

**INDIAN HERITAGE AND CULTURE, HISTORY****UNESCO World Heritage Sites**

The Orchha town of Madhya Pradesh has been included in tentative list of the World Heritage Sites of United Nations Educational, Scientific and Cultural Organisation (UNESCO).

**About Orchha Town:**

- It is Situated on the banks of the river Betwa, in Niwari district of Bundelkhand region of Madhya Pradesh.
- Significance: The town is celebrated for its rich and ancient architecture of Chaturbhuj Temple, Orchha Fort Complex, and Raja Mahal among others. It is famous for its two elevated minarets – Saavan and Bhadon; and four palaces – Jahangir Palace, Rai Praveen Mahal, Raja Mahal, and Sheesh Mahal.
- The site houses ‘Sri Ram Raja Mandir’. It is the only place in India where Lord Ram is worshipped as a King, not as a deity, with this dedicated temple in his name.

**UNESCO world heritage site:**

- A UNESCO World Heritage Site is a place that is listed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as of special cultural or physical significance.
- The list is maintained by the international World Heritage Programme administered by the UNESCO World Heritage Committee, composed of 21 UNESCO member states which are elected by the General Assembly.
- Each World Heritage Site remains part of the legal territory of the state wherein the site is located and UNESCO considers it in the interest of the international community to preserve each site.

**INDIAN ECONOMY****Farm price challenge**

A persistent slump in the commodities market despite substantial hikes in the official floor prices of major crops to 50 per cent above their production cost is among the issues the new government would need to address urgently.

**Background**

- Most of the commodities for which the government fixes minimum support prices (MSPs) are being traded at 10 to 30 per cent below these rates in the ongoing rabi marketing season.
- The situation in the last kharif season was no different. The only exceptions are wheat and rice in select areas where these are procured by official agencies and a few others like barley, tur (pigeonpea) and cotton, whose demand outstrips supplies.
- Though pulses and oilseeds are also purchased in some areas by government-designated agencies, the quantities picked up by them are too meagre to impact the market.
- The government’s flagship price support scheme, PM-AASHA (Annadata Aay Sanrakshan Abhiyan), has remained virtually a non-starter.
- The losers in the process are the farmers who, it is feared, might resume their protests once the new government settles down in office.

**Reasons for price meltdown**

- The present commodity price meltdown can, indeed, be attributed largely to factors such as consistent surplus production in the last couple of years, subdued global commodity prices and unfavourable domestic and external trade policies concerning agri-commodities.
- Besides, some imprudent moves such as offloading previously procured stocks and permitting imports while the domestic crops are still being marketed also seem to have contributed to it.

**Flaws of PMAASHA –**

- This aside, the PM-AASHA (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan) scheme has been marred by some basic flaws in all the three price support components:
- Physical procurement of stocks at MSPs, price deficiency payment of the kind tried out in Madhya Pradesh, and a few other states, and the participation of private trade in the procurement and management of farm produce on a fixed-commission basis.

- The system of open-ended procurement of staple cereals, notably rice and wheat, has been in operation for decades and has served well to run the world's largest public distribution system but at a huge cost to the exchequer.
- Open-ended procurement limited to few states – It has, however, remained confined primarily to parts of a handful of states where the procurement infrastructure exists.
- Elsewhere, even rice and wheat are traded at sub-MSP rates. Universalising this system to cover all crops all over the country is unthinkable.
- Failure of price deficiency system – The price deficiency payment system, too, has failed to deliver the results because of a cumbersome registration procedure; mandatory sale through the regulated mandis dominated by manipulative middlemen; and capping total purchases at 25 per cent of production.
- Less participation by private traders – The third option of roping in private traders in price support operations has found no takers chiefly because the proposed commission of 15 per cent of the MSP for the operation involving buying, bagging, transporting, storing and disposing of the stocks is too meagre for the task.

#### Way Forward

- Apart from addressing these issues, several other measures may be needed to prop up agri-commodities prices.
- An export window as an outlet for surplus stocks is a must.
- This can be created by modifying import-export tariffs with an eye on boosting agri-exports.
- Besides, the farmers need to be incentivised to diversify their production by growing high-value crops, which could yield better returns without the government's intervention.
- The overarching objective of the policy regime has to be to strike a balance between the farmers' interests and inflation management

### **ISSUES RELATED TO INTERNAL SECURITY AND DISASTER MANAGEMENT**

#### **Fire and laissez-faire: fix accountability for Surat tragedy**

The deadly fire in a Surat coaching centre that resulted in the death of 22 young people highlights the gap between India's dreamy visions of smart cities and the cruel reality of urban chaos and lawlessness.

#### Flawed Urbanisation

- These young Indians are the latest victims of a culture of laissez-faire urbanisation that city governments have bred and which the courts allow to be pursued without severe penalties.
- History of fire incidents
- India's abysmal record on fire safety is reflected in the death of 17,700 people countrywide in fires in both public and residential buildings during 2015, according to the latest available data from the National Crime Records Bureau.
- Periodically, high-profile cases such as the Uphaar cinema blaze in Delhi that killed 59 people in 1997, and the Kumbakonam school fire in Tamil Nadu in 2004 in which 94 children perished shock the nation, but even these are not strong enough to persuade governments to make fire safety the priority it should be.

#### Accountability is missing

- Neither has prolonged, aggressive litigation by the affected families in the Uphaar case made a difference, because the criminal culpability of the administrative machinery and officials who sanctioned unsafe buildings, often in return for bribes, remains largely unaddressed.
- Ignorance towards safety norms
- Negligence by the fire department – The Surat fire cannot be called an accident, since there are reports of notices having been served to the builder on the risks, but not pursued by the Fire Department.
- Negligence by civic department – Civic officials have displayed unforgivable indifference, since two deaths occurred in another coaching centre in the city late last year.
- That tragedy should have led to a comprehensive review of public buildings.

