

The Analyst

CURRENT AFFAIRS Handout

17th November 2025



Cryptocurrency & its Dark Side



17th November 2025

CONTEXT: Modern currencies now pose an **existential threat** towards India's national security ambitions.

1. Start From the Very Basics — What is Crypto?



STEP 1 The Transaction Starts

Someone sends crypto (e.g., Bitcoin) to another person.

This transaction is broadcast to the network.



STEP 3 Grouping into a 'Block'

Verified transactions are grouped together into a "Block".

Think of it like a page in a ledger, containing many recent transactions



Verification by Miners/Validators

Special computers (miners or validators) verify the transaction. They check if the sender has enough crypto and if the traction is legitimate.



STEP 4

Adding to the Blockchain & New Crypto Reward

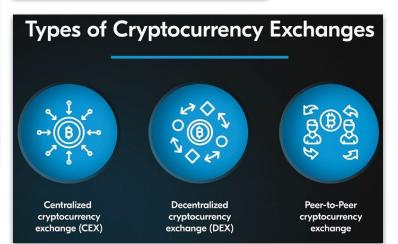
The new block is added to the permanent "Blockchain", and the miner/validator receives newly created crypto as reward!

Feature	Crypto
Controlled by	No central authority
Stored in	Digital wallets
Transactions	 Peer-to-peer
Ledger	Blockchain (public)



What is crypto & the global risk

A cryptocurrency is a digital token that can be bought, sold or transferred without a bank in the middle. Every transaction is recorded on a blockchain, a public, tamper-resistant ledger, but the people behind those transactions can remain hidden behind wallet addresses. A cryptocur-





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UPSC PYQ (P) 2020

With reference to "Blockchain Technology", consider the following statements

- It is a public ledger that everyone can inspect, but which no single user controls.
- 2. The structure and design of blockchain is such that all the data in it are about cryptocurrency only.
- Applications that depend on basic features of 3. blockchain can be developed without anybody's permission.

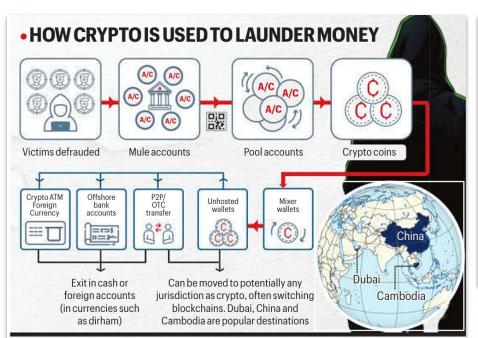
Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 only
- (d) 1 and 3 only

UPSC PYQ (Mains)

- Q. Discuss how emerging technologies and globalisation contribute to money laundering. Elaborate measures to tackle the problem of money laundering both at national and international levels. (2020)
- Q. What is Cryptocurrency? How does it affect global society? Has it been affecting Indian society also? (2019)

Why is Crypto Attractive to Criminals?



Note: Mule accounts are used for illegal activities; pool accounts hold funds from multiple sources; unhosted wallets are controlled by users, not exchanges; mixer wallets mix assets to obscure sources; P2P/OTC are direct party-to-party transactions

New crypto adds many blindfolds to old hawala

Jay Mazoomdaar New Delhi, November 16

•A Ghaziabad trader channelled crime proceeds of Rs 1.3 crore to a Dubai-

based wallet in 2024. Investigators charged a Delhi businessman with mov ing over Rs 4,000 crore internationally through fabricated invoices and shell companies.

• Agencies recorded more than Rs 1,000 crore of cyber fraud proceeds exiting India through crypto wallets this year alone. THESE ARE all hawala

assets through digital routes. When it comes to dirty money flows, old hawala ha the new crypto. Key to this are

wo factors: technol ogy and crypto's grey zone of regulation.

This grey zone cutting across borders has brought anonymity and ramped up efficiency to hawala's trust-based network of faceless

individuals operating outside the formal banking system.

"The blindfold is now multi-layered," said a senior »CONTINUED ON PAGE 2



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Why is Crypto Attractive to Criminals?

Crypto is **NOT anonymous**, but **pseudonymous**.

- Transactions = visible
- Person behind wallet = hidden @ foreign holding companies

"This has particularly caught on in sectors such as real estate, betting — both cricket and non-cricket, gold, and forex trading. It is also used for general remittance. While terror or narcotics funding and fintech frauds are key red flags, the rest is about black money and FEMA violations," said a private recovery consultant who helps retrieve funds in an "informal capacity" when such a deal goes wrong.

What Are Crypto

Scams?

✓ Fake Investment

Platforms

✓ "Pump & Dump"

Schemes

✓ Phishing Attacks

✓ Rug-Pulls

✓ Romance/Job Scams

Agencies track trail

What scan of 144 crypto cases revealed

Year	Total cases	Probe agencies	Where the money came from	Countries on radar
2023	28	NIA, ED, states	Terror funds, Covid funds, dark net, cyber scams	Dubai, Pakistan, China
2024	45	NIA, ED, states	Terror funds, hacking, cyber scams, hawala	Dubai, China, Cambodia
2025	71	CBI, NIA, states	Cyber scams, data leak, money laundering, hawala, hacking	Dubai, Cambodia China,Pakistan, Myanmar

INDIAN CRYPTOCURRENCY CASES ANALYSED BY INDIAN CYBERCRIME COORDINATION CENTRE (I4C)

India's Regulatory Vacuum

India has:

- No central crypto law
- No regulator/ ombudsman/ investor protection
- | Crypto trading is allowed

RBI's Position

- 1. Financial **stability** risk
- 2. Threat to monetary sovereignty
- Money laundering / terror financing
- 4. Capital flight
- 5. Not backed by any **asset**

RBI wants:

- Ban on private crypto
- Push for CBDC instead

What is the size of India's crypto market?

