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AN INITIATIVE BY PRADEEP KUMAR  
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# Learn FINITE

The information in this magazine is intended to provide users with resources and information which they may find useful and of interest.

We take all reasonable steps to keep this information current and accurate, but errors can occur.

We express our gratitude to all our team members and thankful to all the advisors for making first step in publishing a small magazine.

## Our Methodology for this Magazine

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We have used official website pib.nic.in to collect important press release important for Exam

The topics has been categorised subject wise so that is is easy for aspirants to read in flow and relate the topics

Background information has been provided so static related to current can be covered

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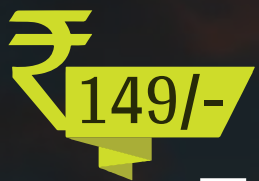
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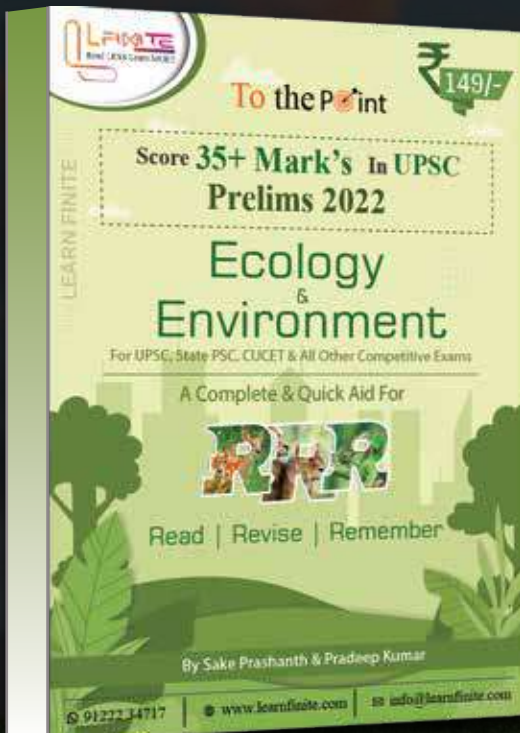
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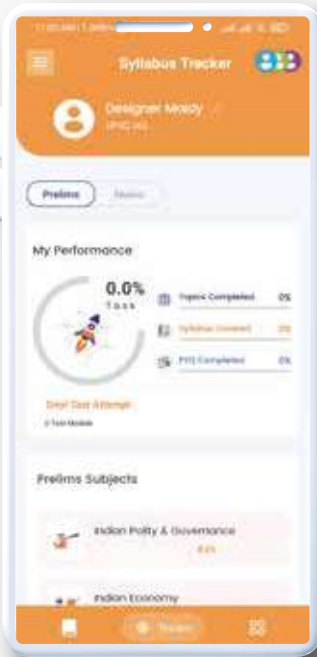
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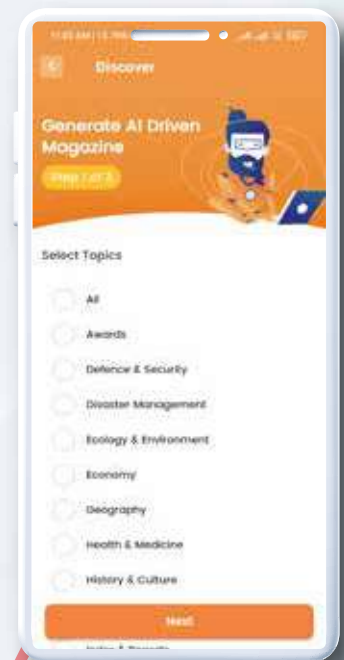
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## History & Culture

### Ramna Kali Temple

#### In News

The President of India inaugurated the renovated Sri Ramna Kali Temple on his maiden state visit to participate in the golden jubilee celebrations of the independence of Bangladesh from Pakistan.

#### About Ramna Kali Temple:

- The temple in the area, dedicated to the Goddess Kali, is believed to have been built during the Mughal period. It is believed to be 400 years old, even though it is difficult to pinpoint the year in which it was built.
- The temple was built by a Hindu sect, but it is difficult to identify exactly who built it. However, it is said that it was built by a certain Haricharan Giri who was a mahant in the temple.
- It is the second oldest Hindu temple in Bangladesh, the Dhakeshwari Temple being the oldest.

#### The Temple and the War:

The Ramana Kali Mandir was destroyed and more than 60 people were massacred by the Pakistani army during the 1971 liberation war. The temple has been renovated with support from the Indian High Commission in Bangladesh.

### Operation Vijay

#### In News

The Prime Minister attended the function marking the Goa Liberation Day celebrations in Goa.

#### Goa Liberation Day:

- The **Annexation of Goa** was the process in which the Republic of India annexed Estado da India, the then Portuguese Indian territories of Goa, Daman and Diu, starting with the armed action carried out by the Indian Armed Forces in **December 1961**.
- India claimed the Portuguese territories by military power means after the Salazar dictatorship of Portugal refused to leave.
- The “**armed action**” was code-named **Operation Vijay** (meaning “Victory”) by the Indian Armed Forces.
- Every year on December 19th, the Indian Armed Forces commemorate the liberation of Goa from Portuguese domination in 1961, called “**Operation Vijay**.”
- Goa was invaded by Indian forces who crossed the border.
- The Portuguese soldiers unconditionally surrendered on December 19 after more than 36 hours of relentless land, sea, and airstrikes.

#### Importance of the Day

- Goa did not obtain independence together with the rest of India. It was freed in 1961, and it was no longer under foreign authority.
- The Portuguese dominated Goa for more than 450 years, and the war against them in the 18th and 19th centuries is documented in history.
- Finally, on June 18, 1946, the Goa independence movement acquired strength under the leadership of Dr Ram Manohar Lohia, who rallied young Goans to help liberate the state. The day has since been known as **Goa Revolution Day**.

## Chalcolithic Cultures of Central India

### In News

The Archeological Survey of India (ASI) has carried out excavations in the state of Madhya Pradesh to investigate the Chalcolithic Culture of central India and has come up with highlights of the status of investigation.

