



**Mains Marathon**  
**Compilation**

**7<sup>th</sup> to 12<sup>th</sup> August, 2023**

## **Mains Marathon Compilation for the Month of August, (Second Week) 2023**

- 1. Discuss the significance of data protection for children in the context of the Digital Personal Data Protection Bill, 2022. How does the bill aim to protect the interests and rights of children?**
- 2. Discuss the impact of excess sugar production on India's agricultural sector and sugarcane farmers. What are the implications of the over-cultivation of sugarcane?**
- 3. Analyze the impact of import restrictions on India's IT revolution. How might these restrictions affect the country's technological advancement and economic growth?**
- 4. Analyze the changes proposed in the Mines and Minerals Bill 2023. How might these changes affect India's mining industry and its ability to secure critical minerals?**
- 5. Discuss the need for rebuilding the urban primary healthcare system to ensure resilience against unpredictable climatic events.**
- 6. What is the United States Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022 (CHIPS Act)? Discuss the lessons that India can learn from the CHIPS Act for executing its semiconductor strategy**
- 7. Why are cluster bombs considered controversial? Explain the provisions of the Convention on Cluster Munitions (CCM) and its significance in international law.**
- 8. Compare and contrast the characteristics of small nuclear modular reactors (SMRs) and conventional nuclear power plants.**
- 9. Discuss the link between undernutrition and tuberculosis, as highlighted in the Lancet study. Critically analyze the implementation of the Nikshay Poshan Yojana, aimed at improving the nutrition of TB patients. [150 words]**
- 10. Analyze the arguments for and against the use of smartphones in schools. Discuss the impact on learning, mental well-being, and social interaction. Evaluate UNESCO's recommendation for a universal ban and India's approach to this issue. [250 words]**
- 11. Explain the objectives and achievements of Project Elephant. How has it contributed to the conservation of elephants and their habitats?**
- 12. Highlight the challenges of drug-resistant tuberculosis (DR-TB) in India. Also, Discuss the new regimens recommended by WHO for DR-TB patients.**

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

### 1. Discuss the significance of data protection for children in the context of the Digital Personal Data Protection Bill, 2022. How does the bill aim to protect the interests and rights of children?

**Introduction:** Brief outlay of Digital Personal Data Protection Bill 2022.

**Body:** Significance of data protection for children in the context of the Digital Personal Data Protection Bill

**Conclusion:** Way forward.

The Digital Personal Data Protection Bill 2022 provides legal data protection for personal data obtained from various sources. It highlights that personal data may be processed only for a lawful purpose upon the consent of an individual. The Bill grants certain rights to individuals including the right to obtain information, seek correction and erasure, and grievance redressal.

#### Significance of data protection for children in the context of the Digital Personal Data Protection Bill:

- **Online safety and privacy:** Children constitute around 15 percent of active internet users in India with activities ranging from e-learning, gaming, and content creation using popular social media platforms. This makes the issue of online safety and privacy vital for them.
- **Access to Internet:** The clause of parental consent for every individual below 18 will make it difficult for young adults and adolescents to freely access the internet. This may limit their access to popular social sites like Facebook, Instagram, YouTube, Twitter, and Snapchat.
- **Easy access to data:** Digital Personal Data Protection Bill 2023, allows users to have complete access to their data. The bill further prohibits behavioral monitoring of children and targeted advertising directed at children. This provision ensures a safer digital space for children.
- **Target misleading promotions:** The DPDP Bill restricts targeted digital advertisements that could adversely affect children's health and well-being in a variety of ways. For example, food marketing may encourage the consumption of unhealthy foods and drinks, which contributes to childhood obesity.

#### How does the bill aim to protect the interests and rights of children?

- **Parental consent:** The bill mandates parental consent for children below 18 years accessing social media sites. The government could lower the age for certain digital services which may not carry significant privacy risks. These could include services like web search, online encyclopedias, and others that children may access for educational purposes.
- **Age verification:** The intent of the bill in safeguarding children's rights is a step in the right direction, ambiguity exists regarding age verification. Knowledge-based tests like puzzles, maths quizzes, and Question and Answers could be used to assess the age of a child.
- **Exemptions:** The DPDP Bill allows the government to exempt entities from the requirement of parental consent and tracking and targeting ads for specific purposes. E.g., services like ed-tech.