It is one of the largest markets globally, with an estimated 119 million users. Its market size was valued at \$2.6 billion in 2024, according to a report by consulting firm IMARC Group. Another report, by investment advisory firm HDFCTru, estimated that the market size will reach \$15 billion by 2035 -- exhibiting a Compound Annual Growth Rate (CAGR) of over 17 per cent between 2024 and 2035.

According to a report released by Indian crypto exchange CoinSwitch, Gen Z (18–25) topped India's crypto investor base for the first time with 37.6%, narrowly surpassing Millennials (26–35) at 37.3% and (36-45) at 17.8% in the third quarter of 2025. The

In 2018, the RBI banned banks from offering services to cryptocurrency exchanges and traders, a direction that was overturned by the Supreme Court in 2020, reopening the doors for crypto trading in India. In 2022, the Government introduced a flat 30% tax on all income from virtual digital assets, and a 1% Tax Deducted at Source (TDS) on every crypto transaction, hoping that the high tax rates might deter retail investors.

Enforcement
Problem: Where
does India store
seized crypto?



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India's Regulatory Vacuum

WHY CRYPTO CASES ARE A MINEFIELD

Key challenges faced by India's law enforcement agencies in investigations

DISCLOSING DATA

- Foreign user data often denied by international crypto exchanges.
- Inconsistent formats of data storage hinder analysis.
- Unhosted wallets, which are controlled by users and not exchanges, ignore legal requests.

SEIZING ASSETS

- International exchanges do not comply with freeze or seizure requests.
- No centralised platform to manage seized Virtual Digital Assets.
- Decentralised platforms lack a point of contact for communication.

PROBING CASES

Absence of standardised investigation procedures.

- No central authority for registration or oversight of new tokens and coins.
- Unregistered exchanges operate freely without oversight.

LEGAL BLOCKS

- Lack of comprehensive cryptocurrency regulation framework.
- Jurisdictional ambiguity due to decentralised nature.
- Lack of awareness among judicial officers of technology and services.

TECHNICAL SNAGS

- Use of privacy coins, which use advanced crypto tech to mask transaction details, hinders traceability.
- Use of VPNs adds another layer of obfuscation.

MAHENDER SINGH MANRAL

Links to Al Qaeda, Hamas

On the larger cybercrime map, investigators have traced the proceeds of crime to groups such as Al Qaeda.

Power Bank loan app scam, where investors were duped after being promised high returns, an official said, "At least 13 accused entities collected nearly Rs 342 crore from investors within a short span of time, between March 2021 and May 2021. The accused neither paid interest nor returned the principal amount, closed their purported

Global Regulation – How world is responding

✓ European Union: MiCA Law
→ world's most comprehensive crypto regulation

- Licensing
- Investor protection
- Stablecoin regulation

✓ United States: Multiple regulators (SEC, CFTC, FinCEN)

The GENIUS Act (2025) regulates stablecoins.

- ✓ Singapore, Japan: Strict rules, licensing, AML compliance.
- China: Near-total ban on crypto trading & mining.

India's Core Dilemma

If it regulates \rightarrow

Looks like government endorsement

If it bans \rightarrow

Industry goes underground

More illegal activity

People move to foreign platforms

So the government is taking a **slow, cautious approach**: Preparing a discussion paper, Studying global frameworks, Coordinating with FATF

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Mains Practise Question

Cryptos are unregulated in India, and hence a risky instrument. Experts advise thorough research and investments. Analyse the statement with reference to India's internal security concerns.

(15 Marks, 250 words)

Madras High Court recognises cryptocurrency as property under Indian law

The Court was hearing a plea filed under Section 9 of the Arbitration and Conciliation Act, 1996 against WazirX



Madras High Court and a representation of crypto currency

S N Thyagarajan

Published on: 25 Oct 2025, 6:19 pm · 4 min read



Garrisons at "Chicken's Neck"



17th November 2025

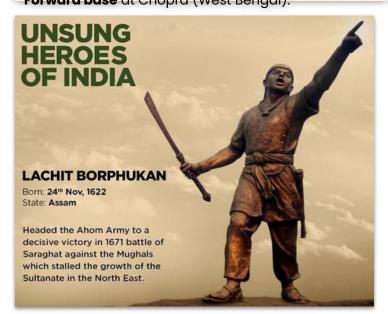
CONTEXT: India **strengthens eastern defences** — three new garrisons near Siliguri "Chicken's Neck".

% What happened



Lachit Borphukan Military Station at Dhubri (Assam)

Forward base at Kishangani (Bihar). Forward base at Chopra (West Bengal).



