

IMPORTANT INTERNATIONAL AFFAIRS

❖ **Understanding the Russia-Belarus nexus**

➤ **CONTEXT:** In the latest escalation to the Russia-Ukraine war, Russian President Vladimir Putin announced recently that Russia plans to station tactical nuclear weapons in Belarus.

✓ Tactical nuclear weapons refer to small nuclear warheads and delivery systems meant for use on the battlefield or for limited strikes.

➤ **Why the sudden announcement?**

• The announcement was prompted by the U.K.'s decision to supply armour-piercing rounds containing depleted uranium to Ukraine.

✓ Depleted uranium munitions augment the ability to overcome defences on tanks and have been described by the United Nations Environment Programme (UNEP) as “chemically and radiologically toxic heavy metal”.

• Russia claims that the positioning of tactical nuclear weapons in Belarus by Russia does not violate any international agreements that Russia has signed because the control over the weapons would remain with Russia just as the U.S. retains control over its nuclear weapons on its allies' territories.

• Moreover, there have been no arms control agreements between the U.S. and Russia on tactical nuclear weapons unlike in the case of strategic nuclear weapons.

• Putin claims “The U.S. has been doing this for decades. They have long placed their tactical nuclear weapons on the territory of their allies”, referring to U.S. nuclear weapons stationed in Belgium, Germany, Italy, the Netherlands, and Turkey.

• The announcement contradicts the joint statement made by Mr. Putin and Chinese President Xi Jinping recently where they asked nuclear states to refrain from deploying nuclear weapons abroad.

• Russia has already helped Belarus upgrade its warplanes so that they can carry nuclear weapons. It is for the first time ever that Russia is deploying nuclear weapons outside its borders. Stationing such weapons in Belarus will enable Russia to carry out strikes easier and faster.

➤ **Why Belarus?**

• A former Soviet state, which like Kazakhstan and Ukraine handed over its nuclear weapons to Russia after the

NATO members, current and prospective



dissolution of the Soviet Union, Belarus has developed close military and political ties with Russia.

• It is one of the closest and few remaining allies of Russia. It is predominantly Orthodox like Russia with its population almost entirely-Russian speaking. There are also only a few border controls between the two countries. Belarus is a member of the Russian-led military alliance, the **Collective Security Treaty Organization**, as well as the Eurasian Economic Union.

- Russia leases two military installations in Belarus, both inherited from Soviet times. Moreover, Belarus gets subsidised oil and natural gas imports from Russia. As was the case with Ukraine, Russia wants to keep Belarus in its sphere of influence and therefore supports the regime of Belorussian President Alexander Lukashenko (often dubbed 'Europe's last dictator'), which is seen as friendly by Russia.
- Belarus' geo-strategic position, between Russia and Ukraine and between Russia and Poland, makes it very important for Russia. **It also shares borders with three NATO members — Lithuania, Latvia, and Poland.**
- For long, Belarus has been used as a forward base by Russia for power projection, to give it strategic depth. In fact, Belarus has been used as a launchpad by Russia to send troops and launch strikes in the ongoing war. However, Russia-Belarus relations have had their fair share of trouble.
- In 2014, Belarus refused to acknowledge the annexation of Crimea by Russia and even hosted the **Minsk talks**. It also resisted pressure from Russia to host a permanent military base. However, all this changed in 2020 when Belarus was rocked by anti-government protests following what is widely seen as rigged Presidential elections.
- Mr. Lukashenko was isolated by the West while Russia helped him with a \$1.5 billion loan, accepting the results of the elections and promising to intervene if required. The protests were suppressed brutally and a referendum in February 2022 changed the country's Constitution which specified that Belarus would be a nuclear-free zone and would remain neutral.
- However, in March 2021, Belarus had already agreed to the presence of a joint Belarusian-Russian military unit on its territory, effectively ending its neutrality. Since the outbreak of the Russia-Ukraine war, Belarus has time and again supported Russia during voting at the UN General Assembly resolutions.
- So, now Russia sees Belarus as a dependable ally. Belarus, on its part, is happy about Putin's announcement as it says it has long wanted nuclear weapons because of Western pressure aimed at changing its political and geopolitical trajectory. Minsk says that it needs these weapons to counter NATO's military build-up near its borders.
- **What lies ahead?**
- The latest move by the Kremlin clearly escalates the Russia-Ukraine war to an entirely new dimension (the nuclear realm) by bringing tactical nuclear weapons literally next door to NATO members. It is probably also meant to dissuade the West from giving more advanced weapons to Ukraine. But it also gives the West an opportunity to use this pretext to further escalate the war. The move does not bode well for peace.

