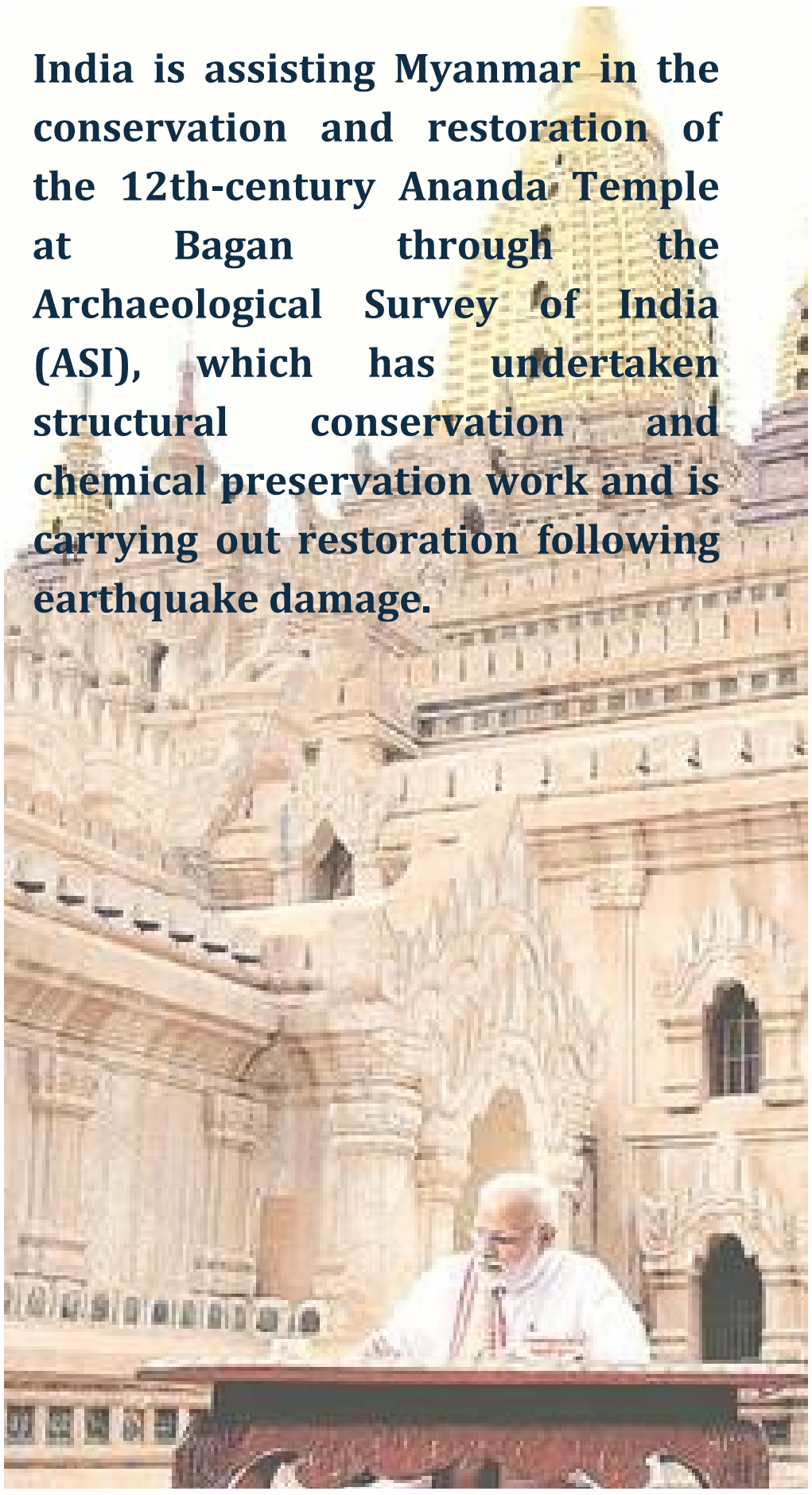
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India is assisting Myanmar in the conservation and restoration of the 12th-century Ananda Temple at Bagan through the Archaeological Survey of India (ASI), which has undertaken structural conservation and chemical preservation work and is carrying out restoration following earthquake damage.

Editor's Note

Today's edition of Pala Civil Times explores some interesting questions that may arise while reading the newspaper. Who names cyclones, and how did one of them come to be named 'Murasu'? What does a cryptocurrency hack involve, and how does it differ from a conventional bank robbery?

We begin with an elaborate section on cyclones in the Indian Ocean basin, examining their formation, naming and intensification in the context of recurring climatic events during the ongoing El Niño season.

The Economics page turns its attention to the latest cryptocurrency hack, exploring the security vulnerabilities it has exposed and the challenges it poses to the existing safeguards in the digital financial system.

