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DAILY CURRENT AFFAIRS

03 September 2024



SOURCES



Table of Contents

1. Will chocolate's future hinge on the success of growing cocoa in the lab?.....	2
2. Cabinet approves the Digital Agriculture Mission today with an outlay of Rs. 2817 Crore, including the central share of Rs. 1940 Crore.....	2
3. In Frames: Thanjavur tunes its wood stock.....	3
4. Visa partners with Skill India to up skill 20,000 youth for India's booming tourism industry.....	4
5. Do AI agents foretell the next wave of autonomy or liability?.....	5
6. Russia attacks Kharkiv with Grom-E1 missile-bomb for first time: Details.....	6
7. Safe Harbour Provision for Social Media.....	7
8. FM approves 'Navratna' status for four CPSEs.....	7
9. Dealings at a China-Africa forum that India must track.....	8
10. Centre constitutes 23rd Law Commission.....	9
Daily Quiz	10
Solutions	12



GS I

1. Will chocolate's future hinge on the success of growing cocoa in the lab?

Source: The Hindu

Context: Scientists and entrepreneurs are working on ways to make more cocoa that stretch well beyond the tropics.

Cocoa Tree Overview

- **Significance:** Cocoa trees are vital for chocolate production and thrive in the humid tropics. They are native to the Amazon basin in South America.
- **Geographic Range:** Cocoa grows within 20 degrees north and south of the equator, in regions with warm climates and abundant rainfall. Major growing areas include West Africa and South America.
- **Climatic Conditions:**
 - **Altitude:** Can be cultivated up to 300 metres above sea level.
 - **Rainfall:** Requires annual precipitation between 1500-2000 mm.
 - **Temperature:** Ideal temperatures range from 15°C to 39°C, with a preference for around 25°C.
 - **Soil:** Prefers deep, well-drained soils, often found in clay loam or sandy loam, with a pH of 6.5 to 7.0.
- **Shade Requirements:** Originally an under-storey plant in Amazonian forests, cocoa thrives in areas where 50% of light is available.
- **Major Producers:** Around 70% of global cocoa production comes from four West African countries: Ivory Coast, Ghana, Nigeria, and Cameroon.
- **Cultivation in India:** In India, cocoa is primarily grown in Karnataka, Kerala, and Tamil Nadu, often intercropped with arecanut and coconut.

2. Cabinet approves the Digital Agriculture Mission today with an outlay of Rs. 2817 Crore, including the central share of Rs. 1940 Crore

Source: PIB

Context: The Union Cabinet, chaired by the Prime Minister, recently approved the Digital Agriculture Mission with a total allocation of ₹2817 crore, including ₹1940 crore from the central share.

Digital Agriculture Mission: Key Points

- Umbrella scheme to enhance digital agriculture.
- Supports Digital Public Infrastructure (DPI) and various IT initiatives.

Three Major Components of DPI:

- **AgriStack:** Farmer-centric platform.



- **Components:**
 - **Farmers' Registry:**
 - Digital identity for farmers similar to Aadhaar.
 - Includes records on land, livestock, crops, demographic details, and benefits.
 - Pilot projects in six districts: Farrukhabad (Uttar Pradesh), Gandhinagar (Gujarat), Beed (Maharashtra), Yamuna Nagar (Haryana), Fatehgarh Sahib (Punjab), Virudhunagar (Tamil Nadu).
 - **Crop Sown Registry:** Records details of crops planted via mobile-based ground surveys each season.
 - **Geo-referenced Village Maps:** Links geographic information on land records with physical locations.
- **Krishi Decision Support System (DSS):**
 - Comprehensive geospatial system.
 - Integrates remote sensing data on crops, soil, weather, and water resources.
 - **Supports:**
 - Crop map generation.
 - Drought/flood monitoring.
 - Yield assessment for crop insurance claims.
- **Soil Profile Maps:**
 - Detailed maps at a 1:10,000 scale.
 - Aims to cover 142 million hectares of agricultural land.
 - Inventory of 29 million hectares has already been completed.

Mission Goals:

- Improve digital infrastructure for agriculture.
- Implement Digital General Crop Estimation Survey (DGCES).
- Support IT initiatives by Central and State Governments, and Research Institutions.

3.In Frames: Thanjavur tunes its wood stock

Source: The Hindu

Context: Thanjavur Veena is the first musical instrument in the country to get the Geographical Indication (GI) tag.

Thanjavur Veena: Key Points

- The Thanjavur veena is a traditional Indian musical instrument known for its unique construction.

