.
  - South Korea is **selling major weapons platforms in Poland**.
- Australia, which has joined the US and UK in the **[AUKUS \(Australia, the UK and the US\)](#)** arrangement, is **equally eager to bring Europe into the Indo-Pacific**.
- Together **Japan, South Korea and Australia** are bridging the divide between Asia and Europe long seen as separate geopolitical theaters.
- This process has been **accelerated by Russia's war in Ukraine and the alliance between Russia and China**. This new dynamic presents challenges as well as opportunities for India. But first to the emergence of a new Eurasia.
- Well before Japan and South Korea turned to Europe, it was China and Russia who altered the geopolitical dynamic in Eurasia.
- Days before the Russia-Ukraine War, both Russia and China signed an agreement **declaring an alliance "without limits" and no "forbidden areas"**.
- China, which had made a largely successful effort to cultivate Europe since the 1990s, deliberately **avoided taking sides in Europe's conflicts with Russia**.

## How are other Countries Eurasian Policies?

- **USA's Interests in Eurasia:**
  - Washington's Indo-Pacific strategy does not seem to account adequately for the rise of Eurasia.
  - US' interests in Asia lie primarily in the western Pacific and the **[South China Sea](#)**. Both regions are far from the core of the Eurasian theater.
  - However, amidst mounting challenges from **China in the Indo-Pacific maritime domain**, Washington has begun to **rethink its strategic commitments to Eurasia**.
    - The USA and EU are engaging in talks about rebalancing the trans-Atlantic responsibilities for Europe's collective defence.
- **China, A Major Player in Eurasia:**
  - The recent most important development in Eurasia is **the dramatic rise of China and its growing strategic assertiveness**, expanding economic power and rising political influence.
  - Beijing's approach to the long and **[disputed border with Bhutan and India](#)**, its quest for a security presence in Tajikistan, the active search for a **[larger role in Afghanistan](#)**, and a greater say in the affairs of the broader sub-Himalayan region speak volume about its growing influence.
  - The expansion of **[China's Belt and Road initiative](#)** and Europe's growing economic interdependence with China have added to Beijing's powerful leverages in Eurasia.
    - These leverages were reinforced by a deepening alliance with Russia that straddles the Eurasian heartland.
- **Russia:**
  - Russia saw itself as both a European and Asian power but had trouble becoming a part of either.
  - Together **Russia and China unveiled a Eurasian alliance** that they might have hoped would deliver the long-awaited coup de grace to the global hegemony of the West.
  - The occupation of Crimea in 2014 and the invasion of Ukraine are a product of what Putin

- sees as his historic mission of **reuniting the “Russkiy Mir” or the Russian world.**
- When post-Soviet Russia’s effort to integrate with the West soured in the 2000s, **it developed “Eurasia” and “Greater Eurasia” as new geopolitical constructs.**

## How is India’s Eurasian Policy?

- **Security Dialogue:**
  - In 2021, [Delhi Regional Security Dialogue on Afghanistan](#) was held as a part of **developing a Eurasian strategy.** India’s [National Security Advisor](#) invited his counterparts from Pakistan, Iran, Central Asia, Russia, and China to join this discussion.
  - However, Pakistan and China **skipped the meeting.** Pakistan’s reluctance to engage with India on Afghanistan reveals Delhi’s persisting problem with Islamabad in shaping a new Eurasian strategy.
  - It also reinforces the urgency of an Indian strategy to deal with Eurasia.
- **International North-South Transport Corridor (INSTC):**
  - The [INSTC](#) which aims to bring Eurasia closer together, is a laudable initiative.
  - It is a **multi-modal transportation established on 12th September 2000 in St. Petersburg**, by Iran, Russia and India for the purpose of promoting transportation cooperation among the Member States.
  - The INSTC **was expanded** to include eleven new members, namely: the Republic of Azerbaijan, Republic of Armenia, Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Republic of Turkey, Ukraine, Belarus, Oman, Syria, Bulgaria (Observer).
- **Challenges and Potential:**
  - For India, the rise of Eurasia is making it harder to ride on two boats at the same time. Until now, **India could easily hunt with the maritime coalition — the [QUAD](#) —** in the Indo-Pacific and run at the same time with the continental coalitions led by Russia and China.
  - This was possible so long as the maritime and continental powers were not at each other’s throats.
  - But the conflict between the US, Europe, and Japan on the one hand and China and Russia on the other is **now acute and shows no signs of immediate amelioration.**
  - On the downside, then, India’s mounting security challenges from China on the Himalayan frontier and the tightening embrace between Moscow and Beijing will mean the **shadow over India’s continental strategy will become darker in the days ahead.** On the upside, the possibilities for strengthening India’s strategic capabilities in partnership with the US and Europe as well as Japan, South Korea and Australia have never been stronger. It is up to Delhi now to seize the emerging possibilities.