E-WASTE MANAGEMENT

- ❖ **How to manage India's solar PV waste problem?**
- **CONTEXT:** There has in the last few years been a concerted push from policymakers in India to transition to a circular economy and to, among other things, enable effective waste management. But waste management in the solar photovoltaic (PV) sector still lacks clear directives.
- **What is PV waste?**
- Globally, India has the world's fourth highest solar PV deployment. The installed solar capacity was nearly 62GW in November 2022. This augurs a colossal amount of solar PV waste.
- According to a 2016 report by the International Renewable Energy Agency, India could generate 50,000-3,25,000 tonnes of PV waste by 2030 and more than four million tonnes by 2050.
- India's solar PV installations are dominated by crystalline silicon (c-Si) technology. A typical PV panel is made of c-Si modules (93%) and cadmium telluride thin-film modules (7%).
- A c-Si module mainly consists of a glass sheet, an aluminium frame, an encapsulant, a backsheet, copper wires, and silicon wafers. Silver, tin, and lead are used to make c-Si modules. The thin-film module is made of glass, encapsulant, and compound semiconductors.
- **Is this waste recovered or recycled?**
- As these panels near expiration, some portions of the frame are extracted and sold as scrap; junctions and cables are recycled according to e-waste guidelines; the glass laminate is partly recycled; and the rest is disposed of as general waste.
- Silicon and silver can be extracted by burning the module in cement furnaces. According to a 2021 report, approximately 50% of the total materials can be recovered. India's challenge is the growing informal handling of PV waste. Only about 20% of the waste is recovered in general; the rest is treated informally. As a result, the waste often accumulates at landfills, which pollute the surroundings. Incinerating the encapsulant also releases sulphur dioxide, hydrogen fluoride, and hydrogen cyanide into the atmosphere.
- India needs to surmount significant collection, storage, recycling, and repurposing challenges. The market to repurpose or reuse recycled PV waste is minuscule in India due to a lack of suitable incentives and schemes in which businesses can invest.
- **What are the gaps?**
- First, simply clubbing PV waste with other e-waste could lead to confusion. Instead, India should formulate and implement provisions specific to PV waste treatment within the ambit of the e-waste guidelines. A Central insurance or a regulatory body should be set up to protect against financial losses incurred in waste collection and treatment.

- Second, the waste generated from PV modules and their components is classified as 'hazardous waste' in India. To further drive home this label, pan-India sensitisation drives and awareness programmes on PV waste management will be beneficial.
- Third, considering that India's local solar PV-panel manufacturing is limited, we need to pay more attention to domestic R&D efforts. Depending on a single module type will dis-uniformly deplete certain natural resources and stunt the local capacity for recycling and recovery of critical materials. The domestic development of PV waste recycling technologies must be promoted through appropriate infrastructure facilities and adequate funding.
- **Why should India act now?**
- Considering the rate at which these panels are being installed around the country, India is expected to generate an enormous amount of waste over the next 20 years.
- In fact, India is expected to become one of the top five leading photovoltaic waste producers worldwide by 2050.
- Now is the right time for it to install clear policy directives, well-established recycling strategies, and greater collaboration, so that it doesn't find itself caught unprepared against a new problem in the future.

