

NEWSPAPER HIGHLIGHT

Hidden in plain sight on a traffic island on Mathura Road, with an estimated 60 lakh vehicles passing by annually, is one of Delhi's earliest Mughal era monuments— Sabz Burj. It has been conserved and restored over the last four years using traditional materials and building craft techniques favoured by 16th Century craftsmen. Immense significance The tomb, which was built in 1530, does not have any markings pointing to the identity of those buried under it. However, it is of immense significance due to the ceiling on its double dome structure painted in pure gold and lapis and revealed after conservation efforts began. It is thought to be the earliest surviving painted ceiling for any monument in India. Conservationists believe that the painting on the ceiling that has floral motifs predates similar work that was seen in miniature paintings and textiles from the Mughal era and was covered with plaster sometime in 20th Century, when the structure was used as a police station. The missing glazed tiles on the dome and the tall, elongated drum on which it rests have been restored to its original turquoise blue hue. The original tiles that remain have been preserved even though they have lost the glaze.

The percentage of rural children who were not enrolled in school doubled during the pandemic, with government schools seeing an increase in enrolment at the expense of private schools, according to the Annual Status of Education Report (ASER), 2021. Over a third of children enrolled in Classes 1 and 2 have never attended school in person. However, enrolment does not necessarily mean that learning took place. In a survey of over 76,000 households with children aged six to 14, ASER found that while 92% of children had textbooks for their grade, only a third had access to any other learning resources or support. With smartphone availability and access limited, online learning was restricted to a quarter of students, though there were major differences in the experience of students from different States. For instance, 91% of students from Kerala and almost 80% from Himachal Pradesh had online education, but only 10% from Bihar and 13% from West Bengal.

Pakistan's Parliament, in its joint sitting on Wednesday, enacted a law

NATIONAL GENERIC DOCUMENT REGISTRATION SYSTEM

- 1.The National Generic Document Registration System (NGDRS) portal and Dashboard was launched recently. National Generic Document Registration System is a 'One Nation One Software' for registration of documents & properties. It is an in-house advanced software application developed by NIC. This software is scalable, flexible, configurable and compatible with the state-specific needs in the country.
- 2.So far, it has already been implemented in 12 States and pilot tested in 3 States covering more than 10 crore population. More emphasis is given on the integration of the Registry Office with other offices where some information are required for the completion of registration deeds.
- 3.**Benefits - Ensures transparency, accountability of officials executing the documents and reduction in cost, time and number of visits and procedures required for the execution of the registration documents.** Reduction in land disputes, check on fraudulent transactions, SMS and email enabled alerts related to transactions on property, external system integrations can be provided as required.

THE TAPROOT

- 1.Bitcoin went through a major upgrade called the Taproot, which is the most major change to the bitcoin protocol since the SegWit block capacity change (2017) SegWit (Segregated Witness) increased the amount of transactions that could fit into a block by pulling data on signatures from bitcoin transactions. The Taproot upgrade was first proposed by Greg Maxwell in 2018. It enables the blockchain of the bitcoin network to execute more complex transactions, potentially widening the use cases of virtual currency.
- 2.Taproot introduces a new digital signature scheme called "Schnorr" that will help bitcoin transactions become more efficient and more private. Schnorr signatures bundle many signatures required for multi-signature and complex transactions into a single unique key on-chain. Schnorr can also be leveraged to let bitcoin users execute more complex smart contracts on the bitcoin protocol. Smart contracts are self-executing transactions whose results depend on pre-programmed inputs.
- 3.**Taproot impacts the bitcoin network's ability to process more smart contracts, making it a little more competitive with Ethereum. Taproot increases privacy by obscuring what type of transaction is being executed.** Taproot improves the Bitcoin network's efficiency by drastically reducing the volume of data required to be stored on-chain to complete complex transactions.
- 4.More flexible transaction types and lower costs may support more development of Decentralized Finance (DeFi) and Non-fungible Tokens (NFTs) on bitcoin.