Our Editorial Decoder examines two important themes: India–Myanmar relations and the rights and privileges enjoyed by Overseas Citizens of India (OCI) cardholders while residing in India.

We hope this edition encourages readers to approach each topic with curiosity and make a dedicated effort to understand the underlying concepts and issues. Happy reading!

P7. WORLD



Binance Crypto Hack: $6.3 Billion Theft

Examine the latest Binance cryptocurrency theft, the vulnerabilities it exposed in digital asset security, and how cyberattacks on cryptocurrency platforms occur.

Editorials Decoded

THE HINDU



Business, unusual: On engaging with the Myanmar junta

Myanmar's continuing crisis presents India with a strategic dilemma between maintaining regional influence and supporting democratic stability as India's long-term interests depend on peace and political stability.

The Indian EXPRESS



Bombay HC's message to Imran Khan is disquieting

Understand the legal status of OCI cardholders, including the rights, privileges and restrictions applicable to them while residing in India.

Tropical Cyclones: Formation, Naming and Intensification

Tropical cyclones are powerful weather systems that develop over warm tropical oceans and cause destruction through strong winds, heavy rainfall and storm surges. Cyclones Arnab and Murasu (2026), which affected India's eastern coastline, highlight the importance of understanding cyclone formation, naming conventions and changing climatic influences.

Cyclone Naming: Process and Significance

International Mechanism: In 2000, the World Meteorological Organization (WMO) and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) established a regional cyclone naming system under the WMO/ESCAP Panel on Tropical Cyclones (PTC).

Participating Countries: The original eight members were Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand. Iran, Qatar, Saudi Arabia, the United Arab Emirates and Yemen joined in 2018, taking the membership to 13.

Naming List: Each country contributed 13 names, resulting in a list of 169 names. Cyclones are named in a predetermined sequence, irrespective of their place of origin or landfall.

Naming Threshold: A tropical cyclone in the North Indian Ocean receives a name when its maximum sustained surface wind speed reaches at least 34 knots (approximately 62 km/h).

Naming Guidelines: Names must be short, easy to pronounce, culturally sensitive, politically and religiously neutral, non-offensive and limited to eight letters. Once used, a name is not repeated.

Significance: Naming facilitates identification, communication, warning dissemination and public preparedness, particularly when multiple cyclonic systems develop simultaneously.

Recent Examples: Cyclone Arnab was named by Bangladesh, while Cyclone Murasu, meaning 'war drum' in Tamil, was named by India. The names do not indicate the countries where the cyclones originated or made landfall.



Formation and Characteristics of Tropical Cyclones

Definition: A cyclone is a large-scale system of winds rotating around a central low-pressure area. Its winds spiral inward, rotating anticlockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

Tropical Cyclones: These develop over warm tropical oceans, generally between the Tropics of Cancer and Capricorn. They are called hurricanes in the Atlantic and eastern Pacific and typhoons in the western Pacific.

Role of Warm Ocean Waters: Sea surface temperatures of around 26°C or higher, with sufficient ocean heat extending to depths of approximately 50–100 metres, favour cyclone formation and intensification.

Latent Heat: Warm ocean water evaporates, adding moisture to the atmosphere. When water vapour condenses into clouds, it releases latent heat, providing energy for the developing storm.

Cyclone Development: A low-pressure system draws in surrounding air. Moist air rises, cools and condenses, releasing heat that supports further uplift and strengthens the circulation. Organised thunderstorms around the centre eventually develop into a tropical cyclone.

Tropical vs Extratropical Cyclones: Tropical cyclones have a warm core and derive energy primarily from latent heat released during condensation. Extratropical cyclones generally have a cold core and derive energy from interactions between warm and cold air masses.

Why Is the Bay of Bengal Vulnerable to Cyclones?

Geographical Configuration: Its funnel-shaped northern coastline can concentrate storm surges towards coastal regions, increasing the risk of flooding.

Coastal Topography: Estuary deltas, enclosed bays and variations in coastline shape influence storm-surge movement and the extent of coastal destruction.

Warmer Ocean Waters: The Bay of Bengal generally records higher sea surface temperatures than the Arabian Sea, favouring cyclone formation and intensification.

Seasonal Disturbances: October is an important cyclone-forming period in the North Indian Ocean. Low-pressure systems, depressions and deep depressions frequently develop during this period, sometimes originating from disturbances moving into the Bay of Bengal from the South China Sea.

Changing Arabian Sea Activity: Climate-related changes have also contributed to more frequent and stronger cyclones over the Arabian Sea, expanding India's cyclone vulnerability beyond its eastern coastline.