#### Conclusion:

The Digital Personal Data Protection Bill, 2022 should aim for open, safe, trusted, and accountable internet for India's netizens with a special focus on protecting the rights and interests of children.

**2. Discuss the impact of excess sugar production on India's agricultural sector and sugarcane farmers. What are the implications of the over-cultivation of sugarcane?**

**Introduction:** Give brief context of recent over production of sugarcane.

**Body:** What is the impact of excess sugar production on India's agricultural sector and sugarcane farmers?

**Conclusion:** Way forward.

Recently according to statistics, India surpassed Brazil in sugar production in 2021-2022. Concerns have been raised over the extensive use of resources in sugar production which are depleting rapidly, leading to a potential crisis in the future. This surge in production is on account of policies and measures taken by the central government in the form of fair and remunerative price (FRP) schemes & various State governments also offering heavy subsidies to incentivise sugarcane cultivation that make farmers favour sugarcane cultivation.

**What is the impact of excess sugar production on India's agricultural sector and sugarcane farmers?**

- **Loss of Groundwater:** Since sugarcane is a water-intensive crop, over-cultivation can impact groundwater negatively. It leads to water scarcity in regions where water availability is already limited. E.g., Maharashtra.
- **Price fluctuations:** The revenue of both sugar manufacturers and farmers may be impacted by excessive sugar production's ability to cause price changes in the commodity. The market's ability to make money is harmed when there is an excess of sugar available, as prices tend to fall.
- **Soil degradation:** Continuous sugarcane monoculture reduces soil fertility and causes soil degradation in sugarcane fields. Without suitable crop rotation or soil management techniques, continuous sugarcane production has the potential to deplete soil nutrients, degrade soil fertility, and raise the danger of soil erosion.
- **Food Security:** Excessive focus on sugarcane cultivation leads to diversion of resources from other crops like food crops, and cereals like millet. This can negatively impact crop diversity and food security.

**What efforts have been made to address this issue?**

- **Ethanol Production:** The Indian government explored using the excess sugar to produce ethanol, by fermenting sugarcane molasses or sugar. Alcoholic beverages contain the substance ethanol, which can also be utilized in the chemical and cosmetics sectors.
- **Ethanol-Blended Petrol (EBP):** Under the ethanol blending program, the Indian government diverts excess sugar in the production of ethanol. It is aimed to achieve dual objectives: to reduce harmful emissions, such as carbon monoxide and various hydrocarbons, from vehicles & to reduce crude oil imports.
- **Financial Support:** Centre and state governments can provide financial support in the form of subsidies and grants for a variety of crops that can help farmers diversify as well as distribute cultivation evenly, prevent monocultures, and ensure an equitable income.
- **Sustainable Irrigation Practices:** Practices like drip irrigation can address the issue of groundwater depletion. This method reduces water consumption by up to 70% relative to the current flood irrigation method. Groundwater reservoir stress can be reduced by making a concerted effort to embrace cleaner techniques including rainwater collection, wastewater treatment, and canal irrigation networks.

**Conclusion:**

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

With these initiatives, farmers will be in a better position to diversify their crop selections, lessen their reliance on sugarcane, and improve the sustainability of their farming operations as a whole. When putting these tactics into practice, it's crucial to take local factors, market dynamics, and farmer preferences into account.

### 3. Analyze the impact of import restrictions on India's IT revolution. How might these restrictions affect the country's technological advancement and economic growth?

**Introduction:** Give the context of the recent order.

**Body:** How it will impact the IT industry?

**Conclusion:** Way forward

Union Government **order requiring licenses to import personal computers, laptops, palmtops, automatic data processing machines, microcomputers/processors, and large/mainframe computers with immediate effect** has raised concern among the IT industry as it could lead to the old days of license raj and bureaucratic discretion & marks a regression in the country's outlook on trade liberalization.