### Excavation at Eran :

- Eran (Ancient name: Airikina) is located on the left bank of Bina river which was known as Venva river in the ancient time.
- It is 75 kms from the Sagar district
- Recent excavations have unearthed several antiquities like copper coins, iron arrowhead, terracotta bead, stone beads, stone celts, animal figurines, miniature pots, stone querns, pestles.
- A red slipped terracotta with inscription in Devnagari script was also found.

### Excavation at Tewar:

- Tewar village is located in the Jabalpur district of Madhya Pradesh
- The ancient site of Tripuri is situated 2kms away from the Tewar village.
- Excavation was carried out at two sites of Tewar namely TWR 1 and TWR 2
- Four fold culture sequences were prevalent in Tewar such as Kushana, Shunga, Satavahana and Kalachuri.
- Brick walls and sandstone column structures were found.
- The antiquarian remains included terracotta balls, iron nails, copper coins, red, black wares in ceramics, big jars, and spouted pots.

## Durga Puja of Kolkata

### In News

- Under the 'Intangible Cultural Heritage' list of UNESCO, the Durga Puja festival of Kolkata has been added.
- India now has a total of 14 events that represent the country's tradition and culture in it.

### About Durga Puja

- Durga Puja is seen as the best instance of the public performance of religion and art, and as a thriving ground for collaborative artists and designers.
- The festival is characterised by large-scale installations and pavilions in urban areas, as well as traditional Bengali drumming and veneration of the goddess.
- During the Durga Puja festival, the divides of "class, religion and ethnicities collapse" as spectators roam around to view the installations - commonly known as 'pandals' or 'mandaps'.

### Intangible cultural heritage

**Intangible cultural heritage ("ICH")** refers to the practices, representations, expressions, knowledge and know-how, transmitted from generation to generation within communities, created and transformed continuously by them, depending on the environment and their interaction with nature and history.

## SPPEL (Scheme for Protection and Preservation of Endangered Languages of India)

### In News

The Government of India has decided to promote all Indian languages under the Scheme for Protection and Preservation of Endangered Languages of India.



### About Scheme

- Under this Scheme, the **Central Institute of Indian Languages (CIIL)**, Mysore works on the protection, preservation and documentation of all the mother tongues/languages of India spoken by less than 10,000 people which are called endangered languages.
- The UGC, in the same context, introduced two schemes to protect the endangered languages: Funding support to the State Universities for the study and research in indigenous and endangered languages in India.
- The SPPEL scheme was instituted by the then Ministry of Human Resource Development in the year 2013.
- The sole objective of the Scheme is to document and archive the the country's languages that have become endangered or are likely to be endangered in the near future.

### Endangered languages in India:

- India has the highest number of languages – 197 languages, which were endangered, vulnerable or extinct as of 2017.
- Out of these 5 languages were extinct, 42 were critically Endangered, 7 severely endangered and 62 were endangered and 81 were vulnerable.
- India's language Census records only those languages with more than 10,000 speakers.
- According to UNESCO, any language that is spoken by less than 10,000 people is potentially endangered.
- According to the criteria adopted by UNESCO, a language becomes extinct when nobody speaks or remembers the language. The UNESCO has categorized languages on basis of endangerment as follows:
  - Vulnerable
  - Definitely Endangered
  - Severely Endangered
  - Critically Endangered

## Polity & Governance

### New Food Processing Policy

#### In News

The Food Processing Sector has emerged as an important segment of the Indian economy and it constitutes as much as 9.9 percent and 11.4 percent share of GVA in Manufacturing and Agriculture sector respectively in 2019-20 at 2011-12 prices.

#### Some of the key objectives of the draft policy are-

- Attaining a higher growth trajectory through significant increase in investment for strengthening supply chain infrastructure and expansion of processing capacity particularly in perishables;
- Improving Competitiveness through technology upgradation, Research & Development, Branding and strengthening India's USP in food sector;
- Attaining long term sustainability in growth of the sector through efficient use of water, energy, adoption eco-friendly technology in processing, storage, packaging and use of waste from FPI industry.

## Good Governance Index 2021

### In News

The Good Governance Index 2021 was launched on the 25th of December, which is observed as Good Governance Day every year.

### About Good Governance Index:

- This index is prepared by the Department of Administration Reforms and Public Grievances (DARPG).
- The GGI 2021 assessed the performance of states and union territories by using ten sectors and 58 indicators.
- A citizen centric administration serves as the major objective of good governance and the GGI offers a proper understanding of the status of governance in the states and union territories.

### GGI 2021

- The Good Governance Index scores of 20 states have improved over the period of time.
- Gujarat topped the composite ranking in the 58 indicator index and it was followed by Maharashtra and Goa.
- Betterment in the index score of about 8.9 % has been observed in the state of Uttar Pradesh.
- Delhi has topped among the Union Territories in the composite ranking category.

## Economy

### Gender Mainstreaming in Agriculture

### In News

The guidelines of the various beneficiary oriented schemes of Ministry of Agriculture & Farmers Welfare provide that States and other implementing agencies should incur at least 30% expenditure on women farmers.

### The Central Institute for Women in Agriculture (ICAR-CIWA), Bhubaneswar

- It functioning under Indian Council of Agricultural Research with an aim to research on gender issues in agriculture and allied sectors.
- Hundred per cent budget of this institute is allocated to conduct research on gender specific issues in agriculture and allied areas.

### Mahila Kisan Sashaktikaran Pariyojana (MKSP)

- A sub-component of Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) is under implementation in Ministry of Rural Development since 2011.
- It **aims** to empower women by making systematic investments to enhance their participation in agriculture based livelihoods.
- It is a demand driven programme implemented in project mode through the State Rural Livelihoods Missions as Project Implementing Agencies.

### Formation and Promotion of 10,000 Farmer Producer Organisations (FPOs)

- Under Central Sector Scheme of 'Formation and Promotion of 10,000 Farmer Producer Organisations (FPOs)' special provisions have been made to empower women farmers such as providing special focus, inter-alia, to include women farmers/women SHGs, as members to make FPOs more effective and inclusive; and making provision to prefer women farmers' as its shareholders.

- NABARD is promoting FPOs under its dedicated funds viz. **PRODUCE Fund** and **Producers Organizations Development Fund (PODF)** towards collectivization of farmers for enhancing income by way of providing better market accessibility for their farm produce.