Factors Influencing Cyclone Intensification

Cyclone intensity depends on the interaction of oceanic and atmospheric conditions, including:

Ocean Heat: Warm ocean waters provide the heat and moisture necessary for cyclone development. Greater ocean heat availability can accelerate intensification.

Atmospheric Conditions: Vertical wind shear, convection and atmospheric circulation influence the organisation and strength of cyclones. Strong vertical wind shear can disrupt cyclone development.

Air–Sea Interaction: The exchange of heat and moisture between the ocean and atmosphere influences cyclone intensity and movement.

Regional Impact: During El Niño years, cyclones in the North Indian Ocean tend to form closer to the equator, increasing the likelihood of tracks towards Andhra Pradesh and Tamil Nadu rather than Odisha and West Bengal. However, this is a tendency, not a fixed pattern.

Cyclones Arnab and Murasu (2026)

Cyclone Arnab: Developed over the southeast Bay of Bengal on October 23 and intensified into a very severe cyclonic storm by October 26, with sustained winds of 125–135 km/h. It made landfall between Bapatla and Visakhapatnam on October 28 and maintained its intensity for at least six hours after landfall. Coastal Andhra Pradesh and Odisha experienced heavy rainfall, with Visakhapatnam recording 217 mm.

Cyclone Murasu: On November 2, the IMD reported that the severe cyclonic storm was moving towards the South Andhra Pradesh coast, forecasting heavy to extremely heavy rainfall in parts of Andhra Pradesh.

PYQ COMPASS

Q. Consider the following statements: (2020)
1. Jet streams occur in the Northern Hemisphere only.
2. Only some cyclones develop an eye.
3. The temperature inside the eye of a cyclone is nearly 10ºC less than that of the surroundings.
Which of the statements given above is/are correct?
a) 1 only
b) 2 and 3 only
c) 2 only
d) 1 and 3 only

Q. In the South Atlantic and South-Eastern Pacific regions in tropical latitudes, cyclones do not originate. What is the reason? (2015)
a) Sea surface temperatures are low
b) Inter-tropical Convergence Zone seldom occurs
c) Coriolis force is too weak
d) Absence of land in those regions

Business, unusual: On engaging with the Myanmar junta

Myanmar continues to experience widespread violence and political instability under military rule, despite the junta's efforts to gain international legitimacy through elections and diplomatic engagement. The military takeover has deepened internal divisions, weakened democratic institutions and intensified the humanitarian crisis, with armed resistance continuing across several parts of the country.

Political and Humanitarian Crisis in Myanmar

Military Rule: Following the 2021 military coup, junta chief Min Aung Hlaing consolidated power and subsequently assumed the office of civilian President through an election widely criticised as a sham.

Continuing Violence: More than one lakh people are estimated to have died since the coup in fighting between the military junta, anti-coup People's Defence Forces (PDFs) and ethnic armed organisations (EAOs).

Civilian Casualties: The military has carried out air strikes on villages in rebel-controlled areas, killing thousands of civilians and attempting to weaken resistance.

International Indifference: Global attention towards other ongoing conflicts has reduced pressure on Myanmar's military leadership, allowing it to continue military operations with limited accountability.



International Response and Geopolitical Interests

China and Russia: Russia and China remain the junta's principal arms suppliers. Russia has supplied military aircraft used in attacks on civilians, while China has supported the junta's political consolidation and pressured certain ethnic armed organisations into ceasefires.

ASEAN: The Association of Southeast Asian Nations (ASEAN) continues to advocate its Five-Point Consensus, which calls for an end to violence and inclusive dialogue. However, some member countries have continued economic and diplomatic engagement with the military regime.

United States and Japan: The United States has reportedly held discussions with the junta, while Japan has reportedly sought Myanmar's removal from the Financial Action Task Force (FATF) blacklist.

Geopolitical Competition: China seeks access to the Indian Ocean and security for its oil and gas pipelines. The United States is interested in Myanmar's heavy rare earth resources, while India seeks to strengthen connectivity with Southeast Asia and advance its Act East Policy.

Significance of India–Myanmar Relations

Myanmar is strategically important to India because of its geographical position, security implications and role in regional connectivity.

Strategic Location: Myanmar serves as a land bridge between Northeast India and Southeast Asia, connecting India with ASEAN through land and maritime routes.

Border Security: Cooperation is essential to address cross-border insurgency, drug trafficking and security challenges along India's northeastern border.

Countering China's Influence: Myanmar provides India with an important strategic position to balance China's growing presence in the Indian Ocean and its influence in India's neighbourhood.

Policy Alignment: Myanmar is central to India's Neighbourhood First and Act East policies, particularly in strengthening regional integration and connectivity.

