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MINISTRY OF SCIENCE AND TECHNOLOGY



MK Yadav Sir

Table of Contents

1. ILO’s Report on Forced Labour
2. Water Crisis in Bengaluru
3. Genetic Rescue
4. Defamation Law
5. STEAG
6. Srivilliputhur Megamalai Reserve
7. India’s Neighbourhood First Policy
8. White Asbestos
9. Bitcoin Halving
10. Bugun Liocichla

THE HINDU Page 12

ILO'S REPORT ON FORCED LABOUR

(Syllabus: GS Paper 2 – Social Justice)

27.6 million people engaged in forced labour in 2021: ILO

A.M. Jigeesh
NEW DELHI

It perpetuates cycles of poverty and strikes at the heart of human dignity, says report

A study by the International Labour Organization (ILO), released in Geneva on Tuesday, has found that forced labour generates illegal profits worth $36 billion per year.

This is an increase of 37% of such illegal profits since 2014 and the study said this is fuelled by both a growth in the number of people forced into labour, as well as higher profits generated from the exploitation of victims. For the study, surveys have been conducted among workers, including Indians in Saudi Arabia and Qatar.

The report titled "Profits and poverty: The economics of forced labour" also estimates that traffickers and criminals are generating close to $10,000 per victim, up from $8,269 (adjusted for inflation) a decade ago. "Total annual illegal profits from forced labour are highest in Europe and Central Asia ($84 billion), followed by Asia and the Pacific ($62 billion), the Americas ($52 billion), Africa ($20 billion), and the Arab States ($18 billion)," the report said.

The report also said forced commercial sexual exploitation accounts for more than two-thirds (73%) of the total illegal profits, despite accounting for only 27% of the total number of victims in privately imposed labour. "After forced commercial sexual exploitation, the sector with the highest annual illegal profits from forced labour is industry, at US$35 billion, followed by services (US$20.8 billion), agriculture (US$5.0 billion), and domestic work (US$2.6 billion). These illegal profits are the wages that rightfully belong in the pockets of workers but instead remain in the hands of their exploiters, as a result of their coercive practices," ILO Director-General Gilbert F. Houngbo said.

"Forced labour perpetuates cycles of poverty and exploitation and strikes at the heart of human dignity. We now know that the situation has only got worse. The international community must urgently come together to take action to end this injustice," said the ILO Director-General.

There were 27.6 million people engaged in forced labour on any given day in 2021, the report said, meaning 3.5 people for every 1,000 people in the world. "Between 2016 and 2021, the number of people in forced labour increased by 2.7 million," it said.

Context: Recently, a study released by the International Labour Organization (ILO) in Geneva revealed that forced labor generates illegal profits worth $36 billion per year.

Highlights of Report

- **Significant Increase in Illegal Profits**: Illegal profits from forced labor have surged by 37% since 2014, propelled by a rise in coerced labor and higher profits from victim exploitation.
- **Profit Dynamics and Geographic Distribution**: The report reveals that traffickers are now generating close to $10,000 per victim, with Europe and Central Asia leading in annual illegal profits, followed by Asia and the Pacific, the Americas, Africa, and the Arab States.
- **Alarming Statistics**: The report highlights that on any given day in 2021, 27.6 million people were subjected to forced labor, witnessing an increase of 2.7 million individuals between 2016 and 2021.
- **Profit Distribution by Sector**: Forced commercial sexual exploitation constitutes 73% of total illegal profits, while industries like manufacturing and services follow closely, highlighting the diverse sectors contributing to this nefarious economy.

International Labour Organisation (ILO)

- **About**: The International Labour Organization (ILO) is the United Nations agency for the world of work.
- **Mandate**: Its mandate is to advance social and economic justice through setting international labour standards.
- **Motto**: ILO's mandate as the basis for peace is expressed today as Decent Work for all.
- **Headquarters**: Geneva, Switzerland.
- **Parent organization**: Economic and Social Council of the United Nations.
- **Members**: The ILO has 187 member states: 186 out of 193 UN member states plus the Cook Islands.
- **Structure**: It is the only tripartite U.N. agency that brings together governments, employers and workers' representatives of 187-member States.

WATER CRISIS IN BENGALURU
(Syllabus: GS Paper 3 – Env and Eco)

Behind and beyond the water crisis in Bengaluru

While the spotlight is on Bengaluru, much of Karnataka and its neighbours are facing water scarcity. Reasons include poor monsoon and the nature of aquifers



AMITABH SINHA

AN ACUTE drinking water crisis in Bengaluru has been creating international headlines for the past few days. On Monday, Karnataka Chief Minister Siddaramaiah said Bengaluru was facing a shortage of 500 million litres of water every day, which is about a fifth of the city's daily total demand. The CM said arrangements were being made for additional supplies for Bengaluru.

However, the shortage of water is not restricted to Bengaluru, and neither is it only a drinking water problem. The entire state of Karnataka, as also the adjoining areas of Telangana and Maharashtra, are facing water scarcity. Much of this has to do with the lower-than-normal rainfall in this area in the last one year and the nature of underground aquifers in this region.

