DAILY CURRENT AFFAIRS ANALYSIS

11 OCTOBER 2023

1 – About Commercial spyware:

GS III

Science and Technology

Context:

The Predator spyware from Cytrox was directed towards a former Egyptian politician through links shared via WhatsApp and SMS.

About spyware:

- Malicious software intended to infiltrate a device, obtain private information, and transmit it to a third party without authorization is known as spyware.
- Malicious spyware is designed to make money off of data that has been taken from a victim's device, even though it can also be used for advertising and other commercial uses.
- In general, spyware is classified as: malicious malware
- spyware
- cookie for tracking
- System watchdogs.
- While all forms of spyware collect information for their creators, adware and system monitors are more dangerous since they have the ability to change a device's software and expose it to new risks.

Commercial spyware: what is it?

- Commercial spyware developed as a result of opportunities for governments and law enforcement agencies to utilise malware as part of legal investigations.
- Commercial spyware can be used legally against terrorists and criminals, and it mostly targets mobile platforms.
- However, authoritarian governments have been using spyware to spy on political opponents due to a lack of international standards for corporations who produce it.
- Commercial malware, like the NSO group's Pegasus spyware, is said to be able to turn on a phone's camera and microphone without the owner's knowledge, turning it into a spying tool in addition to gathering data from mobile devices.

• Source \rightarrow The Hindu

2 – About Project Udbhav:

GS II

Government Policies and Interventions

- Context:
- Project Udbhav is a new effort launched by the Indian Army.
- Important information:
- The goal of the project is to reexamine the rich legacy of Indian statecraft and strategic ideas, which may be found in ancient Indian books on diplomacy, grand strategy, warfare, and statecraft.
- This research is being carried out in association with the defence think tank United Service Institution of India (USI).
- Goal:
- In addition to rediscovering these stories, Project Udbhav aims to create an indigenous strategic vocabulary that is firmly ingrained in India's rich philosophical and cultural heritage.
- The ultimate goal is to combine traditional knowledge with contemporary military education.
- Since its inception in 2021, Project Udbhav has produced a book of seventy-five aphorisms drawn from historical writings that provide important context for understanding India's strategic past.
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- Source \rightarrow The Hindu

3 – About Nobel Prize in Physics:

GS III

Science and Technology

• Context:

• Scientists Katalin Kariko and Drew Weissman, whose work made it possible to construct mRNA vaccines against Covid-19, have been awarded the 2023 Nobel Prize in Physiology or Medicine.

• About mRNA:

- Following the creation of a widely used in vitro transfection method, RNA as a treatment was initially pushed in 1989.
- A few years later, mRNA became a platform for vaccines.
- When the vaccine enters the body, the mRNA tells the cells to make proteins that, when present in intact viruses or cancer cells, may trigger an immune response against the same proteins.
- The patient's cells function as a manufacturing plant when the mutations are introduced, creating perfect replicas of the mutations that the immune system can identify and eliminate.
- The body gains the ability to fight against the infection after being exposed to the alterations without the virus.

• The involvement of Kariko and Weissman:

- It was discovered by Karikó and Weissman that the issue with genetically modified mRNA produced in a lab is that the body's dendritic cells mistake them for alien material and react to them by releasing inflammatory signalling molecules.
- Dendritic cells play critical roles in immunological surveillance and vaccine-induced immune response activation.
- Karikó and Weissman were aware that although in vitro transcribed [or lab-created] mRNA is not, bases in RNA from mammalian cells are regularly altered chemically.
- They questioned if the unintended inflammatory response could be explained by the absence of changed nucleotides in the in vitro produced RNA.
- They created many mRNA variations, each having distinct chemical changes in their bases, then introduced them to dendritic cells in order to study this.
- The inclusion of base changes in the mRNA nearly eliminated the inflammatory response.
- Source \rightarrow The Hindu

5 – Caste Based Survey in Bihar:

GS II

Government Policies and Interventions

• Context:

• The findings of the state's caste survey have been made public by the Bihar government.

