

DAILY CURRENT AFFAIRS (DCA)

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Date: 15-01-2024

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UTTARAKHAND LIKELY TO BE FIRST STATE TO IMPLEMENT UCC

Context

- The Defence Minister of India has said that Uttarakhand is likely to become the first state in the country to implement a Uniform Civil Code (UCC).

What is Uniform Civil Code (UCC)?

- A Uniform Civil Code refers to the provision of one law for the entire country, applicable to all religious communities, in their personal matters such as marriage, divorce, inheritance, adoption, etc.
- Currently, separate personal laws apply for the members of different major religions.

Constitutional Provisions

- **Article 44** contained in **part IV** of the Constitution says that the state “shall endeavor to secure for the citizens a uniform civil code throughout the territory of India”.
- Part IV of the Constitution outlines the **Directive Principles of State Policy**, which, while not enforceable or justiciable in a court of law, are fundamental to the country’s governance.

UCC in India

- **UCC in Goa:** It follows the **Portuguese Civil Code of 1867**, which means that people of all religions in Goa are subject to the same laws on marriage, divorce, and succession.
 - ♦ The Goa Daman and Diu Administration Act of 1962, which was passed after Goa joined the union as a territory in 1961, gave Goa permission to apply the Civil Code.
- States like Gujarat, Madhya Pradesh and Assam have also expressed their willingness to follow the UCC, none have officially adopted it.

Arguments in favor of UCC

- **Uniformity in Governance:** Having a common set of laws would streamline governance and administrative processes, making it easier for the state to administer justice and ensure the rights of its citizens.
- **Women’s Rights:** Personal laws in different religions may have discriminatory provisions, particularly against women, and a uniform code will provide a more egalitarian legal framework.

- **Secularism:** A Uniform Civil Code is seen as a way to reinforce the secular fabric of the country by treating all citizens equally irrespective of their religious affiliations.
- **International Image:** Implementing a UCC may enhance India’s international image by demonstrating a commitment to principles of equality, secularism, and human rights.
- **The Supreme Court** in various judgments including **Mohd. Ahmed Khan vs Shah Bano Begum judgment of 1985**, has called for the implementation of the Uniform Civil Code.
- **Promote national Spirit:** The implementation of a UCC will promote the integration of India by establishing a shared platform for diverse communities.

Arguments against UCC

- **Plurality in existing laws:** Experts argue that if there is plurality in already codified civil and criminal laws, how can the concept of ‘**one nation, one law**’ be applied to diverse personal laws of various communities.
- **Issues with implementation:** The implementation of the code has been difficult because India is a diverse country with various religious communities following their own personal laws.
 - ♦ It has been argued that the marriage and death rituals observed by **tribal communities** differ from Hindu customs, and there is concern that these practices may also face prohibition.
- **Challenge for Law and Order:** It would be a tyranny to the minority and when implemented could bring a lot of unrest in the country.
- **Against Constitutional provisions:** UCC is perceived as an infringement upon the constitutional right to freely exercise one’s chosen religion found in **Article 25 and 26** and the **Sixth Schedule** of the Constitution
- **Fear among minorities:** There is a contention that the Uniform Civil Code may potentially enforce a code that is influenced by Hindu practices in all communities.
- **The Law Commission of India** stated that a UCC “is neither necessary nor desirable at this stage”. It recommended that discriminatory practices, prejudices and stereotypes within a particular religion and its personal laws should be studied and amended.

Way Ahead

- The authorities should consult with different sections of society before implementing the UCC to foster an environment of inclusivity, transparency, and respect for diverse perspectives throughout the process.
- The Law Commission expressed its support for achieving “equality within communities” as opposed to pursuing “equality between” communities.

Source: *TH*

SOUTH AFRICA'S CASE AGAINST ISRAEL IN ICJ

In News

- Judges at the International Court of Justice (ICJ) opened two days of legal arguments in a case filed by **South Africa** accusing Israel of **genocide in Gaza war**.