## Schemes for Promotion of Agriculture

### In News

Government undertakes periodical review of performance of various schemes. Due to Government's interventions from time to time, the achievements were recorded and new schemes were initiated for the benefit of farmers.

### Achievements:

- Food grain production has increased from 265.05 million tonnes in 2013-14 to record 305.43 million tonnes in 2020-21 (Third advance estimate) which is the highest ever food grain production.
- PM-KISAN -an income support scheme to farmers providing Rs. 6000 per year in 3 equal installments.
- PMFBY was launched in 2016 addressing problems of high premium rates for farmers and reduction in sum insured due to capping. In past 5 Years of implementation 29.22 crore farmer applicants enrolled and over 8.83 crore (Provisional) farmer applicants have received claims of over Rs. 101875 crore.
- Soil Health Cards have been issued free of cost to nearly 11 crore farmers under a nationwide program.
- Paramparagat Krishi VikasYojana (PKVY) was initiated in 2015-16 to promote organic farming in the country. Two-year achievement under PKVY scheme-19043 clusters have been formed and an area of 3.81 lakh ha has been covered benefitting 9.52 lakh farmers.
- Neem Coated Urea has been introduced since 2015-16 to ensure long availability of nutrients in the soil by slow release of nitrogen. It has also helped in curtailing diversion of urea for non- agricultural activities.
- Scheme for Formation and Promotion of 10,000 FPOs launched with a total budgetary provision of Rs. 6865 Crore in February 2020.
- A National Bee and Honey Mission (NBHM) has been launched in 2020 as part of the AtmaNirbhar Bharat Abhiyan. Rs.500 crore for the period 2020-2021 to 2022-2023 has been allocated for the sector.
- Per Drop More Crop component of Pradhan Mantri Krishi Sinchai Yojana (PMKSY\_PDMC) aims to increase water use efficiency at the farm level through Micro Irrigation technologies, i.e., drip and sprinkler irrigation systems.
- A Micro Irrigation Fund of Rs 5000 crore has been placed with NABARD. In the Budget for 2021-22 the corpus of the fund has been increased to Rs.1000 crores.
- Agricultural mechanization is extremely vital to modernize agriculture and reduce drudgery of farming operations. During the period from 2014-15 to 2021-22 an amount of Rs. 4878.31 crore have been allocated for agricultural mechanization.

## Agri-Tech Initiative

### In News

The ambitious and innovative Agritech Challenge cohort has been initiated by the collaboration of the NITI Aayog, Atal Innovation Mission (AIM) and the United Nations Capital Development Fund.

### About the Programme:

- The Agritech initiative aims to assist small scale farmers across Asia and Africa and address their challenges due to the pandemic.
- The AIM, NITI Aayog along with UNCDF, Bill & Melinda Gates Foundation and Rabo Foundation formed a partnership that paved the way for a South-South innovation platform.
- The objective of such a partnership is to enable the cross-border exchange of innovations, insights and investments.

- This platform will bring together the emerging agricultural markets of India, Indonesia, Malawi, Malaysia, Kenya, Uganda and Zambia.

## Convoke 2021-22

### In News

NITI Aayog in partnership with Bharti Foundation, the philanthropic arm of Bharti Enterprises, launched **Convoke 2021-22**.

### About Convoke 2021-22

- Through this platform, **School Teachers/ Heads/Principals of Government Schools** and teachers from Bharti Foundation network will be encouraged to use research-based solutions through scientific approach, and showcase their efforts taken at the grass-root level in improving learning outcomes.
- Teachers over the years have been coming up with innovative solution to help support students and even more during lockdown. Through Convoke they can now share their micro research papers. These research papers will be analyzed by a panel of Educationists. The shortlisted Research Papers will be presented during 'National Research Symposium' scheduled in January, 2022.

## Animal Husbandry Startup Grand Challenge

### In News

The Department of Animal Husbandry and Dairying, in partnership with Startup India, launched the **second edition of 'Animal Husbandry Startup Grand Challenge'**.

### About the Challenge

- The aim is to scout for innovative and commercially viable solutions to address six problems faced by the animal husbandry and dairy sector
- The first edition of the startup grand challenge was launched by Prime Minister, Shri Narendra Modi, on 12<sup>th</sup> September, 2019.
- **These startups got the following opportunities:**
- To pitch in front of an audience constituting officials from Ministries, Government Departments, Cooperatives, Corporate bodies, Investors, etc.
- Showcase their product/ services at the individual virtual booths provided to them
- Access to pilot, pilot, gain procurement orders, and funding.

## FINTECH SECTOR in India

### In News

With Fintech adoption rate at 87% against the global average of 64%, India has emerged as one of the largest digital markets in the world.

### Measures Taken by the Government

- The Pradhan Mantri Jan Dhan Yojana (PMJDY) has been targeted at increasing financial inclusion in India by helping in new bank account enrollment of beneficiaries for direct benefits transfer and accessibility to a host of financial services applications.
- Aadhar, the unique biometric identification system, allows the public to access government digital services thereby improving the availability and transparency for social payments including financial assistance to those in need.
- Unified Payments Interface is single platform that merges various banking services and features under one umbrella and has been built as a scalable payments platform supporting digital payments in India.



- Jan DhanYojana, Aadhar and Mobile (JAM trinity) alongwith Unified Payments Interface have been instrumental in bringing in transparency, integrity and timely delivery of financial benefits and services to the public.

## “Soya Meal” declared as an Essential Commodity

### In News

The Ministry of Consumer Affairs, Food and Public Distribution has declared ‘Soya Meal’ as an Essential Commodity up to June 30, 2022, by amending the Schedule of the Essential Commodities Act, 1955.

### Significance:

- The decision would empower the Union Government and all States/UTs to regulate production, distribution etc. of Soya Meal.
- It will smoothen the sale and availability of this item in the market.
- It will stop unfair market practices and
- It is going to enhance the availability for consumers like Poultry farms and Cattle feed manufacturers.

### About Soybean:

- It is an annual legume of the pea family (Fabaceae).
- It is native to East Asia, widely grown for its edible bean, which has numerous uses.
- It is economically the most important bean in the world, providing vegetable protein for millions of people and ingredients for hundreds of chemical products.
- Traditional unfermented food uses of soybeans include soy milk, from which tofu and tofu skin are made.
- It contains significant amounts of phytic acid, dietary minerals and B vitamins.

