

ECONOMY**e-RUPI: Voucher Based Digital Payment System**

The Indian government is going to launch an electronic voucher based digital payment system e-RUPI. There are already many countries using the voucher system for example the US, Colombia, Chile, Sweden, Hong Kong, etc.

Key Points**e-RUPI:**

- It is a cashless and contactless method for digital payment. It is a Quick Response (QR) code or SMS string-based e-voucher, which is delivered to the mobile of the users.
- The users will be able to redeem the voucher without needing a card, digital payments app, or internet banking access, at the service provider.
- It connects the sponsors of the services with the beneficiaries and service providers in a digital mode without any physical interface.
- The mechanism also ensures that the payment to the service provider is made only after the transaction is completed.
- The system is pre-paid in nature and hence, assures timely payment to the service provider without the involvement of any intermediary.

Different from Virtual Currency: In effect, e-RUPI is still backed by the existing Indian rupee as the underlying asset and specificity of its purpose makes it different to a virtual currency and puts it closer to a voucher-based payment system.

Issuing Entities & Beneficiary Identification:

- The one-time payment mechanism has been developed by the National Payments Corporation of India on its Unified Payments Interface (UPI) platform, in collaboration with the Department of Financial Services, Ministry of Health & Family Welfare, and National Health Authority.
- It has boarded banks that will be the issuing entities. Any corporate or government agency will have to approach the partner banks, which are both private and public-sector lenders, with the details of specific persons and the purpose for which payments have to be made.
- The beneficiaries will be identified using their mobile number and a voucher allocated by a bank to the service provider in the name of a given person would only be delivered to that person.

Uses:

- **Government Sector:** It is expected to ensure a leak-proof delivery of welfare services and can also be used for delivering services under schemes meant for providing drugs and nutritional support under Mother and Child welfare schemes, drugs & diagnostics under schemes like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, fertiliser subsidies etc.
- **Private Sector:** Even the private sector can leverage these digital vouchers as part of their employee welfare and Corporate Social Responsibility (CSR) programmes.

Significance:

- The government is already working on developing a Central Bank Digital Currency and the launch of e-RUPI could potentially highlight the gaps in digital payments infrastructure that will be necessary for the success of the future digital currency.

Future of Digital Currency in India: According to the Reserve Bank of India (RBI), there are at least four reasons why digital currencies are expected to do well in India:

- **Increasing Penetration:** There is increasing penetration of digital payments in the country that exists alongside sustained interest in cash usage, especially for small value transactions.
- **High Currency to GDP Ratio:** India's high currency to Gross Domestic Product (GDP) ratio holds out another benefit of CBDCs. Cash-to-GDP Ratio or Currency in Circulation (CIC) to GDP Ratio or simply currency-to-GDP ratio shows the value of cash in circulation as a ratio of GDP.
- **Spread of Virtual Currencies:** The spread of private virtual currencies such as Bitcoin and Ethereum may be yet another reason why CBDCs become important from the point of view of the central bank.
- **Will Act as a Cushion:** Central bank digital currencies might also cushion the general public in an environment of volatile private virtual currencies.

INTERNATIONAL RELATION**Provincial Status to Gilgit-Baltistan: Pakistan**

Recently, it has been reported that, Pakistani authorities have finalised a law (26th Constitutional Amendment Bill), to award provisional provincial status to strategically located Gilgit-Baltistan.

Key Points**About Gilgit-Baltistan:**

- Gilgit-Baltistan is one of the disputed territories of India.
- It is a chunk of high-altitude territory located on the north western corner of the Union Territory of Ladakh.
- It is located strategically as it borders Pakistan, Afghanistan and China.