2 Why is this back in news? — 2 major developments

✓ Battlefield Tourism in **Doklam** & **Cho La** reopened

SIKKIM EXPRESS

Doka La and Cho La border areas to open for tourism from Oct 1

ISABELLA GURUNG &



✓ Rising Chinese activity near Bhutan & Bangladesh





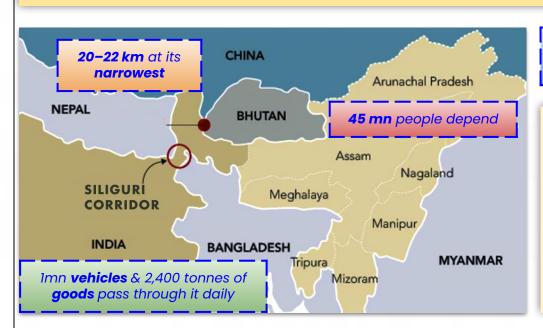
The Analyst Handout 17th November 2025

Garrisons at "Chicken's Neck"



<u>CONTEXT</u>: India <u>strengthens</u> <u>eastern</u> <u>defences</u> — three new garrisons near Siliguri "Chicken's Neck".

Why the Siliguri Corridor matters?



If cut off → NE becomes physically isolated.

Can be blocked by:

War or skirmish
China-Nepal-Bangladesh
Natural disasters
Insurgencies in NE
Terror Modules

Surrounded by multiple borders → **increases strategic risk.**

Chinese troops just 27 km from the corridor at some points

📌 Present Geopolitical Risks



Risk 1: China's encirclement strategy

- Doklam plateau infrastructure
- Chumbi Valley troop stationing
- Chinese workers & surveillance presence in Bangladesh's Rangpur
- New airbase at Lalmonirhat (20–100 km from corridor)

Risk 2: Bangladesh's shifting political orientation

Under the new government:

- Closer defence engagements with China & Pakistan
- Modify **air bases** into surveillance hubs
- Chinese nationals in border districts
- That "Bangladesh "controls" the NE's maritime access"





Garrisons at "Chicken's Neck"



17th November 2025

<u>CONTEXT</u>: India <u>strengthens</u> <u>eastern</u> <u>defences</u> — three new garrisons near Siliguri "Chicken's Neck".

Present Geopolitical Risks

- Risk 3: Nepal's tilt toward China
- Risk 4: Natural disasters
- Risk 5: Internal instability
 - Ethnic tensions
 - Illegal migration
 - Border smuggling
 - Communal conflicts

n India.com

Big worry for Modi govt as India's 'Chicken Neck' under threat from...; Pakistan's ISI conspiring with Bangla

India-Bangladesh relations have hit an all-time low after the ouster of former Prime Minister Sheikh Hasina, and an interim government led...

28 Feb 2025



The Indian Express

How landslides threaten Darjeeling, and why this has national security implications for India

Unsustainable development, climate change, and lack of institutional will to remedy matters are pushing Darjeeling to a precipice.

1 month ago

India's Connectivity & Infrastructure Strategy

🛡 A. Army deployment

- 100,000–150,000 personnel across Army + paramilitary + IAF.
- Trishakti Corps (XXXIII Corps) at Sukna

Specialised units:

- Mountain strike units ready for "Siliguri blackout" scenarios.
- Teesta Prahar & Trishakti Prahar exercises





🚀 B. Air and missile power

- 18 Rafale jets at Hasimara
- S-400 air defence system
- BrahMos missile regiment
- MiG-29s, UAVs at Bagdogra

🚔 C. Paramilitary

- BSF, SSB, ITBP, CRPF
- 30+ multi-agency drills in 2025



Garrisons at "Chicken's Neck"



17th November 2025

CONTEXT: India **strengthens eastern defences** — three new garrisons near Siliguri "Chicken's Neck".

India's Connectivity & Infrastructure Strategy



🚆 1. Siliguri Alternatives

- ✓ Kaladan Multimodal Project (Myanmar) route):
 - Kolkata → Sittwe → Mizoram
 - Sea + river + road access
- ✓ India-Myanmar-Thailand Trilateral Highway
- Bangladesh transit routes
 - Akhaura-Agartala rail
 - Feni Bridge
 - Access to Chittagong & Mongla ports

🚉 2. New Rail Projects

- Sevoke-Rangpo railway to Sikkim
- India-Bhutan railway

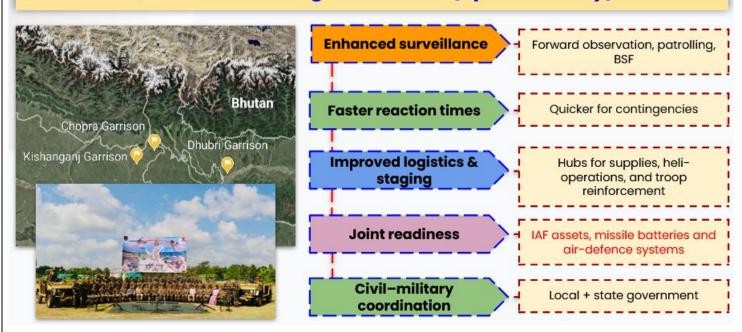
3. Tunnel Projects

- Sela Tunnel
- Chicken's Neck Tunnel Project -22km road-cum-rail tunnel planned
- 126 roads, 19 helipads, 8 tunnels

