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DAILY CURRENT AFFAIRS



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S.NO.	TOPIC
1.	IMPACT OF HOTTEST SUMMER OVER ARCTIC
2.	INDIA-VENEZUELA RELATIONS
3.	PRELIMS POINTERS

IMPACT OF HOTTEST SUMMER OVER ARCTIC

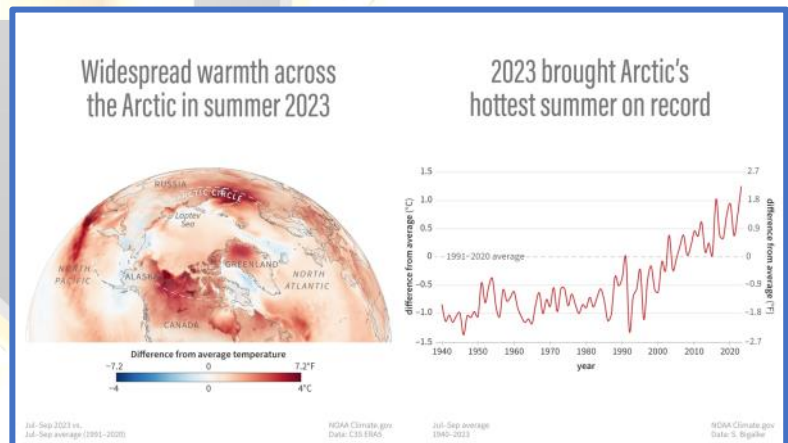
SOURCE: [INDIAN EXPRESS](#)

WHY IN NEWS?

- **Summer air temperatures in the Arctic were the highest ever recorded this year, the National Oceanic and Atmospheric Administration (NOAA) revealed in its annual report on the region.**
- **It was the sixth-warmest year ever in the Arctic overall, as climate change raised temperatures globally.**
- **Sea ice levels also declined at record rates, with a domino effect impacting fisheries throughout Alaska and northern Canada.**

KEY HIGHLIGHTS OF THE REPORT:

- **Record High Summer Temperatures:**
 - ✓ The report reveals that summer air temperatures in the Arctic reached **the highest levels ever recorded.**
 - ✓ **Average temperatures of 43 degrees**, with some areas **exceeding 7.2 degrees above the 1991-2020 average**, signify a remarkable warming trend.
- **Sixth-Warmest Year Overall:**
 - ✓ The Arctic experienced its **sixth-warmest year**, contributing to global concerns about the acceleration of climate change.
 - ✓ The ranking underscores the **ongoing and escalating impact of climate change** in polar regions.
- **Sea Ice Decline at Record Rates:**
 - ✓ Record rates of **decline in sea ice levels** are a significant concern, **impacting ecosystems and fisheries in Alaska and northern Canada.**
 - ✓ The **domino effect of sea ice loss** highlights the interconnectedness of Arctic environmental changes.
- **Worst Wildfire Season in Canada:**
 - ✓ The report highlights the **historic and devastating wildfire season in Canada**, with wildfires raging from the Arctic to the U.S. border.
 - ✓ Rising temperatures and dry conditions have created a **conducive environment for wildfires**, posing threats to ecosystems and communities.
- **Sea Surface Temperatures and Ecosystem Threats:**
 - ✓ **Above-average sea surface temperatures**, up to **13 degrees above normal levels**, pose risks to ocean ecosystems.
 - ✓ The potential for phytoplankton blooms, as indicated in the report, raises concerns about the overall health of Arctic marine environments.
- **Continued Ice Sheet Decline:**