## Revamped Distribution Sector Scheme (RDSS)

### In News

The Ministry of Power, Government of India, had launched the Reforms-based and Results-linked, Revamped Distribution Sector Scheme (RDSS). It is a reform-based and results linked scheme.

### About the Scheme:

- To improve the operational efficiencies and financial sustainability of State-owned DISCOMs/ Power Departments.
- It is to be done by providing result-linked financial assistance to DISCOMs for modernization and strengthening of distribution infrastructure, aiming at the improvement of the reliability and quality of supply to end consumers.
- The unique feature is that financial its implementation is based on the action plan for each state to address state-specific issues, rather than a “one-size-fits-all” approach.
- RDSS has an outlay of Rs.3,03,758 crore with an estimated budgetary support of Rs. 97,631 crores from the Central Government, which would be available till FY 2025-26.
- The Centre had announced that various rural and urban power projects under the Deen Dayal Upadhyaya Gram Jyoti Yojana and the Integrated Power Development Scheme would be subsumed in the RDSS.

### Objectives:

- Reduction of annual technical and commercial (AT&C) losses to pan-India levels of 12-15% by 2024-25.
- Reduction of ACS-ARR gap to zero by 2024-25.
- Developing Institutional Capabilities for Modern DISCOMs

- Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.

## Cabinet approves implementation of Pradhan Mantri Krishi Sinchayee Yojana for 2021-26

### In News

The Cabinet Committee on Economic Affairs chaired by the Prime Minister Shri Narendra Modi, has today approved implementation of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) for 2021-26 with an outlay of Rs.93,068 crore.

### About PMKSY

- Launched in 2015, PMKSY is an umbrella scheme, providing central grants to the State Governments for specific activities detailed below.
- It consists of two major components by Department of Water Resources, River Development and Ganga Rejuvenation, namely, Accelerated Irrigation Benefits Programme (AIBP), and Har Khet Ko Pani (HKKP).
- HKKP, in turn, consists of four sub - components, being Command Area Development (CAD), Surface Minor Irrigation (SMI), Repair, Renovation and Restoration (RRR) of Water Bodies, and Ground Water Development. In addition, Watershed Development part is being implemented by Department of Land Resources.
- **Har Khet Ko Pani (HKKP)** aims for enhancement of physical access on the farm and expansion of cultivable area under assured irrigation. Under HKKP, surface minor irrigation and repair-renovation-restoration of water bodies component of PMKSY is targeted to provide additional 4.5 lakh hectare irrigation.

## Kalanamak Rice

### In News

It has been reported that the production and export of Kalanamak variety has significantly increased in the last three years.

### About Kalanamak Rice:

- It is a non-basmati scented rice variety.
- It is grown in the Terai region of Uttar Pradesh and it is named so because of its black husk.
- This rice variety upholds larger hopes for the farmers and rice exporters to promote indigenous varieties of rice and conserve the traits of rice native to the subcontinent.
- In March 2021 the government of Uttar Pradesh celebrated Kalanamak Rice Festival in order to promote the One district and One Product campaign.
- It has high salt content and overshadows basmati due to its agronomic potential.
- The region where Kalanamak rice is grown comprises the Terai belt of Uttar Pradesh bordering Nepal along with Siddharthnagar, Sant Kabir Nagar, Maharajganj, Basti, Gonda and Gorakhpur. This stretch of area is known as the Kalanamak belt.
- The Kalanamak rice from the Siddharthnagar district is conferred with the GI tag.

### Benefits

- Highly resistant to notorious rice diseases like panicle blast, stem rot and brown spot that cause huge crop losses for the farmers, unlike the Dehradun basmati which is highly susceptible to diseases.
- The Bacterial blight is rarely observed.
- Requires low water content and doesn't need standing water during transplantation.
- Can be grown without chemical fertilizers and pesticides.
- Low input and labour cost.

## Digitisation of Land and SVAMITVA Scheme

### In News

Department of Land Resources is implementing Digital India Land Records Modernization Programme (DILRMP), the erstwhile National Land Records Modernization Programme to digitize and modernize land records.

### Features of the scheme

- The scheme was launched in 2008-09 as a Centrally Sponsored Scheme.
- With effect from 1st April, 2016, this scheme was revamped as a Central Sector Scheme with 100% funding by the Government of India.
- Ministry of Panchayati Raj (MoPR) is implementing Central Sector Scheme SVAMITVA with the aim to provide the 'Record of Rights' to village household owners possessing houses in inhabited areas in villages.
- Legal ownership rights (Property cards/Title deeds) are issued by mapping of land parcels using drone technology.
- SVAMITVA is being implemented with the collaborative efforts of the Ministry of Panchayati Raj, State Revenue Department, State Panchayati Raj Department and Survey of India (Sol).
- So far, 29 States/Union Territories, are under SVAMITVA.

## Component Champion Incentive Scheme

### In News

To enhance the manufacturing capabilities of the Automobile industries the Government of India has initiated the PLI Scheme for the Automobile and Auto components industries which is known as the Component Champion Scheme.

### About the Scheme

- The scheme has two parts such as the Champion OEM (Original Equipment Manufacturer) Incentive scheme and the Component Champion Incentive Scheme.
- **This Aims at** – Identification of Auto component champions and incentivizing them and enabling them to become global operators and automotive champions.
- This is a sales value linked scheme for incentivizing advanced technology used in the components of:
  - Complete and Semi knocked down kits (CKD/SKD)
  - Vehicle aggregates of two-wheelers
  - Three-wheelers
  - Passenger vehicles
  - Tractors

## Biofortification of Rice

### In News

Give impetus to set up Fortified Rice manufacturing plants in Gondia, Bhandara, Chandrapur in Maharashtra: Secretary Food.

### Fortification

- Rice fortification is the enrichment of the cereal with micronutrients commonly iron, Vitamin B12 and folic acid.
- It aims to provide a nutritional boost to undernourished and vulnerable populations on a mega-scale across geographies.
- The year 2023 is being declared as the International Year of Millets by the Food and Agriculture Organization of the United Nations.