Types of Veena

- **Ekantha Veena:** Carved from a single block of wood.
- **Sada Veena:**
 - **Constructed in three sections:** resonator, neck, and head.
 - Has joints, unlike the Ekantha Veena.

Construction Materials and Process:

- **Material:**
 - Made from fresh bark of the Jack Fruit Tree.
 - The bark undergoes multiple tests before being used.
- **Components:**
 - **Resonator (Kudam):** The large, hollow part of the veena.
 - **Neck (Dandi):** The elongated part on which frets are mounted.
 - **Tuning Box:** Part of the instrument used for tuning.



- **Manufacturing Time:**
 - Takes 15-20 days to complete.
 - Involves cutting, carving, shaping, and assembling the wood.
- **Frets:** Equipped with 24 fixed frets (Mettu), allowing for the play of all ragas.

Types of Veena in Indian Music:

- **Hindustani Classical Music:**
 - Rudra Veena
 - Vichitra Veena
- **Carnatic Classical Music:**
 - Saraswati Veena (made only in Thanjavur)
 - Chitra Veena

Cultural Significance: Saraswati, the goddess of learning and arts, is depicted with a veena.

GS II

4. Visa partners with Skill India to up skill 20,000 youth for India's booming tourism industry

Source: PIB

Context: The Tourism & Hospitality Skill Council (THSC), under the Ministry of Skill Development and Entrepreneurship, has signed an MoU with Visa.

Tourism and Hospitality Skill Council (THSC)

- **Type:** Not-for-Profit Organization.
- **Registration:** Under the Societies Registration Act, 1860.
- **Promotion:** By the Confederation of Indian Industry (CII).
- **Composition:** Inclusive representation from Government, Industry, Industry Associations, and Training Institutes.
- **Purpose:** Established to address the skilling needs of the tourism and hospitality industry and bridge the skills gap.
- **Approval:** Recognized as an awarding body under the National Council for Vocational Education and Training (NCVET).

Mandate

- **Objective:** Create a robust and sustainable skill development ecosystem.
- **Coverage:** All sub-sectors of the industry including Hotels, Tour Operators, Food Service Restaurants, Facilities Management, and Cruise Liners.

Recent Memorandum of Understanding (MoU)

- **Objective:** Enhance India's global tourism hub ambitions.
- **Target:** Upskill at least 20,000 Indian youth in tourism-relevant skills.
- **Duration:** 3 years.
- **Geographical Focus:** Training across 10 states including Assam, Gujarat, Himachal Pradesh, and West Bengal.
- **Roles Targeted:**
 - Tour Guides



- Customer Service Executives
- Naturalists
- Paragliding Tandem Pilots

GS III

5. Do AI agents foretell the next wave of autonomy or liability?

Source: The Hindu

Context: The next-generation AI assistants are called AI agents and are set to surpass their predecessors in ability as well as efficiency.

AI Assistants and AI Agents Overview

- **AI Assistants:** Software programs like Siri and Alexa, in use for over a decade.
- **AI Agents (AIAs):** Advanced AI assistants that offer enhanced capabilities and efficiency compared to earlier models.

Classification of AI Agents

- **Reactive Agents:**
 - First-generation AIAs.
 - Operate based on predefined rules.
 - Perform specific tasks; lack learning and adaptability.
- **Learning Agents:**
 - Employ machine learning for improved performance.
 - Capable of pattern detection and data analysis.
- **Cognitive Agents:**
 - Current generation of AIAs.
 - Possess reasoning, analysis, and planning capabilities.
 - Utilise natural language processing, computer vision, and deep learning.
 - Operate autonomously and analyse data in real-time.
 - Examples: Managing warehouse operations, autonomous vehicles, and financial planning.

Capabilities and Integration

- **Internet of Things (IoT) Integration:** Cognitive AIAs can connect with IoT for real-time data collection and analysis.
- **Personalization:**
 - AIAs can tailor their responses based on user preferences.
 - **Examples:** Planning trips by analysing user data, managing warehouse logistics.

Challenges and Risks

- **Privacy and Security:**
 - Extensive data handling raises privacy concerns.
 - Necessity for robust data protection measures by developers and service providers.
- **Accountability and Liability:**
 - **Legal and Ethical Concerns:**
 - Liability for AIAs often falls on their creators or service providers.
 - Example: A case where an airline was held liable for misleading information provided by a chatbot.
 - **Scholarly Perspectives:**
 - Companies should bear the costs of risks associated with AI.