Why the water shortage

During the 2023 monsoon, Karnataka received rainfall that was 18 per cent below normal, the least since 2015. Even the post-monsoon period did not bring much rain here. Like most other parts of the country, Karnataka receives the bulk of its annual rainfall during the monsoon, and it is this water that fills up the reservoirs and recharges the aquifers. A rainfall deficit in the monsoon months almost inevitably results in water stress.

Karnataka was not the only state to receive below-normal rainfall last monsoon. Kerala, for example, finished the season with a 34 per cent deficit. Bihar, Jharkhand and eastern Uttar Pradesh had almost 25 per cent deficit each.

However, what makes the difference in the case of Karnataka, as pointed out by Vimal Mishra, a professor of Civil Engineering and Earth Sciences at IIT Gandhinagar, is the nature of the underground aquifers in the area.

"South India has a very different kind of aquifer system. It is very rocky. The aquifers don't hold a lot of water. They empty out quickly, and they also get recharged pretty quickly. What this means is that groundwater resources are not able to sustain for very long in the event of a prolonged dry spell. This is very different from the aquifers in north India, which have a much better capacity to hold water. This is why Bihar and Uttar Pradesh, which got even less rainfall last year than Karnataka, have not seen similar water scarcity," Mishra, the Vikram Sarabhai Chair professor at IIT Gandhinagar, said.

"Aquifers in North India, once full, can hold enough water to sustain the demand for a couple of years," he said.

Falling reservoir levels

Another direct consequence of low rainfall has been the relatively low level of water in reservoirs. Latest data from the Central Water Commission show that Karnataka reservoirs are currently holding water at only 26 per cent of their full capacity, which is at least 10 percentage points lower than what is expected at this time of the year. Instead of the nearly 8.8 billion cubic metres of water that is expected in Karnataka's reservoirs at this time of the year, only 6.5 billion cubic metres is currently available. And this is depleting steadily. A month earlier, the state's reservoirs were holding 7.78 billion cubic metres of water, CWC data show.

Again, it is not just Karnataka's reservoirs that have below-normal water levels. Other states in South India are facing the same problem, with Telangana being in a far worse situation. But the demands in Karnataka are different, and its reservoirs are depleting faster than those of the neighbouring states. The state is being forced to draw more from the reserves even before the start of the summer season.

"Roughly about half of Bengaluru gets its drinking water through piped supply. The remaining half mostly uses groundwater for drinking purposes. The areas that have piped supply are not facing much disruption because this water is coming from the reservoirs. In these kinds of situations, when the rainfall has been scanty and reservoir levels are low, the tendency of the government is to prioritise drinking water needs, especially in the urban areas. It is in parts of Bengaluru that are dependent on groundwater that the drinking water problem seems most acute," Mishra said.

As summer rolls in, the state might be staring at an even bigger water crisis, as the demand goes up, not just from households but also from industry, agriculture and hydropower sectors. This is likely to continue till the monsoon rains arrive, hopefully in the first or second week of June.

Dealing with water shortage

"There are a lot of long-term structural issues, like unregulated construction, systematic destruction of lakes, hindrances to the natural underground flow of water, and climate change, that affect the availability of water in Bengaluru. But these do not seem to be the immediate triggers for this particular ongoing event. This one has to do largely with the seasonal fluctuation in rainfall and the state's inability to create capacities to deal with these kinds of variabilities," Mishra said.

He said while the focus has been on Bengaluru — the main urban centre with a major international footprint — it was quite likely that the rural parts of the state were facing an even greater shortage. India still has not built capacities to deal with multiple-year droughts, he said.

"We have extrapolated data going back several hundred years. We have found that the probability of two or three continuous years of drought at the national level is extremely low, but at the state level this is very probable; in fact, quite high. We will have to become resilient to such disruptions," he said.

"The key obviously is to put value on water. It is not a free resource. Low or optimum consumption needs to be incentivised while wastage must be discouraged. How this is done is a matter of policy choice. But the use of ground water through the use of household pumps, for example, needs to be discouraged and minimised," he said.

Context: An acute drinking water crisis in Bengaluru has been creating international headlines for the past few days.

Water Crisis in Bengaluru

- **Unplanned Urbanization**: Haphazard urban growth has contaminated groundwater with industrial chemicals and sewage, exacerbating the crisis.
- **Inadequate Monsoon**: Subpar rainfall in 2023 coupled with dependence on groundwater has intensified water stress.
- **Concretization and Reduced Green Cover**: Rapid urbanization has decreased permeable surfaces, hindering groundwater recharge and exacerbating the crisis.
- **Encroachment of Natural Water Bodies**: Valleys acting as water conduits have been encroached upon, disrupting natural water flow and causing stagnation.
- **Over-exploitation of Groundwater**: Excessive extraction from groundwater sources has further depleted the already strained water table.
- **Lack of Effective Water Governance**: Unregulated water extraction and distribution have led to mismanagement, aggravating the crisis.
- **Lack of Citizen Sensitivity**: Free access to water has led to detachment among citizens, hindering efforts to address the crisis effectively.