## Way Forward

- India must devote similar energy as Japan and South Korea do to the development of a **“Eurasian” policy.** If the Indo-Pacific is about Delhi’s new maritime geopolitics, Eurasia involves the recalibration of India’s continental strategy.
- India, over the decades, has dealt with Eurasia’s constituent spaces separately but what Delhi now needs is an integrated approach to set a strong foothold in Eurasia.
  - India will surely encounter many contradictions in its path between and among the USA, Europe, Russia, China, Iran, and the Arab Gulf but it should not let these contradictions hold India back.
  - The key for India lies in greater strategic activism that opens opportunities in all directions in Eurasia.

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. ‘Belt and Road Initiative’ is sometimes mentioned in the news in the context of the affairs of (2016)**

**(a)** African Union

- (b) Brazil
- (c) European Union
- (d) China

**Ans: (d)**

## **Mains**

**Q.** The new tri-nation partnership AUKUS is aimed at countering China's ambitions in the Indo-Pacific region. Is it going to supersede the existing partnerships in the region? Discuss the strength and impact of AUKUS in the present scenario. **(2021)**

**Source: IE**

## **Eco-Sensitive Zones**

**For Prelims:** Eco-sensitive Zones, Environmental Protection Act 1986, Wildlife Protection Act 1972, National Wildlife Action Plan (2002-2016), Urbanization, One-horned Rhino, Kaziranga National Park, Forest Rights Act, Gram Sabha, Eco-tourism, Horticulture, Carbon footprints.

**For Mains:** Activities Around ESZs, Significance of ESZs, Challenges Associated with ESZs.

## **Why in News?**

Recently, [Eco-sensitive Zones](#) have been met with resistance from protests claiming that compliance with the [Environmental Protection Act 1986](#) and the [Wildlife Protection Act 1972](#) has led authorities to disregard the **rights of forest communities and negatively affect their way of life** and livelihood.

## **What is Eco Sensitive Zones?**

### ▪ **About:**

- The [National Wildlife Action Plan \(2002-2016\)](#) of the **Ministry of Environment, Forest and Climate Change (MoEFCC)** stipulated that state governments should declare land falling **within 10 km of the boundaries of national parks and wildlife sanctuaries** as eco-fragile zones or **Eco-Sensitive Zones (ESZs)** under the **Environmental (Protection) Act, 1986**.
- While the **10-km rule is implemented as a general principle**, the extent of its application can vary. **Areas beyond 10 km can also be notified by the Union government as ESZs**, if they hold larger ecologically important **"sensitive corridors"**.

### ▪ **Activities Around ESZs:**

- **Prohibited Activities:** Commercial mining, saw mills, industries causing pollution (air, water, soil, noise etc), establishment of major [hydroelectric projects \(HEP\)](#), commercial use of wood.
- **Regulated Activities:** Felling of trees, **establishment of hotels and resorts, commercial use of natural water**, erection of electrical cables, drastic change of agriculture system, e.g., adoption of heavy technology, pesticides etc, widening of roads.
- **Permitted Activities:** Ongoing agricultural or horticultural practices, **rainwater**

harvesting, organic farming, use of renewable energy sources, adoption of green technology for all activities.

▪ **Significance of ESZs:**

◦ **Minimise the Impact of Development Activities:**

- To **minimise the impact of [urbanisation](#)** and other developmental activities, the areas adjacent to protected areas have been declared as Eco-Sensitive Zones.

◦ **In-situ Conservation:**

- ESZs help in **in-situ conservation, which deals with conservation of an endangered species** in its natural habitat, for example the conservation of the **[One-horned Rhino](#)** of **[Kaziranga National Park](#)**, Assam.

◦ **Minimise Forest Depletion and Man-Animal Conflict:**

- Eco-Sensitive Zones **minimise forest depletion** and man-animal conflict.
- The protected areas are based on the core and buffer model of management, through which local area communities are also protected and benefitted.

