

INDIAN HERITAGE AND CULTURE, HISTORY**Excavations in Kutch shed light on early Harappan custom**

Archaeological excavations undertaken by a group of researchers have shed light on the custom and burial rituals that were prevalent during the early Harappan phase. The team which camped in Khatiya village of Kutch unearthed several skeletal remains from a cemetery-like burial site where 26 graves out of the nearly 300-odd ones were excavated.

Burial Practices

- The rectangular graves, each of varying dimensions and assembled using stones, contained skeletons that were placed in a specific manner.
- They were oriented east-west with the heads positioned on the eastern side.
- Next to the legs on the western side, the archaeologists found earthen pots and pottery shards and other artifacts, including conch-shell bangles, beads made of stones and terracotta, numerous lithic tools and grinding stones.
- Of the 26 graves that were excavated, the biggest was 6.9 metres long and the smallest 1.2 metres long.
- The skeletal remains of human beings in most of them were found to be disintegrated.
- The presence of animal skeletons along with those of humans were also recorded in a few graves.
- The skeletal remains will be sent to various laboratories to run tests to understand the age, gender, circumstances that could have led to the death and the salient features of the respective DNA.

What's so special with it?

- Interestingly, the researchers found the mode of burial to be non-uniform.
- Instances of primary burial and secondary burial (when the remains of the primary burial are exhumed and moved to another grave) were found.
- The researchers claimed that the mud pots bore similarities with those that were unearthed from other Harappan sites in KotDiji, Amri and Nal in Pakistan and Surkotada and Dhaneti in Kutch.
- This gives evidences to the trade network that could have existed during the early phase of the Harappan civilization from 3300 BCE to 2600 BCE.

KashiVishwanath Corridor

Prime Minister has laid the foundation stone for the KashiVishwanath Corridor.

Key facts:

- The project envisions a massive makeover of the holy shrine and its surrounding areas. This massive makeover is the first after the 1780 AD when the Maratha queen Ahilyabai Holkar of Indore renovated the temple and the area surrounding it.
- The proposed 50-foot corridor will directly connect Ganga's Manikarnika and Lalita Ghat to the KashiVishwanath Jyotirlinga Temple.
- Along the corridor, pilgrims and travellers will see a newly built museum and depicting Varanasi's ancient history and culture.

Background: KashiVishwanath Temple is one of the most famous Hindu temples dedicated to Lord Shiva. It is located in Varanasi, Uttar Pradesh, India. The temple stands on the western bank of the holy river Ganga, and is one of the twelve Jyotirlingas, the holiest of Shiva temples.

GOVERNANCE- WELFARE SCHEMES, E-GOVERNANCE, SERVICES ETC.**Success of PMUY**

The Centre has disbursed over seven crore LPG connections under the PradhanMantriUjjwala Yojana (PMUY). The target has been achieved within 34 months of the scheme's launch.

PradhanMantriUjjwalaYojana:

PradhanMantriUjjwalaYojana aims to provide LPG (liquefied petroleum gas) connections to poor households.

- Under the scheme, an adult woman member of a below poverty line family identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre.
- Identification of households: Eligible households will be identified in consultation with state governments and Union territories. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.
- Key objectives of the scheme are:
 - Empowering women and protecting their health.
 - Reducing the serious health hazards associated with cooking based on fossil fuel.
 - Reducing the number of deaths in India due to unclean cooking fuel.
 - Preventing young children from significant number of acute respiratory illnesses caused due to indoor air pollution by burning the fossil fuel.

What makes LPG adoption necessary?

- A large section of Indians, especially women and girls, are exposed to severe household air pollution (HAP) from the use of solid fuels such as biomass, dung cakes and coal for cooking. A report from the Ministry of Health & Family Welfare places HAP as the second leading risk factor contributing to India's disease burden.
- According to the World Health Organization, solid fuel use is responsible for about 13% of all mortality and morbidity in India (measured as Disability-Adjusted Life Years), and causes about 40% of all pulmonary disorders, nearly 30% of cataract incidences, and over 20% each of ischemic heart disease, lung cancer and lower respiratory infection.

Way ahead:

- The PMUY is a bold and much-needed initiative, but it should be recognised that this is just a first step. The real test of the PMUY and its successor programmes will be in how they translate the provision of connections to sustained use of LPG or other clean fuels such as electricity or biogas.
- Truly smokeless kitchens can be realized only if the government follows up with measures that go beyond connections to actual usage of LPG. This may require concerted efforts cutting across Ministries beyond petroleum and natural gas and including those of health, rural development and women and child welfare.

INTERNATIONAL AFFAIRS- BILATERAL, GROUPINGS, ORGANISATIONS

India launches third IT corridor in China

India has launched its third IT corridor in China that will facilitate partnerships between Indian and Chinese companies.

Xuzhou IT Corridor Project

- China being a dominant manufacturing country requires software, IT and IT enabled services to transform towards smart manufacturing.
- The National Association of Software and Services Companies (NASSCOM) entered into a partnership with China's Xuzhou city from Jiangsu Province in China to help develop the IT corridor.
- The IT industry body has already launched such corridors at Dalian and Guiyang cities to cash in on the burgeoning Chinese IT industry market.
- These have already sprung up opportunities to the tune of 24 Million RMB (USD 4.6 million) and 62 Million RMB (USD 8.9 million) respectively, it said.

Benefits

- The first two corridors have paved the way for cooperation in co-create mode in the emerging technologies such as AI, IoT and Analytics in the Chinese market.
- Xuzhou is the geographic and economic center of over 20 cities and in China's regional economic layout, the city has slowly established itself as an industrial powerhouse.
- Xuzhou is an important comprehensive national transportation hub and its proximity from major industrial and economic hub like Shanghai, Beijing, Hangzhou, Nanjing and Suzhou.
- This will facilitate match-making between Indian companies wanting to collaborate with companies in HuaiHai economic zone looking.