Background of Gilgit-Baltistan Dispute:

- The region is claimed by India as part of the erstwhile princely state of Jammu & Kashmir as it existed in 1947 at its accession to India. Maharaja Hari Singh, the last Dogra ruler of J&K, had signed the Instrument of Accession with India on 26th October 1947.
- However, it has been under Pakistan's control since 4th November, 1947, following the invasion of Kashmir by tribal militias and the Pakistan army.
- Following this invasion, India moved to the United Nations Security Council to raise the issue of Pakistan's invasion, on 1st January 1948.
- **The UN Security Council passed a resolution:** Calling for Pakistan to withdraw from all of Jammu and Kashmir and then India had to reduce its forces to the minimum level following which a plebiscite would be held to ascertain people's wishes.
- However, no withdrawal was ever carried out and it remains a point of contention between two countries.

Current Status:

- Gilgit-Baltistan is an autonomous region now and after the bill is passed, it will become the 5th province of the country. Currently, Pakistan has four provinces namely Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh.
- Presently, it has been ruled mostly by executive orders.
- Until 2009, the region was simply called Northern Areas.
- It got its present name only with the Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009, which replaced the Northern Areas Legislative Council with the Legislative Assembly.

Reasons for Making Gilgit-Baltistan a Province:

- Gilgit-Baltistan is the northernmost territory administered by Pakistan. It is Pakistan's only territorial frontier, and thus a land route, with China.
 1. The Gilgit-Baltistan region is at the centre of the USD 65 billion China Pakistan Economic Corridor (CPEC) Infrastructure development plan.
 2. The CPEC has made the region vital for both countries. The CPEC, which connects Gwadar Port in Pakistan's Balochistan with China's Xinjiang province, is the flagship project of China's ambitious multi-billion-dollar Belt and Road Initiative (BRI).
- Some experts on India-Pakistan relations also assert that Pakistan's decision might have come from India's reassertion of its claims after the 5th August, 2019 reorganisation of Jammu & Kashmir.

India's Stand:

- India maintains the Government of Pakistan or its judiciary has no locus standi on territories illegally and forcibly occupied by it.
- India has clearly conveyed to Pakistan that the entire Union Territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, are an integral part of the country by virtue of its fully legal and irrevocable accession.
- India has protested to China over the CPEC as it is being laid through Pakistan-occupied Kashmir.

2. India Assumes UNSC Presidency

Recently, India assumed the presidency of the United Nations Security Council (UNSC) for the month of August 2021. This will be the country's first presidency during its 2021-22 tenure as a non-permanent member of the Security Council. India began its two-year tenure as a non-permanent member of the UNSC in January 2021. This is India's eighth term on the UNSC.

Key Points

India's UNSC Presidency:

- India will decide the UN body's agenda for the month and coordinate important meetings on a range of issues.
- It is going to organise key events in three major areas of maritime security, peacekeeping and counter-terrorism.
- 1. The Security Council will also have on its agenda several important meetings including Syria, Iraq, Somalia, Yemen, and the Middle East.
- 2. The Security Council will also be adopting important resolutions on Somalia, Mali, & United Nations Interim Force in Lebanon.
- Prime Minister (PM) Narendra Modi will be the first Indian PM to preside over a meeting of the UNSC. The last time an Indian PM was engaged in this effort was the then PM PV Narasimha Rao in 1992 when he attended a UNSC meeting.

Support from France & Russia:

- France has stated that it is dedicated to collaborating with India over strategic problems such as maritime security, peacekeeping, and counter-terrorism.
- Russia welcomed the country gaining the UNSC presidency saying it is very impressed by India's agenda, which embraces critical global concerns.

Challenges for India at UNSC:

- **China Challenge:**
- 1. India is entering the UNSC at a time when Beijing is asserting itself at the global stage much more vigorously than ever. It heads at least six UN organisations and has challenged the global rules.
- 2. China's aggressive behaviour in the Indo-Pacific as well as the India-China border has been visible in all of 2020.
- 3. China has tried to raise the issue of Kashmir at the UNSC.
- **Post Covid World Order:** As the global economy is in shambles with various countries facing recession and health emergencies.
- **Balancing USA and Russia and Unstable West Asia:**
- 1. With the situation deteriorating between the US and Russia and increasing tensions between US and Iran, it will be a tough situation to handle for India.
- 2. India needs to uphold rule based world order with due respect to human rights ensuring the national interest.