Impact of Bengaluru Water Crisis

- **Water Shortages**: Many residents, particularly in the outskirts and higher elevations of the city, confront acute water shortages, resorting to expensive and irregularly supplied water tankers for daily needs.
- **Quality Concerns**: The water crisis heightens worries about water quality, with scarcity forcing the use of contaminated sources, thereby elevating the risk of waterborne diseases.
- **Economic Impact**: The water crisis not only impacts the quality of life but also jeopardizes the economic viability of the city, endangering its stature as a global IT hub.

DTE Mar 19

GENETIC RESCUE
(Syllabus: GS Paper 3 – Env & Eco)

Conservation not enough for the highly inbred Ranthambore tigers — they require genetic rescue

Context: Genetic rescue is proposed as a method to conserve Ranthambore National Park's tiger population.

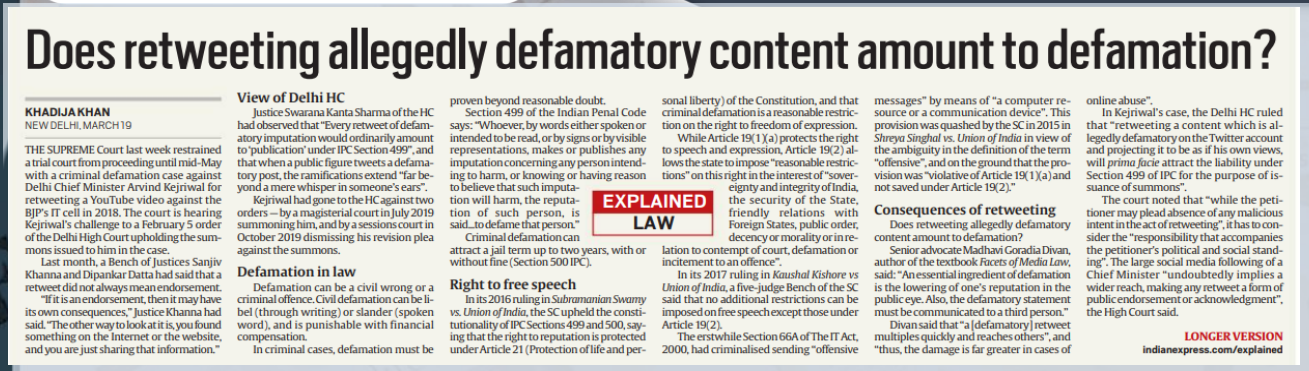
Genetic Rescue

- **Definition**: Genetic rescue involves augmenting population growth by introducing new genetic variation through migration, also known as **gene flow.**
- **Implementation in Conservation**: Wildlife managers transfer individuals from a larger, healthier population to a smaller one, aiming to introduce diversity and improve overall population health.
- **Conservation Goals**: The primary objectives include reducing genetic load, lowering extinction risk, and enhancing the long-term viability of endangered species and populations.
- **Mitigating Inbreeding Depression:** Genetic rescue addresses the detrimental effects of inbreeding depression, which diminish reproductive success and offspring viability due to mating among close relatives.
- **Assessing Effects:** The outcomes of genetic rescue vary, influenced by factors such as the extent and duration of gene flow, alongside genetic and environmental dynamics within populations.
- **Balancing Risks and Benefits**: While offering potential benefits, genetic rescue carries risks associated with translocating animals, often considered a last-resort strategy in conservation efforts.

Ranthambore National Park

- **About:** Established in 1955 as Sawai Madhopur Game Sanctuary, later declared a Project Tiger reserve in 1973.
- **Tigers:** Notable individuals include T-24, T39, and T83, with tiger population fluctuating due to conservation challenges.
- **Flora:** Encompasses over 300 tree species, featuring dense tropical dry forests and significant medicinal flora.
- **Fauna**: Home to over 270 bird species, including crested serpent eagle and Indian paradise flycatcher.

DEFAMATION LAW
(Syllabus: GS Paper 2 – Polity)



Does retweeting allegedly defamatory content amount to defamation?

KHADIJA KHAN
NEW DELHI, MARCH 19

THE SUPREME Court last week restrained a trial court from proceeding until mid-May with a criminal defamation case against Delhi Chief Minister Arvind Kejriwal for retweeting a YouTube video against the BJP's IT cell in 2018. The court is hearing Kejriwal's challenge to a February 5 order of the Delhi High Court upholding the summons issued to him in the case.

Last month, a Bench of Justices Sanjiv Khanna and Dipankar Datta had said that a retweet did not always mean endorsement.

"If it is an endorsement, then it may have its own consequences," Justice Khanna had said. "The other way to look at it is, you found something on the Internet or the website, and you are just sharing that information."

