

20th -26th September Weekly Compilation

(The Hindu+ Indian Express + PIB + Other World Wide News)

❖ SHANKHALIPI SCRIPT

(Indian Express)

Why in News: Archaeological Survey of India (ASI) discovered remains of an ancient temple dating back to the Gupta period (5th century) in Bilsarh village in Uttar Pradesh's Etah district.

- The Bilsarh site was declared as a 'protected' site in 1928. Every year, the ASI undertakes scrubbing work at the protected sites.
- ASI has discovered two decorative pillars of an ancient temple dating back to the Gupta period (5th century).
- The stairs of the temple had 'shankhalipi' inscriptions. The inscription possibly reads Mahendraditya which was the title of king Kumaragupta I.
- This discovery becomes significant since only two other structural temples from the Gupta age have been found so far: Dashavatara Temple (Deogarh) and Bhitargaon Temple (Kanpur Dehat).

Shankhalipi Script

- **Shankhalipi Script is also called a "shell-script". It is found in inscriptions across north-central India and dates back to between the 4th and 8th centuries.**
- It was discovered in 1836 on a brass trident in Uttarakhand's Barahat by English scholar James Prinsep.
- Moreover, the script is found to be similar to the Brahmi Script as both are stylised scripts used primarily for names and signatures.
- The inscriptions consist of a small number of characters, suggesting that the shell inscriptions are names or auspicious symbols or a combination of the two.



Prominent sites with shell inscriptions include the Mundeshwari Temple in Bihar, the Udayagiri Caves in Madhya Pradesh, Mansar in Maharashtra and some of the cave sites of Gujarat and Maharashtra. In fact, shell inscriptions are also reported in Indonesia's Java and Borneo.

❖ **SURYA KIRAN EXERCISE**

(Source: PIB)

Why in News: The 15th Edition of Indo – Nepal Joint Military Training, Exercise Surya Kiran between Indian Army and Nepali Army is starting at Pithoragarh, Uttarakhand.

- Exercise Surya Kiran is a joint annual military exercise between India and Nepal.
- The exercise is conducted alternatively in Nepal and India. The last edition of the Exercise was conducted in Nepal in 2019.
- During this exercise, both countries' armies would be sharing their experiences gained during the conduct of various counter-insurgency operations over a prolonged period in their respective countries.
- Also, there would be a series of Expert Academic Discussions on various subjects such as Humanitarian Assistance and Disaster Relief, High Altitude Warfare, Jungle Warfare among others.
- The joint exercise will help in improving bilateral relations and also will be a major step towards further strengthening the traditional friendship between the two nations.

❖ **GLOBAL INNOVATION INDEX (GII)**

(Business Standard)

Why in News: The Global Innovation Index (GII) 2021 has been released.

Global Innovation Index

- The Global Innovation Index is published by the World Intellectual Property Organization (WIPO) in partnership with the Portulans Institute and with the support of corporate network partners.
- **Objective:** The index ranks 132 world economies according to their innovation capabilities.
- **Indicators used:** The index ranks countries based on roughly 80 indicators which are based on the following parameters: Institutions, Human capital and research, Infrastructure, Credit, Investment, Linkages, Creation, Absorption and Diffusion of knowledge and Creative outputs.

Key findings related to India

- India has been ranked 46th in the Global Innovation Index 2021 rankings. It was ranked at 48th in 2020.
- India has been on a rising trajectory over the past several years in the Index, from a rank of 81 in 2015 to 46 in 2021.
- Graduates in science and engineering disciplines and global corporate research and development investors are India's strengths.



Other Key finding

- Switzerland has topped the index. It was followed by Sweden, the US and the UK.
- Among Asian economies, South Korea jumped to the fifth position, up from 10 last year. China was in the 12th position.

TOP THREE INNOVATION ECONOMIES BY INCOME GROUP

Incomes	Countries (top three)
High income	Switzerland, Sweden, USA
Upper middle income	China, Bulgaria, Malaysia
Lower middle income	Vietnam, India, Ukraine
Low income	Rwanda, Tajikistan, Malawi

Source: Global Innovation Index 2021 by World Intellectual Property Organization

❖ SCO EXERCISE PEACEFUL MISSION: 2021

(The Hindu & PIB)

Why in News: The 6th Edition of SCO Exercise Peaceful Mission: 2021 hosted by Russia has started in the Orenburg Region of South-West Russia.