ENVIRONMENT & BIODIVERSITY

Ozone Levels Exceeding Permitted Levels

Recently, a Centre for Science and Environment (CSE) study has found that ozone levels are exceeding the permitted levels even during winter in Delhi-NCR, making the smog more "toxic". Despite the pandemic and lockdowns, more days and locations witnessed higher and longer duration of ozone spells. CSE is a public interest research and advocacy organisation based in New Delhi.

Key Points

Now a Year-round Menace:

- Contrary to the notion that Ozone is a summer phenomenon, it has been found that gas has emerged as an equally strong concern during winter as well.

Occasional Exceedance:

- The city-wide average largely remains within the standard with just occasional exceedance. But the 'good' category days have fallen to 115 days in 2020, which is 24 days less than in 2019 in Delhi.
- A location-wise analysis shows that exceeding the eight-hour average standard is quite widely distributed in the city.
- Even smaller towns of NCR, including Bulandshahr in Uttar Pradesh and Bhiwani in Haryana, appeared in the top 20 list of ozone-afflicted towns and cities. South Delhi locations dominate the list with four mentions in top 10.

Suggestions:

- The study shows that the transport sector is the highest contributor to NOx and VOCs, hence there is a need to take strong action on these high emitters of NOx and VOCs including vehicles and other industries.

- Ozone levels are found to be exceeding the mark of 100 $\mu\text{g}/\text{m}^3$ even during winter and are highly sensitive to solar radiation. Reducing the gases will also reduce secondary particles formed from these gases.
- Ozone is now a round-the-year problem that is urgent and the situation demands refinement of a clean air action plan to add strategies for ozone mitigation, with stronger action on vehicles, industry and waste burning.
- It is important to calibrate AQI (Air Quality Index) to report the most polluted eight-hour average of the day, ideally making it an hourly alert. Also the current practice of only city averaging needs to change to include alerts based on the worst affected area as is the global good practice.

Government Efforts:

- Development of the National AQI for public information under the aegis of the Central Pollution Control Board (CPCB). AQI has been developed for eight pollutants viz. PM_{2.5}, PM₁₀, Ammonia, Lead, nitrogen oxides, sulfur dioxide, ozone, and carbon monoxide. The introduction of BS-VI vehicles, push for electric vehicles (EVs), Odd-Even as an emergency measure and construction of the Eastern and Western Peripheral Expressways to reduce vehicular pollution.
- Implementation of the Graded Response Action Plan (GRAP) to tackle the rising pollution in the Capital. It includes measures like shutting down thermal power plants and a ban on construction activities.
- Launch of the National Clean Air Programme (NCAP): In order to deal with the issue of air pollution in a comprehensive manner at national level, the government came up with the National Clean Air Programme (NCAP) with the goal to meet average ambient air quality standards at all locations in the country.

SCIENCE & TECHNOLOGY**'Ashwagandha' in Covid-19 Recovery**

Recently, India and the UK have collaborated to conduct a study on 'Ashwagandha (AG)' for promoting recovery from Covid-19. After the trial's success, 'Ashwagandha' will be a proven medicinal treatment to prevent infection and be recognised by the scientific community worldwide. This is the first time that the Ministry of Ayush has collaborated with a foreign institution to investigate its efficacy on Covid-19 patients.

Key Points**About Ashwagandha:**

- Ashwagandha (*Withania somnifera*) is a medicinal herb. It is reputed as an immunity enhancer.
 - It is classified as an adaptogen, which means that it can help the body to manage stress.
 - Ashwagandha also boosts brain function and lowers blood sugar and helps fight symptoms of anxiety and depression.
 - Ashwagandha has shown clinical success in treating both acute and chronic rheumatoid arthritis.
1. Rheumatoid arthritis (RA) is an autoimmune disease that can cause joint pain and damage throughout your body.
 2. An autoimmune disease is a condition in which your immune system mistakenly attacks your body.