EXPLAINED LAW

View of Delhi HC

Justice Swarana Kanta Sharma of the HC had observed that "Every retweet of defamatory imputation would ordinarily amount to 'publication' under IPC Section 499", and that when a public figure tweets a defamatory post, the ramifications extend "far beyond a mere whisper in someone's ears".

Kejriwal had gone to the HC against two orders — by a magisterial court in July 2019 summoning him, and by a sessions court in October 2019 dismissing his revision plea against the summons.

Defamation in law

Defamation can be a civil wrong or a criminal offence. Civil defamation can be libel (through writing) or slander (spoken word), and is punishable with financial compensation.

In criminal cases, defamation must be proven beyond reasonable doubt.

Section 499 of the Indian Penal Code says: "Whoever, by words either spoken or intended to be read, or by signs or by visible representations, makes or publishes any imputation concerning any person intending to harm, or knowing or having reason to believe that such imputation will harm, the reputation of such person, is said...to defame that person."

Criminal defamation can attract a jail term up to two years, with or without fine (Section 500 IPC).

Right to free speech

In its 2016 ruling in *Subramanian Swamy vs. Union of India*, the SC upheld the constitutionality of IPC Sections 499 and 500, saying that the right to reputation is protected under Article 21 (Protection of life and personal liberty) of the Constitution, and that criminal defamation is a reasonable restriction on the right to freedom of expression.

While Article 19(1)(a) protects the right to speech and expression, Article 19(2) allows the state to impose "reasonable restrictions" on this right in the interest of "sovereignty and integrity of India, the security of the State, friendly relations with Foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence".

In its 2017 ruling in *Kaushal Kishore vs Union of India*, a five-judge Bench of the SC said that no additional restrictions can be imposed on free speech except those under Article 19(2).

The erstwhile Section 66A of The IT Act, 2000, had criminalised sending "offensive messages" by means of "a computer resource or a communication device". This provision was quashed by the SC in 2015 in *Shreya Singhal vs. Union of India* in view of the ambiguity in the definition of the term "offensive", and on the ground that the provision was "violative of Article 19(1)(a) and not saved under Article 19(2)."

Consequences of retweeting

Does retweeting allegedly defamatory content amount to defamation?

Senior advocate Madhavi Goradia Divan, author of the textbook *Facets of Media Law*, said: "An essential ingredient of defamation is the lowering of one's reputation in the public eye. Also, the defamatory statement must be communicated to a third person."

Divan said that "a [defamatory] retweet multiplies quickly and reaches others", and "thus, the damage is far greater in cases of online abuse".

In Kejriwal's case, the Delhi HC ruled that "retweeting a content which is allegedly defamatory on the Twitter account and projecting it to be as if his own views, will *prima facie* attract the liability under Section 499 of IPC for the purpose of issuance of summons".

The court noted that "while the petitioner may plead absence of any malicious intent in the act of retweeting", it has to consider the "responsibility that accompanies the petitioner's political and social standing". The large social media following of a Chief Minister "undoubtedly implies a wider reach, making any retweet a form of public endorsement or acknowledgment", the High Court said.

LONGER VERSION
indianexpress.com/explained

Context: The Supreme Court recently restrained a trial court from proceeding until mid-May with a criminal defamation case against Delhi Chief Minister for retweeting a YouTube video against the ruling party's IT cell in 2018.

Defamation in India

- **About**: Defamation is the communication of a false statement that harms the reputation of an individual person, business, product, group, government, religion, or nation.
- **Legal provisions**: In India, defamation can both be a civil wrong and a criminal offence.
- **Section 499:** Whoever, by words either spoken or intended to be read, or by signs or by visible representations, makes or publishes any imputation concerning any person intending to harm, or knowing or having reason to believe that such imputation will harm, the reputation of such person, is said, except in the cases hereinafter excepted, to defame that person.
- **Section 500:** Punishment for defamation- simple imprisonment for a term which may extend to two years, or with fine, or with both.
- **Exceptions:** Exceptions are provided under Section 499 of the Indian Penal Code, including truth made for public good, opinions about public servants, and statements made in public interest. These exceptions exempt persons making defamatory statements from punishment under certain circumstances.
- **Constitutionality:** Defamation laws in India have faced controversy regarding their compatibility with the right to free speech guaranteed under Article 19 of the Constitution.

Supreme Court View

- **Subramanian Swamy vs Union of India case (2014)**: The Court approved the Constitutional validity of sections 499 and 500 (criminal defamation) in the Indian Penal Code, underlining that an individual's fundamental right to live with dignity and reputation "cannot be ruined solely because another individual can have his freedom".
- **J Jayalalithaa case (2016):** The court passed strictures on Tamil Nadu Chief Minister J Jayalalithaa for misusing the criminal defamation law to "suffocate democracy" and, the court said, "public figures must face criticism".
- **Arun Jaitley Vs. Arvind Kejriwal:** Arvind Kejriwal and five others were found guilty of making defamatory statements against Arun Jaitley. The matter was resolved after the defendants apologized.
- **Kaushal Kishore vs Union of India (2017)**: A five-judge Bench of the Supreme Court emphasized that no additional constraints beyond those outlined in Article 19(2) can be imposed on free speech.