◦ **Minimise the Negative Impact on the Fragile Ecosystems:**

- The purpose of declaring eco-sensitive zones around protected areas is to create some kind of a '**Shock Absorber**' for the protected area.
- They also act as a **transition zone from areas of high protection to areas involving lesser protection.**

▪ **Challenges Associated with ESZs:**

◦ **Climate change:**

- **[Climate change](#)** has generated land, water and ecological stress on the ESZs.
  - For example, **frequent forest fires or the Assam floods** which badly affected the **Kaziranga National Park** and its wildlife.

◦ **Encroachment of Forest Rights:**

- Sometimes, execution of The **Environmental Protection Act 1986** and the **Wildlife Protection Act 1972** makes the authorities ignore **forest communities' rights and impact their life and livelihood.**
  - It also includes dilution of rights provided to **gram sabha** for developmental clearances.
  - **Recognition of forest rights and gram sabha's consent were preconditions for considering proposals under The Forest Rights Act 2006** to divert forest land for non-forestry purposes – until the **MoEFCC did away with them in 2022.**

## Way Forward

- **Community Engagement:** It is important to **involve local communities in the decision-making process** for the management of ESZs.
  - This can be done through the formation of **community-based organisations, such as user groups or conservation committees**, that are responsible for managing and protecting the resources found in these areas.
  - **[Gram sabha](#)** must be empowered with a **decision-making authority** in case of **developmental projects.**
- **Alternate Livelihood support:** It is important to provide **alternative livelihood options for local communities** who depend on the resources found in ESZs for their livelihoods.
  - This can include training programs and financial support for alternative livelihoods such as **[eco-tourism](#), [horticulture](#), and [sustainable agriculture](#).**
- **Promoting Eco Restoration:** **Afforestation and reforestation of degraded forest, regeneration of lost habitats, reducing climate change impacts by promoting [carbon footprints](#)** and through education, is needed.

## UPSC Civil Services Examination, Previous Year Question

**Q. In which one among the following categories of protected areas in India are local people not allowed to collect and use the biomass? (2012)**

- (a) Biosphere Reserves
- (b) National Parks

(c) Wetlands declared under Ramsar Convention  
(d) Wildlife Sanctuaries

**Ans: (b)**

[Source: TH](#)

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## Etalin Hydroelectric Project

**For Prelims:** Etalin Hydroelectric Project, Dir and Tangon river, Dibang River, Forest Advisory Committee (FAC), Environment Impact assessment (EIA), South Asia Network on Dams, Rivers and People (SANDRP).

**For Mains:** Significance of Dir and Tangon River, Concerns Raised Around the Etalin Hydrel Project.

### Why in News?

Recently, the [Etalin hydroelectric project in Arunachal Pradesh](#) has been scrapped in its present form.

- The plan combined **two run-of-the-river schemes** with limited storage requiring concrete gravity dams on rivers **Tangon and Dri**.
- It ran into several controversies since its inception in 2008 over concerns of [ecological damage](#), **forest invasion and tribal displacement**.

## What is the Significance of Dir and Tangon River?

- The [Dir and Tangon river](#), both tributaries of the [Dibang River](#) (tributary of Brahmaputra) in **Arunachal Pradesh, India**, have the following significance:
  - **Hydrological:** Both rivers contribute to the **overall hydrology of the region** by providing water for irrigation and hydropower generation.
  - **Ecological:** The Dir and Tangon rivers support a **diverse array of plant and animal life**, including rare and endangered species.
  - **Tourist Attraction:** The scenic beauty of the **Dir and Tangon rivers**, along with the Dibang, is a major tourist destination.

## What are the Concerns Raised Around the Etalin Hydel Project?

- **Environmental Impact:** The project would involve the construction of a large dam on the Dibang River, which would **submerge a large area of forest and wildlife habitat**.
  - This could lead to the **displacement of local communities**, and have significant impacts on the region's biodiversity.
- **Displacement of Local Communities:** The project would **displace thousands of people from their homes and livelihoods**, many of whom are from indigenous communities who rely on the Dibang River for their livelihoods.
- **Impact on River Ecosystem:** The project would change the natural flow of the river and affect the **fish migration and breeding**.
  - This would have a negative impact on local communities who rely on fishing for their livelihoods.
- **Geological and Seismic Risks:** The **South Asia Network on Dams, Rivers and People (SANDRP)** highlighted the **geological and seismic risks** and threats to **biodiversity in 2015**, when environmental **clearance (EC) to the project was underway**.
- **Recent Development of Issue:** The [Forest Advisory Committee \(FAC\)](#) has asked the Arunachal Pradesh government to **go back to the drawing board** and submit the plan of project again.