Major Areas of India–Myanmar Cooperation

A. Trade and Connectivity

Bilateral Trade: Trade between India and Myanmar reached approximately $2.15 billion during 2024–25. *India supplies around 60% of Myanmar's pharmaceutical requirements.*

Kaladan Multi-Modal Transit Transport Project: Aims to connect India's eastern seaport at Kolkata with Sittwe Port in Myanmar and further link it to Mizoram through inland waterways and road transport.

India–Myanmar–Thailand Trilateral Highway: An important connectivity initiative intended to link Northeast India with Southeast Asia.

Tamu–Moreh Border Project: Facilitates cross-border connectivity and trade between India and Myanmar.

MIST Submarine Cable System: The Myanmar/Malaysia–India–Singapore Transit submarine cable system strengthens regional telecommunications connectivity.

B. Maritime and Security Cooperation : The Indian and Myanmar navies conduct joint patrols in the Bay of Bengal to strengthen maritime security and protect important sea routes around Sittwe Port.

C. Education, Agriculture and Cultural Cooperation

Myanmar Institute of Information Technology (MIIT): Established in Mandalay to promote technical education.

Advanced Centre for Agricultural Research and Education (ACARE): Located in Yezin to strengthen agricultural research and cooperation.

Ananda Temple Restoration: India has contributed to the restoration of the historic Ananda Temple in Myanmar.

D. Humanitarian Assistance

Operation Karuna: India's humanitarian assistance operation following Cyclone Mocha.

Operation Brahma (2025): Launched to provide earthquake relief and humanitarian assistance to Myanmar.

Challenges and the Way Forward

Political Instability: Continued military rule, armed conflict and the absence of democratic governance undermine Myanmar's long-term stability.

Strategic Dilemma for India: India must balance its democratic commitments with security concerns, border management and infrastructure investments.

Regional Cooperation: ASEAN and other regional stakeholders need to strengthen diplomatic efforts towards ending violence and facilitating inclusive dialogue.

Accountability: The military leadership must be held accountable for human rights violations and alleged war crimes.

Sustainable Engagement: Economic cooperation and connectivity initiatives can succeed only in an environment of peace, political stability and security.

PYQ COMPASS

Q. Which one of the following pairs of States of India indicates the easternmost and westernmost State? (2015)
a) Assam and Rajasthan
b) Arunachal Pradesh and Rajasthan
c) Assam and Gujarat
d) Arunachal Pradesh and Gujarat

Q. With reference to India's projects on connectivity, consider the following statements:
1. East-West Corridor under Golden Quadrilateral Project connects Dibrugarh and Surat.
2. The Trilateral Highway connects Moreh in Manipur and Chiang Mai in Thailand via Myanmar.
3. Bangladesh-China-India-Myanmar Economic Corridor connects Varanasi in Uttar Pradesh with Kunming in China.
How many of the above statements are correct?
a) Only one
b) Only two
c) All three
d) None

Bombay HC's message to Imran Khan is disquieting

The Bombay High Court's observations in the case involving actor Imran Khan have raised concerns about the freedom of expression and the right to peaceful dissent of Overseas Citizen of India (OCI) cardholders. The case brings into focus the extent to which OCI cardholders can exercise constitutional freedoms while residing in India and the legal limitations attached to their status.

Background of the Case

Protest and Detention: Imran Khan, an American citizen and OCI cardholder, was detained on October 10, 2026, during a peaceful protest against Chief Election Commissioner Gyanesh Kumar near August Kranti Maidan in Mumbai. The protest was related to the Special Intensive Revision (SIR) of electoral rolls.

Leave India Notice: Following his detention, the Foreigners Regional Registration Office (FRRO) issued him a Leave India Notice (LIN).

Court Proceedings: Khan challenged the notice before the Bombay High Court, which questioned whether he had been given an opportunity to present his case before the notice was issued.

Bombay High Court's Observations

OCI Rights: The Bench of Chief Justice Mahesh Chandra Tripathi and Justice Advait M. Sethna observed that Khan was not directly affected by the SIR exercise and that OCI cardholders cannot be treated on par with Indian citizens.

Right to Protest: The Court remarked that OCI cardholders do not have the same constitutional rights as Indian citizens to participate in protests and questioned Khan's involvement in the demonstration.

Undertaking and Apology: Following the Court's observations, Khan submitted an unconditional apology and undertook not to participate in any future protests in India or directly or indirectly influence or instigate others to participate.

Court's Direction: The High Court kept the Leave India Notice in abeyance until December 7, 2026, and expected Khan to remain in India as a law-abiding person without associating with protests or activities reserved for citizens.

Concerns Regarding OCI Rights and Democratic Participation

Diaspora and Democratic Engagement: The criticism of the Court's observations highlights a contradiction in India's approach towards its overseas community. While the Indian diaspora is encouraged to contribute to India's economic, cultural and developmental progress, restrictions on their participation in public causes create an unequal distinction between their economic contributions and civic engagement.