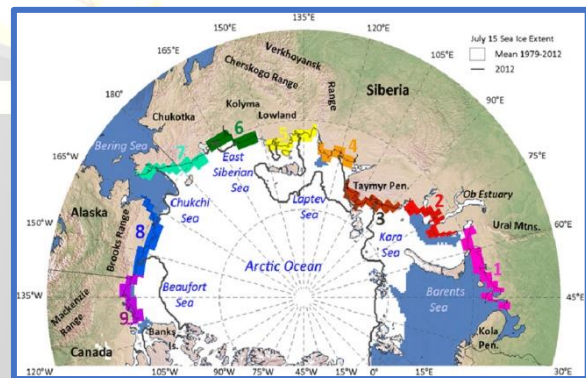
- ✓ The report emphasizes the continued **decline of ice sheets**, with the **17 lowest events occurring in the last 17 consecutive years**.
- ✓ The shrinking ice sheets, **the sixth-smallest on record in 2023**, highlight the ongoing impact of **warming temperatures on polar ice**.
- **Confirmation of Irreversible Ice Loss:**
 - ✓ The report aligns with a June study suggesting that **summer Arctic Sea ice is irreversibly melting due to consistent warming**.
 - ✓ The prediction of "**practically**" **ice-free Arctic summers** by the middle of the century intensifies concerns about the pace of climate change.
- **Call to Urgent Action:**
 - ✓ NOAA administrator Rick Spinrad emphasizes the report's **overarching message that the time for action is now**.
 - ✓ **Urgent calls to reduce greenhouse gas emissions** underscore the need for immediate global efforts to address climate change.

THE ARCTIC: EARTH'S NORTHERN POLAR REGION

- **Geographical Overview:**
 - ✓ The Arctic stands as a **polar region situated at the Earth's northernmost point**, with the North Pole at its center.

Key characteristics and components include:

- **Geographical Composition:**
 - ✓ Encompassing **the Arctic Ocean, adjacent seas, and territories belonging to Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States**.
 - ✓ Notable countries within the Arctic region contribute to its **unique environmental and geopolitical dynamics**.
- **Arctic Circle Boundary:**
 - ✓ Scientifically defined by the Arctic Circle, marking a **latitude approximately 66.5° north of the equator**.
 - ✓ This demarcation delineates the area considered part of the Arctic by researchers and experts.

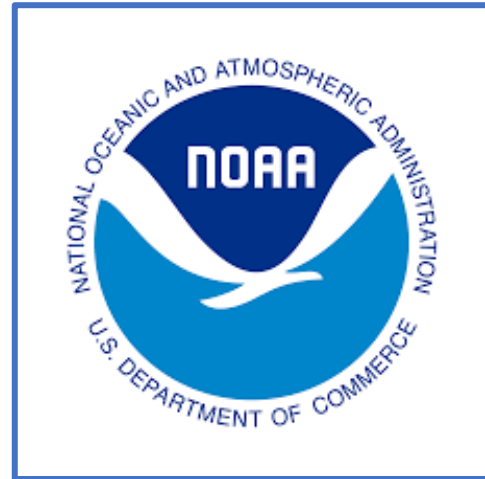


NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA):

- **Mission and Scope:**
 - ✓ The NOAA, a **scientific agency operating within the United States Department of Commerce**, holds a comprehensive mission and scope:
- **Scientific Focus:**
 - ✓ Primarily focused on the **study and reporting of Earth's ocean, atmosphere, and coastal regions**.
 - ✓ Aims to enhance understanding and **prediction capabilities related to climate, weather, oceanic conditions, and coastal phenomena**.
- **Knowledge Dissemination:**
 - ✓ The agency prioritizes the **dissemination of acquired knowledge to diverse stakeholders**, fostering informed decision-making globally.