## Forest Advisory Committee

- It is a statutory body which was constituted by the [Forest \(Conservation\) Act 1980](#).
- It comes under the **Ministry of Environment, Forests & Climate Change (MoEF&CC)**.
- It considers questions on the **diversion of forest land for non-forest** uses such as mining, industrial projects, townships and advises the government on the issue of granting forest clearances. **However, its role is advisory.**

## Way Forward

- **Community-led Approach:** The local population of the region should be consulted and should have **participation in the decision making** to ensure that the final decision making should reflect their concerns.
- **Demarcation of Ecological Sensitive Areas:** The areas which are at risk of loss of biodiversity should be **properly delineated** to ensure that they remain undisturbed.
- **Environment Impact assessment (EIA):** A proper and complete assessment of the [impact of the project on the local environment](#) should be studied comprehensively.

## UPSC Civil Services Examination Previous Year Question (PYQ)

**Q1. On which one of the following rivers is the Tehri Hydropower Complex located? (2008)**

- (a) Alaknanda
- (b) Bhagirathi

- (c) Dhauliganga
- (d) Mandakini

**Ans: (b)**

**Q2. Where are Tapovan and Vishnugarh Hydroelectric Projects located? (2008)**

- (a) Madhya Pradesh
- (b) Uttar Pradesh
- (c) Uttarakhand
- (d) Rajasthan

**Ans: (c)**

[Source: DTE](#)

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## **Bharat Pravah-India along its Shores**

### **Why in News?**

Recently, the Ministry of Shipping, Waterways, and Ports has launched '**Bharat Pravah-India along its Shores**', an initiative to highlight the significance and **imagery of rivers, ports, and shipping in everyday life through** a series of nationwide events.

- Kochi, Vizhinjam in Kerala and Galathea Bay ports in Andaman Nicobar Islands have made some headway in the direction of becoming full-fledged transshipment hubs.

### **What is Bharat Pravah?**

- **About:**
  - **Bharat Pravah** will serve **as a common platform to bring together stakeholders from different walks** for the purpose of creating a larger vision of shipping, rivers, seas & people.
  - It will highlight the challenges, policy issues and future goals relating to the maritime sector.
- **Themes:**
  - Rivers and Sea-Centric Development in India- the Historical lens.
  - Sea, River, Ports and Ship in Folk Culture and Literature.
  - Representation of Ports and Shipping in Popular Culture.
  - Role of Shipping and Ports in India's Development in the last 30 years.
  - The Politics and Economy of Privatisation of Ports.
  - Inland Waterways - Arteries of Growth, their Role and Significance.
  - Greening Ports and Shipping Industry.
  - Future of Ports and Shipping Industry- Management, Challenges and Policies.

### **What are the Important Points related to Ports in India?**

- Government is seeking that **all ports to prepare a master plan to become mega ports by 2047.**
- Currently, nearly **75% of India's transshipment cargo is handled at ports outside India.**



The **ports of Colombo, Singapore, and Klang handle more than 85%** of this cargo, according to Ministry data.

- Transshipment hubs are ports that have connections to originating and destination ports.
- While India was looking to build mega ports which will be digitised and more environment-friendly, there are challenges along the way.
- India does roughly **35% of containerization, while other developing countries do 62% to 65% containerization.**
  - Currently India does **more break bulk shipping rather than using containers,** however, we are making rapid progress towards containerization.
- India's share in world trade is **a meagre 2%.** Balance of trade is towards import. India stands at **44 on the logistics performance index.**
  - The reason for low ranking is the **absence of appropriate infrastructure and procedural reforms.**

[Source: TH](#)

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## Spot Bellied Eagle Owl

### Why in News?

Recently, **Spot Bellied Eagle Owl (*Bubo Nipalensis*)** was spotted for the first time in [Seshachalam forest](#), and for the third time in **Andhra Pradesh**.