Chilling Effect: Such observations could discourage OCI academics, researchers, professionals and other members of the diaspora from expressing opinions or participating in peaceful demonstrations.

Freedom of Expression: The right to express concern, stand in solidarity with others and question those in authority forms an important part of democratic participation.

PYQ COMPASS

Q. With reference to India, consider the following statements: (2021)
1. There is only one citizenship and one domicile.
2. A citizen by birth only can become the Head of State.
3. A foreigner once granted citizenship cannot be deprived of it under any circumstances.
Which of the statements given above is / are correct?
(a) 1 only
(b) 2 only
(c) 1 and 3
(d) 2 and 3

Binance Crypto Hack: $6.3 Billion Theft and the Role of SAFU

On October 29, 2026, Binance, the world's largest cryptocurrency exchange, suffered a major security breach in which hackers allegedly stole approximately $6.3 billion worth of cryptocurrency within 20 minutes. The incident exposed vulnerabilities in cryptocurrency exchange operations and highlighted the challenges of securing digital assets against sophisticated cyberattacks. Binance subsequently restored 100% of the affected funds by November 2.

How was the cryptocurrency hack carried out?

Compromised employee device: Binance's preliminary investigation indicated that a hacker may have gained access through a compromised laptop belonging to one of its engineers, enabling unauthorised withdrawal transactions.

Private key security: Cryptocurrency transactions use public and private keys for authentication. Binance reported no evidence that customers' private keys had been compromised.

Scale of the attack: The estimated loss was approximately $6.3 billion, making it the largest cryptocurrency hack reported.

How do cryptocurrency transactions and operations work?

Cryptocurrency: A digital asset that uses cryptographic techniques to secure transactions and operates through blockchain technology.

Blockchain: A distributed digital ledger that records cryptocurrency transactions across a network of computers. Transactions are grouped into blocks and linked chronologically, making the recorded history difficult to alter.

Cryptocurrency exchange: A digital platform such as Binance that allows users to buy, sell, trade and hold cryptocurrencies.

Public and private keys: A public key functions as an identifier for receiving digital assets, while a private key is a confidential cryptographic credential used to authorise transactions. Anyone gaining control of a private key may be able to transfer the associated assets.

Digital wallets: Software or hardware systems used to store and manage the cryptographic keys required to access cryptocurrency holdings. The assets themselves are recorded on the blockchain.

Cryptocurrency withdrawal: The transfer of digital assets from an exchange account or wallet to another wallet address through an authorised blockchain transaction.

Who is suspected to be behind the attack?

North Korean connection: The United States Federal Bureau of Investigation (FBI) attributed the attack to North Korea, two days after the incident.

TraderTraitor network: Cryptocurrency security firm TRM Labs also linked the attack to TraderTraitor, a North Korean hacking network.

Pattern of previous attacks: TRM Labs identified similarities in the methods used in the Binance incident and earlier attacks, including the $1.5 billion Bybit hack in February 2025 and the KelpDAO hack in April 2026.

Cybercrime and cryptocurrency theft: North Korean-linked hacking groups have been associated with major cryptocurrency thefts, with stolen digital assets being used to generate funds outside conventional financial systems.

Denial by North Korea: North Korea denied involvement, describing the accusation as a political provocation.

PYQ COMPASS

Q. In India, the term "Public Key Infrastructure" is used in the context of: (2020)
a) Digital security infrastructure
b) Food security infrastructure
c) Health care and education infrastructure
d) Telecommunication infrastructure

Q. Consider the following pairs: (2018)

Terms sometimes seen in news	Context/Topic
Belle II experiment	Artificial Intelligence
Blockchain technology	Digital/ Cryptocurrency
CRISPR - Cas9	Particle Physics

Which of the pairs given above is/are correctly matched?
a) 1 and 3 only b) 2 only c) 2 and 3 only d) 1, 2 and 3

