CORPORATE OFFICE

Delhi Office

706 Ground Floor Dr. Mukherjee Nagar Near Batra Cinema Delhi – 110009

Noida Office

Basement C-32 Noida Sector-2 Uttar Pradesh 201301





website: www.yojnaias.com Contact No.: +91 8595390705

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PUSA-44

This article covers "Daily Current Affairs" and the topic details "PUSA-44". This topic has relevance in the "Economy" section of the UPSC CSE exam.

For Prelims:

What is PUSA 44?

For Mains:

GS2: Economy

Why in the news?

Punjab's Chief Minister has recently announced the decision to ban the cultivation of the PUSA-44 paddy variety, effective from the next agricultural year.

About PUSA-44 Paddy Variety:

- PUSA-44 is a paddy variety developed by the Indian Council of Agricultural Research (ICAR) in Delhi in 1993.
- Over the years, it gained immense popularity among farmers in Punjab, covering approximately 70% to 80% of the total paddy cultivation area by the end of the 2010s.
- However, in 2018, the Punjab government reduced its cultivation area to 18% of the total paddy acreage.
- Yet, last year, it saw a rebound, accounting for 22% of the total paddy cultivation area.
- Farmers cultivating PUSA-44 have claimed **significantly higher yields** than other paddy varieties.
- They report yields ranging from 85 to 100 mann (equivalent to **34 to 40 quintals**) per acre, while other varieties typically yield an average of 28 to 30 quintals per acre.

Reasons Behind the Ban:

The decision to ban the cultivation of PUSA-44 is primarily driven by several pressing concerns:

- **Long Duration:** PUSA-44 is a long-duration variety, taking approximately 160 days to mature. This extended growth period is about 35 to 40 days longer than other paddy varieties, necessitating 5 to 6 additional irrigation cycles.
- **Groundwater Depletion:** Punjab is grappling with severe groundwater depletion. The government aims to conserve approximately one month's worth of irrigation water by promoting short-duration paddy varieties.
- **Continuous Expansion:** The cultivation area dedicated to paddy, already a water-intensive crop, continues to expand in Punjab.

- Dark Zones: A significant portion of the state's agricultural development blocks have been classified as 'dark zones,' indicating a higher rate of groundwater depletion than recharge.
- **Stubble Burning:** The cultivation of PUSA-44 exacerbates the longstanding issue of stubble burning in Punjab, contributing to severe air pollution in northern India during the winter months.
- Stubble Generation: PUSA varieties, including PUSA-44, generate around 2% more stubble than shorter-duration varieties, which poses a significant concern when cultivated extensively.

About Indian Council of Agricultural Research (ICAR):

- The ICAR was established in 1930 and served as the apex body responsible for coordinating, guiding, and managing research and education in the field of agriculture throughout India.
- It operates under the Department of Agricultural Research and Education within the Ministry of Agriculture and Farmers Welfare.
- ICAR is headquartered in New Delhi.

Key achievements of ICAR:

- Developed and released high-yielding varieties of seeds for major crops such as rice, wheat, maize, sorghum, and pearl millet.
- Improved crop production technologies such as irrigation, fertilisation, and pest management.
- Developed new breeds of livestock, such as cows, buffaloes, sheep, and goats, with high milk and meat production potential.
- Played a major role in the Green Revolution, which helped India to achieve self-sufficiency in food production.
- Established a network of 101 research institutes, 71 agricultural universities, and 623 KVKs spread across the country.
- Provides funding to agricultural universities and KVKs for conducting research and education programs.
- Offers scholarships and fellowships to students pursuing higher education in agriculture and allied sciences.

Sources:

Why Punjab wants to ban the cultivation of PUSA-44 paddy variety | **Explained News - The Indian Express**

naias.com **Q1.** Which of the following options correctly describes PUSA-44?

- (a) A capsule made from fungi strains that speed up the decomposition of paddy straw
- (b) A new variety of Rice recently developed by International Rice Research Institute
- (c) A paddy variety developed by the Indian Council of Agricultural Research (ICAR) in 1990s
- (d) None of the above

Answer: (c)

O2. Consider the following:

- 1. Takes a long time to mature
- 2. Generates more stubble compared to other varieties
- 3. Gives more yield compared to others
- 4. Leads to groundwater depletion

How many of the above are reasons to ban the cultivation of PUSA 44?