- It was sighted twice earlier at [Nagarjunasagar Srisailem Tiger Reserve\(NSTR\)](#).

What is a Spot-bellied Eagle Owl?

- **About:**
  - The **Spot-bellied Eagle Owl**, also known as the **Forest eagle-owl** is a large owl species typically found in wooded areas, such as **forests and rocky hillsides**, and are known for their **distinctive spots on their belly**.
    - The spot-bellied eagle-owls are **large, very powerful and bold predatory birds**.
  - The bird makes a strange scream similar to humans and it is hence called the '**Ghost of the Forest**' in India.
- **Distribution:**
  - These eagle-owl species are distributed in **India, Sri Lanka, Nepal, Bhutan, Bangladesh, Myanmar, China, Thailand, Laos, Cambodia and Vietnam**.
- **Prey:**
  - They are known to prey on large birds and also on mammals like [golden jackals](#), **hares, civets and chevrotains**.
- **IUCN and CITES Status:**
  - [International Union for Conservation of Nature \(IUCN\) Red list: "Least Concern"](#).
  - **CITES (the [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#)) : Appendix II.**

## Nagarjunsagar Srisailem Tiger Reserve

- The Nagarjunsagar-Srisailem Tiger Sanctuary was declared officially in 1978 and has been recognized by the Project Tiger in 1983.
- **Nagarjunsagar-Srisailem Tiger Reserve** is the largest tiger reserve in India.
- In 1992, it was retitled as **Rajiv Gandhi Wildlife Sanctuary**.
- The Tiger reserve is spread over 5 districts in Andhra Pradesh and Telangana. The area consists mostly of the **Nallamala Hills**.
- The multipurpose reservoirs- **Srisailem and Nagarjunsagar** are located in the reserve.
- The **Krishna River** cuts the basin of this reserve.

[Source: TH](#)

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## AK-203 Rifles

### Why in News?

India and Russia have begun the joint production of **AK 203 rifles at a factory in Amethi, Uttar Pradesh**.

- India and Russia had inked an agreement in **December 2021 for procurement of 6,01,427 AK 203 assault rifles** through Korwa Ordnance Factory in Uttar Pradesh's Amethi district.

### What are the Key Points of Joint Contract?

- More than **six lakh rifles are to be manufactured in India as part of a joint venture — Indo-Russia Rifles Private Limited** — established between the Indian Ordnance Factory Board (OFB), Kalashnikov Concern, and Rosoboronexport, (both subsidiaries of the Rostec State Corporation).
- The Rs 5,124 crore deal was signed between India and **Russia in December 2021.**
  - It is the biggest defence deal between the two nations in recent years. The deal has a clause for complete technology transfer. The rifles will also be exported to friendly foreign nations.
- The idea is to have **rifles made of 100 % indigenous components** over a period of 128 months.

## What is an AK 203 Rifle?

- AK-203 assault rifle is **considered to be the latest and most advanced version** of the AK-47 rifle.
- It is a 7.62×39mm variant from the AK-100 rifle family (one that offers the AK-74M system, in multiple cartridges and lengths).
- It is expected **to replace the Indian Small Arms System (INSAS) 5.56×45 mm assault rifle**, which are presently being used by Army, Navy and the Air Force besides other security forces.
- INSAS rifles are not suitable for use at high altitude. Several other issues with these rifles include gun jamming, oil leakage etc.

## How has Indo-Russia Defence and Security Relations been?

- India-Russia military-technical cooperation has evolved from a buyer-seller framework to one involving joint research, development and production of advanced defence technologies and systems.
- Both countries regularly conduct the Tri-Services exercise **'INDRA'**.
- The joint programmes between India and Russia include:
  - [BrahMos cruise missile programme](#)
  - 5<sup>th</sup> generation fighter jet programme
  - [Sukhoi Su-30MKI programme](#)
  - **Ilyushin/HAL Tactical Transport Aircraft**
  - [KA-226T twin-engine utility helicopters](#)
- The military hardware purchased/leased by India from Russia includes:
  - **S-400 Triumph**
  - **Kamov Ka-226 200 to be made in India under the [Make in India](#) initiative**
  - **T-90S Bhishma**
  - [INS Vikramaditya aircraft carrier programme](#)
- **Russia also plays a very important role in assisting the [Indian Navy](#) with its submarine programmes:**
  - **Indian Navy's first submarine, 'Foxtrot Class'** came from Russia.
  - India is dependent on Russia for its nuclear submarine programme.
  - INS Vikramaditya, the sole aircraft carrier operated by India, is also Russian in origin.