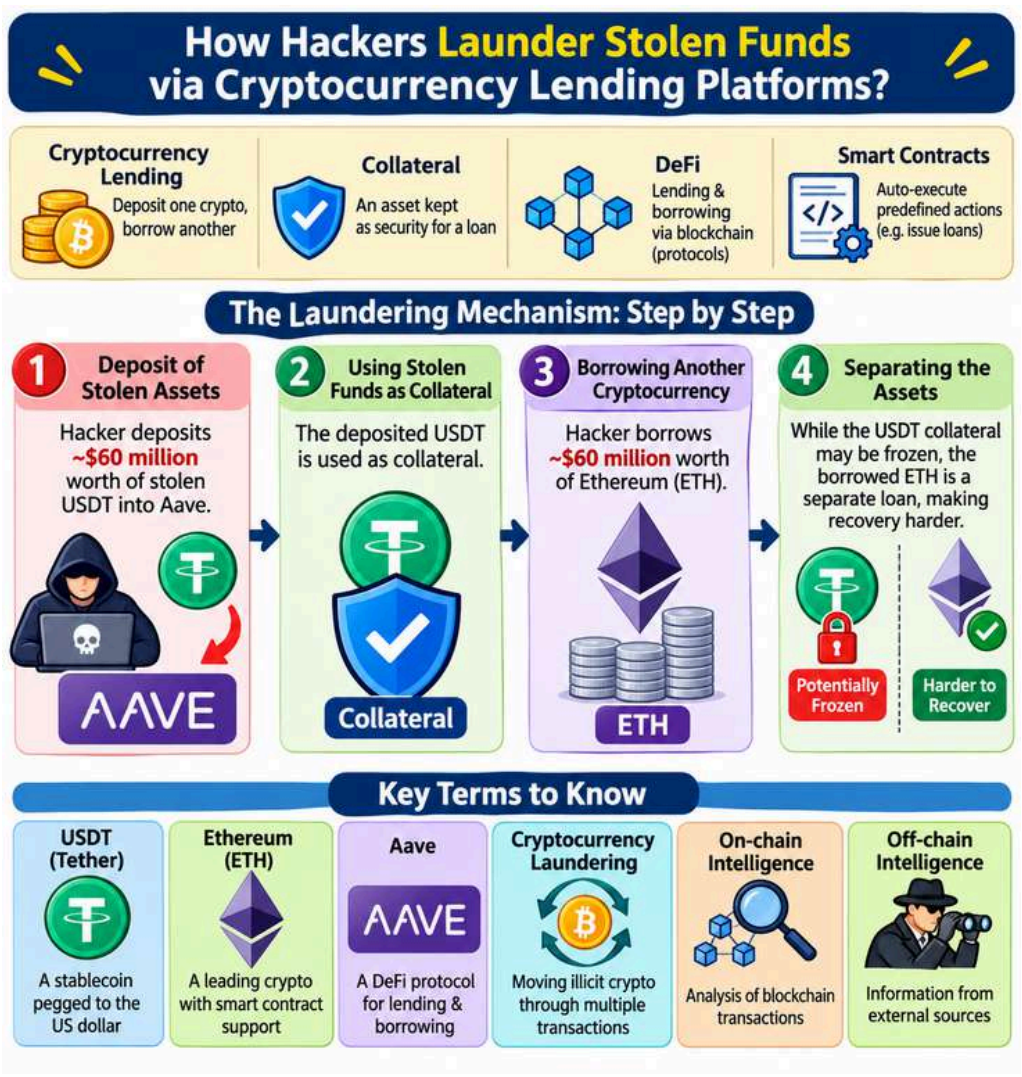
How did hackers exploit cryptocurrency lending platforms to launder the stolen funds?

Cryptocurrency lending: Certain platforms allow users to deposit one cryptocurrency as collateral and borrow another cryptocurrency against it.

Decentralised Finance (DeFi): Financial services such as lending and borrowing conducted through blockchain-based protocols, often using automated smart contracts rather than conventional financial intermediaries.

Smart contracts: Self-executing computer programs deployed on a blockchain that automatically implement predefined conditions, such as issuing loans against deposited collateral.

How the laundering mechanism worked



Terms to remember

USDT (Tether): A stablecoin designed to maintain a value close to the US dollar. Stablecoins aim to reduce the price volatility commonly associated with cryptocurrencies.

Ethereum (ETH): The native cryptocurrency of the Ethereum blockchain, which also supports smart contracts and decentralised applications.

Aave: A decentralised finance protocol that enables users to lend and borrow cryptocurrencies using digital assets as collateral.

Cryptocurrency laundering: The process of moving or converting illegally obtained digital assets through different transactions and platforms to complicate the identification and recovery of their original source.

Binance's Response and Broader Implications of the Hack

Immediate Response: Binance temporarily suspended withdrawals within hours of detecting the attack, freezing approximately $3 billion in assets. It assured customers that affected funds would be compensated.

Withdrawal Resumption: Withdrawals were partially restored on November 1 through a three-hour window, following which customers withdrew a net $4.72 billion worth of assets.

Restoration of Funds: Binance restored 80% of affected tokens by October 31, increased this to 90% later that day and completed 100% restoration by November 2.

Role of SAFU: Binance used its Secure Asset Fund for Users (SAFU), an emergency reserve established in July 2018 and funded through a portion of trading fees, to compensate affected customers. Valued at approximately $1 billion in Bitcoin as of October 2026, the fund is maintained separately from operational accounts. Binance committed to replenishing it if its value falls below $800 million, while the remaining compensation was provided through its own resources.