ECONOMIC TIMES

Mar 19

STEAG

(Syllabus: GS Paper 3 – Sci and Tech)

Indian Army establishes elite tech unit STEAG to research future communication technologies

Context: The Indian Army has initiated a significant development in its technological capabilities by establishing the Signals Technology Evaluation and Adaptation Group (STEAG).

Signals Technology Evaluation and Adaptation Group (STEAG):

- **About:** The TEAG is created with a focus on enhancing the communication infrastructure of the Indian Army.
- **It operates under**: The Signals Directorate and is headquartered in Delhi, led by a Colonel from the Corps of Signals.
- **Objective**: To bolster the communication infrastructure of the Indian Army, focusing on modernization and efficacy.
- **Organizational Strength**: The STEAG is anticipated to consist of approximately 280 personnel, as per the defense source.
- **Technology Assessment and Integration**: STEAG will assess current technologies, aligning them with the specific needs of the Indian Army, and pioneer trials and inductions.
    - It will collaborate with private sector and academia to incorporate cutting-edge civil and global technologies.
- **Focus**: STEAG will focus on developing tailored solutions across wired and wireless systems, including areas such as electronic exchanges, mobile communications, 5G/6G networks, quantum technologies, artificial intelligence, and machine learning.
- **Significance in Modern Warfare**: Recognizing the criticality of communication in modern warfare, the initiative aims to equip units and formations with advanced equipment to ensure seamless communication support during operations.

NEW INDIAN EXPRESS

Mar 19

SRIVILLIPUTHUR MEGAMALAI RESERVE

(Syllabus: GS Paper 3 – Env and Eco)

In a first, TN acquires patta land in tiger reserve for conservation

Context: In a first, the Tamil Nadu forest department has acquired 30.41 acres of erstwhile private patta land, situated in the core area of Srivilliputhur Megamalai Tiger Reserve (SMTR).

Srivilliputhur Megamalai Tiger Reserve (SMTR)

- **About**: It was established in February 2021 through a joint declaration by the Centre and Tamil Nadu governments.
- **Merger of Wildlife Sanctuaries**: The reserve came into being by amalgamating Megamalai Wildlife Sanctuary and Srivilliputhur Wildlife Sanctuary, enhancing conservation efforts.
- **Tamil Nadu's Fifth Tiger Reserve**: It holds the distinction of being Tamil Nadu's fifth Tiger Reserve and the 51st in India, bolstering the country's tiger conservation initiatives.
- **Fauna**: Bengal tigers, elephants, leopards, Indian giant squirrels, gaur, and Nilgiri Tahrs, highlighting its biodiversity.
- **Vegetation**: Tropical evergreen and semi-evergreen to dry deciduous and moist mixed deciduous forests, fostering diverse ecosystems.
- **Historical Transformation**: The reserve's formation merged Grizzled Squirrel Wildlife Sanctuary and Megamalai Wildlife Sanctuary, bridging historical gaps in conservation efforts.
- **Unique Conservation Challenges**: With a significant portion of its core area situated on private patta lands utilized for coffee and cardamom cultivation, the reserve faces distinctive conservation challenges.
- **Other four Tiger reserves of Tamil Nadu**: Anamalai tiger reserve, Kalakkad - Mundanthurai tiger reserve, Mudumalai tiger reserve, Sathyamangalam tiger reserve.

Land acquisition for Tiger Reserve (TR)

- **Legal Acquisition**: The land was acquired legally through private negotiation under the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- **Voluntary Surrender:** A sum of Rs 2.33 crore was paid to seven landowners who voluntarily surrendered their land for conservation purposes.
- **Government Initiative**: This marks the inaugural instance in India where the state government has procured private land for non-commercial purposes, specifically aimed at forest and biodiversity conservation.



THE HINDU

Page 6

INDIA'S NEIGHBOURHOOD FIRST POLICY

(Syllabus: GS Paper 2 – IR)



Ties that epitomise India's neighbourhood first policy

Gautam Bambawale

is a former Indian Ambassador to Bhutan and is currently the trustee of the think-tank, Pune International Centre

People have always marvelled at how little Bhutan with an area of 38,394 square kilometre and a population of 7.7 lakh as compared with its giant neighbour India with an area of 3.28 million sq.km and a population of 140 crores have been the closest of partners and the best of friends over the past 50 years and more.

The answer is quite simple. Both nations look to each other as equals, we treat each other with the utmost respect and we have long realised that size does not really make a difference in relations between two sovereign nation states. Thus, India has constantly respected Bhutanese identity, Bhutan's unique religious practices and its desire to be economically prosperous while retaining its own way of life. On its part, Bhutan has long known that there is no real threat to its sovereignty or identity from its southern flank. Hence, it has looked to India to help it grow, develop and prosper. India has lived up to this expectation. Over the decades this has developed into a unique level of trust amongst the leadership of the two countries. It has been in evidence in the recent past.