Exercise Peaceful Mission

- It is a Multilateral Exercise that is conducted biennially as part of military diplomacy between Shanghai Cooperation Organisation (SCO) member states.
- The exercise aims to foster close relations between SCO member states and to enhance the abilities of the military leaders to command multinational military contingents.

- The exercise is based on joint counter-terrorism operations at operational and tactical levels in an urban environment in which Armies and Air Forces of all SCO member states are participating.
- As part of the exercise, troops will train, share and rehearse tactical drills which will culminate in a final validation exercise where-in troops from all Armies and Air Forces will jointly undertake operations in a controlled and simulated environment.

❖ EXERCISE SAMUDRA SHAKTI

(Source: Express)

Why in News: Indian Naval Ships Shivalik and Kadmatt have reached Jakarta, Indonesia to participate in Exercise 'Samudra Shakti'.

Exercise Samudra Shakti

- Exercise Samudra Shakti is a bilateral maritime exercise between India and Indonesia.
- **Aim:** To strengthen the bilateral relationship, enhance mutual understanding and interoperability in maritime operations between the two navies.
- **Participation:** From India's side, Indian Naval ships Shivalik and Kadmatt are participating in the exercise.

Other Exercises between India and Indonesia

- **Exercise Garuda Shakti:** It is an annual military exercise between the Indian and Indonesian Army. It is conducted on a reciprocal basis and its first edition was conducted in the year 2012 in India.
- **IND-INDO CORPAT:** It is a bi-annual coordinated naval patrol exercise conducted along the International Maritime Boundary Line (IMBL) by the Indian and Indonesian Navy.

❖ HYDROPHOBIC COTTON COMPOSITE

(Down to Earth)

Why in News: Recently, researchers of the Indian Institute of Technology (IIT), Guwahati, have developed a new class of super-hydrophobic cotton composite with Metal-Organic Framework (MOF) that promise marine oil-spill clean-up in near future.

Features of the new cotton material developed

- First, this is a novel, highly porous and water-repellent super-hydrophobic cotton composite material containing MOF, which can absorb oil selectively from an oil-water mixture.

- Second, the MOF composite has great capability for selective separation of the oils from oil / water mixtures. The separation efficiency is very high irrespective of the chemical composition and density of the oils.
- Third, the MOF composite is also able to absorb large volumes of oils and can be reused for a minimum of 10 times so that the sorbents can provide more recovery of the spilled oil.
- Fourth, the new cotton will help in cleaning the spilled oil from environmental water (river, sea or ocean water) during oil transportation, thus reducing environmental water pollution.
- Fifth, both heavy and light oils can be effectively absorbed by the material.
- Sixth, the material is easy to prepare, cost-effective and recyclable.
- Seventh, MOFs are a class of compounds containing metal ions coordinated to form 3D structures. They are often highly porous materials that act like a sponge.
- Eighth, the medical cotton changes from hydrophilic to super-hydrophobic material and can float on the water surface.

❖ **TRANSFORMING FOOD SYSTEMS FOR RURAL PROSPERITY** **(BS)**

Why in News: Recently, **United Nations International Fund for Agricultural Development (IFAD)** published report “**Transforming Food Systems for Rural Prosperity**”.

As per the report, our global food system needs revolution. Transforming global food systems to become more inclusive, fair and sustainable is a challenging task. But, with concrete actions taken by the policymakers, this is possible.

Findings of the Report

- First, we need government investment in rural farms and local small- and medium-size enterprises. They support activities after the farm gate, such as storing, processing, marketing and food distribution.
- Second, small-scale family farmers are the foundation of food supply across all low- and middle-income countries. They play a critical role in reducing rural poverty and ensuring national food and nutrition security.
- Third, we need productive, economically viable and environmentally sustainable small-scale family farming.
- Fourth, small-scale agriculture is a vital source of national and global food. They are also the source of the livelihood for majority of the people in rural areas.
- Fifth, we need to make food markets accessible to villagers.
- Sixth, food systems are responsible for 37% of greenhouse gas emissions and are also highly vulnerable to a changing climate.