PYQ COMPASS

Q. Which of the following statements regarding the features of blockchain technology are correct?

1. Records stored in the database may be made visible to relevant stakeholders without risk of alteration.
2. Copies of the entire database are stored on multiple computers on a network, syncing within seconds.
3. Consortium blockchain is a blend of public and private blockchains allowing selective data access.
4. Mathematical algorithms make it impossible to change or delete any data once recorded and accepted.

Select the answer using the code given below:

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

PYQ COMPASS

Q. Consider the following statements: (2020)
1. Jet streams occur in the Northern Hemisphere only.
2. Only some cyclones develop an eye.
3. The temperature inside the eye of a cyclone is nearly 10°C less than that of the surroundings.
Which of the statements given above is/are correct?
a) 1 only
b) 2 and 3 only
c) 2 only
d) 1 and 3 only

Jet streams occur in the Northern Hemisphere only: This statement is incorrect. Jet streams are fast flowing, narrow air currents that occur in both the Northern and Southern Hemispheres.
Only some cyclones develop an eye: This statement is correct. Only well-developed tropical cyclones have a distinct eye, which forms due to the intense central low-pressure system.
The temperature inside the eye of a cyclone is nearly 10°C less than that of the surroundings: This statement is incorrect. The eye of a cyclone is relatively warm compared to the surrounding areas due to descending air. Thus, only statement 2 is correct, making the answer c) 2 only.

Q. In the South Atlantic and South-Eastern Pacific regions in tropical latitudes, cyclones do not originate. What is the reason? (2015)
a) Sea surface temperatures are low
b) Inter-tropical Convergence Zone seldom occurs
c) Coriolis force is too weak
d) Absence of land in those regions

Ans : b
Tropical cyclones require high sea surface temperatures (typically above 27°C) to form, along with significant atmospheric instability. In the South Atlantic and South-Eastern Pacific, sea surface temperatures are generally lower than required for cyclone formation due to the presence of cold ocean currents like the Benguela and Humboldt currents. Additionally, while the Coriolis force and landmass absence are factors, they are not the primary reasons cyclones fail to originate here. The primary reason is that the Inter-Tropical Convergence Zone (ITCZ) seldom forms or is not conducive in these regions. The correct answer is b) Inter-tropical Convergence Zone seldom occurs.

PYQ COMPASS

Q. Which one of the following pairs of States of India indicates the easternmost and westernmost State? (2015)
a) Assam and Rajasthan
b) Arunachal Pradesh and Rajasthan
c) Assam and Gujarat
d) Arunachal Pradesh and Gujarat

Ans : d
India's easternmost point lies in Arunachal Pradesh near Kibithu, which borders China and Myanmar. This makes Arunachal Pradesh the easternmost state. The westernmost point of India is in Gujarat, near the village of Guhar Moti in Kutch, bordering Pakistan. Among the given pairs, "Arunachal Pradesh and Gujarat" correctly represent the easternmost and westernmost states of India, making option (d) the correct answer.

Q. With reference to India's projects on connectivity, consider the following statements:
1. East-West Corridor under Golden Quadrilateral Project connects Dibrugarh and Surat.
2. The Trilateral Highway connects Moreh in Manipur and Chiang Mai in Thailand via Myanmar.
3. Bangladesh-China-India-Myanmar Economic Corridor connects Varanasi in Uttar Pradesh with Kunming in China.
How many of the above statements are correct?
a) Only one
b) Only two
c) All three
d) None

Ans : d
The Golden Quadrilateral Project is a major highway development project in India that aims to connect the four major metropolitan cities: Delhi, Mumbai, Chennai, and Kolkata.
The East-West Corridor is a part of this project and connects Silchar in Assam to Porbandar in Gujarat. **So, Statement 1 is not correct.**
The IMT Trilateral Highway connects Moreh in the Indian state of Manipur with Mae Sot in Thailand, passing through Myanmar. It is an ambitious infrastructure project aimed at enhancing connectivity and trade between India, Myanmar, and Thailand. **So, Statement 2 is not correct .**
The Bangladesh-China-India-Myanmar Economic Corridor (BCIM) Corridor is a proposed connectivity project that aims to enhance economic cooperation and trade between Bangladesh, China, India, and Myanmar. The corridor is expected to run from Kunming in China, through Myanmar, and Bangladesh, and eventually reach Kolkata in India. **So, Statement 3 is not correct**.

PYQ COMPASS

Q. With reference to India, consider the following statements: (2021)

1. There is only one citizenship and one domicile.
2. A citizen by birth only can become the Head of State.
3. A foreigner once granted citizenship cannot be deprived of it under any circumstances.