The Gelephu project

The King of Bhutan paid a visit to India in November 2023 during which he hinted at his plans for a Mindfulness City at Gelephu in southern Bhutan. It is to be like a Special Economic Zone to attract foreign investment and advance prosperity for that nation. Naturally, India, including its business entities, is expected to play a significant role in this effort. Simultaneously, the Gelephu Mindfulness City is to keep sustainability, well-being and environmental concerns at the forefront. Such a project is expected to lead the people of Bhutan to higher income levels while allaying any concerns about its impact on Bhutan as a carbon negative country. Gelephu city is expected to focus on human well-being too with an emphasis on yoga, rest and recreation, spa therapies and mental relaxation channels.

There is much evidence of the unique level of trust between the leadership of Bhutan and India that has led to a strengthening of relations between India and Bhutan, but none of the proposed five projects has really taken off. Perhaps, it is time to acknowledge that this new proposed model is flawed and there is a need to go back to the drawing board to work out a more practical and potentially successful new model for hydroprojects.

The visit last week by the Prime Minister of Bhutan to India was a follow-up to the king's earlier visit and there were excellent discussions with Prime Minister Narendra Modi as well as the President of India, Droupadi Murmu. This week, Mr. Modi is to pay a return visit to Bhutan. We must understand that any relationship, whether it is between two individuals or between two nations, needs constant tending, regular dialogue and a lot of care and cooperation. The back-to-back visits of the Prime Ministers of Bhutan and India to each other's nations is a manifestation of this attention placed on the relationship by both governments.

This is a good augury for the continued growth and development of India-Bhutan ties. It epitomises India's Neighbourhood First policy approach.

The anchor of hydropower cooperation

Hydropower cooperation is the bedrock of India's relations with Bhutan. Several cooperative hydroprojects have been completed and commissioned by the two governments which supply clean electricity to India and provide Thimphu with a stream of revenue due to which it has graduated out of the Least Developed Country status. The delayed Punatsangchhu-II hydropower project is expected to be completed in 2024 - yet another successful example of the government-to-government model of cooperation in hydropower.

In recent years, a new joint venture model was developed for the construction of hydroprojects

India has also been a major development assistance partner to Bhutan and contributed ₹5,000 crore to its 12th Five Year Plan which just concluded. Critical in this process of development assistance is the fact that India does not merely undertake projects which are of benefit to it but pays a lot of attention to the priorities of the Bhutanese people so that projects of direct benefit to them are constructed. Such confabulation and discussion is an integral part of the successful partnership for prosperity between New Delhi and Thimphu. It is critical that this model continues in the future too.

Measures to consider

In the years ahead, India must contribute to the success of the Gelephu Mindfulness City and can perhaps consider the following measures: commence direct flights between Mumbai/Delhi and Gelephu; provide our technology and knowledge in building hard infrastructure to Bhutan (the private sector will take the lead); encourage high-end Indian tourists and businesspersons to visit Gelephu in controlled numbers; Encourage Indian businesses to set up shop in the city.

Gelephu is next to remote parts of West Bengal and Assam and the success of the Mindfulness City will have positive socio-economic spillovers for these geographies as well. It will provide yet another example of the win-win cooperation between India and Bhutan.

Context: Recently, despite vast differences in size and population between Bhutan and its neighbor India, the two nations have fostered a close partnership and friendship spanning over 50 years, showcasing India's steadfast commitment to its neighborhood first policy.

Indo-Bhutan Relation

- **Indo-Bhutan Treaty of Peace**: Perpetual peace and friendship, free trade, commerce, and equal justice are ensured.
  - The 2007 renegotiation bolstered Bhutan's sovereignty, removing India's guidance on foreign policy.
- **Hydropower Cooperation**: Established under the 2006 Agreement on Cooperation in Hydropower.
  - India committed to assisting Bhutan in developing 10,000 MW of hydropower by 2020.
- **Economic Assistance**: Since Bhutan's First Five Year Plan in 1961, India has consistently supported its development efforts, allocating Rs 4500 crore to Bhutan's 12th Five Year Plan (2018-23).

India's Neighbourhood First Policy

- **About:** India actively engages in developmental projects within its neighboring countries, bolstering mutual growth.
- **People-Oriented Regional Frameworks**: It emphasizes creating regional frameworks focused on mutual benefit and people's welfare.
- **Consultative and Outcome:** India's approach to engagement prioritizes consultation, non-reciprocity, and tangible outcomes, fostering connectivity and development.
- **Connectivity**: India fosters connectivity through agreements within SAARC, facilitating the free flow of resources, energy, goods, labor, and information.
- **Improving Relations with Neighbors**: Peace and stability in South Asia are paramount, prompting India to prioritize enhancing relations with immediate neighbors.
- **Economic Cooperation and Trade Enhancement**: The policy emphasizes enhancing trade ties with neighbors, participating in regional groupings like SAARC and BBIN for economic development.
- **Disaster Management Cooperation**: India collaborates with neighbors on disaster response, resource management, and weather forecasting, enhancing disaster management capabilities in the region.
- **Military and Defence Collaboration**: India deepens security cooperation through military exercises and defense partnerships with neighboring countries, ensuring regional stability.