PRELIMS

1. AFINDEX 2023

➤ **CONTEXT: The 2nd edition of joint military exercise "The Africa-India Field Training Exercise (AFINDEX-2023)" culminated today at Foreign Training Node, Aundh, Pune.**

➤ **About the Exercise**

- AFINDEX-2023 was held from 16 to 29 Mar 2023. A total of 25 nations of the African continent with 124 participants and Indian troops from the SIKH, MARATHA and MAHAR Regiments participated in the multinational exercise.
- Aim of the exercise was to build positive military relations, imbibe each other's best practices and promote the ability to operate together while undertaking execution of Humanitarian Mine Action and Peace Keeping Operations under the UN mandate.
- This joint exercise will enable the armies to learn and adopt methodologies and tactics while conducting such operations.
- Further, the exercise will assist the forces in correct interpretation of Rules of Engagements while undertaking Peace Keeping Operations.
- The bonhomie, esprit-de-corps and goodwill generated during the exercise will go a long way in further strengthening the bonds between the armies by enabling understanding of each other's organisation and methodology of conducting various operations.

➤ **Background**

- The inaugural edition of the Africa-India Field Training Exercise AFINDEX was held at the FTN in March 2019.
- India has been one of the biggest contributors of troops to UN Peacekeeping Operations all over the world and the country's Army is considered to be among the expert agencies in the world in mine removal operations.
- Some war-torn countries in Africa face the problem of landmines and Unexploded Ordnance, often referred to as UXO.
- The joint exercise led to the sharing of the best practices and experience on the subject.
- The exercise is also a key element of India's diplomatic ties with African countries.

2. New India Literacy Programme

➤ **CONTEXT: New India Literacy Programme launched to cover a target of 5.00 crore non-literates in the age group of 15 years and above**

➤ **About the Programme**

- It is a centrally sponsored scheme.
- The government plans to implement during five years from 2022-23 to 2026-27.

➤ **Aim:**

- To provide educational aids to five crore students during the five years under the Foundational Literacy and Numeracy component.
- To cover non-literates of the age of 15 years and above in all State and Union Territories across the country
- The programme has five objectives including:
 - ✓ Foundational Literacy and Numeracy,
 - ✓ Critical Life Skills,
 - ✓ Vocational Skills Development,
 - ✓ Basic Education and
 - ✓ Continuing Education.

➤ **Funding Pattern:**

- The Central and State allocations of the total fund are in the ratio of 60:40 for all states except North Eastern Region (NER) and Himalayan States for which the shared ratio is 90:10.

- For Union Territories (UTs) with legislature the ratio is 60:40, except in the UT of Jammu and Kashmir where the ratio is 90:10.
- For all other UTs without legislature the Central share is 100%.
- The fund flow will take place through the public financial management system (PFMS) and State treasuries.
- **UGC guidelines for implementation of NILP**
- The apex education body urges all universities with departments of Adult Education to implement mandatory teaching of at least five or above non-literates by students in every academic year in their course work as a project or assignment for completion of their degree.
- UGC affiliated institutions may include certain credits for the activity, which can be certified under 'literate certificates'.
- 3. Tactical nuclear weapons**
- **CONTEXT: The Russian President Vladimir Putin announced that he intends to deploy tactical nuclear weapons on the territory of Belarus**
- **What are tactical nuclear weapons?**
- Nuclear weapons can be categorised into two types — strategic and tactical.
- ✓ Strategic weapons refer to weapons that have bigger objectives, such as destroying cities or larger targets with larger war-waging objectives in mind. Strategic nuclear weapons would likely be used to bring the enemy to its knees entirely with a massive strike like the United States did in World War II when its nuclear weapons forced Japanese surrender.
- ✓ Tactical weapons are limited in their scope and the intention behind their usage is limited to arriving at a particular battlefield outcome. An example of a tactical nuclear weapon would be its use to stop adversary's progress in a particular theatre.
- Tactical nuclear weapons are called "non-strategic nuclear weapons".
- Tactical (non-strategic) nuclear weapons (TNWs) typically refer to short-range weapons, including:
 - ✓ land-based missiles with a range of less than 500 km
 - ✓ air- and sea-launched weapons with a range of less than 600 km
- Tactical nuclear weapons are intended to destroy enemy troops and weapons on the battlefield.
- They have a relatively short range and a much lower yield than nuclear warheads.
- Unlike strategic weapons, which have been subject to arms control agreements between Moscow and Washington, tactical weapons never have been limited by any such pacts.
- While strategic nuclear weapons are fitted to land- or submarine-based intercontinental ballistic missiles that are constantly ready for launch, tactical nuclear weapons are stored at a few tightly guarded storage facilities and it takes time to deliver them to combat units.
- **How can they be used?**
- Tactical nuclear warheads can be placed on various types of missiles which are normally used to deliver conventional explosives, such as cruise missiles and artillery shells.
- They can also be fired from aircraft and ships as anti-ship missiles, torpedoes and depth charges.