Recommendations of the report

- First, reward farmers for ecosystem services such as maintaining healthy soil and regulating pests and incentives for nature-based practices and local, healthy diet.
- Second, we need innovation in nature-based solutions, agro-ecology and affordable digital technologies to boost production of rural small-scale farmers. The measures will enable the cultivators to be climate-resilient employing low-carbon and sustainable techniques.
- Third, developing and focusing on pricing systems that reflect the full and true cost of production.
- Fourth, shifting food systems towards circular resource use for sustainability and resilience.

❖ CLIMATE CHANGE

(Down to Earth)

Why in News: As per the report published by the International Institute for Environment and Development (IIED) and Anti-Slavery International, Climate change-induced extreme weather events put women, children and minorities at risk of modern slavery and human trafficking. Among other countries, this phenomenon is maximum in India.

Report's observations WRT Sundarban Delta

- First, the delta region is characterised by intense, recurrent and sudden onset disasters, as well as slow onset ecological degradation making large areas uninhabitable.
- Second, rising sea levels, erratic rainfall, increased frequency of cyclones, tidal surges and floods, mean that millions of people across the Sundarbans are unable to work for most of the year.
- Third, cyclone Aila and recent cyclone Amphan, led to widespread displacement from homes and loss of livelihoods for more than two million people. Such events resulted in more trafficking and forced labour.
- Fourth, severe cyclone and flooding in Sundarbans delta had reduced the land for agriculture, which is the major source of livelihood.
- Fifth, women and children are more vulnerable. Women were also trafficked and often forced into hard labour and prostitution, with some working in sweatshops along the border.
- Sixth, people displaced and migrating from rural to urban areas with no resources, skills or social networks at their destination. They are targeted by agents and / or traffickers in Dhaka or Kolkata. A case study from Ghana also revealed the same situation.

Scale of displacement

- As per estimates of the World Bank, over 216 million people could be internally displaced by 2050 across six regions due to climate change. It will further expose them to the risk of modern slavery.
- Climate change as a risk multiplier that makes people who are already vulnerable due to conflict or inequality more likely to become victims of modern slavery.

Recommendations of the Report

- First, policy-makers urgently need to recognize that millions of people displaced by climate change are being, and will be, exposed to slavery in the coming decades.
- Second, they should develop targeted actions, at national and international levels, to address the issue. The global and regional discourse on development and climate policy must consider trafficking and slavery risks due to climate shocks.
- Third, several ongoing initiatives like Warsaw International Mechanism Task Force on Displacement (WIM TFD), the Sendai Framework, etc should be coordinated to tackle the risk of climate-induced migration / displacement and exposure to modern slavery.

❖ BLUE FLAG CERTIFICATION

(Source: PIB)

Why in News: The two more Indian beaches namely Kovalam beach in Chennai and Eden beach in Puducherry have been awarded the Blue Flag certification.

Blue Flag Certification

- 'Blue Flag' is a certification that can be obtained by a beach, marina, or sustainable boating tourism operator, and serves as an eco-label.
- The certification is awarded by the Denmark-based non-profit Foundation for Environmental Education.
- Criterion: The certification is accorded based on 33 stringent criteria under four major heads:
 - Environmental education and information,
 - Bathing water quality
 - Safety and services at the beaches
 - Environment management and conservation

Indian Sites under Blue Flag: There are now total of 10 sites under Blue Flag Certification. These are Shivrajpur – Gujarat, Ghoghla – Diu, Kaskarkod and Padubidri – Karnataka, Kappad – Kerala, Rushikonda – Andhra Pradesh, Golden – Odisha, Radhanagar – Andaman and Nicobar, Kovalam – TamilNadu and Eden beach in Puducherry.

Beach Environment & Aesthetics Management Services (BEAMS) Initiative

- The BEAMS Initiative was launched by the Ministry of Environment, Forest and Climate Change under the ICZM (Integrated Coastal Zone Management) project.
- **Objectives:** The objectives of the BEAMS Initiative is to abate pollution in coastal waters, promote sustainable development of beach facilities, protect & conserve coastal ecosystems & natural resources.
- The other objectives include strive and maintain high standards of cleanliness, Hygiene & safety for beachgoers in accordance with coastal environment & regulations.