Potential of Ashwagandha:

- The study suggests Ashwagandha as a potential therapeutic candidate for alleviating the long-term symptoms of Covid-19.
- Recently, a number of randomised placebo-controlled trials of AG in humans in India had demonstrated its efficacy in reducing anxiety and stress, improving muscle strength and reducing symptoms of fatigue in patients treated for chronic conditions. A randomized controlled trial is a prospective, comparative, quantitative study/experiment performed under controlled conditions with random allocation of interventions to comparison groups.

Clinical Trials:

- Clinical trials in humans are classified into three phases: phase I, phase II and phase III and in certain countries formal regulatory approval is required to undertake any of these studies.
1. The phase I clinical studies carry out initial testing of a vaccine in small numbers (e.g. 20) of healthy adults, to test the properties of a vaccine, its tolerability, and, if appropriate, clinical

laboratory and pharmacological parameters. Phase I studies are primarily concerned with safety.

2. Phase II studies involve larger numbers of subjects and are intended to provide preliminary information about a vaccine's ability to produce its desired effect (usually immunogenicity) in the target population and its general safety.
3. Extensive phase III trials are required to fully assess the protective efficacy and safety of a vaccine. The phase III clinical trial is the pivotal study on which the decision on whether to grant the licence is based and sufficient data have to be obtained to demonstrate that a new product is safe and effective for the purpose intended.

IMPORTANT FACTS FOR PRELIM

Pangolin

Recently, a pangolin was rescued by a team from Noida and handed over to the forest department.

Key Points

About:

- The pangolin, also called scaly anteater, is an elongated, armour-plated insectivore mammal.
- It uses these scales as armour to defend itself against predators by rolling into a ball when threatened.
- Also, a pangolin's long claws help it to dig the ground for termites, which is its staple food.

Species of Pangolin:

- Seven species of pangolin are found across the world, of which, two are found in India, namely Indian pangolin (*Manis crassicaudata*) and Chinese pangolin (*Manis pentadactyla*).
- The Indian Pangolin is found throughout the country south of the Himalayas, excluding the north-eastern region while the Chinese Pangolin ranges through Assam and the eastern Himalayas.
- The Chinese pangolin is distinguished from other Asian pangolins by its almost helmeted appearance, smaller scales than the Indian pangolin.

Habitat:

- It is adaptable to a wide range of habitats including primary and secondary tropical forests, limestone and bamboo forests, grasslands and agricultural fields.

Threats:

- Once known to be found in large numbers, its population is rapidly declining in its range due to habitat loss and rampant poaching for its skin, scales, and meat.
- It is a highly trafficked mammal; due to their huge demand for medicinal purposes, pangolins are smuggled through roads and rails and sent to China.

Protection Status:

- As per International Union for Conservation of Nature (IUCN), the pangolin is part of the "red list". While the Indian pangolin is listed as "endangered" and the Chinese pangolin has been listed as "critically endangered".
 - All pangolin species are listed in Convention on International Trade in Endangered Species (CITES) Appendix I.
 - In India, pangolins, both Indian and Chinese, are protected under Schedule 1 of the Wildlife (Protection) Act 1972.
1. Therefore, hunting, trade or any other form of utilisation of the species or their body parts and derivatives is banned.
 2. In India, hunting and poaching can invite prison time up to 7 years since it involves maximum protection under the section of the Wildlife Act.

2. Delhi-Alwar RRTS Project

The Supreme Court-Appointed Committee has permitted construction of a stretch of the proposed Delhi-Alwar RRTS (Rapid Rail transit system) corridor under the Aravalli Biodiversity Park and the extended ridge area.

Key Points

Committee's Report:

- The committee observed that the project is in public interest and since the proposed rail corridor will run 20 metres below the ground, trees will not have to be cut.
- There will be no construction on the surface in the Morphological Ridge area.