## MSP for Rabi Crops for 2022-23

### In News

Government has recently announced Minimum Support Prices (MSP) for 6 mandated rabi crops viz. wheat, barley, gram, masur (lentil), rapeseed & mustard and safflower.

### Background

- The NITI Aayog (erstwhile Planning Commission) has conducted a study entitled “Efficacy of minimum support prices on farmers”, 2016.
- The study has found that MSP declared by the Government has encouraged 78 % of the farmers covered under the study for adopting improved methods of farming such as high yielding varieties of seeds, organic manure, chemical fertilizer, pesticides and improved methods of harvesting etc.

### Minimum Support Price (MSP) for Rabi Marketing Season 2022-23

Sl. No.	COMMODITY	MSP (₹/quintal)
1	WHEAT	2015
2	BARLEY	1635
3	GRAM	5230
4	MASUR (LENTIL)	5500
5	RAPESEED & MUSTARD	5050
6	SAFFLOWER	5441

## Delhi-Dehradun Economic Corridor

### In News

Prime Minister led the foundation stone the Delhi-Dehradun Economic Corridor. It will have Asia's largest wildlife elevated corridor for unrestricted wildlife movement.

### About the Corridor

- The Delhi-Dehradun Economic Corridor (from Eastern Peripheral Expressway Junction to Dehradun) which will be built at a cost of around Rs 8300 crore.
- It will significantly reduce the travel time from Delhi to Dehradun from six hours to around 2.5 hours.
- It will have seven major interchanges for connectivity to Haridwar, Muzaffarnagar, Shamli, Yamunagar, Baghpat, Meerut and Baraut.
- It will have Asia's largest wildlife elevated corridor (12 km) for unrestricted wildlife movement.
- Multiple animal passes have been provided in the Ganeshpur-Dehradun section for avoiding animal-vehicle collisions.



- The Delhi-Dehradun Economic Corridor will also have arrangements for rainwater harvesting at intervals of 500 m and over 400 water recharge points.

## Indian Footwear Sizing system

### In News

The Department for Promotion of Industry and Internal Trade (DPIIT) has initiated the first ever Development of 'Indian Footwear Sizing system' in consultation with Central Leather Research Institute (CLRI), Chennai to identify the footwear size ranges.

### Footwear Sizing System

- The present Indian Standard IS 1638:1969 specification for sizing and fitting of footwear is based on the European and French Standards.
- This standard requires a revision to accommodate for demographic, anthropometric features of the Indian feet, leading to a more comfortable footwear and health of individual.
- The project includes anthropometric survey, statistical analysis and development of an Indian foot sizing system and involves foot biomechanics and gait study, materials identification, lasts fabrication, development of design patterns and comfort parameters, wear trials, generation of specification.
- The Department has approved an expenditure of Rs.10.80 crore to complete this project.
- This project will lead to carry out accurate measurement taking into consideration all the variations due to region, gender, age, health condition towards indigenisation of key products essential for realisation of an AatmaNirbhar Bharat.

## Atmanirbhar Hastshilpkar Scheme

### In News

NEDFi Announces New Scheme Atmanirbhar Hastshilpkar Scheme for the Artisans under Ministry of Doner

### The objective

- To develop the petty artisans of the North Eastern Region by providing financial assistance in the form of term loan for income generating activities for setting up / expansion / modernization / working capital requirement and other activities related to the sector NEDFi has introduced **Atmanirbhar Hastshilpkar Scheme** to the grass root Artisans of the region.
- The scheme was officially launched on 9/12/2021. During the launching ceremony, a total of 17 artisans have been provided with credit assistance of Rs.1 lakh per artisan. The credit facility is collateral free and carries a subsidized interest rate of 6% p.a., which is repayable in 24 months.
- For regular repayment, an incentive of 1% on the interest rate is provided, which will be refunded to the artisans on successful repayment of loans.

### North Eastern Development Finance Corporation Ltd. (NEDFi)

- It is a premier financial institution in the North-Eastern Region with its head office at Dispur, Guwahati and branch offices all across North-Eastern Region has completed an eventful twenty-six years since its establishment in 1995.

## Bijli Utsav

### In News

As part of 'Azadi Ka Amrit Mahotsav' – to celebrate 75 years of Independence, REC Limited organized a 'Bijli Utsav' in Sonapur village of Kamrup district and adjoining villages in Assam.

### About REC Limited:

- REC Limited is a Navratna NBFC focusing on Power Sector Financing and Development across India.
- Established in 1969, REC Limited has completed over fifty years in the area of its operations.
- It provides financial assistance to state electricity boards, state governments, central/state power utilities, independent power producers, rural electric cooperatives and private sector utilities.

## Initiatives Taken by Government to Prevent Road Accidents

### In News

The Ministry has formulated a multi-pronged strategy to address the issue of road safety.

### Initiatives taken by the Government:

#### Education:

- The Ministry implements a scheme for undertaking publicity measures and awareness campaigns on road safety to create awareness among road users through the electronic media, print media, NGOs etc.
- Observance of National Road Safety Month/Week every year for spreading awareness and strengthening road safety.
- A Certification Course for Road Safety Auditors has been commenced in Indian Academy of Highway Engineers (IAHE).

#### Road engineering:

- High priority to identification and rectification of black spots (accident prone spots) on national highways. Ministry has identified 5803 black spots on National Highways based on accident and fatality data of year 2015-2018 in 30 states/UTs.
- Road safety has been made an integral part of road design at planning stage.
- Ministry has delegated powers to Regional Officers of MORTH for technical approval to the detailed estimates for rectification of identified Road Accident black spots.
- Guidelines for pedestrian facilities on National Highways for persons with disabilities have also been issued to all States / UTs.

#### Vehicle engineering:

- Safety standards for automobiles have been improved in respect of Airbags, Anti-Breaking System (ABS), Tyres, Crash test, Whole Vehicle Safety Conformity of Production (WVSCoP) etc.
- Ministry has notified fitment of Speed Limiting devices on all transport vehicles.

#### Enforcement

The recently passed motor vehicles (Amendment) Act, 2019 provides for strict enforcement through use of technology and further provides for strict penalties for ensuring strict compliance and enhancing deterrence for violation of traffic rules.