#### How might these restrictions affect the country's technological advancement and economic growth?

- **Less import from China:** The government has defended the move as it will curb the majority share of imports of these items from China. In 2022-23, imports of personal computers, laptops, etc. stood at \$5.3 billion, with China accounting for an overwhelming share of these.
- **Disruption in supplies:** The government decision might lead to supply chain disruption in the domestic market, creating supply shortages and raising the prices of these items in the retail market. Licensing development could lead to price increases for certain products ahead of the Diwali festive season in India in early November.
- **National Security:** Electronic devices imported from China have recently raised concerns due to security flaws that might potentially put sensitive personal and business data at risk. One of the government's stated goals is to address the issue of cybersecurity.
- **Atmanirbhar Bharat:** The stated aim of the government behind the move is to boost domestic manufacturing. This measure is anticipated to have a direct positive impact on the Centre's recently launched production-linked incentive (PLI) program for IT hardware. The action aims to encourage businesses to produce locally in India and to support the nation's IT infrastructure.
- **Effect on big tech companies:** The move may considerably hit revenues of companies like Apple, Dell and Samsung, HP which consider India a very lucrative market for their manufactured goods.
- **Domestic market:** The restriction will likely impact the domestic market of retailers and companies engaged in the business of electronic items. It will impact the income of retailers as the high demand for these items will impact the sales and discounts of the retailers and companies.
- **IT industry:** The industry has raised concern regarding the notification and asked for clarification as India's service sector critically depends on the import of these items.
- **IT Hardware:** The PLI Scheme 2.0 for IT Hardware is expected to result in the broadening and deepening of the manufacturing ecosystem by encouraging the localization of components and sub-assemblies and allowing for a longer duration to develop the supply chain within the country. The scheme is expected to lead to a total production of about ₹ 3.35 lakh crore, bring an additional investment of ₹ 2,430 crores

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

in electronics manufacturing, and will lead to the generation of 75,000 additional direct jobs. This will result in lowering IT Hardware prices.

### Conclusion:

While the intention of the government is novel in approach, it is prudent to consult all stakeholders involved regarding the policy so as not to derail the progress of India's IT revolution.

### 4. Analyze the changes proposed in the Mines and Minerals Bill 2023. How might these changes affect India's mining industry and its ability to secure critical minerals?

**Introduction:** Give context of the Bill mentioned.

**Body:** Mention some of the changes proposed in the bill which affect mining industry

**Conclusion:** Way forward

Recently, Parliament passed the Mines and Minerals (Development and Regulation) Amendment Bill, 2023 which aims to enhance the role of private sector investment in the exploration of critical and deep-seated minerals in the country.

#### Some of the changes proposed in the bill which affect mining industry:

- **Greater role of the private sector:** The bill seeks to allow the private sector to mine six out of 12 atomic minerals, including lithium, beryllium, niobium, titanium, tantalum, and zirconium. exploration and mining of these six minerals, previously classified as atomic minerals, were restricted to government-owned entities.
- **Less dependency on China:** Due to the scarcity of these rare & critical minerals or the concentration of their extraction or processing in a few places, there is an increased reliance on imports, which exposes supply chains to the risk and can even cause supply disruptions. For instance, 70% of the world's cobalt is mined in the Democratic Republic of the Congo, which is majority-owned by China. China is the nation with the biggest known reserves of rare earth elements, followed by Vietnam, Brazil, and Russia.
- **Economic development and national security:** These minerals are crucial to a country's manufacturing, infrastructure, and advancement. For eg, lithium is used for manufacturing batteries for electric vehicles and energy storage devices. These minerals are also necessary for the production of semiconductors used in smart devices, aerospace and defence technology, and telecommunications.
- **Capacity building of private players:** By utilizing the private sector's potential for exploration, a new bill aims to bring India's exploration methods up to level with those of wealthy nations. The use of techniques like aerial surveys, geological mapping, and geochemical analyses is a highly specialized, time-intensive, and monetarily risky operation that requires the assistance of the private sector.
- **Incentives for private players:** The bill allows pitting, trenching, drilling, and sub-surface excavation as part of reconnaissance, which included mapping and surveys that were earlier prohibited.
- **Power of State Government:** The State government will award the exploration license (EL), which has a five-year initial term and a two-year extension option. The bill also grants the central government the exclusive right to put up for auction mining leases and composite licenses for a few key minerals.