1. A ridge or a mountain ridge is a geographical feature consisting of a chain of mountains or hills that form a continuous elevated crest for some distance.
2. The Aravalli ridge areas, which are essentially extensions of the Aravalli ranges and extend over 7,000 hectares in Delhi, are considered the lungs of the capital (Delhi).

Delhi-Alwar RRTS Corridor:

- It is a 164-km rapid rail corridor, which will be a mix of elevated tracks and tunnels. It is slated to be implemented in three phases.
- A 3.6-km stretch of the corridor is supposed to pass below the extended or ‘morphological’ ridge in South Delhi. 1.7-km of the 3.6-km stretch under consideration will pass below the Aravalli Biodiversity Park near Vasant Kunj, Delhi.

Significance of Corridor:

- **Travel Time:** It is expected to reduce travel time between these places to 117 minutes – a little less than two hours.
- **Air Quality:** It is expected to improve the air quality in Delhi/NCR (National Capital Region), because the share of public transport is expected to increase.
- **Ease in Road Traffic:** Road traffic congestion is expected to ease with a better transport network and the project is expected to address regional connectivity issues and develop an efficient multimodal transport system connecting Delhi-NCR with road, rail and air.

DAILY ANSWER WRITING PRACTICE

Qns. The recent tourist tragedy in Himachal Pradesh points to the importance of preserving ecology. Explain with suitable suggestions. (250 words)

Ans:

Introduction

The Himalayan mountains are one of the most sensitive as well as an important part of our environmental ecosystems. The mountains, due to its source to rivers can impact people even living far from it. In recent years due to rapid development, the ecosystem is undergoing existential threats. Being ecologically fragile, the region calls for special kinds of safeguards in order to preserve their sensitive character at a time of want of rapid development, and the need to face threats of climate change and imminent environmental damage.

Body

Background:

- The tragic death of nine tourists in a landslide in Kinnaur district of Himachal Pradesh is a pointer to the fragility of the ecology of the Himalayan States.
- Extraordinarily heavy rain hit Himachal Pradesh recently, leaving the hill slopes unstable and causing floods in built-up areas.
- The descending boulders from destabilised terrain, which crushed a bridge like a matchstick, are a source of worry for cautious local residents, and the visitors.
- The Himalayan ecosystem is vulnerable and susceptible to the impacts and consequences of changes on account of natural causes, climate change resulting from anthropogenic emissions and developmental paradigms of modern society.

Ecological fragilities of Himalayas:

- Uttarakhand is amid young and unstable mountains and is subject to intense rainfall.
- The 2013 Kedarnath floods and the flash floods that have swept through the Alakananda Valley earlier this week suggest that ham-handed development in the name of god, or otherwise, can come at an agonizing cost.
- For years’ geologists, glaciologists and climate experts have voiced their fears about an impending disaster due to climate change, rapid and indiscriminate construction activities, and the subsequent ecological destruction in the region.
- Experts also identified large-scale human settlements and expansion of agricultural activities leading to massive deforestation, as a possible trigger.
- The Hindu Kush Himalaya Assessment Report (2019) had pointed out that one-third of the Hindu Kush Himalaya’s glaciers would melt by 2100 even if all the commitments under the Paris Agreement were met.
- It also warned that any ecologically destructive activities would lead to more intensified disasters like landslides.

- Experts and activists have incessantly asked for scrutiny into the construction of hydroelectric power projects in Uttarakhand.
- An expert committee led by Dr. Ravi Chopra, instituted to assess the role of dams in exacerbating floods, provided hard evidence on how haphazard construction of dams was causing irreversible damage to the region.