About Issue

- South Africa had moved the ICJ, invoking the **Convention on the Prevention and Punishment of the Crime of Genocide, 1948**, against Israel, accusing it of committing genocide during its ongoing military campaign in Gaza.
 - ♦ Both South Africa and Israel are signatories to the **Genocide Convention of 1948**.
- **Earlier Instances** : In 2019, the Gambia had approached the ICJ against **Myanmar for its alleged genocide against the Rohingya community**.

Genocide Convention

- The word “**genocide**” was first coined by **Polish lawyer Raphaël Lemkin** in 1944 in his book *Axis Rule in Occupied Europe*.
 - ♦ It consists of the Greek prefix **genos**, meaning **race or tribe**, and the **Latin suffix cide**, meaning **killing**.
- The **Convention on the Prevention and Punishment of the Crime of Genocide** (Genocide Convention) is an instrument of international law that codified for the first time the **crime of genocide**.
- It was the first human rights treaty adopted by the General Assembly of the United Nations in 1948 and signified the international community's commitment to ‘never again’ after the atrocities committed during the **Second World War**.

Stand of South Africa

- South Africa drew heavily upon statements and remarks attributed to Israeli officials and military leaders, to contend that one could infer **genocidal intent from their words and deeds**.
 - ♦ It argued that the current operations should be seen in the context of the **‘Nakba’ of 1948**, 75 years of ‘apartheid’, 56 years of occupation and 16 years of siege.
 - **Nakba**, which means **‘catastrophe’ in Arabic**, refers to the mass displacement of Palestinians during the Arab-Israeli war.
 - ♦ South Africa highlighted the Israeli Prime Minister's theory of **‘Amalek’** to justify the killing of Gaza residents
 - **Amalek**, according to the Hebrew Bible, was a persecutor of the Israelites and it is the duty of Israelites to eliminate Amalekites.
- It has also accused Israel of causing hunger, dehydration, and starvation in Gaza by impeding sufficient humanitarian assistance, cutting off water, food, fuel, and electricity, and failing to provide shelter or sanitation to Palestinians in Gaza
- South Africa has sought a series of measures including the **immediate suspension of Israel's military operations** in Gaza and to desist from the commission of any act within the scope of the **Convention against the Palestinian people**.

Israel's counter the arguments

- Israel rejected **any genocidal intent** behind its ongoing campaign and argued that its **response was legitimate** and based on the **norms of international law**.
- It anchored its presentation on **its right to self-defence**.
- It claimed that its operations in Gaza were not aimed at destroying its people, but to protect them and that it was **directed solely against Hamas** and its allied groups and were aimed at **removing Hamas' capacity** to threaten Israel.
- It rejected the charge that any remarks attributed to its Prime Minister or Defence Minister indicated any genocidal intent.
- Israel also put the blame on casualties on Hamas, claiming that its use of civilians as human shields was aimed at maximising harm to civilians.

International Court of Justice(ICJ)

- It is the principal judicial organ of the United Nations.
- It was established by the **United Nations Charter**, which was signed in 1945 in San Francisco (United States), and began work in **1946 in the Peace Palace, The Hague (Netherlands)**.
- The Court is composed of 15 judges, who are elected for terms of office of nine years by the United Nations General Assembly and the Security Council.
- Its official languages are English and French.
- **Jurisdiction** : Only States are eligible to appear before the Court in contentious cases. At present, this essentially means the 193 Member States of the United Nations.
 - ♦ The **Court has no jurisdiction to deal with applications from individuals**, non-governmental organisations, corporations or any other private entity. It cannot provide them with legal advice or help them in their dealings with national authorities.
 - ♦ However, a State may take up the case of one of its nationals and invoke against another State the wrongs which its national claims to have suffered at the hands of the latter; the dispute then becomes one between States.
 - ♦ The International Court of Justice has no jurisdiction to try individuals accused of war crimes or crimes against humanity.
 - ♦ As it is **not a criminal court**, it does not have a prosecutor able to initiate proceedings.

Future Outlook

- A ruling on whether to issue provisional measures and, if so, what these measures will be, is expected within weeks.
 - ♦ Proceedings instituted before the ICJ usually take years for disposal.
 - ♦ Provisional measures are interim rulings of the ICJ aimed at preventing either party from doing irreparable harm to the main case.
- However, the ICJ has no means to enforce its own orders. It is possible for the UN Security Council to take measures, but it is subject to the veto power of permanent members.