### Conclusion:

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

Notably, it is believed that India has only explored 10% of its geological potential, less than 2% of which is mined, while the nation spends less than 1% of the worldwide budget on mineral exploration. The enhanced role of private sector participation will mark significant changes in mineral discoveries and mineral exploration projects.

### 5. Discuss the need for rebuilding the urban primary healthcare system to ensure resilience against unpredictable climatic events.

**Introduction:** Give a brief context of urban primary health care.

**Body:** Why is it essential to rebuild the urban primary healthcare system to ensure resilience against unpredictable climatic events?

**Conclusion:** Way forward

Urban primary healthcare refers to the healthcare services provided to individuals and communities in urban areas as part of their primary care needs. Urban primary health care is a broad term that refers to a variety of medical, preventive, and promotional services that are offered to urban people to meet their fundamental healthcare requirements. A considerable majority of India's population lives in urban regions, making urban primary healthcare a crucial component of overall healthcare systems.

#### Why is it essential to rebuild the urban primary healthcare system to ensure resilience against unpredictable climatic events?

- **Health risks:** Events brought on by climate change may increase health hazards. Waterborne illnesses can emerge from flooding, vector-borne illnesses like dengue and malaria can spread after flooding, and heatwaves can bring on heat-related illnesses and aggravate pre-existing medical issues.
- **Increased vulnerability of Urban Poor:** Urban households, especially those in less developed regions of a city like slums and urban settlement colonies, are probably the most vulnerable. Most residents of these slums and resettlement colonies are indigent, working in the unorganized urban economy without access to social security benefits.
- **Responsibility to Local bodies:** The primary responsibility of maintaining the preventive and public health functions of urban primary health care is the responsibility of local bodies. So it is critical to develop the capacity building of urban governance institutions to cater to the healthcare needs of urban citizens.

#### How to rebuild the health system?

- **Inter-State Cooperation:** The prevention of the spread of these illnesses necessitates systematic cooperation between States as well as within each State because of inter-state and intra-state migration.
- **Enhance Public investment:** There is a need for greater public investment with an immediate focus on urban areas especially in less developed parts of a city such as slums and urban settlement colonies.
- **Intersectoral Collaboration:** Addressing the health impacts of climate change requires collaboration across sectors, including urban planning, disaster management, environmental health, and public health. A rebuilt healthcare system should be designed to work seamlessly with the private sector to create a comprehensive response framework. This can be achieved through greater coordination and cooperation across various actors in terms of knowledge and data sharing, preventive and curative functions, treatment practices, and, above all, the regulation of rates and standards.

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

- **Front-line workers:** There is an urgent need to address the shortage of trained workers in the health sector by creating multi-purpose cadres through the integration of front-line workers across various disease management programs.

### Conclusion:

By building a climate-resilient healthcare system, India can better safeguard the health and well-being of its urban population in the face of an increasingly unpredictable climate.

### 6. What is the United States Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022 (CHIPS Act)? Discuss the lessons that India can learn from the CHIPS Act for executing its semiconductor strategy

**Introduction:** Give brief context of CHIPS Act.

**Body:** What are its key features and lessons that India can learn from this Act for its semiconductor mission?

**Conclusion:** Way forward.

The ***Creating Helpful Incentives to Produce Semiconductors and Science Act (CHIPS Act)*** seeks to offer \$280 billion in aid and subsidies, with a special emphasis on the country's semiconductor industry, which is being threatened by China. The bill would give US chip manufacturers "\$52 billion in subsidies and additional tax credits" in addition to another \$200 billion for scientific research, particularly in artificial intelligence and other cutting-edge technology.

#### Key features of the Act:

- **Reduce dependence on China:** A global shortage of semiconductors or chips led to the recognition that the US needed its substantial manufacturing & reduced its dependence on China. 75% of world semiconductor demand is met by countries of East Asia, particularly Taiwan, Korea & China.
- **National security:** It will strengthen US national security by making tech companies less dependent on foreign sources of semiconductors which are known to be used in critical sectors of the economy.