4. Border infrastructure

- 1,450 km of roads
- Trans-Arunachal Highway
- **Vibrant Villages Programme**

What the new garrisons do (operationally)





Garrisons at "Chicken's Neck"

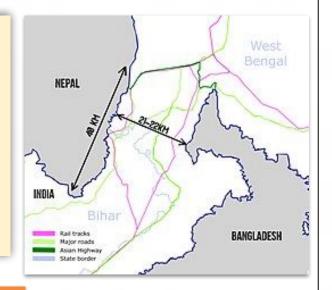


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<u>CONTEXT</u>: India <u>strengthens</u> <u>eastern</u> <u>defences</u> — three new garrisons near Siliguri "Chicken's Neck".

Policy recommendations

- Diplomatic engagement with Bangladesh
- Technology & surveillance
- Integrated border management (BSF-Army)
- Infrastructure resilience
- Environmental safeguards
- Regional security architecture



Mains Practise Question

India's three new garrisons near the Siliguri corridor are a security-enhancing measure to protect a strategic lifeline, but success will depend on balanced diplomacy, local engagement, resilient infrastructure, and careful management of geopolitical and environmental fallout. Comment.

(15 Marks, 250 words)





Legal hoodwinking of **Adivasis**



17th November 2025

SYLLABUS: Prelims: Indian Polity & Governance

GS 2 Paper: Welfare schemes for vulnerable sections

Newspaper: The Hindu Page Number: 07



Forest Rights Act, 2006

Rights for the dwellers

What the Forest Rights Act, 2006, entails

- Tenurial security over the forestland under occupation prior to December 13, 2005
- · Recognition of community right over forest and forest products
- Protection and conservation of community forest resources
- Conversion of all forest villages and habitation located inside the forestland into revenue villages
- In situ rehabilitation of displaced persons evicted without compensation prior to December 13, 2005
- · Recognition of ancestral domain (habitat) right to



Residents of Gunduribadi village in Odisha's Nayagarh district get ready for mapping their land boundaries for the Forest Rights Act implementation. . SPECIAL ARRANGEMENT

Particularly Vulnerable Tribal Groups

 Seasonal access to nomadic, pastoral and semi-nomadic communities over forestland

 Conversion of all leases granted by erstwhile governments, zamindars and king into permanent land

🕵 Empowered Gram Sabha



Title Deeds Issued

🌋 Who Are Eligible?

1. Scheduled Tribes Residina + dependent (13 Dec 2005.)

2. OTFD Residing + dependent at least 75 yrs prior to 2005.



What Rights Are Recognised Under FRA?

1. Individual Forest Rights

🟡 Right to hold + live in forest land for residence or self-cultivation (up to 4 hectares per family, if under occupation before 13 December 2005).

2. Community Rights

Right to access and use Minor Forest Produce

🐄 Rights for **grazing**, collection of firewood, fishing, and access to water bodies within forests.

Rights: sacred groves and deny consent for diversion of forests.

3. Community Forest Resource Rights

🌲 Right of Gram Sabhas to protect, regenerate, conserve, and manage forest areas sustainably.

Legal protection against external commercial exploitation or eviction.



Lost rights

Several individual forest rights titles distributed in at least three districts in Chhattisgarh have 'disappeared'



■ The Forest Rights Act, 2006 recognises the rights of Scheduled Tribes and other forestcommunities



Legal hoodwinking of Adivasis



17th November 2025

SYLLABUS: Prelims: Indian Polity & Governance

GS 2 Paper: Welfare schemes for vulnerable sections

Newspaper: The Hindu Page Number: 07

UPSC PYQ (P) 2021

Consider the following statements:

- 1. Moringa (drumstick tree) is a leguminous evergreen tree.
- 2. Tamarind tree is endemic to South
- 3. In India, most of the tamarind is collected as minor forest produce.
- 4. India exports tamarind and seeds of moringa.
- 5. Seeds of moringa and tamarind can be used in the production of biofuels.

Which of the statements given above are correct?

- (a) 1, 2, 4 and 5
- (b) 3, 4, and 5
- (c) 1, 3 and 4
- (d) 1, 2, 3 and 5

UPSC PYQ (P) 2021

At the national level, which ministry is the nodal agency to ensure effective implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006?

- (a) Ministry of Environment, Forest and Climate Change
- (b) Ministry of Panchayati Raj
- (c) Ministry of Rural Development
- (d) Ministry of Tribal Affairs

"The Legal Hoodwinking of Adivasis"



Adivasis in **Ghatbarra village** (Hasdeo Arand forests, Chhattisgarh) *lost their legally recognised* **CFRs** after the High Court cancelled them.

But during the 9 years of court proceedings:

- Mining in their forest went ahead
- Lakhs of **trees** were cut
- Their **lands** were diverted

trees were felled. Now, rather than restoring their rights, the court dismissed the original recognition of rights as a "mistake" and suggested that any rights claims could be compensated in money.