❖ RELIGIOUS COMPOSITION IN INDIA

(Source: The Hindu)

Why in News: Pew Research has released its key findings about the religious composition of India.

Key Findings

India's overall population more than tripled between 1951 and 2011, though growth rates have slowed since the 1990s: The total number of Indians grew to 1.2 billion in the 2011 census from 361 million in the 1951 census. However, India's overall population growth has slowed considerably especially since the 1990s.

- **Religious Composition:** Hindus make up 79.8% of India's population and Muslims account for 14.2%; Christians, Sikhs, Buddhists and Jain account for most of the remaining 6%.
- **Fertility Rate:** The average fertility rate in India is 2.2 which is higher than the rates in economically advanced countries such as the U.S. (1.6), but much lower than what it was in 1992 (3.4) or 1951 (5.9).
- **Fertility rates of Hindus and Muslims converging:** From 1992 to 2015, the total fertility rates of Muslims declined from 4.4 to 2.6, while that of Hindus declined from 3.3 to 2.1. This indicates the gaps in childbearing between India's religious groups are much smaller than they used to be.

Shrinking gaps

The chart shows average number of children a woman is expected to bear in her lifetime across various religions between 1992 and 2015. As the data show, the gaps between fertility rates of religions has been on a decline

Religion	1992	1998	2005	2015
Muslim	4.4	3.6	3.4	2.6
Hindu	3.3	2.8	2.6	2.1
Christian	2.9	2.4	2.3	2
Buddhist	2.9	2.1	2.3	1.7
Sikh	2.4	2.3	1.9	1.6
Jain	2.4	1.9	1.5	1.2

SOURCE: PEW RESEARCH CENTER

- **Growth of Muslim Population:** Between 1951 and 1961, the Muslim population expanded by 32.7 per cent, 11% points more than India's overall rate of 21.6%. But from 2001 to 2011, the difference in growth between Muslims (24.7 per cent) and Indians overall (17.7 per cent) was 7 percentage points.
- **Fertility Rate and Religion:** Religion is by no means the only or even the primary factor affecting fertility rates. The women in central India tended to have more children, with Bihar and Uttar Pradesh showing a total fertility rate (TFR) of 3.4 and 2.7 respectively, in contrast to a TFR of 1.7 and 1.6 in Tamil Nadu and Kerala respectively.

In India and elsewhere, education is a primary factor in how many children women tend to have. Other prosperity indicators – such as life expectancy and average levels of wealth – also frequently correlate with fertility measures: Women who have better access to schooling, jobs and health care tend to have fewer children.

- **Migration has not greatly affected India's religious composition:** In 2019, the United Nations estimated that about 17.5 million people who were born in India reside elsewhere. These numbers are not large enough to have much impact on the religious composition of a country of India's size.
- **Non-Religious Groups:** In India, about 8 million did not belong to any of the six major religious groups. Within this category, mostly were adivasi people. The largest grouping was of the Sarnas (nearly 5 million adherents), followed by the Gond (1 million) and the Sari Dharma (5,10,000).
- **Preference for Son over daughters:** The preference for sons over daughters could play a role in overall fertility. The sex-selective abortions had caused an estimated deficit of 20 million girls, compared with what would naturally be expected between 1970 and 2017. This practice is more common among Indian Hindus than among Muslims and Christians.
- **Religious Conversion:** The religious switching or conversion also appears to have had a relatively small impact on India's overall composition, with 98% of Indian adults still identifying with the religion in which they were raised.

❖ STATE FOOD SAFETY INDEX

(EXPRESS and PIB)

Why in News: Union Minister for Health and Family Welfare released Food Safety and Standards Authority of India (FSSAI) -State Food Safety Index (SFSI). This index is used to measure the performance of States across various parameters of food safety.

State Food Safety Index

- It is an index developed by FSSAI. It helps to measure the performance of states on five significant parameters of Food Safety. These include Compliance, Human Resources and Institutional Data, Food Testing – Infrastructure and Surveillance, Training & Capacity Building and Consumer Empowerment.
- The Index is a dynamic quantitative and qualitative benchmarking model that provides an objective framework for evaluating food safety across all States/UTs.