#### What can India learn from CHIPS Act for executing its semiconductor strategy?

- **US-India Initiative on Critical and Emerging Technologies (iCET):** Both countries agreed to enhance bilateral collaboration on resilient supply chains, support the development of a semiconductor design, manufacturing, and fabrication ecosystem in India, and promote the development of a skilled workforce for the industry.
- **Inter-Ministerial coordination:** The CHIPS Act highlights cooperation and coordination between several arms of the government. Central government must ensure cooperation between the Ministry of Commerce, defence and external affairs, and major scientific institutions for accelerating semiconductor manufacturing and research.
- **Focus on Technocrats:** India Semiconductor Mission (ISM) has been set up by MeitY, which is largely dominated by career bureaucrats while the CHIPS Act requires the overwhelming presence of technocrats or subject experts cooperating alongside government efforts.
- **Link between Academia and Industry:** In line with the National Semiconductor Technology Centre (NSTC) of USA, MeitY has created the Chips2 Startup (C2S) programme which aims to collaborate with industry and educational institutions.



## Mains Marathon Compilation for the Month of August, (Second Week) 2023

- **Transparency and Accountability:** Along the lines of the CHIPS Program Office (CPO), there should be a body to lay down the guidelines for assessing the financial viability of a project, and display regular monthly reports on the semiconductor program which will enhance transparency and accountability.

### Conclusion:

India needs to make concerted efforts to identify and invest in research on future technologies. For eg, India needs to prioritise and focus on high volume chip manufacturing and packaging research to ensure the success of its India Semiconductor Mission (ISM).

### 7. Why are cluster bombs considered controversial? Explain the provisions of the Convention on Cluster Munitions (CCM) and its significance in international law.

**Introduction:** What are cluster bombs?

**Body:** What are the provisions of the Convention on Cluster Munitions (CCM) and their significance in international law?

**Conclusion:** Way Forward

A bomb that explodes in the air and scatters smaller "bomblets" across a large area is known as a cluster munition. The bomblets are made to destroy troops, tanks, and other equipment by simultaneously striking several different targets. The dud rate is the proportion of bomblets that do not explode right away and remain dormant for several years. These dormant bomblets function as unstable landmines and pose a serious hazard to the civilian population, particularly women and children, for a considerable amount of time which makes these bombs highly controversial. These were used by the US in **Vietnam, Afghanistan, Iraq & Russia against Ukraine**. Efforts of civil society organizations & Human rights watch led to the **Convention on Cluster Munitions (CCM)** an international treaty that prohibits all use, transfer, production, and stockpiling of cluster munitions, a type of explosive weapon which scatters submunitions ("bomblets") over an area.

### What are the provisions of the Convention on Cluster Munitions (CCM) and their significance in international law?

- **Prohibits the use of cluster bombs:** Article 1 of the CCM bans the use, production, stockpiling, and transfer of cluster bombs.
- **Production and Transfer Prohibition:** States Parties are not allowed to manufacture, obtain, stockpile, or transfer cluster munitions to other states or non-state entities.
- **Destruction and Clearance:** States must ensure that Cluster munition remains must be removed and destroyed in any locations that fall under the jurisdiction and control of the parties. They have a deadline to meet for completing these responsibilities, which is specified in the convention.
- **Assistance to Victims and Affected Communities:** States Parties are required to offer cluster munitions victims assistance, including medical attention, rehabilitation, and emotional support. They are also urged to help the impacted areas rebuild economically and socially.

### Conclusion:

Presently, only 112 countries have acceded to the CCM including many North Atlantic Treaty Organization (NATO) members such as Canada, Germany, France, and the United Kingdom while important countries such as the U.S., Russia, China, Israel, and India have not signed the CCM. As envisioned in the CCM, cluster bombs should be completely outlawed for use,

ownership, transfer, and supply. To make this a reality, all UN member states must ratify the CCM and eliminate cluster munitions from the planet.

