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Iconic tourists site

Why in news?

During her Budget speech earlier this month, Finance Minister Nirmala Sitharaman said that 17 “Iconic Tourist Sites” in the country would be developed by the government “into world class tourist destinations, to serve as a model for other tourism sites”. The initiative was aimed at enhancing India’s soft power.

The Sites

Taj Mahal and Fatehpur Sikri (Uttar Pradesh), Ajanta & Ellora (Maharashtra), Humayun’s Tomb, Red Fort and Qutub Minar (Delhi), Colva (Goa), Amer Fort (Rajasthan), Somnath and Dholavira (Gujarat), Khajuraho (Madhya Pradesh), Hampi (Karnataka), Mahabalipuram (Tamil Nadu), Kaziranga (Assam), Kumarakom (Kerala) and the Mahabodhi Temple (Bihar).

The Vision

- “The government is looking at overall development from the tourism point of view in and around these sites — which includes roads and infrastructure, hotels and lodges, connectivity and access”.
- As such, several ministries, from Railways to Civil Aviation, will be involved, while the Tourism Ministry will be the nodal agency. In keeping with international standards, interventions in and around the monuments will have elements of universal accessibility, green technology, and enhanced security for tourists.

The Funding

- The Tourism Ministry has been allocated Rs 1,378 crore for the development of tourism infrastructure.



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- This is only marginally more than the allocations in 2017-18 (Rs 1,151 crore) and 2018-19 (Rs 1,330 crore).

Status of 'Adopt a Heritage' scheme

- Many of these monuments were opened up for adoption in late 2017 under the Ministry of Tourism's Adopt a Heritage scheme.
- The Red Fort was adopted by the Dalmia Group, while the Qutub Minar and the Ajanta Caves were adopted by Yatra Online.
- But the momentum of the scheme has slowed down since, and only 11 MoUs have been signed so far.

Punjab agriculture crisis

Context

Huge swathes of agricultural land have been damaged by the severe waterlogging in five districts of Punjab, mainly in Bathinda, after unprecedented single day rain.

Waterlogging happens due to several factors like the geography of the land, excessive flow of water into a place without proper drainage systems and certain soil conditions.

In Punjab, a potent mix of incessant rain coupled with a lack of clean and capable drainage system and water storage pits has led to the present situation.

How can wells prevent waterlogging?

- With proper drainage system in the fields, experts say, the excessive water in the fields can be directed into these wells which have a good capacity of holding water.



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- The Soil and Conservation Department of the Punjab Agriculture University (PAU) in Ludhiana has been reviving these abandoned wells under the All India Coordinated Research Project (AICRP).
- Before sending water into the well, a small pit is dug in the field close to the well where the water is first held. The water from here overflows into the well.
- The bottom of the well is covered with brick blast (small pieces of bricks) up to 10 to 12 inch so as to protect against soil erosion at the bottom due to water falling directly from a height.
- This was one of the safest ways of water recharging and preventing water logging to a large extent.

How does the pit help clean the water?

- Since Punjab is a heavy user of pesticides, the impurities in the field water will get diluted in the pit after which the brick blast at the bottom of well will absorb these impurities as well as the silt,
- “The safe water goes into the earth from the first layer of soil to the other layers slowly,” he added.
- The brick blast will need to be cleaned after every five years and protected by removable slabs.
- The biggest benefit is that if the farmer needs water for irrigation he can use the well instead of extracting water from the ground using a tube well.
- With about 84 per cent of Punjab’s land under cultivation, this method has huge potential to recharge the entire state’s water table which has been depleting over the years because of extensive use of tubewell for faring.

Is it safe to send excessive water into the fields through bore wells?

- Experts warn against this method as it “will contaminate the safe groundwater” as the chemicals from crop sprays will directly enter the deep layer of soil.

What are other benefits of old abandoned wells?



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- In canal fed areas, the excess water can be stored in these wells to recharge the earth. This is can also reduce the expenditure on tube wells which now need to be deepened every other year.

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Crypto currency

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What are virtual currencies?

- A virtual currency is a digital representation of value that can be digitally traded and functions as (a) a medium of exchange, and/ or (b) a unit of account, and/or (c) a store of value, but, unlike fiat currency like the rupee, it is not legal tender and does not have the backing of a government.
- A cryptocurrency is a subset of virtual currencies, and is decentralised, and protected by cryptography.

What are Distributed Ledger Technologies and Blockchain?

- Broadly speaking, this is how Distributed Ledger Technologies, and Blockchain, in particular, function.
- DLT refers to technologies that involve the use of independent computers (also referred to as nodes) to record, share, and synchronise transactions in their respective electronic ledgers.



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- Keeping such distributed ledgers obviates the need for keeping the data centralised, as is done in a traditional ledger. All virtual currencies use DLT.
- A transaction under DLT essentially refers to the transfer of “value” from one to another.
- This “value” could be any record of ownership of assets — money, security, land titles — or the record of specific information such as information about one’s identity or health information, etc.
- That is why DLT has applications in several fields.

About block chain

- Blockchain is a specific kind of DLT that came to prominence after Bitcoin, a cryptocurrency that used it, became popular.
- Cryptocurrencies such as Bitcoin use codes to encrypt transactions and stack them up in blocks, creating Blockchains.
- It is the use of codes that differentiates cryptocurrencies from other virtual currencies.

What is the IMC’s view on DLT and cryptocurrencies?