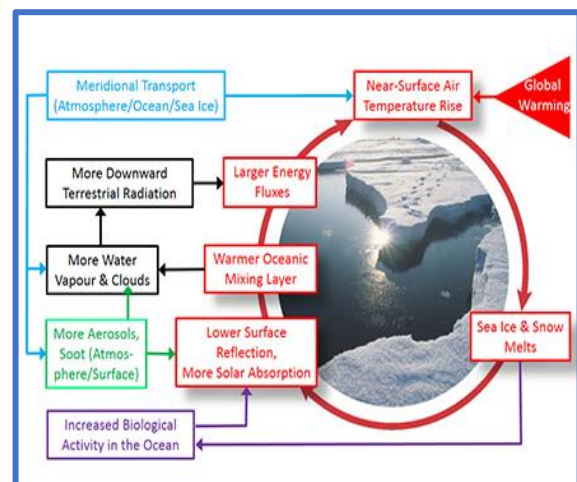


- ✓ Through research and **communication, NOAA contributes to public awareness** and education on environmental matters.
- **Ecosystem Conservation:**
 - ✓ NOAA is dedicated to **conserving and managing coastal and marine ecosystems** and resources.
 - ✓ The agency plays a vital role in promoting sustainable practices and environmental stewardship.
- **Public Safety and Commerce:**
 - ✓ **Supporting public safety by providing accurate and timely weather forecasts**, storm warnings, and other critical information.
 - ✓ **Enabling sustainable commerce through data-driven** insights into oceanic and atmospheric conditions, benefiting various industries.
- **Exploration and Discovery:**
 - ✓ Embracing a **commitment to exploring the unknown**, NOAA engages in scientific exploration and discovery initiatives.
 - ✓ This **includes ventures into uncharted territories** and advancing knowledge about Earth's diverse environments.
- **Operational Base:**
 - ✓ The National Headquarters of NOAA is situated in **Silver Spring, Maryland**.
 - ✓ From this central location, NOAA coordinates and **executes its multifaceted mission**, contributing significantly to **global scientific endeavours and environmental** stewardship.



CONSEQUENCES OF RISING ARCTIC TEMPERATURES:

- **Thawing of Subsea Permafrost:**
 - ✓ **Subsea permafrost**, frozen soil beneath the seabed, **contains organic matter**.
 - ✓ **Gradual thawing, accelerated by warmer ocean temperatures**, releases **methane and carbon dioxide**, contributing to global warming and ocean acidification.
 - ✓ Lack of research hinders estimation of **future greenhouse gas release and its impact on global warming**.
- **Food Insecurity:**
 - ✓ Climate change **impacts freshwater bodies and marine ecosystems**, leading to extremely low numbers of Chinook and chum salmon in Western Alaska.
 - ✓ Fishery closures, **conflicts, and reduced adult salmon size** affect Indigenous communities dependent on salmon for food.
 - ✓ Divergent impacts observed as **Chinook and chum salmon decline**, while sockeye salmon increase in number.
- **Raging Wildfires:**
 - ✓ **Canada, with 40% of its land considered Arctic and Northern**, faces severe **wildfires**, marking its **worst season** with fires burning over 10 million acres in the Northwest Territories.
 - ✓ High temperatures, dried vegetation, and **below-average rainfall create optimal conditions for wildfires**.

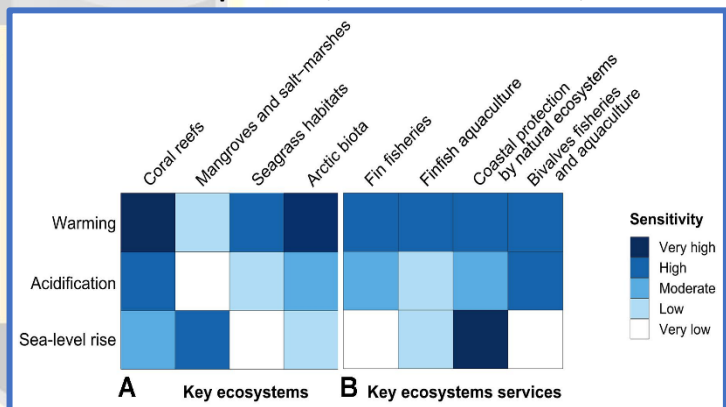




- ✓ Extensive evacuations and **widespread smoke impact air quality**, reaching as far as the southern United States.
- **Severe Flooding:**
 - ✓ Rising temperatures cause the dramatic thinning of the **Mendenhall Glacier in Alaska over 20 years**.
 - ✓ Meltwater leads to annual floods, with a significant disaster in August 2023 as a **glacial lake burst through its ice dam**, causing unprecedented flooding and property damage in Juneau.
- **Greenland Ice Sheet Melting:**
 - ✓ Greenland's ice sheet **experiences melting at its highest point for the fifth time in the 34-year record**.
 - ✓ Despite above-average winter snow accumulation, the **ice sheet loses approximately 350 trillion pounds** of mass between August 2022 and September 2023.
 - ✓ Greenland's ice sheet melting stands as the **second-largest contributor to sea-level rise**, emphasizing its **significant impact on global climate dynamics**.