**8. Compare and contrast the characteristics of small nuclear modular reactors (SMRs) and conventional nuclear power plants.**

**Introduction:** Give a brief context of the question.

**Body:** Highlight differences between small nuclear modular reactors (SMRs) and conventional nuclear power plants.

**Conclusion:** Way forward.

The move to decarbonize power generation has once again brought the issue of **small nuclear modular reactors (SMRs)** as an alternative to coal-fired power generation plants “to ensure access to affordable, reliable, sustainable and modern energy for all”.

**Difference between small nuclear modular reactors (SMRs) and conventional nuclear power plants.**

- **Size:** SMRs are smaller in size and have lower power output compared to conventional nuclear power plants. They typically have an electrical output of fewer than 300 megawatts (MW). Conventional nuclear power plants on the other hand are large with an output of 700+ MW.
- **Cost & Construction:** The construction of conventional plants can be more complex and time-consuming, often requiring a longer lead time for planning and execution. By reusing existing infrastructure, SMRs can be constructed in decommissioned thermal power plant sites, saving the host nation from having to buy extra land and/or relocate residents outside of the current site border.
- **Safety:** Because SMR designs are more straightforward than those of traditional NPPs and incorporate several passive safety safeguards, there is less chance of an uncontrolled release of radioactive materials into the environment. Additionally, compared to a traditional NPP, an SMR plant will store less spent nuclear fuel.
- **Fuel Used:** Some SMR designs employ various fuel types, including advanced fuels and even non-uranium fuels, which might result in improved fuel utilization and less waste. Enriched uranium is primarily used as fuel in conventional nuclear power plants.
- **Regulation:** Due to their distinct design and smaller scale, SMRs may have a different regulatory process than conventional facilities. Some nations are investigating simplified licensing procedures for SMRs. The standard plant regulatory process is well-established, but it can be strict and time-consuming.

**Conclusion:**

Union Government must take full responsibility to ensure the safety, security, and safeguards, controls of nuclear fuel and radioactive waste. Additionally, a law must be passed by the government to establish a regulatory body that is independent, powerful, and qualified to monitor every phase of the nuclear power production cycle. Lastly, the Atomic Energy Act will need to be amended to allow the private sector to set up SMRs.

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

**9. Discuss the link between undernutrition and tuberculosis, as highlighted in the Lancet study. Critically analyze the implementation of the Nikshay Poshan Yojana, aimed at improving the nutrition of TB patients. [150 words]**

**Introduction:** Give context to the Lancet report.

**Body:** Discuss highlights of the report and implementation of Nikshay Yojana.

**Conclusion:** Way forward.

Recently, a study conducted by Lancet in Jharkhand shows that a good diet not only reduces the incidence of the disease amongst vulnerable people living with infected people, but it also reduces mortality in TB patients. The study found that early weight gain in people with TB lowers the risk of mortality by 60 percent.

**How has implementation of the Nikshay Poshan Yojana, aimed at improving the nutrition of TB patients?**

- **Direct benefit transfer:** The NPY was launched in 2018 by the Ministry of Health and Family Welfare. It aims to support every TB Patient by providing a Direct Benefit Transfer (DBT) of Rs 500 per month for nutritional needs. The government needs to increase the DBT amount as Rs 500 is too low to have a nutritious and healthy diet.
- **People's participation:** Community participation is an essential feature of Nikshay Yojana. Community participation plays a key role in mass awareness, behaviour change, demand creation, clearing myths, and convincing the reluctant to embrace services. Low patient awareness has also been reported to affect the program's reach to the citizens.
- **Nikshay Mitras:** The program allows Nikshay Mitras to adopt and take care of TB patients. Nikshay Mitras are volunteers who may represent private citizens, businesses, NGOs, cooperative societies, or even political organizations. They promise to assist TB sufferers by providing dietary support, nutritional supplements, extra research, and employment assistance. Medical journals have reported about the lack of training for healthcare providers and complex reporting formats as the main hurdles in the implementation of the scheme.

**Conclusion:**

Policymakers must take insights from Lancet's study and frame guidelines to make sure that people have a healthy diet of proteins, carbohydrates, and micro-nutrients which will help the government achieve its ambitious goal of TB elimination by 2025.