ANSWER WRITING

Q. There have been remarkable achievements in the Indian healthcare sector. However, in order to leverage the advantage of being the youngest population in the world, some challenges need to be confronted. Examine.

Healthcare has become one of India's largest sectors, both in terms of revenue and employment. The sector has grown rapidly in the last five years on account of digitization, innovation, newer hybrid business models and increasing expenditure by public as well as private players. Economic Survey 2022-23 highlights that there has been a hike in the share of expenditure on health in the total expenditure on social services from 21 percent in FY19 to 26 percent in FY23.

Achievements in the Indian healthcare sector in recent years:

- Improved life expectancy: India has improved tremendously with respect to life expectancy. The current life expectancy for India in 2023 is 70.42 years, a 0.33% increase from 2022.
- Reduced total fertility rate (TFR): India has made significant progress in population control measures in recent times with the TFR. According to the National Family Health Survey (NFHS-5), India's total fertility rate (TFR) has declined from 2.2 in 2015-16 to 2.0 in 2019-21.
- Increase in institutionalised births: The latest NFHS-5 findings show that even in the so-called BIMARU states, hospital deliveries have soared to 89 per cent. In Kerala, nearly 100 per cent of the births were institutional births.
- Child nutrition: Child nutrition indicators also show a slight improvement at the all-India level as stunting has declined from 38 to 36 per cent, wasting from 21 to 19 percent and underweight from 36 to 32 percent.
- Achievements in the immunisation programme: Full immunization drive among children aged 12-23 months have recorded a substantial improvement from 51 per cent to 70 per cent. Further, India launched the world's largest vaccination drive against COVID-19 and achieved remarkable success due to its already-established vaccine infrastructure.

Challenges which need to be tackled:

- Non- Communicable diseases: A report, 'India: Health of the nation's states', estimated that the proportion of deaths due to non-communicable diseases (NCDs) has increased from around 38 percent in 1990 to 62 percent in 2016.
- The rising problem of obesity: Overweight and obesity are increasing among young people. Obesity has increased from 19 to 23 percent between NFHS-4 and NFHS-5, in both urban and rural areas. This increases the risk of diabetes, hypertension, and cardiovascular diseases (CVD), especially in young adults.
- State of Infrastructure: A 2022 report by the Centre for Community Medicine in AIIMS found huge variations in the primary healthcare infrastructure among states. The lowest proportions of primary health facilities with full institutional capacity were in Jharkhand, Karnataka, and Uttar Pradesh.
- Mental health issues: At least 20 percent of young people are likely to experience some form of mental illness in the form of depression, mood disturbances, substance abuse, eating disorders etc.
- Gaps in health services: In urban areas, the challenge is to bridge the gap in hospital services between large urban agglomerations and tier II and tier III cities. Large hospital chains like Apollo, Fortis and Max account for just 4-5 percent of the beds in the private sector. Standalone hospitals and nursing homes provide 95 percent of private hospital beds. However, they are unable to provide multi-speciality, leave alone tertiary and quaternary care.
- Low health insurance penetration and large out-of-pocket expenditure: Those working in the unorganised sector remain uninsured and have to bear outpatient doctor consultation and diagnostic costs. Presently, this is pegged at 50 percent of the total health expenditure.
- Ethical concerns regarding the use of Artificial Intelligence (AI) and digital technology: Surgery assisted by robots, the use of genetic codes, and clinical judgements based on AI are to be welcomed. However, ethical and regulatory concerns with respect to the use of these technologies remain.