### Way forward

- Look for deviation – The present inquiry into the disaster should go into any deviations from the sanctioned plan for the commercial building housing the coaching centre, and the role of urban planning officials in allowing it to come up.
- Responsibility of the judiciary – Ultimately, litigation on fire disasters goes to the courts, and it is essential for the judiciary to send out the message that there will be no tolerance to corruption and evasion in the enforcement of building rules and fire safety.

### Enforcing accountability –

- Beyond suspending a few officials and filing cases against the building owners, there is a need to make an example of sanctioning and enforcement authorities.
- The unwavering message must be that Indians demand accountability. Mandatory Building Insurance –
- Mandating compulsory insurance for all public buildings against fire risk and public liability can bring about a change to the way architects and builders approach the question of safety, since the insurer would require a reduction of risk and compliance with building plans. At least, that would be a start to rewriting India's shameful record on fire safety.

## **ENVIRONMENT- CONSERVATION, BIO-DIVERSITY AND ISSUES**

### World Wildlife Fund (WWF)

Six mammal, bird and fish species are facing the spectre of extinction in Russia according to World Wildlife Fund (WWF). These include the Saiga antelope, the gyrfalcon, the Persian leopard, the spoon-billed sandpiper, the Sakhalin sturgeon and the kaluga, also a type of sturgeon.

### About WWF:

- It is an international non-governmental organization
- Founded in 1961
- Headquarter — Gland (Switzerland).
- Aim : wilderness preservation & the reduction of human impact on the environment
- It is the world's largest conservation organization

### Objectives:

- Conserving the world's biological diversity
- Ensuring that the use of renewable natural resources is sustainable
- Promoting the reduction of pollution and wasteful consumption

### Reports & programmes:

- Living Planet Report— published every two years by WWF since 1998; it is based on a Living Planet Index and ecological footprint calculation
- Earth hour
- Debt-for-nature swaps—financial transactions in which a portion of a developing nation's foreign debt is forgiven in exchange for local investments in environmental conservation measures.
- Marine Stewardship Council(MSC) — independent non-profit organization which sets a standard for sustainable fishing

Healthy GrownPotato — eco-brand that provides high-quality, sustainably grown, packaged, and shipped potatoes to consumers by leveraging integrated pest management(IPM) farming practices on large scale farms

## **SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC**

### Superconductivity

Researchers from IISc Bengaluru have confirmed that the material they tested exhibits major properties of superconductivity at ambient temperature and pressure.

### Superconductivity

- Superconductivity is a phenomenon of exactly zero electrical resistance and expulsion of magnetic flux fields occurring in certain materials, called superconductors, when cooled below a characteristic critical temperature.

- A material is said to be a superconductor if it conducts electricity with zero resistance to the flow of electrons.
- Until now, scientists have been able to make materials superconduct only at temperature much below zero degree C and hence making practical utility very difficult.
- They help build very high efficiency devices leading to huge energy savings.
- Silver embedded gold matrix
- The material that exhibited superconductivity is in the form of nanosized films and pellets made of silver nanoparticles embedded in a gold matrix.
- Interestingly, silver and gold independently do not exhibit superconductivity.

### MeerLICHT Optical Telescope

Scientists in South Africa have launched the world's first optical telescope linked to a radio telescope, combining "eyes and ears" to try to unravel the secrets of the universe. The device forms part of the Square Kilometre Array (SKA) project in the remote Karoo desert, which will be the world's most powerful radio telescope system.

### Square Kilometre Array

- The SKA project is an international effort to build the world's largest radio telescope, with eventually over a square kilometre of collecting area.
- The scale of the SKA represents a huge leap forward in both engineering and research & development towards building and delivering a unique instrument, with the detailed design and preparation now well under way.
- The SKA will eventually use thousands of dishes and up to a million low-frequency antennas that will enable astronomers to monitor the sky in unprecedented detail.
- Its unique configuration will give the SKA unrivalled scope in observations, largely exceeding the image resolution quality of the Hubble Space Telescope.
- South Africa's Karoo host the core of the high and mid frequency dishes, ultimately extending over the African continent. Australia's Murchison Shire host the low-frequency antennas.

### MeerLITCH

- The latest move combines the new optical telescope MeerLITCH — Dutch for 'more light' — with the recently-completed 64-dish MeerKAT radio telescope, located 200 kilometres away.
- This is the eye, with the MeerKAT being the ears as a radio telescope.
- The MeerLITCH uses a main mirror just 65 cm in diameter and a single 100 megapixel detector measuring 10 cm x 10 cm.
- Astronomers have previously had to wait for a cosmic incident to be picked up by a radio telescope and then carry out optic observations afterwards.
- The project has been six years in the making by a joint-team of South African, Dutch and British scientists.

### Purpose of MeerLITCH

- MeerLICHT boasts of a huge field of view that allows astronomers to see an area 13 times the size of the full moon in exquisite detail, and pick up objects one million times fainter than is possible with the human eye.
- The priorities for MeerLITCH is the study of black holes, neutron stars and stellar explosions, which must be scrutinized quickly before they fade away.
- The study of exploding stars across the universe will gain a whole new dimension.
- Flashes of radio emission known as Fast Radio Bursts may now be 'caught in the act'. Hopefully we can finally determine the origin of these enigmatic flashes.

### **QUOTE OF THE DAY**

**Your Limitation- it's only in your imagination.**