#### Emergency care:

- The Motor Vehicles (Amendment) Act, 2019 provides for a scheme for the cashless treatment of victims of the accident during the golden hour.
- The National Highways Authority of India has made provisions for ambulances at all toll plazas on the completed corridor of National Highways.

## Krishi UDAN 2.0

### In News

Krishi UDAN 2.0 primarily focuses on transporting perishable food products from the hilly areas, north eastern states and tribal areas.

### To achieve better convergence and to improve supply chain competitiveness following can be done-

- Providing more air connectivity (national and international) between origin-destination airports aimed at bringing in improved logistics efficiency.
- Improving infrastructure and performance in processing of air cargo by all stakeholders, including Agri-produce, horticulture, fisheries, livestock products at airports and off-airport facilities, by regulatory participating governmental agencies (PGAs).
- Imparting special focus to air freight of organic and natural produce of NER, Tribal and Hilly Districts.
- Achieving better and timely mapping of Agri-produce production/ supply centres with domestic demand clusters and international markets in sync with the marketing strategies.
- Promoting adoption of plant and animal quarantine and other regulatory requirements (at airport) in the export supply chains end-to-end.
- Enabling paperless and contactless interface with all stakeholders through digitization and digitalization via integration with existing e-platforms and their creation as required.

### About Krishi UDAN 1.0

- Krishi UDAN Scheme was launched in August 2020, on international and national routes to assist farmers in transporting agricultural products so that it improves their value realisation.
- The scope of the Krishi Udaan Scheme was expanded by including more districts/airports across the country with an aim to extend benefit to the farmers.
- The Krishi UDAN is ongoing Scheme and agriculture products have been transported from the various destinations in the country.

## The Round Table Conference to Promote Electric Vehicles

### In News

The Round Table Conference to Promote Electric Vehicles organized by Ministry of Heavy Industries (MHI) on December 4, 2021 at Goa.

### Automobile sector In India

- **Automobile sector** is a key driver of India's economic growth and the largest contributor to the manufacturing sector.
- Automobile industry contributes to nearly 6.4 per cent of India's GDP and 35 per cent of manufacturing GDP and is a leading employment provider.
- India ranks number 1 in the world in two wheelers, 3 wheelers and tractors manufacturing and number 5 in passenger and commercial vehicles manufacturing.
- In value terms Indian automotive industry is ranked number 11 in the world.
- India's share of advanced automotive components is only 3 per cent compared to 18 per cent globally which is estimated to further grow to 30 per cent by 2030.
- Government of India has reaffirmed its commitment to reduce carbon emissions in the recently concluded COP26 summit.

### Policy Initiatives to increase EV penetration

- To give an impetus to manufacturing and adoption of Electric Vehicles and High-Technology Automotive, Ministry of Heavy Industries is executing 3 major schemes with a total outlay of Rs 54,038 crore:
- **Faster Adoption and Manufacturing of Electric Vehicles in India II (FAME India II)** scheme with an outlay of Rs 10,000 crore to incentivize demand for EVs by providing upfront subsidies and creating EV charging infrastructure.
- **National Programme on Advanced Chemistry Cell (ACC)** with an outlay of Rs 18,100 crore to incentivize setting up of manufacturing facilities in the country for 50 Giga Watt Hour of ACC and 5 GWh of "Niche" ACC. Total investment of Rs 45,000 crore is envisaged under this scheme.
- **Productivity Linked Incentive (PLI) scheme for Automobile and Auto Components** with an outlay of Rs 25,938 crore to incentivise manufacturing of high technology automobiles and automotive components in India.

### MetroLite and MetroNeo projects

#### In News

The standard specifications of Light Urban Rail Transit System named “**MetroLite**” and rubber-tired electric coach powered by overhead traction system running on a road slab with an exclusive right of way named “**MetroNeo**”, suitable for smaller cities or areas of cities with less projection of ridership were issued in July, 2019 and November, 2020 respectively.

#### About the projects

- Metrolite and MetroNeo are suitable for smaller cities or areas of cities with less projection of ridership.
- These are the low cost mobility solutions with reduced system requirements and same experience, ease of travel in terms of comfort, convenience, affordability, safety, punctuality, reliability and environment-friendliness as that of conventional metro rail system.
- The low capital cost of these new transit modes than that of high capacity metro rail is due to light civil structure, lesser axle load, smaller stations, low power rated electrical equipment, low operation and maintenance cost etc.
- These systems can also be used as feeder system to conventional metro rail.

### PM GATI SHAKTI - NATIONAL MASTER PLAN

#### In News

In October, 2021, Cabinet Committee on Economic Affairs (CCEA) has approved the proposal for development of 'PM GatiShakti National Master Plan (NMP)' for providing multimodal connectivity infrastructure to various Economic Zones.

#### PM Gati Shakti Plan

- The PM GatiShakti NMP will depict the economic zones and the infrastructure linkages required to support them with an objective to holistically integrate all the multimodal connectivity projects and remove missing gaps for seamless movement of people, goods & services.
- PM Gati Shakti NMP will bring in holistic planning and development across the country.
- It will provide complete visibility of multimodal infrastructure connectivity to the economic zones and will thus help in supplementing the various initiatives being taken to increase the share of manufacturing in the country, attract investment in manufacturing and service industry sectors, which will have a catalytic effect on upgradation and development of skills of the workforce and generation of employment opportunities.
- The PM GatiShakti NMP has been prepared in the Geographic Information System(GIS) based platform developed by BISAG-N.
- This portal is a GIS based ERP system to support the stakeholders in planning, reviewing and monitoring of the Plan.



### The Geographic Information System (GIS) based platform

- This platform of the PM GatiShakti NMP will ensure smarter decision making through the power of spatial analysis made available to the Network Planners.
- The portal will provide analytical tools for Planning, Permissions and Project Management Information Systems which will be available for individual organisations at Centre and State level.
- This will not only provide visual depiction of the Master Plan but will also integrate, through APIs, the physical progress on real-time with existing database of these Ministries.

## Science & Technology

### 'In-principle' nod for 6 nuclear reactors in Jaitapur (Maharashtra)

#### In News

The government has accorded approval for setting up the largest nuclear power generating site at Jaitapur in Maharashtra with a total capacity of 9900 MW.