Which of the statements given above is / are correct?

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

Ans : a

Statement 1 is correct: India has a system of single citizenship, meaning all Indians are citizens of India, irrespective of the state or union territory they reside in. There is also a single domicile under Indian law.

Statement 2 is incorrect: There is no such restriction in India that only a citizen by birth can become the Head of State (President). A naturalized citizen is also eligible.

Statement 3 is incorrect: A foreigner granted Indian citizenship can be deprived of it under certain circumstances, such as if the citizenship was obtained fraudulently or if the person acts against the sovereignty and integrity of India (as per the Citizenship Act, 1955).

Q. Consider the following pairs: (2018)

Terms sometimes – Context/Topic seen in news

Belle II experiment – Artificial Intelligence
Blockchain technology – Digital/ Cryptocurrency
CRISPR – Cas9 – Particle Physics

Which of the pairs given above is/are correctly matched?

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

Ans : b

Blockchain technology – This is correctly matched with Digital/Cryptocurrency. Blockchain is the underlying technology behind cryptocurrencies like Bitcoin. It is a decentralized digital ledger that records transactions across many computers.

PYQ COMPASS

Q. In India, the term "Public Key Infrastructure" is used in the context of: (2020)
a) Digital security infrastructure
b) Food security infrastructure
c) Health care and education infrastructure
d) Telecommunication infrastructure

Ans : a
Public Key Infrastructure (PKI) is a framework that ensures secure electronic communication by using cryptographic techniques. It is primarily used in the context of digital security infrastructure to manage and distribute digital certificates, which authenticate identities and enable secure data transmission.
Features of PKI :
1. Digital Certificates: Issued by a trusted authority (Certificate Authority) to verify the identity of users or devices.
2. Encryption and Decryption: Ensures secure communication by encrypting data with a public key and decrypting it with a private key.
3. Authentication and Integrity: Used for authenticating identities and ensuring that data is not tampered with during transmission.
4. Applications: Widely used in secure email communication, digital signatures, secure banking transactions, and online authentication systems.

Q. Which of the following statements regarding the features of blockchain technology are correct?
1. Records stored in the database may be made visible to relevant stakeholders without risk of alteration.
2. Copies of the entire database are stored on multiple computers on a network, syncing within seconds.
3. Consortium blockchain is a blend of public and private blockchains allowing selective data access.
4. Mathematical algorithms make it impossible to change or delete any data once recorded and accepted.
Select the answer using the code given below:
(a) 1 and 3
(b) 2 and 4 only
(c) 1, 2 and 4
(d) 1 and 4 only

Ans : C
Statement 3 is not correct. A hybrid blockchain is the exact blend of public and private networks. This statement is incorrect because it is talking about a hybrid blockchain. A consortium network is a semi decentralized ledger managed by a predefined group of organizations rather than being a structural blend of public and private features.

PRACTICE QUESTIONS

Q. With reference to tropical cyclones in the North Indian Ocean, consider the following statements:

1. Cyclone names are assigned through an internationally coordinated naming system involving countries in the region.
2. The name assigned to a cyclone indicates its intensity and potential destructive capacity.
3. The India Meteorological Department (IMD) is the Regional Specialised Meteorological Centre responsible for naming cyclones in the North Indian Ocean.

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b) 1 and 3 only

- ***Statement 1 is correct***: Cyclone naming in the North Indian Ocean follows an internationally coordinated system involving countries in the region.
- ***Statement 2 is incorrect:*** Cyclone names are identifiers used for communication and public awareness. They do not indicate the intensity of a cyclone.
- ***Statement 3 is correct:*** The IMD, based in New Delhi, functions as the Regional Specialised Meteorological Centre for tropical cyclones in the North Indian Ocean and is responsible for assigning names.

Q. With reference to cryptocurrency exchanges and their security mechanisms, consider the following statements:

1. A cryptocurrency exchange hack may involve the unauthorised transfer of digital assets through the exploitation of security vulnerabilities.
2. The Secure Asset Fund for Users (SAFU) is a protective fund established by Binance to safeguard users in certain emergency situations.
3. The existence of a user protection fund eliminates the possibility of cyberattacks on a cryptocurrency exchange.

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (a) 1 and 2 only

- ***Statement 1 is correct:*** Cryptocurrency hacks can involve unauthorised access to exchange systems and the theft or transfer of digital assets.
- ***Statement 2 is correct:*** SAFU is Binance's Secure Asset Fund for Users, established as an emergency protection mechanism for users.
- ***Statement 3 is incorrect***: A protection fund may help address financial losses, but it does not prevent cyberattacks or eliminate vulnerabilities in exchange infrastructure.