- In the event of an adverse ruling, Israel may be banking on the U.S. to veto any attempt to enforce any such order.

Source: *TH*

GROWTH IN LENTIL PRODUCTION IN INDIA

In Context

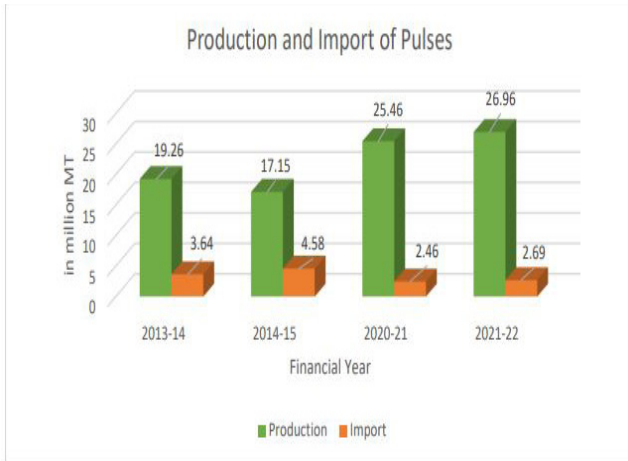
- **India's masur (lentil) production** is estimated to touch an all-time high of 1.6 million tonnes in 2023-24.

About

- The **total masur acreage** has increased to 1.94 million hectare in the ongoing rabi season, when compared to 1.83 million hectare in the year-ago period.
- Despite being the world's largest producer and consumer of pulses, **India imports certain pulses**, including masur and tur, **to meet domestic shortages**.

Production of Pulses in India

- India is the **largest producer** (25% of global production), **consumer** (27% of world consumption) and **importer** (14%) of pulses in the world.
- Pulses account for around **20 percent of the area** under food grains and contribute around **7-10 percent** of the total foodgrains production in the country.
- Though pulses are grown in both Kharif and Rabi seasons, **Rabi pulses** contribute **more than 60 percent of the total production**.
- **Gram** is the most dominant pulse having a share of around **40 percent** in the total production followed by Tur/Arhar at **15 to 20 percent** and Urad/Black Matpe and Moong at around **8-10 percent** each.
- The **main regions with high productivity** are Punjab, Haryana, Western Uttar Pradesh, West Bengal delta region, coastal Andhra Pradesh, Tamil Nadu, Kerala, coastal and eastern Karnataka and some parts of Maharashtra.



Reasons for Low Production in India

- **Low Productivity:** Pulses have traditionally been a neglected crop because of the instability of its yields.
- **Residual Crop:** Pulses in India are considered a residual crop and grown under rain-fed conditions in marginal/less fertile lands, with very little focus on pest and nutrient management.
- **With the advent of the Green Revolution,** which promoted rice and wheat using external inputs and modern varieties of seeds, pulses were pushed to the marginal lands. This resulted in decline in productivity and land degradation.
- **Lack of Technological Advances:** There has been no technology breakthrough in any of the pulses crops.
- **Less Beneficial:** Farmers perceive pulses as having a lower cost benefit ratio vis-à-vis other crops like wheat and rice.
- Penetration and adoption of **high yielding varieties (HYV)** seeds are also low.
- **Post Harvest Losses:** There are post-harvest losses during storage, due to excessive moisture and attack by stored grain pests especially the pulse beetle

Measures Taken By the Government to Increase Production

- **National Food Security Mission:** The Department of Agriculture & Farmers Welfare is implementing the National Food Security Mission (NFSM)-Pulses with the objectives of increasing production through area expansion and productivity enhancement in all the districts.
- **Research and Development:** In order to increase the productivity potential of pulses crops

in the country, the Indian Council of Agricultural Research (ICAR) is undertaking basic and strategic research on these crops and applied research in collaboration with State Agricultural Universities for developing **location-specific high yielding varieties.**

- **PM-AASHA:** To ensure remunerative prices to farmers, Government implements an umbrella scheme PM-AASHA comprising Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS) and Private Procurement Stockist Scheme (PPSS) in order to ensure Minimum Support Price (MSP) to farmers for their produce of notified oilseeds, pulses and copra.
- **Integrated scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)** was launched in 14 major pulses growing states.
- **Rashtriya Krishi Vikas Yojna** was launched under which states can undertake Pulses Development Programmes.