ADDRESSING CONSEQUENCES OF RISING ARCTIC TEMPERATURES:

- **International Collaboration:**
 - ✓ Strengthen **international cooperation to address climate change**, acknowledging the global impact of Arctic warming.
 - ✓ Formulate and **implement agreements for sustainable practices**, emissions reduction, and protection of Arctic ecosystems.
- **Scientific Research and Monitoring:**
 - ✓ **Invest in comprehensive scientific research** to understand and monitor the **dynamics of subsea permafrost thawing, greenhouse gas release**, and their implications.
 - ✓ Support ongoing studies on Arctic ecosystems, **fisheries, and glaciers to inform adaptive strategies**.
- **Climate-Resilient Fisheries Management:**
 - ✓ Develop adaptive fisheries **management strategies to address the impact of temperature changes** on fish populations.
 - ✓ Collaborate with Indigenous communities to integrate traditional knowledge into fisheries management for sustainable practices.
- **Wildfire Prevention and Management:**
 - ✓ Implement proactive **measures for wildfire prevention, including early detection systems** and community awareness.
 - ✓ Establish efficient wildfire management plans, resource allocation, and **international cooperation for firefighting efforts**.
- **Glacial Monitoring and Hazard Mitigation:**
 - ✓ Intensify monitoring of glaciers to predict and **mitigate glacial lake outburst floods (GLOFs)**.
 - ✓ Implement measures for **hazard mitigation, such as constructing dams or early warning systems**, to protect communities from severe flooding events.
- **Greenland Ice Sheet Conservation:**
 - ✓ Support initiatives to **conserve the Greenland ice sheet**, considering its significant contribution to sea-level rise.





- ✓ **Advocate for global efforts to reduce carbon emissions** and limit the factors contributing to ice sheet melting.
- **Adaptation Strategies for Indigenous Communities:**
 - ✓ Develop community-specific adaptation strategies **for Indigenous populations reliant on Arctic ecosystems.**
 - ✓ Ensure inclusivity in decision-making processes, **incorporating Indigenous knowledge** and addressing the unique challenges faced by these communities.
- **Global Commitment to Emission Reduction:**
 - ✓ Advocate for and adhere to global commitments **to reduce greenhouse gas emissions (i.e. ongoing COP28).**
 - ✓ Encourage the adoption of renewable energy sources and **sustainable practices on a global scale.**
- **Policy Interventions:**
 - ✓ Implement and strengthen policies that **prioritize climate resilience**, sustainable development, and conservation efforts in Arctic regions.
 - ✓ Advocate for policies that **address the root causes of climate change** and **promote environmental sustainability.**





INDIA-VENEZUELA RELATIONS

SOURCE: [INDIAN EXPRESS](#)

WHY IN NEWS?

- India has made headlines as **Union Oil Minister Hardeep Singh Puri announced the country's readiness to purchase Venezuelan oil.**
- The move comes in response to **the lifting of U.S. sanctions on Venezuela in October** prompting Indian refiners, including Paradip, to resume imports of heavy Venezuelan crude.
- Minister Puri emphasized **India's willingness to buy oil from any non-sanctioned country and highlighted the capabilities of Indian refineries to process such crude.**
- This decision **aligns with India's strategy to diversify its oil sources, enhance energy security, and optimize refining capacities.**
- It also signals **India's pragmatic approach to adapt to evolving global market dynamics and explore economic opportunities, including addressing pending financial matters related to Indian investments in Venezuelan projects, such as those by ONGC.**
- The resumption of Venezuelan oil imports reflects India's commitment to **securing cost-effective and diverse energy supplies amid the complexities of the international oil market.**

INDIA-VENEZUELA RELATIONS:

- **Political Relations:**
 - ✓ Cordial diplomatic ties marked by **similarity of views on major global issues.**
 - ✓ Significant visit by **former President Hugo Chavez to India in 2005**, boosting bilateral relations.
 - ✓ Exchange visits by high-level officials, including former **Foreign Minister of Venezuela Nicolas Maduro.**
 - ✓ **Ongoing diplomatic engagements**, including meetings between **External Affairs Ministers and Vice Presidents.**
- **Commercial Relations:**
 - ✓ **MOU signed during President Chavez's visit in 2005**, setting up the Indo-Venezuelan Joint Commission.
 - ✓ Venezuela emerges as **one of India's largest oil suppliers**, contributing to **diverse bilateral trade.**
 - ✓ Joint ventures in the oil sector, with **ONGC Videsh Limited (OVL) and PDVSA** collaborating in projects.
 - ✓ **Reliance Industries Limited (RIL) and Nayara Energy** among major Indian importers of Venezuelan oil.
 - ✓ Bilateral trade statistics provided for the past five years, indicating fluctuations in exports and imports.
- **Cultural Exchanges:**
 - ✓ Growing interest in Indian art and culture in Venezuela.
 - ✓ Establishment of **academic chairs, study centres**, and yoga centres promoting Indian culture.
 - ✓ Celebrations of **International Day of Yoga, Holi festival, and other cultural events.**
 - ✓ **Gandhi Hall inauguration and participation** in international book fairs to showcase Indian literature.
 - ✓ Various initiatives, including '**Bollywood y Arepa**,' promoting Indian cinema and cuisine.
- **People-to-People Ties:**
 - ✓ **ITEC program** facilitating the exchange of experts and professionals.
 - ✓ **Around 50 NRIs and 30 PIOs** contributing to the Indian community in Venezuela.





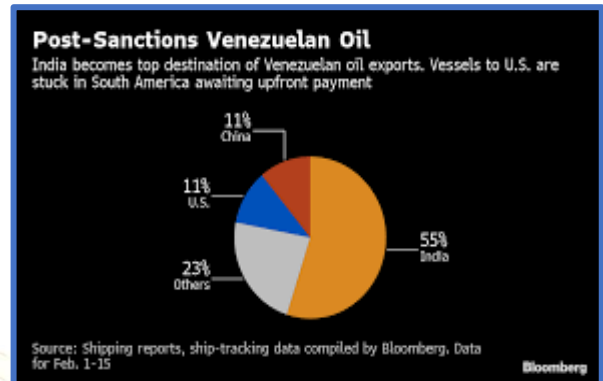
➤ **Recent Developments:**

- ✓ **High-level visits in 2021 and 2022**, with meetings **between External Affairs Minister Dr. S. Jaishankar and Venezuelan counterparts.**
- ✓ **Shramdaan and cleanliness drive** organized by the Embassy on October 1, 2023, commemorating Mahatma Gandhi's birthday.
- ✓ Ongoing **educational scholarships** and cultural exchanges.

SIGNIFICANCE OF INDIA'S DECISION TO IMPORT OIL FROM VENEZUELA:

➤ **Sanctions Easing and Diplomatic Shift:**

- ✓ The resumption of oil imports from Venezuela by India comes after the **United States eased sanctions on Caracas in October 2023.**
- ✓ This marks a **significant diplomatic shift and a response to changing international relations**, providing India **with the opportunity to diversify** its sources of crude oil.



➤ **Energy Security and Diversification Strategy:**

- ✓ India, as the **world's third-largest consumer of crude oil**, prioritizes energy security and aims to diversify its oil sources **to reduce dependence on specific regions.**
- ✓ The decision aligns with India's broader strategy **to secure oil from countries not under sanctions**, ensuring a stable and diversified energy supply.

➤ **Utilization of Indian Refinery Capacities:**

- ✓ Indian refineries, including **Reliance Industries (RIL), Indian Oil Corporation (IOC), and HPCL-Mittal Energy (HMEL)**, have booked Venezuelan oil cargoes.
- ✓ The move indicates India's readiness **to utilize the capacities of its refineries**, capable of processing heavy Venezuelan crude, contributing to efficient and flexible refining operations.

➤ **Economic Considerations and Competitive Pricing:**

- ✓ The Indian government emphasizes **buying oil from cost-effective sources** to mitigate the impact of volatile global oil prices.
- ✓ By resuming imports from Venezuela, **India aims to secure competitive pricing and maintain economic stability** in the face of uncertainties in the global oil market.

➤ **Impact on Global Oil Market Dynamics:**

- ✓ Venezuela, with the **largest proven oil reserves in the world**, seeks **to expand its market presence by offering oil to countries** beyond its traditional buyers.
- ✓ The move contributes to **evolving dynamics in the global oil market**, with Venezuela adapting its strategies amid the easing of sanctions.