Key findings of the State Food Safety Index

The index identifies the presence of industrially produced trans fatty acid content in the selected foods. However, it was found that out of 6245 samples only 84 samples, i.e. 1.34%, have more than 3% industrially-produced trans fats. Thus, India is on the right track of becoming industrial trans fats-free.

It also felicitated states based on the ranking for the year 2020-21 for their impressive performance:

- Among the larger states: Gujarat was the top-ranking state, followed by Kerala and Tamil Nadu.
- Among the smaller states: Goa stood first, followed by Meghalaya and Manipur.
- Among UTs, Jammu & Kashmir: Andaman & Nicobar Islands and New Delhi secured top ranks.

Initiatives undertaken to Promote Food Safety

- **Launch of Mobile Food Testing Vans (Food Safety on Wheels):** These labs will help States/UTs to enhance their outreach and conduct surveillance activities even in the far-flung areas. It will also be used for training and awareness generation activities among citizens. Their aim is to supplement the food safety ecosystem across the country.
- **Awards and Grants:** Launch of Eat Right Research Awards and issue of grants to encourage and recognize high-quality research in the area of food safety and nutrition in India
- **Segregation of veg and non-vegan foods:** A logo for Vegan Foods has been introduced to distinguish food from non-vegan. This will empower consumers to make informed food choices.
- **E-Books:** Various e-books have been introduced. These will help to capture recipes on local seasonal food items, indigenous millets and plant-based sources of protein.
- **Private Participation:** 24 food businesses signed a pledge on becoming “Plastic Waste Neutral” by collecting, processing and recycling of 100% plastic waste from across the sources.

❖ NATIONAL SINGLE WINDOW SYSTEMS

(Source: PIB)

Why in News: The Union Minister of Commerce and Industry has launched the National Single Window System (NSWS) for investors and businesses.

National Single Window System (NSWS)

National Single Window System is a one-stop digital platform that aims at allowing investors to apply for various pre-operations approvals required for commencing a business in the country.

The system aims to make the business registration process easier, allowing the beneficiary to get significant approvals online, without having to run to the government offices for approvals and can avail themselves of services with just a click.

Currently, the platform hosts approvals across 18 Central Departments & 9 States. Another 14 Central departments & 5 states will be added by December 2021.

Services offered by NCWS

Know Your Approval (KYA) Service: This feature generates a list of approvals that must be obtained before a business may begin operations. It does it by asking the investor a series of questions about their anticipated business operations, and then determining which permissions are required based on the answers.

Common Registration Form: Unified information capturing system and a universal registration form has been intended to guarantee a single point of submission of information and documents across Ministries and States.

State registration form: It allows investors to access the corresponding State Single Window System with a single click.

Applicant dashboard: Provides a single online interface to apply, track and respond to the queries pertaining to approvals and registrations across ministries and States.

Document repository: An online centralized storage service for investors to enable one-time document submission and use the same across multiple approvals. This eliminates the need to submit documents at multiple portals.

E-Communication module: It enables online response to queries and clarification requests related to applications by Ministries and States.

❖ PROMOTION OF MEDICAL DEVICES PARKS

(Source: PIB)

Why in News: The Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers has notified the Scheme for “Promotion of Medical Device Parks”.

Scheme for Promotion of Medical Device Parks

Under the scheme, medical parks will be developed to provide common infrastructure facilities in one place thereby creating a robust ecosystem for medical device manufacturing in the country and also reduce the manufacturing cost significantly.

Objectives of the Scheme

- Easy access to standard testing and infrastructure facilities through the creation of world-class common infrastructure facilities for increased competitiveness. This will result in a significant reduction of the cost of production of medical devices, leading to better availability and affordability of medical devices in the domestic market.
- Reaping the benefits arising due to optimization of resources and economies of scale.
- Duration: The total financial outlay of the scheme is Rs. 400 crores and the tenure of the scheme is from FY 2020-2021 to FY 2024-2025.
- Financial Assistance: The financial assistance to a selected Medical Device Park would be 70% of the project cost of common infrastructure facilities.
- In the case of the North-Eastern States and the Hilly States, financial assistance would be 90% of the project cost. Maximum assistance under the scheme for one Medical Device Park would be limited to Rs. 100 crores.