Source: *IE*

INDIA- UNITED STATES TRADE POLICY FORUM (TPF)

In Context

- **The 14th Ministerial-level meeting** of the **India-United States Trade Policy Forum (TPF)** was held recently.

About

- The Ministers agreed to establish a **Joint Facilitative Mechanism (JFM)** to mitigate non-tariff barriers which would eliminate duplicative testing requirements and reduce compliance costs for trade in high-quality goods.
- The USA is India's top export market for shrimps. In this context, both the Ministers welcomed the finalization of the **Turtle Excluder Device (TED)** design developed with the technical support of the National Oceanic and Atmospheric Administration (NOAA).
- TED is an effective device in **minimizing the impact of fishing on sea-turtle population** and would foster enhanced seafood trade between the two countries.
- India also emphasized the need to increase the number of inspections by the U.S. Food and Drug Administration (U.S. FDA) in India to reach the pre-pandemic level. **USA is India's top export market for pharma products.**

- The Indian side reiterated India's interest in **restoration of its beneficiary status** under the **U.S. Generalized System of Preferences program**.

India- United States Trade Policy Forum (TPF)

- It is an arrangement between the two Governments to discuss trade and investment issues, **established in 2005**.
- The TPF is **co-chaired** by the Minister of Commerce & Industry, Government of India and United States Trade Representative.
- The issues and concerns are discussed under five Focus Groups.
- The dialogue addresses a wide range of issues that will lead to initiatives in key sectors and create momentum for expanding bilateral trade.
- A **Private Sector Advisory Group (PSAG) was formed in 2007** as an adjunct to TPF to provide the TPF with views and advice from non-government trade and investment experts.

India - USA Trade and Economic Relations

- In FY23, the bilateral trade between India and the US stood at a record **US\$ 128.78 billion** as against **US\$ 119.48 billion in FY22**.
- In FY23, India had a trade surplus of **US\$ 28.30 billion with the US**.
- During 2022-23, the US was the **third largest source of FDI into India**.
- India-USA trade is likely to touch **US\$ 300 billion in 2026-27** from its current trade.

Dialogue Mechanisms:

- **India-U.S. Trade Policy Forum (TPF)**.
- **India-U.S. Commercial Dialogue:** Focuses on cooperation in standards, ease of doing business, travel & tourism, and other important issues of commercial significance.
- **India-U.S. CEO Forum:** Established in **2005**, the Forum meets on sidelines of the Commercial Dialogue and submits recommendations to the Commercial dialogue.
- **Information and Communications Technology (ICT):** A Joint Working Group on ICT was established in **2005** to bring together government and industry from both sides to discuss cooperation in the electronics & IT sector.
- **India – U.S. Economic and Financial Partnership Dialogue (EFP):** It is led by Finance Minister and the U.S. Secretary of the Treasury.
- **Indo-Pacific Economic Framework [IPEF]:** India joined the launch of IPEF in 2022 along with 13 Partner countries.

- ♦ India joined three of the four Pillars of IPEF, related to supply chains, tax and anti-corruption and clean energy.

Conclusion

- The evolving relationship between India and the United States holds significant importance in shaping the global order of the 21st century.
- To fully unlock the potential of this partnership, both governments must focus on reducing bilateral and multilateral bottlenecks and charting a course for a comprehensive and strategic global alliance.

Source: **PIB**

GLOBAL SURGERY

Context

- Global surgery is the neglected component in global health, especially in South Asia.

What is global surgery?

- Global surgery refers to the provision of surgical care on a global scale, with a focus on addressing the disparities in access to surgical services and improving surgical outcomes worldwide.
- These “surgeries” include essential and emergency surgeries such as surgery, obstetrics, trauma, and anaesthesia (SOTA).
- While it predominantly focuses on low- and middle-income countries (LMICs), it also prioritizes access disparities and under-served populations in high-income countries (HICs).