➤ **Geopolitical Considerations and International Relations:**

- ✓ India's decision reflects its diplomatic approach, **engaging with countries based on mutual interests and economic benefits.**
- ✓ It signals India's stance on **pursuing economic and energy partnerships** with nations that align with its strategic objectives.

➤ **Response to Changing Market Conditions:**

- The resumption of oil imports from Venezuela reflects **India's agility in responding to changing market conditions**, geopolitical developments, and the evolving landscape of international sanctions.

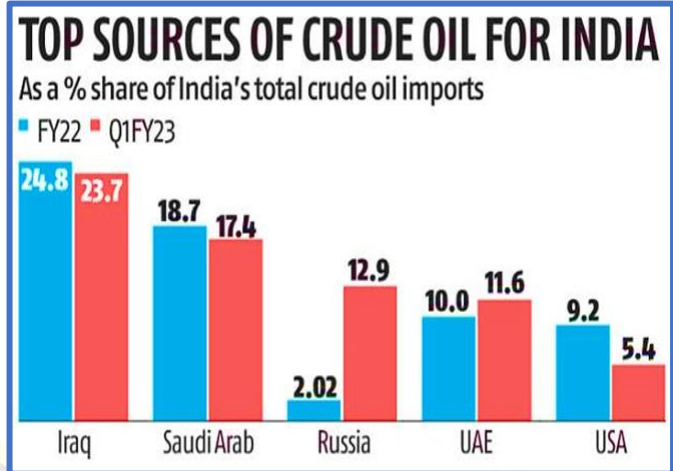
➤ **Potential Impacts on Bilateral Relations:**



- The decision to import oil from Venezuela may have implications for **India-Venezuela bilateral relations, fostering economic ties and potentially leading** to deeper cooperation in various sectors.

KEY CHALLENGES:

- **Oil Market Volatility:**
 - **Dependence on oil trade** makes both nations vulnerable to **global oil market fluctuations**, impacting economic stability.
- **Geopolitical Considerations:**
 - **Venezuela's geopolitical challenges** and alliances may **pose obstacles to India's diplomatic engagement** and economic partnerships.
- **Sanctions and International Relations:**
 - **Ongoing sanctions on Venezuela** could **complicate trade agreements** and limit the scope of diplomatic cooperation between the two nations.
- **Economic Instability:**
 - Venezuela's **economic instability and India's efforts** to diversify energy sources may create uncertainties in long-term bilateral trade relations.
- **Internal Dynamics:**
 - The **internal political and economic dynamics of both countries** could influence the stability and depth of their diplomatic and economic ties.



WAY FORWARD:

- **Diversification of Trade:**
 - **Explore and expand bilateral trade beyond oil**, focusing on sectors like **agriculture, pharmaceuticals, technology, and renewable energy** to reduce dependence on a single commodity.
- **Investment and Infrastructure:**
 - Foster **mutual investments in key sectors**, encouraging **Indian businesses to invest in Venezuela** and vice versa.
 - **Develop infrastructure projects** that benefit both nations.
- **Diplomatic Collaboration:**
 - Strengthen diplomatic ties through **cultural exchanges, educational programs**, and collaboration in international forums, fostering a deeper understanding between the two nations.
- **Energy Collaboration:**
 - Collaborate on renewable **energy initiatives and technology transfer**, aligning with India's commitment to sustainable development and **Venezuela's energy potential beyond traditional oil resources**.
- **People-to-People Ties:**
 - Enhance people-to-people ties **through cultural events, tourism, and educational exchanges**, **fostering a stronger connection** and promoting mutual understanding between the citizens of India and Venezuela.