**10. Analyze the arguments for and against the use of smartphones in schools. Discuss the impact on learning, mental well-being, and social interaction. Evaluate UNESCO's recommendation for a universal ban and India's approach to this issue. [250 words]**

**Introduction:** Give context to the UNESCO report.

**Body:** Analyse arguments for and against use of smartphones and give UNESCO suggestions for the same.

**Conclusion:** Way Forward.

A recent UNESCO report has flagged concern regarding the increasing use of smartphones in schools. UNESCO has recommended a universal ban on the usage of smartphones in schools to tackle classroom disruption, improve learning, and help protect children from cyberbullying.

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

### Arguments for the Use of Smartphones in Schools:

- **Post-COVID Digital Age:** Post-pandemic there has been increased usage of smartphones owing to the widespread boom in the edutech industry. The government has also highlighted the use of smartphones in its NEP or New Education Policy.
- **Implementation of blanket ban:** Studies have shown that a blanket ban on phones is difficult for school administration to enforce as children find discreet ways to bring phones.
- **Information & digital age:** Smartphones provide students with instant access to a vast amount of information and educational resources which can enhance their learning experience. The use of the latest technology like AI and speech recognition can widen the scope of education and make it possible to engage children from various backgrounds.
- **Interactive:** Learning may be made more interactive and engaging by using smartphones in sessions. Interactive tests, multimedia presentations, and educational apps can hold students' interest and accommodate various learning styles.

### Arguments against the Use of Smartphones in Schools

- **Distraction:** The fact that smartphones may be quite distracting is one of the biggest worries. During class, students might use them for non-educational activities like texting, social media, or gaming, which would distract them from learning.
- **Academic Performance:** Smartphone distractions might affect academic achievement as they are engaged in non-academic activities or frequently check their phones during class, risk missing vital information, and find it difficult to stay up with their studies.
- **Social Interaction:** Smartphone use in class could make it harder for students to interact socially in person. There may be less opportunity for peer collaboration, communication, and social skill development if students are engrossed in their devices.
- **Health concerns:** Excessive smartphone use has been associated with attention deficit disorders, anxiety, and depression. This may affect the mental health of the student and his academic performance.

### UNESCO recommendation for a universal ban and India's approach to this issue:

- UNESCO recommended that policymakers should take in mind the concern of students and frame data protection laws keeping their health & security in mind.
- UNESCO has suggested that mobile phones be banned during school hours.
- UNESCO has suggested that bringing smartphones into schools increases the digital divide among students belonging to various socio-economic backgrounds because students with access to the latest expensive devices could experience an advantage, while those with limited resources might feel left out or stigmatized.

### Conclusion:

There should be a need to engage all stakeholders connected with school education such as students, parents, teachers, and heads of schools to decide on the future of smartphones in the schools.

**11. Explain the objectives and achievements of Project Elephant. How has it contributed to the conservation of elephants and their habitats?**

**Introduction:** Describe Project Elephant.

**Body:** Explain the objectives and achievements of Project Elephant & measures taken to conserve elephants.

**Conclusion:** Way Forward.

Project Elephant is a government-led initiative in India aimed at the conservation, protection of elephants their habitats, corridors & ensuring the welfare of captive elephants. It was launched in 1992 by the Ministry of Environment, Forests and Climate Change, Government of India, in response to the growing concerns about the declining elephant population and the increasing conflict between elephants and human activities.

**Objectives and achievements of Project Elephant are:**

- **Elephant population:** Due to increased conservation efforts India is home to around 60% of the global elephant population spreading across southern, north-eastern, east-central & northern regions of the country.
- **Protection of elephants:** The primary goal of Project Elephant is to ensure the long-term survival of the Indian elephant population and its habitats. This involves implementing measures to counter various threats such as habitat loss, poaching, human-elephant conflicts, and other anthropogenic pressures.
- **Capacity Building:** Training forest workers, residents, and other stakeholders on elephant conservation and management practice is a key component of Project Elephant's capacity-building strategy.
- **Mitigating Human-Elephant Conflict:** Project Elephant aims to address this conflict by implementing measures like the construction of barriers, early warning systems, and community-based interventions to reduce negative interactions between elephants and humans.