#### About Nuclear Power

- Nuclear power is clean and environment friendly, apart from having a huge potential to ensure the country's long term energy security on a sustainable basis.
- So far in the Indian context, the nuclear power plants have generated about 755 Billion Units of electricity saving about 650 Million Tons of CO<sub>2</sub> emission.
- The present installed nuclear power capacity in the country is 6780 MW.

#### Concerns

- The local population is against the project and is of opinion that it is hazardous and it will impact the entire **Konkan coastline**.
- The **world has rejected nuclear energy**. Even the French Government in the Process of Decreasing its Dependence on Nuclear Energy. Increasing focus on the solar park could offer an alternative to fulfil India's increasing energy needs.
- It might be **difficult to find a potential electricity buyer** if the rates are not low enough, given the alternatives that will be available in the times to come.
- Besides the technological challenges, ironically, nuclear power's unique capability among low-carbon generation to generate at full output is not necessarily an advantage in today's energy ecosystem.

### Transient High Energy Pulses

#### In News

Scientists from the Andalusian Institute of Astrophysics in association with Aryabhata Research Institute of Observational Sciences, Department of Science and Technology have found a clue to understanding violent short duration flares from a compact star called Magnetar

#### About Magnetar

- When massive stars like supergiant star with a total mass of between 10 and 25 solar masses collapse, they might form neutron stars.
- Among neutron stars, stands out a small group with the most intense magnetic field known: **magnetars**.

## Efficient Quantum Computing

### In News

A group of scientists from the Raman Research Institute, Bangalore measured the spin properties of atoms cooled at micro-Kelvin temperatures and observed an increase in the efficiency of the quantum systems.

### ABOUT THE STUDY:

- The scientists developed a new technique to study the correlation between waves in the atoms which are long-lived at ultra-low temperatures and their implication in the quantum properties of atoms.
- The long-lived spin coherence is a better resource as quantum computers as it allows better quantum operations than the systems with short-lived spin coherences.
- At Spin is a fundamental quantum property of an atom and its elementary particles like electrons and protons. At low temperatures, the quantum properties become more prominent.
- The scientists measured the spin dynamics of the atoms at absolute zero temperature using polarization fluctuation measurements; at this temperature, quantum properties dominate over classical observations.
- They used laser cooling techniques to cool down the neutral atoms near absolute zero temperatures.

## Alkaline Electrolyser technology for Green Hydrogen production

### In News

Bharat Petroleum Corporation Limited (BPCL), a 'Maharatna' and a Fortune Global 500 Company has collaborated with Bhabha Atomic Research Centre (BARC) to scale-up Alkaline Electrolyser technology for Green Hydrogen production.

### About Alkaline Electrolyser technology

- Presently, Electrolyser Plants are imported. This is a first of its kind initiative to support the country's commitment to achieve renewable energy targets and reduce greenhouse gas emissions.
- Refineries use large quantities of Hydrogen for de-sulfurization to make petrol, diesel and other chemicals.
- Currently, Hydrogen is made at the Refinery via. Steam Reforming of Natural gas, but this results in high CO<sub>2</sub> emission.
- Therefore, Refiners are setting up large scale electrolyzers to produce Green Hydrogen from water and thereby decarbonize Hydrogen production.
- Bharat Petroleum has plans to expand its portfolio of renewable energy with solar, wind and biofuels thereby reaffirming its commitment towards sustainability and reduction of carbon footprint. Furthermore, the Company intends to meet power requirement for new projects in its Refineries, primarily from renewable sources.

## India's first; and one of world's largest Green Hydrogen Microgrid Project

### In News

NTPC has awarded a project of "Standalone Fuel-Cell based Micro-grid with hydrogen production using electrolyser in NTPC Guest House at Simhadri (near Visakhapatnam)".

### About the project

- It is India's first Green Hydrogen based Energy Storage Project.
- It would be a precursor to large scale hydrogen energy storage projects and would be useful for studying and deploying multiple microgrids in various off grid and strategic locations of the country.
- The hydrogen would be produced using the advanced 240 kW Solid Oxide Electrolyser by taking input power from the nearby Floating Solar project.

- The hydrogen produced during sunshine hours would be stored at high pressure and would be electrified using a 50 kW Solid Oxide Fuel Cell.
- This unique project configuration is designed in-house by NTPC.
- It is a unique project for India and would open doors for decarbonising the far-off regions of the country like Ladakh, J&K etc., hitherto dependent on diesel generators.

## Alternative Drug Targets in Malarial Parasite

### In News

A Swarnajayanti fellow from CSIR – Central Drug Research Institute in Lucknow along with her research group intended to identify proteins that influence the mitochondria of the malarial parasite and target those proteins with drugs.

### Malaria

- Malaria is a detrimental illness caused by *Plasmodium* parasites which are transmitted by female *Anopheles* mosquitoes.
- *Plasmodium vivax* and *falciparum* are the two prevalent parasite species that lead to malarial infections.
- The World Malaria Report estimated 241 million cases of malaria in 2020.

### Mitochondria

- Mitochondria can be defined as the cell organelles that act as the powerhouse of the cell by facilitating several biochemical high energy reactions.
- They have double membranes and consist of several enzymes that are essential for cellular respiration and metabolism of biomolecules.
- They generate the Adenosine Triphosphate (ATP) which is the energy currency of cells.
- Mitochondria have their own DNA (Deoxyribonucleic acid) which is inherited maternally.

## Environment & Ecology

### Early Warning System for Landslides

#### In News

Geological Survey of India (GSI), Ministry of Mines in collaboration with the British Geological Survey (BGS) under the National Environmental Research Council (NERC), UK funded, multi-consortium LANDSLIP project has developed a prototype regional Landslide Early Warning System (LEWS) for India,

#### About LANDSLIP project

- The project is currently being evaluated and tested by GSI in two pilot areas in India (Darjeeling district, West Bengal, and the Nilgiris district, Tamil Nadu).
- GSI through the LANDSLIP project is engaged in developing an experimental regional Landslide Early Warning System (LEWS) based on rainfall thresholds since 2017.
- The LANDSLIP is currently in the process of transferring the above tools of regional LEWS to the national nodal agency (GSI) for carrying out a similar endeavour in multiple landslide-prone states in India.