**Source:** [PRINT](#)

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## IL-38 Aircraft

### Why in News?

[Indian Navy's IL-38 Aircraft](#) will take part in the **74<sup>th</sup> Republic Day** celebrations at the [Kartavya Path](#) for the first time and perhaps the last time.

- It will be among the **50 aircraft including 9 Rafales of the Indian Air Force- will take part** in the event.

## What is an IL-38 Aircraft?

- IL-38 is a **maritime reconnaissance aircraft that was** commissioned into the Indian Navy in 1977 and remained a **formidable air asset throughout its service life for nearly 44 years.**
- It was with the induction of IL 38 aircraft that the Navy **moved into the arena of airborne Long Range Maritime Reconnaissance (LRMR)** combined with long range anti-submarine search and strike, anti-shipping strike, electronic signal intelligence and distant SAR.
- The IL 38 is an **all-weather aircraft with long endurance and substantial operating range. Having clocked nearly 10,000 hours** of operational flying.

[Source: IE](#)

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## Rapid Fire Current Affairs

### GMRT Detects Atomic Hydrogen

Astronomers from McGill University, Canada and **IISc, Bengaluru** have detected a **radio signal originating from atomic hydrogen** in an extremely distant galaxy (**so far, the largest distance**) using data from **Giant Metrewave Radio Telescope (GMRT)**.

**Atomic hydrogen is the basic fuel** required for star formation in a galaxy. It emits **radio waves of 21 cm wavelength**, which can be **detected using low frequency radio telescopes** like the GMRT.

Until now, the most distant galaxy detected using 21 cm emission was at **redshift  $z=0.376$** , (corresponding to the time elapsed between detecting the signal and its original emission - of **4.1 billion years**). **The one detected now was at redshift  $z=1.29$** .

Redshift represents the change in wavelength of the signal depending on the object's location and movement; a greater value of  $z$  indicates a farther object.

This detection was made possible by a phenomenon called **gravitational lensing**. Gravitational lensing probes the distribution of matter in galaxies and clusters of galaxies, and enables observations of the distant universe.

**Read More - [Atomic Hydrogen, GMRT](#)**

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### AI-AQMS v1.0 for Air Quality Monitoring

Recently, the **Technology for Air Quality Monitoring System - AI-AQMS v1.0** was launched by **MeitY**.

The **Centre for Development of Advanced Computing (C-DAC)**, Kolkata has developed an outdoor air quality monitoring station to monitor environmental pollutants. It includes parameters like **PM 1.0, PM 2.5, PM 10.0, SO<sub>2</sub>, NO<sub>2</sub>, CO, O<sub>2</sub>, ambient temperature, relative humidity, etc**, for continuous air quality analysis of the environment.

**Read More - [Monitoring Air Quality](#)**

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## Biosensing based EDC Detection System

MeitY has recently launched the Technology for **Biosensing system for the detection of Endocrine Disrupting Chemicals (EDC)** in aquatic ecosystems. The technology has been developed by **C-DAC, Kolkata in collaboration with ICAR-CIFRI for qualitative and quantitative analysis of EDC content in water bodies.**

Endocrine disruptors are chemicals that may **interfere with the body's endocrine system and produce adverse developmental, reproductive, neurological, and immune effects** in both humans and wildlife.

**Read More - [Endocrine Disruptors](#)**

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## Loan Loss Provision

The RBI recently proposed a framework for **adoption of an 'expected loss-based' approach** for provisioning by banks. Presently, banks are required to make loan loss provisions **based on an 'incurred loss' approach** - the global standard till recently. It will be a **more forward-looking 'expected credit losses' approach.**

Under the proposed framework, **Banks will be required to classify financial assets** (primary loans and investments) into one of the three categories - **Stage 1, Stage 2, and Stage 3**, depending upon the assessed credit losses on them

**Loan Loss Provision - An expense that banks set aside for defaulted loans.** Banks set aside a portion of the expected loan repayments from all loans in their portfolio to cover the losses either completely or partially. In the event of a loss, instead of taking a loss in its cash flows, the bank can use its loan loss reserves to cover the loss.

**Read More - [Reserve Bank of India](#)**

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