DTE Mar 19

WHITE ASBESTOS
(Syllabus: GS Paper 3 – Sci and Tech)

United States bans white asbestos, last of its kind still in use

Context: In a long-awaited move, the United States' Environmental Protection Agency (EPA) announced a comprehensive ban on all forms of the deadly carcinogen asbestos.

White Asbestos

- **Definition**: Asbestos comprises six silicate minerals with similar yet distinct characteristics, once extensively employed in construction, insulation, and various consumer goods.
- **Modes of Asbestos Exposure**: Asbestos exposure occurs through inhalation of airborne particles or accidental ingestion, with both avenues posing significant health risks irrespective of the type of asbestos involved.
- **6 types of asbestos**: actinolite, amosite, anthophyllite, crocidolite, tremolite (amphibole minerals), and chrysotile (serpentine mineral).
- **Health Implications**: All forms of asbestos are linked to severe health conditions, including lung cancer, mesothelioma, laryngeal cancer, ovarian cancer, and asbestosis, as reported by the World Health Organization.
- **Evolution of Awareness**: Public awareness concerning asbestos escalated notably during the latter part of the 20th century, prompting the enactment of partial bans on numerous asbestos-containing products.
- **Industry Impact**: The recent ban on chrysotile asbestos, primarily utilized in the chlor-alkali industry, poses significant challenges.
    - This industry produces essential chemicals for water treatment and public health, raising concerns about potential disruptions.
- **Global Regulation**: While India has banned asbestos mining and certain uses, trade in raw asbestos and asbestos-based products persists, particularly in economically disadvantaged regions where asbestos is still commonly found in roofing materials.

FINANCIAL EXPRESS

Page 9

BITCOIN HALVING

(Syllabus: GS Paper 3 – Economy)



Why Bitcoin prices are touching all-time highs

Cryptocurrency Bitcoin's prices reached new all-time highs in March, topping the $73,000-mark, and are expected to rise even further, as the market anticipates higher demand and reduced supply after the "Bitcoin halving" event in April. *Piyush Shukla* explains what is the event and how investors stand to gain from it

April 2024

next halving event when block reward will shrink to 3.12 bitcoins for every 10 minutes of mining

$50 bn-plus

collective AUM held by 10 major US Bitcoin exchange traded funds

1% TDS

levied on sale of cryptocurrencies in India besides 30% tax on gains from trading in them

● Which are the Bitcoin ETFs?

THE US SECURITIES and Exchange Commission in January 2024 approved 11 spot Bitcoin ETFs, to be offered by asset managers including BlackRock, Valkyrie, Vanguard, Franklin Templeton, Fidelity and Invesco on US exchanges. This led to higher institutional demand, with daily purchases averaging 10,000 BTCs, far outstripping the daily production rate of 900. Collectively, assets under management across the ten major Bitcoin ETFs have surged to over $50 billion. BlackRock's Bitcoin ETF leads the pack, amassing over $10 billion in assets, while Fidelity's ETF has over $6 billion in assets.

● Impact on miners

DESPITE THE 50% reduction in rewards, profitability of miners may not suffer due to potential increases in the value of BTCs. To remain profitable post-halving, miners must focus on improving hardware efficiency and minimising electricity usage. It's vital to understand that block rewards play a crucial role in Bitcoin's operations. These rewards ensure the network's integrity and security, addressing issues like double-spending when someone alters a block chain network, previously unsolved in digital currency systems.

● Where can Indians buy bitcoins

WHILE CRYPTOCURRENCIES AS a payment medium in India are not regulated by any central authority, there are a host of Indian exchanges including CoinDCX, CoinSwitch, WazirX, Mudrex and SunCrypto. Internationally, Binance, Kraken, Coinbase, Bybit and OKX can enable purchase of crypto assets, but one should buy only through FIU-compliant exchanges. Gains made from transactions of cryptocurrencies are taxed at a rate of 30% in India, plus 4% cess. In addition, 1% tax is deducted at source on all sale transactions of virtual digital assets including cryptocurrencies.

● What is the Bitcoin halving event?

BITCOIN HALVING IS a pre-scheduled event that occurs once every four years where the reward for mining and verifying new blocks is reduced by 50%. It occurs after mining of every 2,10,000 blocks. Mining is the process of making computer hardware do mathematical calculations for the Bitcoin network to confirm transactions and increase security. A block is a record in the block chain that contains the transactions. A new block is added to the block chain every 10 minutes through mining. The block chain is a public record of the transactions in chronological order. If widely adopted, cryptocurrencies can potentially reduce the power of central banks and governments over monetary policy.