Legal hoodwinking of Adivasis



17th November 2025

SYLLABUS: Prelims: Indian Polity & Governance

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"The Legal Hoodwinking of Adivasis"



Why HC's reasoning is legally flawed?

Rights be recognised free of **encumbrances**

 If a mining lease exists, government must remove it—not cancel CFRs

FRA requires settlement of rights **BEFORE diversion**Gram Sabha consent is **mandatory**

• Supreme Court's Niyamgiri judgment, 2013

Compensation in money violates **FRA philosophy**

- Restoring historical injustice
- Respecting customary rights
- Protecting Adivasi autonomy



Trade Ties & Internationalization of Rupee



17th November 2025

SYLLABUS: Prelims: Economic Development

GS 3 Paper: Effects of liberalization on the economy Newspaper: The Indian Express Page Number: 11



First: What "internationalisation of rupee" mean?

FFORTS TOWARDS greater internationalisation of the rupee have recently received a significant boost. The measures announced are designed to broaden the avenues for rupee invoicing and its use for settlement in foreign trade, allowing greater investment avenues and reducing dependency on hard currencies. The thrust is on enhancing the accessibility, usability and acceptability of the Indian currency and improving the market infrastructure to support this shift.

Making the rupee usable outside India

- ✓ trade
- ✓ investment
- ✓ foreign reserves

✓ lending

✓ borrowing



RBI's Nod for 18 Countries to Trade in Indian Rupee



18 countries banks are now eligible to open Special Vostro Accounts (SVRAs) to settle payment in Indian Rupee.





Why is it happening now?

From Local Currency to Global Contender

The Old Way (Dependency)



Invoicing Mostly in USD to protect against INR depreciation

- Settlements Reliant on hard currencies
- Payments Dependent on the SWIFT system
- Risk High exposure to geopolitical shifts

Nee New Strategy (Internationalization))



- Promoting Rupee invoicing (RBI allows INR lending)
- Using Local Currency Settlement Systems (LCSS) with UAE, Indonesia, etc.
- Linking UPI globally (Singapore, Europe) and building new infrastructure (SFMS) to creat alternatives

Goal: Reduce dependency, lower trade cost,

With significant changes in the geopolitical environment, local currencies and their usage for international commitments have gone up many times. The International Finance Corporation has committed over \$30 billion in 67 local currencies through various products between 2015 and 2024. The ADB reports that local currency loans are expected to reach 50 per cent of its private sector lending in the coming years. In a similar vein, RBI has now allowed banks to lend in Indian rupees to a person residing outside India, whether a resident in Bhutan, Nepal or Sri Lanka, and including a bank in these jurisdictions, for cross-border trade transactions. This could be expanded further.

We are moving to a multi-currency world.

- Geopolitical tensions
- Sanctions (Russia, Iran, etc.)
- Countries wanting alternatives to USD
- Rise of digital payments



Trade Ties & Internationalization of Rupee



17th November 2025

SYLLABUS: Prelims: **Economic Development**

GS 3 Paper: Effects of liberalization on the economy Newspaper: The Indian Express Page Number: 11



The real challenge: billing and settlement of trade

There are two steps in international trade:

Invoicing	In which currency is the <i>bill</i> written?	
Settlement	In which currency is the payment actually made?	

Problem:

India's partners still prefer USD or their own currency.

Example: India-Russia

Trade: \$72 billion (2024)

But...

- Most bills are in USD (to avoid INR volatility)
- Settlements are in roubles (Russia wants it)

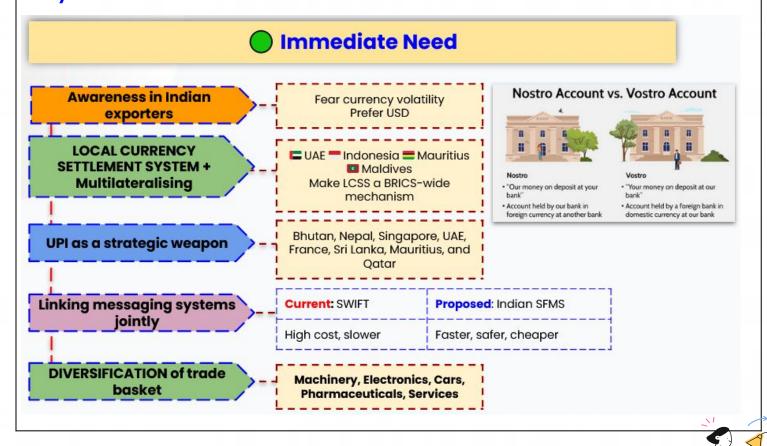
Why bilateral trade structure determines currency choice?

India-Russia trade composition (2024):

- 80% = primary goods → commodity trade =
 USD-dominated
- 9.9% = semi-processed goods
- 0.8% = parts/components
- 4.5% = final goods

Very low value-chain integration \rightarrow no reason to use INR.

Why?



Trade Ties & Internationalization of Rupee



17th November 2025

SYLLABUS: Prelims: Economic Development

GS 3 Paper: Effects of liberalization on the economy Newspaper: The Indian Express Page Number: 11

UPSC PYQ (P) 2025

Consider the following countries:

- 1. United Arab Emirates
- 2. France
- 3. Germany
- 4. Singapore
- 5. Bangladesh

How many countries amongst the above are there other than India where international merchant payments are accepted under UPI?