- This partnership will help create more jobs in Xuzhou and India and facilitating talent transfer between the two countries.

NASSCOM: The National Association of Software and Services Companies (NASSCOM) is a trade association of Indian Information Technology (IT) and Business Process Outsourcing (BPO) industry. Established in 1988, NASSCOM is a non-profit organisation.

ISSUES RELATED TO INTERNAL SECURITY AND DISASTER MANAGEMENT

J&K draft of return policy for militants

These are the key points of a new “reintegration policy” draft that is under the consideration of the government to encourage militants hailing from the state to give up arms.

Draft Reintegration Policy

- J&K govt is considering a policy for return of youth from militancy.
- The policy draft is presently at the pre-SAC stage.
- It is subject to clearance by the State Home Department and the Chief Secretary.
- The State Administrative Council (SAC) is the body governing J&K, which is under President’s rule, and is led by the Governor and includes his four advisors and a Chief Secretary.

Features of the Policy

- The new initiative addresses the need for rehabilitation at a policy level through a two-pronged approach: reformative measures and opportunities of livelihood.
- There is also provision for a monthly stipend of Rs 6,000 for a militant who surrenders with a view to “encourage him to join the mainstream”.
- The initiative, however, will not cover militants found to have been involved in “heinous crimes”.
- Why such move?
- The Army after the deadly Pulwama attack has made it very that anyone who picks up the gun, will be executed unless he surrenders.
- There is a very good surrender policy being initiated by the government so that they can join the mainstream.
- It is essential for the government to demonstrate its will to reach out to alienated youth.
- The successful implementation of a surrender policy is of utmost importance in J&K as there are a large number of surrendered or released militants (around 25,000).
- The successful rehabilitation of one hardcore surrendered or released militant will motivate others to follow suit.

Way Forward

- The proposed policy is essentially a revised version of earlier initiatives but with a renewed focus on socio-economic re-integration.
- It will be a haste to expect miracles overnight.
- It will take a lot of effort on the part of everyone to implement it successfully, especially the civil society and political establishment have a major role in motivating and bringing them back into the mainstream.

Dam Rehabilitation and Improvement Project (DRIP)

The World Bank, Government of India and representatives from the states of Karnataka, Kerala, Odisha, Tamil Nadu and Uttarakhand signed Loan Agreement for additional financing of \$137 Million for the Dam Rehabilitation and Improvement Project (DRIP) that will help rehabilitate and modernize over 220 selected large dams.

This additional funding of \$137 million will be used for the construction of an additional spillway for Hirakud Dam in Odisha and in rehabilitation and improvement of other dams including strengthening the institutional, legal and technical framework for dam safety assurance within the Government of India and in the participating States.

Need : About 80% of our large dams are over twenty-five years old. About 209 dams are over 100 years old and were built in an era when design practices and safety considerations were much below

the current design and safety norms. Several of these dams may be experiencing distress and are in need of attention for ensuring their structural safety and operational efficiency.

About DRIP:

- The Ministry of Water Resources (MoWR), Government of India, with assistance from the World Bank, is implementing the DAM REHABILITATION AND IMPROVEMENT PROJECT (DRIP), which would be a six-year project.
- The Central Dam Safety Organisation of Central Water Commission, assisted by a Consulting firm, is coordinating and supervising the Project implementation.
- Goals: The project originally envisaged the rehabilitation and improvement of about 223 dams within four states namely, Kerala, Madhya Pradesh, Odisha, and Tamil Nadu and later Karnataka, Uttarakhand (UNVNL) and Jharkhand (DVC) joined DRIP and total number of dams covered under DRIP increased to 250. The project will also promote new technologies and improve Institutional capacities for dam safety evaluation and implementation at the Central and State levels and in some identified premier academic and research institutes of the country.
- The project development objectives of DRIP are: (i) to improve the safety and performance of selected existing dams and associated appurtenances in a sustainable manner, and (ii) to strengthen the dam safety institutional setup in participating states as well as at central level.

Background: Globally India ranks third after China and the USA in terms of the number of large dams with 5264 large dams in operation and 437 large dams under construction. The total storage capacity of the impounded water by these dams is about 283 billion cubic meters (BCM).

ENVIRONMENT- CONSERVATION, BIO-DIVERSITY AND ISSUES

Scientists transform black soot into a boon for water purification

A group of Indian scientists have come up with a new process which promises to help utilize black carbon soot, which is a major air pollutant, for treating industrial waste containing highly poisonous organic dyes.

Black Carbon Soot:

- Soot includes the fine black particles, chiefly composed of carbon, produced by incomplete combustion of coal, oil, wood, or other fuels.
- Soot can consist of acids, chemicals, metals, soils, and dust.
- It is emitted from gas and diesel engines, coal-fired power plants and other processes that involve burning of fossil fuel. It is known to be highly carcinogenic.
- Organic dyes, in turn, are an important component of industrial waste and are generally non-biodegradable and deadly.
- They enter water bodies and make them not only unfit for human consumption but also highly poisonous.

What has scientists transformed?

- The scientists have converted black soot into graphenenanosheets.
- They utilized the nanosheets to remove organic dyes such as crystal violet, rhodamine B, and methylene blue from industrial waste.
- Treatment of waste water with organic dyes has remained a major challenge. The available methods are generally costly and cumbersome.
- Black soot is available everywhere and even a lay person can convert it into graphenenanosheets at home.
- The scientists tested the sustainability and the suitability of the overall process by using the treated water for growing wheat.

QUOTE OF THE DAY

Never forget what you are for the rest of the world will not. Wear it like an armor, and it can never be used to hurt you.