The next Bitcoin halving event is scheduled for April 2024, which will reduce the block reward to 3.12 bitcoins (BTC) for every 10 minutes of mining.

● Rationale behind halving

THE HALVING EVENT is rooted in Bitcoin's design and its underlying philosophy of scarcity. Satoshi Nakamoto, the pseudonymous creator of Bitcoin, designed the crypto to have a finite supply of 21 million coins. By reducing the rate of new coin issuance through the halving, Nakamoto sought to mimic the scarcity of precious metals like gold and create a deflationary monetary system.

Halving is significant as it cuts by half the rewards that miners receive for validating transactions. In other words, as CoinDCX co-founder Sumit Gupta says, it reduces the rate at which new bitcoins are created, ultimately leading to a decrease in the supply of new bitcoins. According to Coindesk, in 2009, miners received 50 BTCs every 10 minutes. Three halvings later, 6.25 BTCs are being dispensed every 10 minutes.

● Impact on Bitcoin prices

THE SCARCITY-DRIVEN PRICE appreciation has led to bull markets in the past, with BTC prices touching new all-time highs in the months following a halving event.

This time, however, prices have peaked even before the halving event due to demand from Bitcoin exchange traded funds (ETF), says WazirX vice-president Rajagopal Menon. While sharp supply shocks with persistent demand for ETFs from high net worth individuals are likely to push prices higher, the asset is still at a price discovery stage, and there are no definitive charts to conduct technical analysis of prices.

Standard Chartered has said BTC prices may hit $150,000 by year-end, and $250,000 in 2025. Experts say institutional investors including sovereign wealth funds may gain exposure to Bitcoin via ETFs without the need to directly purchase it.

Context: Recently, the prices of the cryptocurrency Bitcoin surged to new all-time highs, surpassing the $73,000 mark, with expectations of further increases as the market anticipates higher demand and reduced supply following the "Bitcoin halving" event in April.

Bitcoin Halving

- **About**: It is a predetermined event occurring every four years.
- **Halving Mechanics**: It involves a 50% reduction in mining rewards after every 210,000 blocks.
- **Mining Process**: Mining entails using computer hardware to validate Bitcoin transactions, enhancing network security.
- **Concept of Blocks**: Blocks are records in the blockchain containing transaction data, with a new one added approximately every 10 minutes.
- **Blockchain:** It serves as a public ledger, arranging transactions chronologically.
- **Potential Implications**: Wide adoption of cryptocurrencies could diminish the influence of central banks and governments on monetary policies.

Rationale behind halving

- **Mimicking Scarcity**: The halving event reflects Bitcoin's fundamental design and scarcity ethos established by Satoshi Nakamoto, with a fixed supply of 21 million coins akin to precious metals like gold.
- **Reduced Miner Rewards**: Halving significantly decreases the rewards miners receive for validating transactions, effectively cutting the rate of new bitcoin creation in half.
- **Deflationary Impact:** By lowering the rate of new coin issuance, halving contributes to a deflationary monetary system, aligning with Nakamoto's vision for Bitcoin's long-term economic model.

DECCAN HERALD

Mar 19

BUGUN LIOCICHLA

(Syllabus: GS Paper 3 – Env and Eco)

Arunachal tribe donates land for critically endangered songbird Bugun Liocichla

Context: Recently, the Bugun tribe in Arunachal Pradesh demonstrated their commitment to conservation by donating 1,470 hectares of forest land to the state forest department, significantly advancing efforts to protect the Bugun Liocichla bird.

Bugun Liocichla

- **About**: Bugun Liocichla is a diminutive babbler measuring only 20 cm, sporting olive-grey plumage, and adorned with a distinctive black cap.
- **Habitat**: Found solely within the Eaglenest Wildlife Sanctuary landscape, this avian species is not found anywhere else globally.
- **Critical Endangerment**: With a mere 14 individuals sighted in the Braiduah village under Singchung sub-division, Bugun Liocichla stands critically endangered.
- **Conservation Efforts**: Recognizing the urgency, the Arunachal Pradesh government designated the Braiduah Community Reserve under the Wildlife Protection Act, 1972, adjacent to the Eaglenest Wildlife Sanctuary.

Key Facts about Bugun Tribe

- **Migration and Origins**: Hailing from Tibet through East Kameng, Arunachal Pradesh, the Buguns establish their unique cultural identity.
- **Language and Culture**: The Buguns boast a distinct language known as Khowa and maintain their cultural boundaries with neighboring tribes.
- **Traditional Expertise**: Proficient in bamboo architecture and skilled in extracting oil from local wood species like Chiblem found in the forests.
- **Socio-Political Structure**: Governed by the Nimiang, the Bugun community has its own socio-political administrative body ensuring smooth functioning.
- **Cultural Practices**: Celebrating the "Pham-Kho" festival annually, Buguns typically practice endogamy, marrying within their community to preserve their heritage.

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