• Important information:

- According to this, the combined share of Other Backward Classes (OBCs) and Extremely Backward Classes (EBCs) is greater than 63%.
- Approximately 15.5% of so-called "forward" castes fall into the "unreserved" category.
- The last time caste numbers were made public nationally was during the 1931 census.
- Principal discoveries from the Bihar caste survey:

• Caste-based allocation:

- With 36.01% of the state's population, the EBCs are the largest social group.
- OBCs made up 27.12% of the population, while SCs made up 19.65%.
- Just 1.68% of all tribe members were Scheduled Tribes (STs); the majority of these people became a part of Jharkhand following the state's 2000 split.
- The percentage of "unreserved" accounts for 15.52%.

• Distribution by religion:

- Eighteen percent of the population is Hindu.
- 17.72% of people are Muslims.
- There are very few Buddhists, Christians, Sikhs, Jains, and adherents of other religions.

• What date and method was the survey conducted?

- On June 1, 2022, it was declared that the nine parties had reached a unanimous decision to proceed with the "caste census."
- Following that, the government set aside Rs 500 crore for the project from its contingency reserve.
- The survey's initial part was counting the number of households.
- Data on castes, faiths, and economic origins, along with details like the number of family members residing in the state and outside of it, were to be gathered in the second phase.

- More than 3 lakh individuals, mostly educators, knocked on doors while carrying a 17-question survey about their caste, religion, and socioeconomic standing.
- To gather the data for processing and tabulation, an app was utilised.

• Importance of the results of the Bihar caste survey:

- The results of the study will intensify the calls for an EBC quota within a quota and for raising the OBC quota above 27%.
- It's possible that the Bihar survey will encourage similar research in other states.
- The poll findings will also reignite the long-running discussion about the 50% reservation cap set by the Supreme Court in its seminal decision in Indra Sawhney v. Union of India (1992).
- The cap was put in place to guarantee "efficiency" in the administration, and courts have subsequently stopped multiple state attempts to go beyond it.

• What types of caste information are available in the Census?

- Data on Scheduled Castes and Scheduled Tribes have been provided in every Census conducted in independent India between 1951 and 2011, but not for other castes.
- Prior to that, caste information was included in every Census until 1931.
- Caste-based data, however, was gathered in 1941 but not released.
- There is no accurate estimate for the population of OBCs, different groupings within the OBCs, and others in the lack of such a census.
- The OBC population was estimated by the Mandal Commission to be 52%; other estimates were derived from data from the National Sample Survey.
- The SECC, or Socio Economic and Caste Census:
- The Ministry of Rural Development in rural areas and the Ministry of Housing & Urban Poverty Alleviation in urban areas carried out the SECC, which had an approved cost of Rs 4,893.60 crore.
- In 2016, the two ministries finalised and published the SECC data that did not include caste data.
- The Ministry of Social Justice and Empowerment received the raw caste data and established an Expert Group to classify and organise the information.
- It is unclear if it turned in its report because it hasn't been made available to the public.
- Source \rightarrow The Hindu

5 – Tally of Deaths in Indian Jails:

GS II

Science and Technology

• Context:

• According to the Supreme Court Committee on Prison Reforms, the most common cause of "unnatural" fatalities among Indian inmates is suicide.

• Important information:

- The state with the greatest suicide rate between 2017 and 2021 was Uttar Pradesh.
- According to the research, the number of deaths in custody has been steadily increasing since 2019, with 2021 seeing the largest number of deaths to date.
- Conversely, "natural deaths" accounted for 1,879 deaths in 2021; these deaths were caused by illness and ageing.

• How are fatalities in jail categorised?

- The National Crime Records Bureau's Prison Statistics India (PSI) report classifies prison deaths as either "natural" or "unnatural" each year (NCRB).
- 2,116 inmates passed away while they were under court supervision in 2021; about 90% of these fatalities were attributed to natural causes.

• What natural deaths entail:

- Illness and ageing are the causes of "natural" deaths.
- Illness has also been divided into diseases, which include cancer, HIV, heart problems, and tuberculosis.
- The number of natural fatalities reported has climbed from 1,424 in 2016 to 1,879 in 2021 due to the growing jail population.
- Unnatural deaths are defined as:
- "Unnatural" fatalities fall within a wider category.
- They consist of:

- Suicide (by electrocution, poisoning, self-harm, hanging, overdosing on drugs, etc.) and
- Mortality resulting from outside forces attacking prisoners, fire, carelessness or vices, and unintentional causes like natural disasters (earthquakes, snakebite, drowning, unintentional fall, burn injuries, drug/alcohol use, etc.).
- It was discovered that the rate of suicide among prisoners was more than twice that of the general population.
- The socioeconomic background of the prison population is documented by NCRB data, yet the caste or religious affiliation of those that pass away is unknown.