INSULIN SIGNALLING & TISSUE HEALTH

- 1.A new study has uncovered how insulin amounts shape the flow of information through the signalling network. Insulin is a hormone secreted by the b cells of the pancreas. It is commonly associated with an ability to regulate glucose metabolism. It plays a larger role and helps in growth and maintenance of tissues. Insulin signalling is a series of biochemical reactions that convey information about availability of insulin and the necessity to regulate the glucose in the blood. There are 2 main pathways for insulin signaling (AKT and ERK), which together balance metabolism and growth.
- 2.**These specifically control storage of glucose in the liver and also stimulate glucose transport in skeletal muscle and fat. Abnormalities in insulin signalling thus impact health and survival itself of organisms and the study addresses an important piece of the puzzle.** Study - The study mimicked both normal levels of insulin, as in a healthy individual, and abnormal levels of insulin as in pathophysiology.
- 3.The study found that the inputs from the fasted insulin levels created a memory that improved the fed insulin inputs. It also elucidates the detrimental impact of constant high insulin as in

to give Indian deathrow prisoner Kulbhushan Jadhav the right to file a review appeal against his conviction by a military court. Mr. Jadhav, a 51 year old retired Indian Navy officer, was sentenced to death by a Pakistani military court on charges of espionage and terrorism in April 2017. ICJ verdict India approached the International Court of Justice (ICJ) against Pakistan for denial of consular access to Mr. Jadhav and challenging the death sentence. After hearing both sides, The Hague based ICJ issued a verdict in July 2019, asking Pakistan to give India consular access to Mr. Jadhav and also ensure review of his conviction. The International Court of Justice (Review and Reconsideration) Bill, 2021 is aimed at fulfilling the obligation under the verdict of the ICJ.

A Special Bench of the Supreme Court, led by Chief Justice of India N.V. Ramana, protected two lawyers and a journalist booked under the Unlawful Activities (Prevention) Act (UAPA) from any “coercive action” by the Tripura police. The lawyers had led a factfinding mission and released a report on the “targeted political violence against Muslim minorities in the State” in October and the journalist had tweeted “Tripura is burning”.

Chief Justice of India (CJI) N.V. Ramana reproached the “inertia” of the bureaucracy which waits for the court to pass orders, from stopping vehicles to dousing fires, to clean the polluted air. Justice Surya Kant, on the Bench, in his turn, noted that people sitting in fivestar and seven star hotels in Delhi could not blame farmers for stubble burning and need to understand their plight. Justice D.Y. Chandrachud asked if the Government had any “positive steps” in hand that would help immediately clear the smog. The Bench raised doubts about the efficacy of the measures adopted by the Commission for Air Quality Management (CAQM) in the National Capital Region and adjoining areas in an emergency meeting.

Rebutting allegations that it had weakened the Glasgow climate pact by having the final text of the agreement read that coal would be “phased down” instead of “phased out,” Indian officials said it had merely read out a ‘consensus’ statement agreed to by all countries on the final day of the COP conference. India, the U.S. and China are three of the largest fossil fuel emitters in the world though India and China are far more dependent on coal than the U.S. “Phase down’ [the term] came from U.S. and China joint statement and

the case of uncontrolled feeding habits, without a fasting phase, and its effects on signaling molecules that govern tissue maintenance & growth. It identifies potential novel regulatory components & parameters whose modulation could lead to better therapeutic interventions in the future to reduce tissue damage, beyond the usual impact on blood glucose.

S-400 MISSILE SYSTEM

1.The US has expressed its "concern" over the delivery of S-400 Triumf missile defence systems from Russia to India. The S-400 is known as Russia's most advanced long-range surface-to-air missile defence system. This fully mobile missile system is a successor to the S-300 system. Each system has a 3D phased array acquisition radar that can track around 300 targets up to 600 km. It has command and control centre, automatic tracking and targeting systems, launchers and support vehicles.

2.Each system has 4 types to missiles for up to 40 km, 120 km, 250 km and maximum range of 400 km and up to 30 km altitude. The different ranges and varying altitudes create a layered air defence net. S-400 battalion has 8 missile launchers, typically with 4 missiles each. Uses - S-400 can simultaneously track and neutralize many incoming objects spanning aircraft, missiles and Unmanned Aerial Vehicles (UAV) over very long ranges.