PRELIMS POINTERS:

TOPIC	DISCRIPTION
The Indian Computer Emergency Response Team (CERT-In)	<p>WHY IN NEWS?</p> <ul style="list-style-type: none">❖ The Indian Computer Emergency Response Team (CERT-In) issued a high-risk alert for Apple products.❖ Various vulnerabilities in iOS, iPadOS, macOS, tvOS, watchOS, and Safari browser have been identified.❖ Potential risks include unauthorized access to sensitive information, execution of arbitrary code, and bypassing security measures. <p>KEY HIGHLIGHTS</p> <ul style="list-style-type: none">❖ Security Concerns for Samsung Devices:<ul style="list-style-type: none">☛ CERT-In also reported similar flaws in Samsung products, impacting Android versions 11, 12, 13, and 14.☛ These vulnerabilities could enable attackers to bypass security measures, access user data, and execute harmful code on Samsung devices.❖ Potential Threats Highlighted:<ul style="list-style-type: none">☛ The vulnerabilities may lead to a range of threats such as denial of service (DoS) attacks, authentication bypass, and elevated privilege exploits.☛ The warning emphasizes the possibility of attackers executing spoofing attacks on targeted systems. <p>ABOUT CERT-IN</p> <ul style="list-style-type: none">❖ Nodal Agency for Cyber Security:<ul style="list-style-type: none">✓ CERT-In, or the Indian Computer Emergency Response Team, operates as a functional organization under the Ministry of Information & Electronics Technology.✓ It serves as the national nodal agency responsible for addressing and responding to cybersecurity incidents in India.❖ Objective - Securing Indian Cyberspace:<ul style="list-style-type: none">☛ The primary objective of CERT-In is to secure the cyberspace in India, safeguarding against various cyber threats, including hacking and phishing.❖ Operational Since January 2004:<ul style="list-style-type: none">☛ CERT-In has been operational since January 2004, actively engaging in activities related to monitoring, responding, and mitigating cybersecurity incidents. <p>KEY FUNCTIONS</p> <ul style="list-style-type: none">❖ Information Collection and Analysis:





- ☛ Involves collecting, **analysing, and disseminating information** on cyber incidents.
- ❖ **Forecast and Alerts:**
 - ☛ Providing forecasts and alerts related to potential cybersecurity threats and incidents.
- ❖ **Emergency Measures:**
 - ☛ **Implementing emergency measures** for handling and mitigating cybersecurity incidents promptly.
- ❖ **Coordination:**
 - ☛ **Coordinating cyber incident response activities** across various sectors.
- ❖ **Guidelines and Advisories:**
 - ☛ **Issuing guidelines, advisories, vulnerability notes,** and whitepapers to enhance information security practices.

DARE TO DREAM SCHEME

WHY IN NEWS?

- ❖ **Dare to Dream (D2D) 1.0 (2019), D2D 2.0 (2020) and D2D 3.0 (2021) have been successfully conducted**, wherein, more than 5,600 applications were received and out of which **86 technologies/ideas have been recognized and Rs. 3.97 Crore** worth of prize Money has been awarded to the individual innovators and start-ups.
- ❖ **DRDO also supports best awarded ideas to realize them** into prototype through **Technology Development Fund (TDF) scheme**.
- ❖ A total of eight projects at a cost of Rs 6.93 crore have been awarded under TDF scheme to Dare to Dream winners of **Start-up category**.

ABOUT THE DARE TODREAM SCHEME

- ❖ **Initiative in Memory of Dr APJ Abdul Kalam:**
 - ☛ The Dare to Dream Contest was established in memory of the former President of India, **Dr APJ Abdul Kalam**.
- ❖ **Organized by DRDO:**
 - ☛ Conducted by the **Defence Research and Development Organisation (DRDO)**, it aims to provide a **distinctive platform for start-ups and innovators**.
- ❖ **Objective:**
 - ☛ The contest addresses key challenges in emerging technologies to enhance **India's defence and aerospace capabilities**.
- ❖ **Annual Launch Since 2019:**
 - ☛ Launched **every year since 2019**, the contest seeks to engage innovators, entrepreneurs, **individuals above 18 years**, and start-ups.
- ❖ **Inclusive Participation:**





- ☛ The initiative encourages broad participation, bringing together diverse contributors to brainstorm solutions for **defence-related challenges**.

❖ **Evaluation Criteria:**

- ☛ Entries are evaluated based on factors such as proposal completeness, scientific soundness, **design integrity, merit, technological readiness level, and innovation**.

❖ **Boosting Defence & Aerospace Capabilities:**

- ☛ The overarching goal is **to foster innovation in emerging technologies** that can contribute significantly to **strengthening India's defence and aerospace sectors**.