**How has this helped in the conservation of elephants and their habitats?**

- The government has worked extensively to minimize the adverse impact of railway lines on elephant corridors. It is most important to minimize habitat fragmentation.
- Various mitigation strategies like underpasses in Tamil Nadu and Kerela, elevated corridors in Assam, speed restrictions, level crossings & ramps to facilitate elephant movement have been used to protect elephant corridors.
- Technological interventions like the Intrusion Detection System using fibre optic technology have been used in West Bengal & Uttarakhand to detect animals using seismic sensors and thermal infrared cameras.
- **Management Effectiveness Evaluation (MEE)** of elephant reserves is being undertaken by governments and international bodies to understand the strengths and weaknesses of the protected areas. E.g., in Tamil Nadu, Odisha, Uttarakhand & Assam.
- Project Elephant has helped in improving natural habitats by increasing water resources, planting fodder trees, bamboo registration, etc. Natural habitats are being notified as Elephant reserves have improved focus and synergy in the conservation of big species.
- The genetic database recorded in the Gaj Soochna App has prevented the illegal transfer of elephants interstate as well as person to person.

**Conclusion:**

## Mains Marathon Compilation for the Month of August, (Second Week) 2023

The success of the project can be gauged from the fact that so far India has established 33 Elephant reserves in 14 states and has recognised the elephant as a National Heritage Animal which is protected under Schedule I of Wildlife Protection Act, 1972.

### 12. Highlight the challenges of drug-resistant tuberculosis (DR-TB) in India. Also, Discuss the new regimens recommended by WHO for DR-TB patients.

**Introduction:** What are TB, MDR-TB & DR-TB?

**Body:** Challenges of DR-TB & new methods adopted by India and WHO.

**Conclusion:** Way forward.

Tuberculosis is a disease caused by the bacteria, *Mycobacterium tuberculosis*. India constitutes a major burden country with 20% of all TB cases in the world. Multidrug resistant TB (MDR TB) is caused by bacteria that do not respond to at least Isoniazid and Rifampicin, the most powerful, first line anti-TB drugs. Drug-resistant TB occurs when drugs are not properly taken, like incomplete treatment, wrong dosage, wrong length of treatment, wrong combination, unavailability of drugs or poor quality drugs.

#### Challenges of drug-resistant tuberculosis in India:

- **High patient burden:** India has 25% of world's DR-TB cases with a large number of cases being diagnosed and treated each year.
- **Inaccurate diagnosis:** Timely and accurate diagnosis is critical for effective management but challenges like underreporting & lack of the latest diagnostic methods have led to a large no of cases which is being highlighted in WHO report.
- **High cost of treatment:** Due to the use of expensive second-line medications, the treatment of drug-resistant TB is not only more difficult but also more expensive. Patients may be deterred from obtaining the right care or from sticking to their regimen by this costly burden.
- **Rapid Urbanization:** India's crowded mega-cities provide a perfect breeding ground for the airborne infection to spread as people travel from rural to urban areas & interact in densely populated environments. UP has the highest number of such patients, followed by Maharashtra.

#### new regimens recommended by WHO for DR-TB patients.

- WHO suggested use of molecular diagnostics as the initial diagnostic test which are highly accurate, detect resistance to drugs, are cost-effective, and reduce treatment-related delay.
- Use of oral medications has reduced the duration of DR-TB treatment from 24 months to 6 months which is a big improvement in medical science.
- WHO suggests use of oral **BPaLM/BPaL regimen for DR-TB patients**, (Pretomanid (Pa) bedaquiline (B), linezolid (L), and sometimes moxifloxacin (M) to form BPaL and BPaLM) has reduced pill intake & is found to be effective at curing 89-91 per cent of multidrug-resistant TB (MDR-TB).

#### Conclusion:

As per India TB Report 2023 most patients in India are still on treatment regimens involving injectables which are to be phased out at the earliest as per WHO recommendation. The government and medical industry should also ensure that drugs like bedaquiline, pretomanid should be available, accessible, and affordable to Indian citizens with every individual having right to access the best quality healthcare.