3.It can provide air interception against early warning aircraft, airborne missile strategic carriers, tactical and theatre ballistic missiles, medium-range ballistic missiles in a dense radio countermeasure scenario.

TOURISM VILLAGE

1.Pochampally Village in Telangana State has been selected as one of the best Tourism Villages by the UN World Tourism Organisation (UNWTO). Pochampally in Telangana is often referred to as the Silk City of India for the exquisite sarees that are woven through a unique style called Ikat.

2.This style, Pochampally Ikat, received a Geographical Indicator (GI Status) in 2004. Pochampally is also known as Bhoodan Pochampally to commemorate the Bhoodan Movement that was launched by Acharya Vinobha Bhave from this village on April 18th, 1951. Pochampally saree has traditional, geometric patterns in the characteristic blurry design.

3.Ikat-Ikat (meaning “Tie and Dye”) is a yarn-resist dyeing process that involves the process of wrapping (or tying) and dyeing sections of bundled yarn to a predetermined colour pattern before they are woven. The dye penetrates into exposed sections while the wrapped section remains undyed. This pattern formed by the yarn in this process is woven into fabric.

4.UNWTO's Best Tourism Villages-This Pilot initiative aims to award those villages which are outstanding examples of rural destinations and showcase good practices in line with its specified 9 evaluation areas. It is a global initiative to highlight those villages where tourism preserves cultures and traditions, celebrates diversity, provides opportunities and safeguards biodiversity.

5.Benefits-Reduce regional inequalities in income and development. Fight rural depopulation. Progress gender equality and women's and youth empowerment. Enhance education and skills development.

6.Rural Tourism Policy-Ministry of Tourism has drafted a Rural Tourism Policy which will, Promote tourism within our villages, Revitalise local arts and crafts and Promote rural economy. It will help redevelop and rebuild our villages and rural life and the residents of the villages will also get an opportunity to engage and interact with people from outside.

UNIQUE LAND PARCEL IDENTIFICATION NUMBER(ULPIN)

1.'Bhumi Samvaad' – a National Workshop on Digital India Land Record Modernisation Programme (DILRMP) was held recently at India Habitat Centre here in the national capital. Talking about the importance of Unique Land Parcel Identification Numbers (ULPIN), Shri Singh said it is just like the Aadhar Number of land parcels. He said that in this unique system wherein a unique ID based on Geo-coordinates of the parcels is generated and assigned to the plots.

2.About the Scheme: Under the scheme, a 14-digit identification number will be issued to every plot of land in the country. It is being described as “the Aadhaar for land” — a number that would uniquely identify every surveyed parcel of land and prevent land fraud, especially in rural India, where land

we tried to find a consensus. The Chair asked us to introduce the text and that is why we did,” said senior officials.

External Affairs Minister S. Jaishankar and Defence Minister Rajnath Singh are likely to hold their first “2+2” format talks with their Russian counterparts Sergey Lavrov and Sergey Shoygu, along with Russian President Vladimir Putin, who is expected to meet Prime Minister Narendra Modi in Delhi for the annual summit on December 6, as well as the inter-governmental joint commission meeting, sources confirmed here. Officials said the India-U.S. 2+2 meeting, with Secretary of State Antony Blinken and Defense Secretary Lloyd Austin that was earlier to be held in Washington in November, may be put off to January, owing to scheduling difficulties including the winter session of Parliament that ends on December 23. The 2+2 format agreed to during a Modi-Putin phone conversation in April is particularly significant, given that India conducts joint foreign and defence ministerial only with its closest ‘Quad’ partners — the U.S., Japan and Australia.

records are outdated and disputed.

3.The identification will be based on the longitude and latitude of the land parcel, and is dependent on detailed surveys and geo-referenced cadastral maps.

4.Benefits: The benefits of ULPIN are multitudinous. The single source of information can authenticate the ownership and in turn it can end the dubious ownership. It will help identify the government lands easily and protect land from shabby land transaction.