- a) Only two
- b) Only three
- c) Only four
- d) All the five

UPSC PYQ (P) 2017

Which of the following is a most likely consequence of implementing the 'Unified Payments Interface (UPI)'?

- (a) Mobile wallets will not be necessary for online payments.
- (b) Digital currency will totally replace the physical currency in about two decades.
- (c) FDI inflows will drastically increase.
- (d) Direct transfer of subsidies to poor people will become very effective.



Global Precision Medicine Market



17th November 2025

SYLLABUS: Prelims: **General Science**

GS 2, 3 Paper: Health, Awareness in the fields of bio-technology

Newspaper: The Hindu Page Number: 8



Start From Zero: What Are Biotherapeutics?

1) Chemical drugs (traditional medicines)

- Made by chemical synthesis
- Examples: paracetamol, metformin, aspirin
- Same drug for everyone → one-size-fits-all

2) Biotherapeutics (modern biological medicines)

- Made from living cells, DNA, proteins, antibodies
- Can be targeted \rightarrow personalised or precision therapies

profile. The field draws on multiple cutting-edge technologies such as genomic and proteomic analysis – decoding a person's genetic and protein signatures to identify mutations or dysfunctions causing the disease; gene editing therapies – directly modifying genes to correct underlying problems (for example, CRISPR-based treatments for

blood disorders); mRNA and nucleic acid therapeutics –using RNA molecules to instruct cells to produce specific proteins or suppress harmful ones; monoclonal antibodies and biologics -

laboratory-engineered molecules that bind to precise disease targets, such as cancer cells or viral protein; and AI-driven drug discovery which involves leveraging big data and machine learning to predict how molecules interact within the body.

Precision Biotherapeutics: Medicine Tailored For YOU!

The Problem with "One-Size-Fits-All" Medicine

Many treatments manage symptoms, but don't fix the root cause. What works for one person might not work for another





What is Precision Biotherapeuticss?

Predictive Preventive Personalized



Medicine designed specifically for your unique genes, molecules, and cells

Using molecules to tell cells what to do

How Does It Work? (Simplified)



Genetic Detective Decoding

faulty genes

Gene **Fixers** Directly

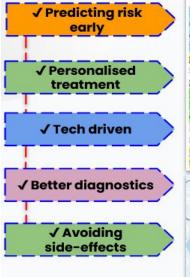
Messengers Antibodies Targeted molecules

Targeted molecules

Computers helpingfind new treat fight disease what disease faster



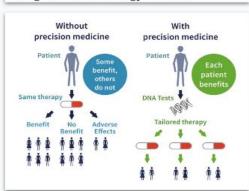
Why Is Precision Medicine Important?



Why does India need it? Non-communicable diseases such as diabetes, cardiovascular illness, and cancers account for nearly 65% of deaths in the country. At the same time, the genetic diversity of India's population makes it one of the most complex testing grounds for new therapies. Sometime pharmaceuticals made and tested in foreign countries might not work effectively in the Indian context. By leveraging India's growing genomic research base, such as the IndiGen programme and GenomeIndia, treatments could be customised for local



healthcare solutions; 4baseCare, a precision oncology firm with AI tools; and ImmunoACT, the first Indian company to bring CAR-T technology to India.





Global Precision Medicine Market



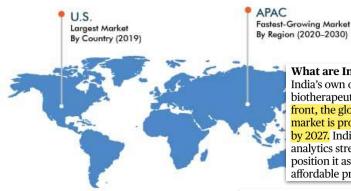
17th November 2025

SYLLABUS: Prelims: General Science

GS 2, 3 Paper: Health, Awareness in the fields of bio-technology

Newspaper: The Hindu Page Number: 8

How Is the Global Precision Medicine Market Shaping?



What are India's opportunities?

India's own opportunities in precision biotherapeutics are vast. On the economy front, the global precision medicine market is projected to exceed \$22 billion by 2027. India's skilled workforce, data analytics strength, and cost advantage position it as a potential hub for affordable precision therapies.

Market Size 2019 (\$203.5 Billion) 2030 (\$738.8 Billion) Where does India stand today?

The Department of Biotechnology has identified precision biotherapeutics as one of the six focus areas under the Biotechnology for Economy, Environment, and Employment policy.

However, challenges persist. India lacks a clear regulatory framework for the different technologies that form the basis of gene and cell therapies. Most guidelines limit the use of emerging technologies for therapeutic purposes, but the scope of therapy is not defined. Further, there is limited local manufacturing capacity for biologics and advanced therapies. The cost of precision drugs also remains prohibitive, restricting access to affluent urban patients.

Yet ethical and privacy concerns around genetic data remain unresolved. Without strict data protection and consent frameworks, genomic information could be misused.