Global Scenario

- According to the Lancet Commission on Global Surgery (LCoGS) five billion people or over **70%** of the global population lack timely access to safe and affordable surgical care when needed.
- Of the five billion people, over **1.6 billion** people lacking access live in South Asia.
- Most severely, **99% and 96%** of the people in low- and lower-middle-income countries (LLMICs) respectively, face access gaps compared to 24% in high-income countries (HICs).

Concerns

- In 2010, around **17 million deaths** were attributed to surgically treatable conditions, surpassing the combined mortality burden of HIV/AIDS, tuberculosis, and malaria.

- The disease burden also leads to an economic burden. The cumulative projected loss to GDP due to the absence of scale-up of surgical care is estimated to be **\$20.7 trillion** across 128 countries by 2030.

Steps taken for Global Surgery

- In India the Pradhan Mantri Jan Arogya Yojana has provided millions of surgeries at zero or negligible cost to the bottom 40% of Indians.
- In South Asia, Pakistan has formulated a National Surgical Care Vision and Nepal has initiated a national surgical, obstetrics, and anaesthesia plan (NSOAP).

Way ahead

- Research and innovation, policy focus, and sustained financing are key to solving global surgery challenges.
- Organizations such as the World Health Organization (WHO) and non-profit groups can play a significant role in promoting global surgery initiatives.

Source: **TH**

NISAR SATELLITE

Context:

- **Indo-US satellite- NISAR** is to **study Earth's cryospheric changes** which will help in natural resource, hazard management.

About the NISAR

- **NASA-ISRO Synthetic Aperture Radar (NISAR)** represents a first-of-its-kind collaboration between NASA and ISRO for an **Earth-observing mission**.
- The radar satellite is **set to launch in 2024**
- The goal of NISAR is to make global measurements of the **causes and consequences of land surface changes** using advanced radar imaging.
- **Collaboration: NASA's Jet Propulsion Laboratory** will lead the US component and provide the mission's **L-band SAR**.
 - ♦ **ISRO's UR Rao Satellite Centre and Space Applications Centre** will contribute the **spacecraft bus, launch vehicle and S-band SAR electronics**.

- It will employ **two radar systems, an L-band and an S-band**, to penetrate clouds and darkness, offering comprehensive data even during polar winter nights.
- **NISAR will cover nearly all of the planet's land and ice surfaces every 12 days.**

Applications of NISAR

- **Snow studies: The L-band radar is particularly adept at penetrating snow**, offering insights into the movement of ice beneath, while the **S-band radar focuses on snow moisture**, indicating areas of melting.
- **Glaciers:** Beyond polar ice, NISAR will **track changes in mountain glaciers**, which have significantly contributed to sea level rise since the 1960s.
- **Wetlands:** This mission is distinguished by its **ability to track a variety of Earth's vital signs**, ranging from the health of wetlands to the impacts of deforestation and natural hazards.
- **Geophysical dynamics:** The measurements will also **enable scientists to closely study what happens where ice and ocean meet**.
 - ♦ For example, when parts of an ice sheet sit on ground that is below sea level, saltwater can seep under the ice and increase melting and instability.
- **Southern ocean: The mission's extensive coverage of the Southern Ocean** is unprecedented and will offer new insights into these crucial areas.

Source: **DTE**

QUANTUM COMPUTING

Context:

Quantum computing has gained a significant interest in the past decade for its applications in various fields.

About Computing:

- **A bit (binary digit)** is the **smallest piece of information storage** in computing. Often, **a large number of bits is required to convey meaningful information**.
- In a computer, **a bit is a physical system** with two easily discernible configurations, or states – e.g. high and low voltage.
 - ♦ These physical bits are **useful to represent and process expressions** that involve 0s and 1s: for instance, low voltage can represent 0 and high voltage can represent 1.
- **A gate is a circuit that changes the states of bits** in a predictable way. The speed at which these gates work determines **how fast a computer functions**.