- Programmers should share responsibility for AIAs' errors.
- AIAs should not be expected to develop human-like morals independently.
- **Regulation and Oversight:**
 - Continuous monitoring is required to prevent manipulation and harm.
 - Legal recognition of AI's personhood is lacking; liability usually lies with developers or service providers.
 - There is a need for nuanced regulation to address responsibility and liability in AI-intensive sectors.

Conclusion

- **Regulation of AIAs:**
 - Must be integrated with broader AI regulation issues.
 - A nuanced approach is necessary for addressing responsibility and liability in AI-intensive industries.

6. Russia attacks Kharkiv with Grom-E1 missile-bomb for first time: Details

Source: The Hindu

Context: Russian troops recently hit Kharkiv, Ukraine, with a Grom-E1 hybrid missile.

Grom-E1 Missile: Key Points

- The Grom-E1 is a modern missile developed by Russia, based on the Soviet-era Kh-38 air-to-surface missile.
- It was first introduced in 2018.
- The missile integrates features of both traditional missiles and aerial bombs.

Features:

- **Range:** Maximum range of 120 km (75 miles).
- **Warhead:**
 - Equipped with a high-explosive modular warhead with a contact detonator.
 - Available in a variant with a thermobaric design for high-altitude detonation.
- **Specifications:**
 - Weight: 594 kg (1,310 pounds).
 - Warhead Weight: 315 kg (694 pounds).
- **Performance:**
 - Effective range varies with altitude and launch speed.
 - Maximum range (120 km) achieved when dropped from 12 km (7.5 miles) altitude at 1,600 km/h (994 mph).
 - Range decreases to about 35 km when launched from 5 km altitude.
- **Deployment:**
 - Can be used by various Russian aircraft including MiG-35, Su-34, Su-35, Su-57, and certain helicopters.



7. Safe Harbour Provision for Social Media

Source: Indian Express

Context: French police recently arrested the CEO of Telegram near Paris, reflecting increased scrutiny of tech executives.

Key Points on Recent Developments in Tech Accountability

- **Charges Against Telegram:**
 - Allegations that Telegram facilitated the distribution of content related to drug trafficking, child pornography, violent propaganda, and organised crime.
 - Accusations of Telegram's insufficient cooperation with law enforcement to control objectionable content.
- **Safe Harbour Rules:**
 - **Purpose:** Social media platforms are generally not held legally liable for user-generated content if they act to remove or address flagged content.
 - **Objective:** Supports free speech and limits preemptive content control responsibilities for platforms.
- **Legislation:**
 - **United States:** Section 230 of the Communications Decency Act provides safe harbour protection to platforms from liability for user content.
 - **India:** Section 79 of the Information Technology Act, 2000 offers similar protections.
 - **Information Technology Rules, 2021:** Mandate social media companies with over 5 million users to appoint a Chief Compliance Officer, who can be criminally liable for non-compliance with takedown requests or other regulations.

8. FM approves 'Navratna' status for four CPSEs

Source: Business Standard

Context: The government has recently elevated Railtel Corporation of India, Solar Energy Corporation of India, SJVN, and NHPC to 'Navratna' status, raising the total number of Navratna CPSEs in India to 25.

Recent Upgradation of Central Public Sector Enterprises (CPSEs) to Navratna Status

- **Recent Development:** The government has recently elevated four Central Public Sector Enterprises (CPSEs) to 'Navratna' status. **These include:**
 - Railtel Corporation of India
 - Solar Energy Corporation of India
 - SJVN (Satluj Jal Vidyut Nigam Limited)
 - NHPC (National Hydroelectric Power Corporation)
 - This brings the total number of Navratna CPSEs in India to 25.
- **Objective of the Navratna Scheme:**
 - Initiated in 1997, the Navratna scheme is designed to identify and support CPSEs that have significant potential to become global leaders.
 - The scheme awards Navratna status to enterprises previously categorised as 'Miniratna' category I, based on their outstanding financial and market performance.
- **Granting Authority:**
 - The Department of Public Enterprises (DPE), under the Ministry of Finance, is responsible for conferring Navratna status.
- **Benefits of Navratna Status:**



- Enhanced financial and operational autonomy.
- Ability to invest up to ₹1,000 crore or 15% of their net worth in a single project without requiring prior government approval.
- Freedom to establish joint ventures, form alliances, and create subsidiaries internationally.

Editorial, Ideas and Opinions

9. Dealings at a China-Africa forum that India must track

Source: The Hindu

Context: The 9th FOCAC will be held in Beijing from September 4-6, 2024, focusing on Africa's challenges such as inflation, debt, currency issues, political instability, and geopolitical conflicts.