- The first thing to understand is that the IMC recognises the potential of DLT and Blockchain.
- The IMC accepts that internationally, the application of DLT is being explored in the areas of trade finance, mortgage loan applications, digital identity management or KYC requirements, cross-border fund transfers and clearing and settlement systems.
- To that extent, it recommends the Department of Economic Affairs (within the Finance Ministry) to take necessary measures to facilitate the use of DLT in the entire financial field after identifying its uses.
- The IMC also recommends that regulators — RBI, SEBI, IRDA, PFRDA, and IBBI — explore evolving appropriate regulations for development of DLT in their respective areas.
- However, the IMC has recommended a ban on “private” cryptocurrencies

Why have private cryptocurrencies attracted a ban?

While it is true that the technology used in virtual currencies has immense potential, without a central regulating authority, they can have numerous downsides.



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- The IMC's first concern is that non-official virtual currencies can be used to defraud consumers, particularly unsophisticated consumers or investors.
- Second, scaling up such a currency system over a large population would require crippling levels of energy resources.
- Currencies such as Bitcoin require humongous processing power. According to a report by the Bank of International Settlement, Bitcoin processing already uses as much energy as is used by Switzerland; it called this an environmental disaster.
- Third, the IMC is worried that if private cryptocurrencies are allowed to function as legal tender, the RBI would lose control over the monetary policy and financial stability, as it would not be able to keep a tab on the money supply in the economy.
- Fourth, the anonymity of private digital currencies make them vulnerable to money laundering and use in terrorist financing activities while making law enforcement difficult.
- Fifth, there is no grievance redressal mechanism in such a system, as all transactions are irreversible.

It is for these broad reasons that the IMC singled out private cryptocurrencies for a ban.

BS-VI emission norms

The story so far:

The Union Government, through an order dated September 16, 2016, mandated Bharat Stage VI (BS-VI) mass emission standards for various classes of motor vehicles throughout the country from April 1, 2020, leapfrogging BS-V. While this will lead to better air quality in the short term, it also means higher vehicle prices and costs. For the automobile industry, this has meant accelerated development of all related technologies and components and big investments.



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What makes BS-VI fuels cleaner?

- As per Bureau of Indian Standards (BIS) norms for upgraded fuels, (IS: 2796 – petrol and IS: 1460 – diesel), sulphur content is reduced to 10 mg/kg max in BS-VI from 50 mg/kg under BS-IV.
- This key reduction in sulphur makes it possible to equip vehicles with better catalytic converters that capture pollutants.
- BS-VI confers several benefits, the most important of which is limits set on Particle Number (PN) for engines, a reference to direct injection engines that emit more particulates but are more efficient and release less carbon dioxide.
- Also, there are lower limits for hydrocarbons (HC) and nitrogen oxides (NOx) in diesel engines and lower Particulate Matter limits for both petrol and diesel engines.

What impact will it have on consumers?

- Prices are the biggest impact factor both for commercial and passenger vehicles under the BS-VI regime, with one industry research estimate putting the increase at up to ₹20,000 for petrol cars, ₹65,000 to ₹90,000 for diesel cars, going up to ₹2.25 lakh for heavy commercial vehicles.
- Even two wheelers, requiring fuel injection technology, will witness a price spike of ₹3,000 to ₹6,000.
- The giant scale of the shift needed to BS-VI can be gauged from the production base: the Society of Indian Automobile Manufacturers (SIAM) says the industry produced 30,915,420 vehicles ranging from two-wheelers to commercial vehicles in the year ended April 2019, with an annual growth of 6.26%.

What about the BS-IV vehicles already manufactured?

- Since there is no bar on the operation of existing vehicles beyond the cut-off date for BS-VI, that is, April 1, 2020, the inventory of personal and commercial vehicles will continue to be sold.
- This is significant for the commercial sector, which involves higher investments. After the deadline, however, all new vehicles sold must comply with BS-VI.



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- A spike in sales of BS-IV vehicles is expected closer to the festival season, when buyer sentiment turns positive, and the industry prepares to liquidate its stock of soon-to-be obsolete vehicles.
- The outlook is unclear for heavy commercial vehicles due to recent changes that enable higher freight loading, and depressed demand for expansion.
- The availability of higher financing through banks after the move to recapitalise them, and higher liquidity in non-banking financial companies could also influence sales.

What will the shift mean?

- As of January 1 this year, there were 57,468 retail fuel outlets of the oil marketing companies across the country.
- Although BS-VI fuel was introduced in the national capital last year, and extended to some contiguous districts in neighbouring States, the release of the higher grade fuel in all the pumps in the country has to be simultaneous.
- The auto industry wants it done by February.
- The cost of upgrading refineries to produce the higher-quality fuel is estimated at between ₹25,000 crore and ₹30,000 crore.

State butterfly in Tamil Nadu

Why in news?

Tamil Nadu became the fifth State to declare a State butterfly and Tamil Yeoman bagged the distinction.

About the butterfly

- The medium-sized butterfly may not be considered very beautiful, but has many special attributes because of which it was chosen.
- One reason is the name.
- There are about five butterflies endemic to the Western Ghat that bear the prefix 'Tamil' in their names.
- But this particular species scored high as it is found in abundance across most parts of the State.
- Secondly, the word 'yeoman' is translated in Tamil as 'maravan', meaning warrior, which again gave the species an edge over the others.



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- Another speciality of Tamil Yeoman is that the species, although endemic to the Western Ghats, can also be sighted in small numbers in the Eastern Ghats and in open country. Except for coastal areas, there are chances of sighting it in all other landscape.

Other states butterflies

- Tamil Nadu is the only State to choose a member of the Nymphalidae family, members of which are not considered attractive and colourful. Maharashtra (Blue Mormon), Kerala (Malabar Banded Peacock), Uttarakhand (Common Peacock) and Karnataka (Southern Birdwing), have chosen from Swallow Tails, which are usually big and beautiful with bold patterns.
- “Maharashtra’s State butterfly Blue Mormon is also considered a pest for some food plants.
- Tamil Yeoman however, feeds only on wild plants found in the Western Ghats