Quantum computing:

- Quantum computing is a revolutionary computing paradigm **utilizing the principles of quantum mechanics** to perform calculations.
- Unlike **classical computers that rely on bits (0 or 1)**, **quantum computers harness qubits, which can exist in a state of superposition (both 0 and 1 simultaneously)**.
 - ♦ For example, to perform one calculation that requires **16 different inputs**, a classical computer requires a total of **four bits and sixteen computations**.
 - ♦ But with four qubits in superposition, a quantum computer could generate answers corresponding to all **16 inputs in a single computation**.
- This unique property allows them **to perform certain calculations exponentially faster than classical computers**, opening doors to groundbreaking advancements in various fields.

Applications:

- **Drug discovery:** Simulating complex molecules to develop new drugs and materials, leading to accelerated medical innovation.

- **Financial modeling:** Optimizing financial portfolios and managing risk with unparalleled accuracy and speed.
- **Cryptography:** Breaking existing encryption methods and developing new, quantum-resistant ones.
- **Machine learning:** Revolutionizing AI by training algorithms on massive datasets much faster, leading to breakthroughs in natural language processing, computer vision, and more.
- **Materials science:** Designing novel materials with superior properties like high-temperature superconductors or efficient solar cells.

Challenges:

- **Hardware limitations:** Qubits are fragile and prone to errors, making it difficult to build large, stable quantum computers.
- **Software development:** Quantum algorithms are fundamentally different from classical algorithms, requiring specialized programming languages and techniques.
- **Cost and accessibility:** Current quantum computers are expensive and often not accessible to the general public or even smaller research institutions.
- **Security concerns:** The power of quantum computers poses potential threats to existing encryption methods, necessitating development of quantum-resistant cryptography.

Measures:

- **Investing in research and development:** Governments and private companies are pouring resources into advancing quantum hardware and software technologies.
- **Developing error correction techniques:** Robust methods for mitigating qubit errors are crucial for building reliable quantum computers.
- **Building quantum ecosystems:** Creating platforms and tools to make quantum computing more accessible and user-friendly for developers and researchers.
- **Addressing security concerns:** Collaborating on international standards and protocols for quantum-resistant cryptography to ensure secure communication in the future.

Initiatives by the Government of India:

- **National Mission on Quantum Technologies and Applications (NM-QTA):** The Government of India announced a national mission in the Union Budget of 2020 with a proposed budget of **8000 crores** covering all areas of quantum technologies.
 - ◆ It is broadly divided into **four verticals:**
 - Quantum Computing & Simulations,
 - Quantum Communications,
 - Quantum Sensing & Metrology, and
 - Quantum Material & Devices.
- **Quantum Computing Applications Lab (QCAL):** A joint initiative by the Ministry of Electronics and Information Technology (MeitY) and Amazon Web Services (AWS), established in 2023. QCAL provides researchers and developers with access to cloud-based quantum computing resources for experimentation and application development.
- **Quantum-enabled Science and Technologies (QuEST):** Department of Science and Technology (DST) supports research projects and collaborations in quantum computing through various funding programs like QuEST.
- **I-HUB Quantum Technology Foundation (I-HUB QTF):** Department of Science and Technology (DST) also established the I-HUB QTF with participation from research institutions like IISER Pune to foster development and commercialization of quantum technologies.

Conclusion:

- Quantum computing **holds immense potential to revolutionize various industries** and solve significant challenges facing humanity.
- While we remain in the early stages of this technology, **sustained efforts to address the existing hurdles** are paving the way for a future where quantum computers unlock unprecedented possibilities across diverse fields.

Source: **TH**

NEWS IN SHORTS**VADNAGAR (OLDEST LIVING CITY OF INDIA)****Context:**

- Multi-institution study found India's oldest living city in Vadnagar, Gujarat.