Ninth Forum on China-Africa Cooperation (FOCAC) – Key Points

- **African Concerns:**
 - The summit follows a period of 'summit fatigue' due to recent Africa+1 summits with various countries.
 - There is a call for a more focused approach, potentially involving fewer leaders to streamline discussions.
- **African Priorities:**
 - **Economic Goals:**
 - Progress on China's \$300 billion import target from Africa between 2022-24 has been modest.
 - Africa aims to enhance agricultural processing and improve value addition in sectors like green energy and industrial development.
 - **Debt Management:**
 - China has provided around \$170 billion in loans to Africa (2000-2022), but it is not the main creditor.
 - Debt sustainability issues and transparency concerns persist, with China unlikely to offer widespread debt forgiveness.
- **Lessons for India:**
 - **Engagement Continuity:**
 - India should prioritise regular engagement with Africa, potentially through the India-Africa Forum Summit and Track 1.5 Dialogues.
 - **Value Addition:**
 - India can support African industrialization and integration into global value chains by investing in agriculture, pharmaceuticals, and manufacturing.
 - **Private Sector Involvement:**
 - Encourage private sector participation and explore innovative financing solutions like public-private partnerships.
 - **Technology Use:**
 - Leverage India's digital technologies, such as UPI and RuPay, to enhance financial and technological connectivity with Africa.
 - Promote currency-neutral transactions to reduce forex risks for African nations.



- **Strategic Outlook:**

- African nations are increasingly taking control of their strategic initiatives and rebranding themselves as investment destinations. Observing their negotiations with China offers valuable insights for India's future engagement strategies.

In Brief

10. Centre constitutes 23rd Law Commission

Source: The Hindu

Context: The Centre notified the constitution of the 23rd Law Commission for a period of three years.

Law Commission:

- **Nature:**
 - **Non-statutory body** constituted by the **Union government**.
 - Functions as an **advisory body to the Ministry of Law and Justice**.
 - **Not defined under the Indian Constitution**; constituted under **Article 39A**.
- **Purpose:**
 - Ensures laws are just and fair.
 - Works towards proper implementation of laws.
 - Functions as an ad hoc body, established for specific purposes.

History

- **Pre-Independence:**
 - **First Law Commission:**
 - Established in 1834 by the British Government in India.
 - Created under the Charter Act of 1833.
 - Chaired by Lord Macaulay.
- **Post-Independence:**
 - **First Independent Indian Law Commission:** Established in 1955.
 - **Number of Law Commissions:** 23 Law Commissions since independence.



Daily Quiz

Q1. Which of the following statements is/are correct about the Law Commission of India?

1. The Law Commission of India is a statutory body defined under the Indian Constitution.
2. The first Law Commission of independent India was established in 1955 and was headed by M.C. Setalvad.
3. The Law Commission of India operates as an advisory body to the Ministry of Home Affairs.

Which of the following options given is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None of the above

Q2. Which of the following statements is/are correct about the Tourism and Hospitality Skill Council (THSC)?

1. THSC is a statutory body established under the Indian Constitution.
2. THSC is promoted by the Confederation of Indian Industry (CII).
3. THSC has recently signed an MoU with Visa to upskill 20,000 Indian youth over a 3-year period.

Which of the following options given is/are correct?

- A. 1 and 2
- B. 2 and 3
- C. 1 and 3
- D. 1, 2, and 3

Q3. Which of the following regions is NOT a major producer of cocoa?

- A. Ivory Coast
- B. Ghana
- C. Brazil
- D. Nigeria

Q4. Which of the following is true about the Grom-E1 missile's performance?

1. The missile has a maximum range of 120 km when launched from an altitude of 5 km.
2. The missile's range decreases significantly when launched from lower altitudes.

Which of the following options given is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Q5. Which of the following are common applications of Artificial Intelligence (AI)?

1. Predictive maintenance in manufacturing
2. Real-time language translation
3. Climate change modelling
4. Crop rotation planning

Which of the following options given is/are correct?

- A. 1 and 2 only
- B. 1, 2, and 3 only
- C. 2, 3, and 4 only
- D. 1, 2, 3, and 4

Q6. Which of the following are components of the Digital Public Infrastructure (DPI) under the Digital Agriculture Mission?

1. AgriStack
2. Krishi Decision Support System (DSS)
3. Soil Profile Maps
4. National Digital Crop Registry

Which of the following options given is/are correct?