(a) Only one

(b) Only two

(c) Only three

(d) All Four

Answer: (c)

Q3. Analyse this issue's socio-economic, environmental, and agricultural aspects and propose sustainable strategies to address the pressing concerns regarding the issue of groundwater depletion in Punjab-Haryana Region.

Gauray Nikumbh

DOMESTIC CARD SCHEME AGREEMENT

This article covers "Daily Current Affairs" and the topic details "Domestic Card Scheme Agreement". This topic has relevance in the Economy section of the UPSC CSE exam. जना है तो सफलता

For Prelims:

About National Payments Corporation of India (NPCI)?

About RuPay?

For Mains:

GS 3: Economy

Overview of the Agreement?

Why in the news?

International Payments Limited (NIPL) has recently forged a strategic partnership with Al Etihad Payments (AEP) to collaborate on the implementation of a Domestic Card Scheme (DCS) in the United Arab Emirates (UAE).

Overview of the Agreement:

- Under this agreement, National Payments Corporation of India International (NIPL) and the UAE's Authority of Electronic Payment Systems (AEP) will collaborate to develop, implement, and operate the United Arab Emirates' (UAE) national domestic card scheme (DCS).
- The primary objective of the DCS is to facilitate the expansion of e-commerce and digital transactions within the UAE. Additionally, it aims to enhance financial inclusion, support the UAE's digitalization initiatives, diversify payment options, reduce transaction costs, and bolster the UAE's global competitiveness in the payments sector.
- This partnership aligns seamlessly with NIPL's mission, which is to leverage its knowledge and expertise to assist other nations in establishing efficient and secure payment systems.
- The DCS solution is founded on several key principles, including sovereignty, rapid market entry, innovation, digitalization, and strategic independence. NIPL's comprehensive DCS solution encompasses a RuPay card stack and supplementary services such as fraud monitoring and analytics.

• Moreover, NIPL will play a pivotal role in assisting AEP in formulating the operational regulations for their domestic card scheme.

NOTE: NIPL is a wholly-owned subsidiary of the National Payments Corporation of India (NPCI).

About National Payments Corporation of India (NPCI)

- The National Payments Corporation of India (NPCI) serves as the central entity responsible for managing and overseeing retail payment and settlement systems in India. This vital organization was established as a collaborative effort between the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) under the framework of the Payment and Settlement Systems Act of 2007.
- Recognizing the indispensable role that NPCI plays in the Indian financial landscape, it was established as a "Not for Profit" Company in accordance with the provisions of Section 25 of the Companies Act, 1956 (now Section 8 of the Companies Act, 2013). NPCI operates with the primary objective of furnishing essential infrastructure to the entire banking sector in India, supporting both physical and electronic payment and settlement systems. Its mission is to create a robust and secure Payment & Settlement Infrastructure in the country, ensuring the efficient functioning of these critical financial processes.

About RuPay:

- RuPay stands as an indigenous, highly secure, and widely accepted card payment network originating from India. RuPay cards are versatile, offering debit, credit, and prepaid functionalities.
- As of the present, over 750 million RuPay cards are in circulation, representing over 60% of all cards issued in India. Remarkably, every second Indian possesses a RuPay card.
- These cards are distributed across the entire spectrum of banking institutions, including public sector, private sector, and smaller banks.

Source:

https://www.msn.com/en-in/news/world/npci-to-sign-pact-with-al-etihad-payments/ar-AA1hGPSY

Q.1 Consider the following statements regarding the National Payments Corporation of India (NPCI):

- 1. NPCI is a for-profit organization established by the Indian government to oversee retail payments.
- 2. The organization was established through a joint initiative of the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA).

Which of the statements given above is/are correct?

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

ANSWER: C

Q.2 Consider the following statements regarding RuPay cards:

- 1. RuPay cards are limited to debit and credit propositions, excluding prepaid cards.
- 2. RuPay cards are only issued by public sector banks in India.

Which of the statements given above is/are correct?

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

ANSWER: D

Q.3 Examine the role and significance of indigenous payment networks, such as RuPay, within the Indian financial ecosystem. Assess the impact of these systems on financial inclusion, digital transformation, and the overall security of financial transactions in the country.