More in news

- Vadnagar town is a **multi-layered and multi-cultural mercantile settlement** with its history stretching back to nearly **8th Century BCE**.
- Explorations and excavations show **evidence of a human settlement** that is **contemporary to late-Vedic/pre-Buddhist Mahajanapadas** or **oligarchic republics**.
 - ◆ The **earliest archaeological record** is the **rock-inscription** of Emperor Ashoka during the Mauryan period (320-185 BCE) **at Sudarsana Lake, Girnar hill, Gujarat**.
- A joint study by the IIT Kharagpur has found **evidence of cultural continuity in Vadnagar even after the collapse of Indus Valley Civilisation (IVC)**, thus making it likely that the **'Dark Age' was a myth**.
 - ◆ The period between the collapse of IVC and the emergence of the Iron Age and cities like Gandhar, Koshal, and Avanti is often depicted as a **Dark Age** by archaeologists.
- Excavation revealed the **presence of seven cultural stages** (periods) namely, Mauryan, Indo-Greek, Indo-Scythian or Shaka-Kshatrapas (AKA 'Satraps', descendants of provincial governors of ancient Achaemenid Empires, Hindu-Solankis, Sultanate-Mughal (Islamic) to Gaekwad-British colonial rule.

About Vadnagar

- It was a multicultural and multireligious (Buddhist, Hindu, Jain and Islamic) settlement, currently located in the **Mehsana district of North Gujarat**, India.
- It is also known by names like **Vridhanagar, Anandapur, Anantapur and Nagar**.
- It is an **L-shaped town with Sharmishtha Lake** on its northeastern edge.
- The town represents a continuously evolving historic urban landscape/area which played a major role in the hinterland trade network of Western India.
- **World Heritage Site (UNESCO)**: Vadnagar was added to the **tentative list** in December 2022.

Source: **TH**

INDIA'S FIRST NATIONAL HIGHWAY STEEL SLAG ROAD

Context:

- Recently, India's first National Highway Steel Slag road section (**on NH-66 Mumbai-Goa National Highway**) was inaugurated.

More in news

- It was developed by **CSIR-Central Road Research Institute (CSIR-CRRI)** in collaboration with the Union Ministry of Steel.
- It involved converting around 80,000 tons of **CONARC Steel slag into processed steel slag aggregates**.
 - ♦ The **processed steel slag aggregates** exhibit superior mechanical properties compared to natural aggregates, making them a preferred choice for all layers of the road instead of natural aggregates.
- It is built with **28% less thickness** in comparison to conventional bituminous roads.

Steel Slag Road Technology

- It is focused on **Waste to Wealth**, turning steel industry waste into a valuable resource, contributing to the construction of robust and eco-friendly national highways in India.

- ♦ **CSIR-CRRI** has implemented steel slag in road construction projects in Gujarat, Jharkhand, Maharashtra and Arunachal Pradesh.
- The **1st road** made with this technology in **Surat, Gujarat**, has become famous for its **technological excellence**.
- **Border Roads Organization (BRO)** has constructed a steel slag road in **Arunachal Pradesh** along with CRRI and Tata Steel on the **India-China border**.

Source: **PIB**

EMERGENCY CARE IN RAILWAYS

In Context

- The Balasore train accident in 2023 raised important concerns about rail safety, but it was largely about **accident-related safety**.

Provision of Emergency Care

- **In 1995**, a '**Special first aid box**' was provided in long-distance superfast trains, Shatabdi and Rajdhani trains.
- **In 1996**, as part of a **pilot project**, Railways stationed a medical team in two long-distance trains. This team consisted of a **medical officer, a male nurse, and an attendant**.
- The Railways subsequently discontinued the service – but to make healthcare accessible, it decided to give doctors travelling on trains a **10% discount** if they were willing to provide medical services en route.
- **In 2017**, the **Supreme Court** directed the Railways to **set up a committee** consisting of experts from the All India Institute of Medical Sciences (AIIMS) to recommend further measures.
- **Based on the committee's recommendations**, the Railways decided to modify the contents of the first aid boxes and provide them at all railway stations and in all passenger-carrying trains.
 - ♦ It also mandated **first-aid training** for railway staff at the time of joining and **once every three years**.
- In 2021, the Railways launched an **integrated helpline number – 139** – for all queries concerning the railways, including medical assistance.

Conclusion

- Railways should ensure the **updated 88-item first-aid list** is in place in all trains and that passengers are aware of these services.
- Periodic inspections are necessary to maintain the quality of care as well.

- Finally, the Railways needs to install a system to capture data on the healthcare needs of people travelling on trains and use that to inform policy.

Source: *TH*