- A. 1 and 2 only
- B. 1, 2, and 3 only
- C. 2 and 4 only
- D. 1, 2, 3, and 4



Q7. What are the primary functions of the Krishi Decision Support System (DSS) in the Digital Agriculture Mission?

1. Crop map generation
2. Digital identity creation for farmers
3. Drought and flood monitoring
4. Recording details of crops planted

Which of the following options given is/are correct?

- A. 1 and 3 only
- B. 2 and 4 only
- C. 1, 2, and 3 only
- D. 1, 3, and 4 only

Q8. Which of the following statements correctly differentiates Directive Principles of State Policy (DPSP) from Fundamental Rights (FR)?

1. DPSP are legally enforceable, whereas FR are not.
2. FR are fundamental rights guaranteed by the Constitution, while DPSP are guidelines for policy-making.
3. Both DPSP and FR are enforceable by the judiciary.
4. FR can be suspended during a national emergency, but DPSP cannot.

Which of the following options given is/are correct?

- A. 1 and 3
- B. 2 and 4

- C. 2 only
- D. 1 and 4

Q9. Which of the following is a common forum where India and China both participate?

1. G20 Summit
2. Shanghai Cooperation Organisation (SCO)
3. ASEAN Regional Forum (ARF)
4. Commonwealth of Nations

Which of the following options given is/are correct?

- A. 1 and 2
- B. 2 and 3
- C. 1 and 3
- D. 3 and 4

Q10. Which of the following Central Public Sector Enterprises (CPSEs) was recently upgraded to 'Navratna' status?

1. Indian Oil Corporation
2. Solar Energy Corporation of India
3. National Thermal Power Corporation
4. Bharat Heavy Electricals Limited

Which of the following options given is/are correct?

- A. 1 and 2
- B. 2 only
- C. 3 and 4
- D. 1, 2, and 3



Solutions

1. Correct Answer is A

Explanation:

- **Statement 1: Incorrect.** The Law Commission of India is a non-statutory body and is not defined under the Indian Constitution. It is constituted under Article 39A, but this article pertains to the provision of legal aid and does not establish the Law Commission as a statutory body.
- **Statement 2: Correct.** The first Law Commission of independent India was indeed established in 1955 and was headed by M.C. Setalvad.
- **Statement 3: Incorrect.** The Law Commission of India operates as an advisory body to the Ministry of Law and Justice, not the Ministry of Home Affairs.

Thus, only the second statement is correct.

2. Correct Answer is B

Explanation:

- **Statement 1: Incorrect.** THSC is a not-for-profit organization under the Societies Registration Act, 1860, not a statutory body defined under the Indian Constitution.
- **Statement 2: Correct.** THSC is promoted by the Confederation of Indian Industry (CII).
- **Statement 3: Correct.** THSC has signed an MoU with Visa to upskill 20,000 Indian youth over a 3-year period.

Thus, statements 2 and 3 are correct.

3. Correct Answer is C

Explanation: The major cocoa producers listed are Ivory Coast, Ghana, Nigeria, and Cameroon. Brazil is not listed among the top producers in the context given.

4. Correct Answer is B

Explanation: The Grom-E1 missile's maximum range of 120 km is achieved when dropped from an altitude of 12 km, and its range decreases to about 35 km when launched from 5 km altitude.

5. Correct Answer is B

Explanation: AI is commonly used in predictive maintenance for manufacturing, real-time language translation, and climate change modelling. While AI can assist in crop management, crop rotation planning is not typically considered a primary application of AI.

6. Correct Answer is B

Explanation: The components of DPI under the Digital Agriculture Mission are AgriStack, Krishi Decision Support System (DSS), and Soil Profile Maps. There is no component called the National Digital Crop Registry.

7. Correct Answer is A

Explanation: The Krishi Decision Support System (DSS) is designed for crop map generation and monitoring droughts and floods. It does not involve creating digital identities for farmers or recording crop details, which are handled by other components of the mission.

8. Correct Answer is B

Explanation: Fundamental Rights (FR) are enforceable by the judiciary, while Directive Principles of State Policy (DPSP) are guidelines and not legally enforceable. During a national emergency, Fundamental Rights can be suspended, but DPSP are not suspended.



9. Correct Answer is B

Explanation: India and China both participate in the Shanghai Cooperation Organisation (SCO) and the ASEAN Regional Forum (ARF). The G20 Summit involves both countries but is not a forum exclusively common to them. The Commonwealth of Nations does not include China.

10. Correct Answer is B

Explanation: The Solar Energy Corporation of India is one of the CPSEs recently elevated to 'Navratna' status. The other options listed are not among the recent additions.





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