Tier 2 Bonds



17th November 2025

SYLLABUS: Prelims: Economic Development

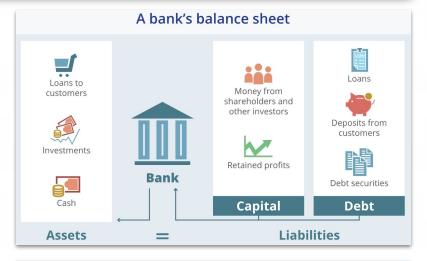
GS 3 Paper: Indian Economy

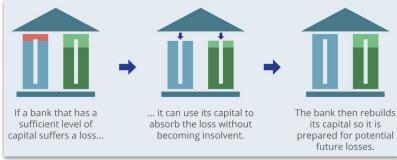
Newspaper: The Indian Express Page Number: 13

Start with the Basics — What is Bank Capital?

BANKS ARE racing to raise funds through Tier-2 bonds to boost their capital base. This comes at a time when corporates are raising capital through a record number of initial public offerings (IPO).

The banking system is expected to mobilise around Rs 25,000 crore in the current financial via Tier-2 bonds, of which nearly Rs 10,000 crore has already been raised. This spike in issuances appears to be driven by a strong demand for long-duration papers, expectations of a repo rate cut in the December MPC and regulatory investment requirement.





UPSC PYQ (P) 2020

If the RBI decides to adopt an expansionist monetary policy, which of the following would it not do?

- Cut and optimize the Statutory Liquidity Ratio
- 2. Increase the Marginal Standing Facility Rate
- 3. Cut the Bank Rate and Repo Rate

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

UPSC PYQ (P) 2018

If the RBI decides to adopt an expansionist monetary policy, which of the following would it not do?

- Capital Adequacy Ratio (CAR) is the amount that the banks have to maintain in the form of their own funds to offset any loss that bank incur if the account holder fail to repay any dues.
- 2. CAR is decided by each individual bank.

Which of the following Statements given above is/are correct?

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



Tier 2 Bonds



17th November 2025

SYLLABUS: Prelims: **Economic Development**

GS 3 Paper: Indian Economy

Newspaper: The Indian Express Page Number: 13



What are Tier II Bonds?

What is a Bank's 'Capital' and Why Do They Need More?



Customer **Deposits** Your Money



Tier Shock Q Absorber

This is what banks are raising now! It's borrowad money that acts as a secondary safety cushion to absorb



Tier I Capital

This is the bank's own core money. It's the primary safety cushion

Banks are adding to their "Shock Absorber" (Tier II) to become safer (as per Basel III rules) and to have more money to lend out and grow.

Banks are adding to their "Shock Absorber" (Tier II) to become safer (as per Basel III rules) and to have more money to lend out and grow.

What are Tier-2 bonds?

Tier-2 bonds are debt instruments issued by banks to boost their capital base and support business operations. These bonds have to be issued for a minimum period of five years.

Tier-2 bonds help banks strengthen their capital adequacy ratios (CAR) under Basel III norms, and provide an additional cushion for future credit growth. These bonds also offer an efficient and relatively lowcost way to raise long-term capital without diluting equity, said



Have higher interest rates than normal government or AAA bonds



Why are banks issuing so many Tier II bonds now?

Reason 1 — Strong demand for **long-duration**

bonds

Reason 2 — Expectation of a repo rate cut in

December (Repo rate $\downarrow \rightarrow$ bond prices $\uparrow \rightarrow$

yields₁)

Reason 3 — Rising credit growth (maintain

capital buffers - CAR)

Provident and pension funds are expected to accelerate investments over the next couple of months to meet their regulatory investment quotas in corporate bonds. This would also drive banks to raise capital through Tier II bonds. **FULL REPORTON**

WWW.INDIANEXPRESS.COM



Tier 2 Bonds



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The **Smart Investors**



Investors want long-term deals

High Demand for **Tier II Bonds** (Rs 15,000 cr)

The Rulebook



Some investors have to buy



The Market Guess

These bonds are "long-duration' (10+ years). Investors (like pension funds) want to lock in toda's high interest rate for a long time



The 'Repo Rate' is expected to fall

Everyone thinks the RB! will cut soon. Investors are rushing to buy these bonds before the rates drop!



Some investors have to buy

Some institutions (like insurance companies) have a 'regulatory the main interest requirement' to invest rate (Repo Rate) in safe, long-term bonds. These are a perfect fit



Green Climate Fund



17th November 2025

SYLLABUS: Prelims: **General issues on Environmental ecology**

GS 3 Paper: Conservation

Newspaper: The Hindu Page Number: 12



First, the Basics — What is Climate Finance?

Climate finance = money given to developing countries to help them		
Mitigate climate change	Clean energy, EVs, solar, wind	
Adapt to climate impacts	Floods, heatwaves, coastal erosion, drought-proofing	
Protect ecosystems	Forests, wetlands, biodiversity	

What is the Green Climate Fund

nated through the Green Climate Fund (GCF), an institutional mechanism that has been at work since 2015, to fund projects in developing countries to adapt to unfolding climate change and to invest in clean energy.

Despite being the world's largest institutional mechanism for disbursing funds for climate finance, with commitments worth \$19 billion, only a quarter of it has been properly allocated as of 2024. The GCF

Established in 2010; HQ: Republic of Korea

Accountable to the CoP

support developing countries = NDCs

under Paris Agreement

UPSC PYQ (P) 2015

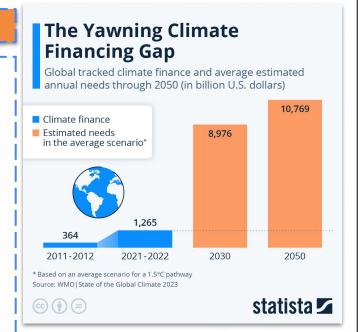
UNFCCC + Paris Agreement: legal obligation

Which of the following statements regarding 'Green Climate Fund' is/are correct?