• How are homicides looked into?

- Since 1993, the NCRB has been obligated to notify a death that occurs while a person is in custody within 24 hours, and to provide reports from post-mortems, magistrates' inquests, or post-mortem videography.
- The Commission advises authorities to initiate disciplinary actions or prosecution against the negligent public servant and to compensate the Next of Kin (NoK) in the event that the investigation into a custodial death reveals the public servant's wrongdoing.
- The Code of Criminal Procedure also mandates mandatory judicial magisterial inquiries in lieu of executive magistrate inquiries in circumstances of custodial rape and death.
- Actions made by the government:
- **Ruling by the Supreme Court:**
- In a 1996 ruling, the Supreme Court outlined the societal responsibility to attend to the health of inmates, pointing out that they had a "double handicap."
- First, inmates do not have the same access to medical professionals as non-incarcerated individuals.
- Second, compared to free persons, prisoners are subjected to greater health risks due to the conditions of their confinement.

• Suitable Laws:

- The right of prisoners to healthcare is outlined in the Mental Healthcare Act of 2017 and the Model Prison Manual of 2016.
- This includes:
- sufficient funding for medical facilities,

- establishing mental health facilities,
- teaching police how to administer both routine and emergency treatment, and
- creating programmes to prevent suicide in order to stop these kinds of incidents.
- The NHRC's advice:
- The NHRC advised States in response to an increase in suicide cases, emphasising that mental and physical health conditions might contribute to suicide.
- These suggestions were also given by the Supreme Court Committee on Prison Reforms.
- Path ahead:
- Taking on infrastructure-related issues:
- The requirement to reduce staffing levels in terms of both number and quality is a universal infrastructure problem.
- Numerous surveys identify "overflowing prisons," indicating that the number of inmates in at least 26 States exceeds capacity.
- The NHRC suggested hiring psychologists, medical staff, probation officers, and prison welfare officers.
- There is also an uneven distribution of vacancies:
- In states like Bihar and Uttarakhand, more than 60% of the jobs were open.
- The overall number of employees include those with administrative, ministerial, executive, and medical responsibilities; not all of them are qualified to offer medical assistance.
- Permitting channels of connection:
- Allowing prisoners to have a sufficient number of phones with friends and family is another suggestion.
- Newspapers and other periodicals should be provided to prisoners in order to lessen their sense of loneliness and potential for negative behaviour.
- Avoiding suicides by:
- According to the CHRI report, mental diseases affect approximately 1.5% of the inmate population.
- It also brought attention to a lack of psychologists among correctional employees, restricted access to services for mental healthcare, a lack of awareness of mental diseases in prisoners, and increased stigma and susceptibility.

- In order to especially avoid suicides:
- rigorous inspections should be conducted for items like pipes, wooden ladders, glasses, and ropes;
- when someone is first brought into custody, they should undergo an initial mental health screening; and
- Putting in CCTV to keep an eye on prisoners who pose a risk.
- Human rights advocates have advised against the latter option because it would violate inmates' rights to increased surveillance.
- In summary:
- Only structural reform is feasible on a large scale.
- The mentality of the public and officials towards convicts must be changed immediately, as must the criminal justice system.
- Source \rightarrow The Hindu



Indian Culture

- Context:
- At the Sanwariya Seth Temple in Chittorgarh, Rajasthan, the Indian Prime Minister performed darshan and puja.
- Regarding the temple:
- The Chittorgarh–Udaipur Highway in Rajasthan is home to the Sanwalia ji shrines of the Dark Krishna.
- The god sometimes referred to as Shri Sanwaria Seth
- For those who follow the Vaishnav Sect, the mediaeval city of Mandaphiya is now known as Shri Sanwaliya Dham (The home of Lord Krishna) and is ranked second only to Shrinath Ji Temple, Nathdwara.

• Source \rightarrow The Hindu