Measures needed to control landslides are :-

Structural measures:

- Stopping Jhum cultivation.
- Store Excess water in catchments areas to reduce the fury of flash floods, recharge the ground water and improve the environment. Dig runoff collection ponds in the catchments.
- Grow fuel / fodder trees in all the common lands.
- Plantation in barren areas, especially on slopes, with grass cover is an important component of integrated watershed management programme.
- Grazing should be restricted. The grasses of industrial importance should also be planted so that there is some economic return to the farmers as well.
- Use the surface vegetative cover to protect the land from raindrop's beating action, bind the soil particles and decrease the velocity of flowing water.
- Construction of engineering structures like buttress beams, retaining walls, geogids, nailings, anchors to stabilise the slopes.

Non-structural measures:

1. Environmental Impact Assessment of the infrastructure projects before commencing the work.
2. Declaration of eco-sensitive zones where mining and other industrial activities are banned. Eco-tourism should be promoted.
3. Hazard mapping of the region to identify the most vulnerable zones and take measures to safeguard it.
4. Local Disaster Management force for quick relief and safety of the people affected by landslides.
5. Teaching people about landslides & ways to mitigate.
6. Constructing a permanent assessment team comprising scientists & geologists for better mitigation and adaptation techniques.
7. Involving the local people for sustainable development of Himalayas

Way forward:

- The need of the hour is to invest in long-term crisis response mechanisms and resilience solutions. A few immediate steps include: investing in resilience planning, especially in flood prevention and rapid response.
- Climate proofing the infrastructure such as by applying road stabilization technologies for fragile road networks and strengthening existing structures like bridges, culverts and tunnels. Strengthening embankments with adequate scientific know-how.
- Reassessing development of hydropower and other public infrastructure by EIA/SIA.
- Investing in a robust monitoring and early warning system.
- Establishing implementable policies and regulatory guidelines to restrict detrimental human activities, including responsible eco- and religious tourism policies.
- Investing in training and capacity building to educate and empower local communities to prevent and manage risks effectively.
- In a recent article in Nature, Maharaj K. Pandit, a Himalayan ecologist, says in recent years, the Himalayas have seen the highest rate of deforestation and land use changes.
- He suggests that the upper Himalayas should be converted into a nature reserve by an international agreement.
- He also says the possibility of a Himalayan River Commission involving all the headwater and downstream countries needs to be explored.

Conclusion:

- Himalayas are of vital importance to India in terms of climate, monsoon, water source and a natural barrier safeguarding the peninsula. The National Mission for Sustaining the Himalayan Ecosystem under NAPCC is a step ahead to address a variety of issues Himalayas is facing today.
- The time for wake-up calls is long behind us. India needs to urgently rise to the challenge by applying innovative and inclusive solutions that support nature and marginalized communities, to restore and rebuild a resilient future for Himalayas.

DAILY QUIZ

Q1. Consider the following statements about Chickenpox:

1. It is a highly contagious disease caused by the varicella-zoster virus.
2. It can be prevented by a vaccine.

Which of the given above statements is/are correct?

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

Q2. Consider the following statements about Mahila Kisan Sashaktikaran Pariyojana:

1. It is currently being run under National Mission for Sustainable Agriculture (NMSA).
2. It seeks to improve the present status of women in Agriculture.

Which of the given above statements is/are correct?

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

Q3. Consider the following statements:

1. The Arctic Science Ministerial meetings are intergovernmental events, hosted biennially by countries with an interest in Arctic research.
2. ASM3 is the 3rd Arctic Science Ministerial Co-hosted by India and Japan.

Which of the given above statements is/are correct?

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

Q4. Consider the following statements about Environment Pollution (Prevention and Control) Authority (EPCA):

1. It was constituted under section 3 of the Environment (Protection) Act, 1986.
2. It is mandated to enforce the Graded Response Action Plan (GRAP) in Delhi NCR as per the pollution levels.

Which of the given above statements is/are correct?

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

Q5. Consider the following statements:

1. The 12th edition of exercise INRA NAVY was held in the Baltic Sea.
2. INDRA NAVY is a biannual bilateral maritime exercise between Indian Navy and Russian Navy.

Which of the given above statements is/are correct?

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