- It is intended to assist the developing countries in adaptation and mitigation practices to counter climate change.
- It is founded under the aegis of UNEP,
 OECD, Asian Development Bank and
 World Bank.

Select the correct answer using the code given below:

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





Green Climate Fund



17th November 2025

SYLLABUS: Prelims: General issues on Environmental ecology

GS 3 Paper: Conservation

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What is a "Country Platform"?

cated as of 2024. The GCF faces criticism from developing countries that its disbursal mechanisms are often difficult to comply with and there is limited technical support to avail these funds.

New 'country platform'

While India already engages with the GCF, it is believed that a new "country platform" for "climate and nature finance" would help the country move away from a "fragmented approach" towards accessing funds.

- A country platform = One unified national window to receive climate finance.
- ✓ A single, streamlined, national portal
- ✓ Unified project pipeline
- ✓ Faster approvals
- ✓ Clear priorities
- ✓ Better coordination with the GCF

Governance:

- A steering committee
- Supported initially by Africa Climate Foundation.

Funding:~\$4 million

Announcing their country and regional platforms, representatives from the African Islands States Climate Commission (AISCC) Cambodia, Colombia, India, Kazakhstan, Lesotho, Mongolia, Nigeria, Oman, Panama, Rwanda, the Dominican Republic, Togo, and South Africa – shared their vision and strategies for leveraging country platforms to accelerate climate action. This brings the number of platforms to 16, with the previously established Brazil Country Platform and Caribbean Regional Platform, according to a note from the GCF.



India's current GCF-linked portfolio

THE LANDSCAPE OF CLIMATE FINANCE

PRINCIPLES, FUNDS & CHALLENGES



CORE PRINCIPLES (THE FOUNDATION)

- O Polluter Pays Principle
- Common but 0 Differentitated Responsibility and Respective Capability (CBDR-RC)



WORLD BANK FUNDS

 Climate Investment Funds (CIFs) Clean Technology Fund Strategic Climate Fund



MULTILATERAL CLIMAT FUNDS (UNFFCC)



Global Environment Facility (GEF) (Estd, 1994, Operating Entity)

Green Green Climate Climat Fund Fund (GCF) (AF) Estd, 2010 Under Kyoto

(COP15) Protocol

Adaptation Fund (AF) Under Kyoto Protocol supports developing.contry projects

 Loss and Damage Fund (Estd. 2023

 Estd, and 3) opage Fund (COP27/28)

supports

developing



KEY MECHANISMS & AGREEMENTS

- O National Adaptation Fund for Climate Change (NAFCC) (2015): For vulnerable states
- O National Clean Energy Fund (2010-11): Started with a cabon tax on coal



NATIONAL INITIATIVES

O National Adaptation Fund for Climate Change (NAFCC) (2015) For vulnerable states

GCF support for India

As of August 2024, India has received commitment from the GCF for 11 projects worth \$782 million to mitigate and adapt to climate change in sectors, including water, clean enercoastal, livelihood, transport, medium and small enterprises and climate start-ups. A bulk of the financing is in the form of concessional loans.

India's Environment Ministry is the primary access point (or the Nodal Designated Authority) for GCFlinked funding.



The Analyst Handout 17th November 2025

Daily Quiz



Q1. Consider the following statements regarding the Forest Rights Act (FRA), 2006:

- The Gram Sabha is the authority that initiates the process of determining forest rights.
- 2. Community Forest Resource (CFR) rights under FRA are vested in the Gram Sabha.
- 3. The Ministry of Environment, Forest and Climate Change is the nodal agency for implementing FRA.

Which of the above statements are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Answer: a

Q2. Which of the following statements best describes the term Vostro Account?

- a) Account held by our bank in a foreign currency at another bank.
- b) Account held by a foreign bank in domestic currency at our bank.
- c) An account where foreign exchange reserves are kept.
- d) A government treasury account for imports.

Answer: b

Q3. Consider the following statements regarding the benefits of biotherapeutics:

- 1. They enable better diagnostics and early disease detection.
- 2. They help in avoiding side effects through precision targeting.
- 3. They ensure full protection against unauthorised use of private health data.

How many of the above statements is/are correct?

- a) Only One
- b) Only Two
- c) All Three
- d) None

Answer: b

Q4. Consider the following statements regarding Tier II bonds:

- 1. Tier II bonds are counted as part of a bank's regulatory capital.
- 2. They must have a minimum maturity of five years.

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

Q5. Consider the following statements regarding the "Country Platform" linked to the Green Climate Fund (GCF):

- 1. It serves as a single national window for receiving GCF climate finance.
- Its governance includes a steering committee, initially supported by the Africa Climate Foundation.
- 3. The GCF requires each platform to start with at least \$40 million in funding.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 1 and 4 only
- c) 2 and 3 only
- d) 1, 2 and 3

Answer: a





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