India has made remarkable strides in healthcare through initiatives such as the National Health Mission, Ayushman Bharat Programme, Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) etc. and has shown how the impossible can be achieved. What we need is out-of-the-box thinking and the resolve to steer the forthcoming challenges.

MCQs

1. With reference to solar power production in India, consider the following statements:
 1. India is the third largest in the world in the manufacture of silicon wafers used in photovoltaic units.
 2. The solar power tariffs are determined by the Solar Energy Corporation of India.
 3. India's solar PV installations are dominated by crystalline silicon (c-Si) technology.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 only
- c) 2 and 3 only
- d) 3 only**

2. With reference to International Renewable Energy Agency (IRENA) consider the following

1. IRENA is an intergovernmental organization that supports countries in their transition to a sustainable energy future.
2. IRENA, on the other hand, is the only organisation dedicated to promoting 100 percent renewable energy around the world.
3. India is the 77th Founding Member of IRENA.

Which of the above statement/s is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1,2 and 3**

3. With reference to Collective Security Treaty Organisation consider the following

1. It is an intergovernmental military alliance with the purpose to ensure the collective defence of any member that faces external aggression.
2. It has six members including Belarus.
3. Uzbekistan is the latest country which quit the alliance in 2012.

Which of the above statement/s is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1,2 and 3**

4. Which of following NATO member countries share border with Russia and the Russian exclave of Kaliningrad and Belarus commonly?

1. Latvia
2. Norway
3. Lithuania
4. Poland

5. Estonia
6. Ukraine

Choose the correct answer using the codes given below

- a) **1,3,4 and 5 only**
- b) 2,4 and 5 only
- c) 1,2,4, and 5 only
- d) 1,2,3,4 and 6 only

5. With reference to the terms “tactical” and “strategic” nuclear weapons consider the following

1. Tactical nuclear weapons are large nuclear warheads and delivery systems meant to carry out strike in a larger area.
2. Strategic nuclear weapons are larger (up to 1,000 kilotons) and are launched from longer range.

Which of the above statement/s is/are correct?

- a) 1 only
- b) **2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2

6. With reference to the New India Literacy Programme, consider the following statements:

1. It aims to support the States and Union Territories in promoting literacy among non-literates in the age group of 25 and above.
2. It is a Centrally Sponsored Scheme.

Which of the above statement/s is/are not correct?

- a) **1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

7. With reference to Insurance Regulatory and Development Authority of India (IRDAI) consider the following

1. It is a statutory body under the jurisdiction of Ministry of Finance
2. IRDAI was established on the recommendation of D.R. Gadgil Committee

Which of the given above statement/s is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

8. Consider the following statements with regards to International Day of Zero Waste

1. It will encourage sustainable consumption and production practices and will help to achieve the goals of the 2030 Sustainable Development Agenda.
2. UNGA recently announced March 30 to be celebrated as the International Day of Zero Waste every two year starting from 2023.

Which of the above statement/s is/are correct?

- a) **1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

9. With reference to Higher Education Financing Agency (HEFA) consider the following

1. Higher Education Financing Agency (HEFA) is a joint venture of Ministry of Education Government of India and RBI.
2. HEFA is registered under Section 8 as Not-for-profit under the Companies Act 2013 as a Union Govt company.
3. The main aim of HEFA is for the development of India's top-ranked institutions like IIT's, IIIT's, NIT's, IISCs, AIIMS into globally top ranking institutions

Which of the above statement/s is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) **1,2 and 3**

10. Kolar Gold Fields recently seen in news is located in which of the following state?

- a) Andhra Pradesh
- b) Tamil Nadu
- c) **Karnataka**
- d) Kerala