#### Geological Survey of India (GSI)

- It was set up in 1851 primarily to find coal deposits for the Railways.

- Over the years, it has not only grown into a repository of geo-science information required in various fields in the country but has also attained the status of a geo-scientific organisation of international repute.
- The main functions of the GSI relate to creation and updation of national geo-scientific information and mineral resource assessment.
- It is headquartered in Kolkata and has six regional offices located at Lucknow, Jaipur, Nagpur, Hyderabad, Shillong and Kolkata. Every state has a state unit.
- Presently, GSI is an attached office to the Ministry of Mines.

## Cyclone Jawad

### In News

The Prime Minister chaired a meeting to review the preparedness plan to tackle the aftermath of Cyclone Jawad that is likely to approach the Andhra Pradesh-Odisha coast.

### Cyclone Jawad

- The IMD has notified that there is a low pressure created in the south eastern part of the Bay of Bengal.
- This results in the concentration of depression and ultimately gets intensified to a cyclonic storm which is likely to strike the Andhra Pradesh – Odisha coast with an estimated wind speed of 100 km/hour.
- The cyclone is named Jawad by Saudi Arabia and it means generous or merciful.

### Cyclones Naming

- India, Bangladesh, Myanmar, Pakistan, Maldives, Oman, Sri Lanka and Thailand decide the names of cyclones in the region.
- The countries submit a list of cyclone names from time to time to choose the names from the pool.
- While selecting names for cyclones, countries first analyse them to see if the word is easily understood by people in the region, hence the names are generally familiar words.

## Air pollution

### In News

Air pollution in parts of central-western India and north India increased during the pandemic in contrast to the general trend.

### Major Findings

- Satellite observations show that parts of central-western India and north India showed an increase in pollution contrary to the general trend in that a reduction in economic activities had caused a decrease in air pollution in most parts of India.
- Scientists at the Aryabhata Research Institute of Observational Sciences (ARIES) utilized the EUMETSAT and NASA satellite observations for the years 2018, 2019, and 2020.
- The study has shown that **ozone**, **carbon monoxide**, and **NO<sub>2</sub>** showed an increase of about 15% over the central-western part of India.

Swachh Bharat Mission (Urban) 2.0 and AMRUT 2.0 to make the cities garbage free and water secure during the mission period of five years (2021-2026).

### In News

The major focus of Swachh Bharat Mission (Urban) 2.0 [SBM (U) 2.0] and AMRUT 2.0 launched on 1st October, 2021 is to make the cities garbage free and water secure during the mission period of five years (2021-2026).



### The highlights of SBM (U) 2.0 are as under:

- all households and premises segregate their waste into “wet waste” (from kitchen and gardens) and “dry waste” (including paper, glass, plastic, and domestic hazardous waste and sanitary waste wrapped separately);
- 100% door to door collection of segregated waste from each household/ premise;
- 100% scientific management of all fractions of waste, including safe disposal in scientific landfills;
- all legacy dumpsites remediated;
- all used water including faecal sludge, is safely contained, transported, processed and disposed so that no untreated faecal sludge and used water pollutes the ground or water bodies, in cities with less than one lakh population;
- phased reduction in use of single use plastic.

### The highlights of AMRUT 2.0 are as under:

- Universal coverage of water supply from 500 cities to about 4,800 statutory towns.
- Focus on making the cities ‘self-reliant’ and ‘water secure’.
- Universal coverage of sewerage and septage management in 500 AMRUT cities.
- Target to provide 2.68 crore drinking water tap connections and 2.64 crore sewer connections.
- Focus on financial sustainability of Urban Local Bodies (ULBs) through enhanced credit worthiness and market borrowing.
- ‘Pey Jal Survekshan’ will be undertaken in cities to promote healthy competition among them and function as monitoring tool and Mission accelerator.
- AMRUT 2.0, reforms on water conservation envisages recycle of treated wastewater to meet 20% of the total city water demand and 40% of industry water demand in aggregate at the state level.

## Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

### In News

ICAO decided to implement a Global Market Based Measure (GMBM) scheme in the form of Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) to address CO<sub>2</sub> emissions from international civil aviation.

### About the scheme

- The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is a global market-based measure designed to offset international aviation CO<sub>2</sub> emissions in order to stabilize the levels of such emissions.
- The offsetting of CO<sub>2</sub> emissions will be achieved through the acquisition and cancellation of emissions units from the global carbon market by airplane operators.
- CORSIA does not apply to domestic aviation. Under it, aircraft operators will begin monitoring their emissions from international flights and begin acquiring offsets for their emissions growth.

## Climate Change makes children vulnerable to infectious diseases: Study

### In News

Scientists have found that climate parameters accounted for 9-18% of the total infectious disease cases in a study to probe the association between climate parameters and infectious diseases in children under 16-years-of-age in Varanasi-city in central Indo-Gangetic Plane.

### Findings of the study

- Globally, it is estimated that children are to bear most of the burden of disease due to climate change, with the poorest disproportionately affected. The higher risk associated with children is due to the combination of physiological vulnerability as well as the risk of exposure.

- A study was undertaken for the first time over the central Indo-Gangetic Plain region DST-Mahamana Center of Excellence in Climate Change Research, BHU, explored the association between climate parameters and infectious diseases in a three-year follow-up prospective cohort of 461 children under 16-years-of-age in Varanasi city.
- The researchers established that climate parameters like temperature, humidity, rainfall, solar radiation, and wind speed were significantly associated with the infectious diseases-- gastrointestinal diseases, respiratory diseases, vector-borne diseases, and skin diseases, in children in Varanasi.
- Maximum temperature and humidity (absolute/relative) are important climate drivers.
- This study further added that climate parameters accounted for 9-18% of the total infectious disease cases, while non-climate parameters account for the rest.
- Upper respiratory tract infection (mostly cold and flu) and gastrointestinal infections (mainly diarrhea) constitute 78% of the disease burden. Socio-economic conditions and child anthropometry modified the climate-disease association with high proportion of children found suffering from stunting, wasting, and underweight conditions.
- Findings from this study draw the attention of government and policymakers to prioritize effective measures for child health as the present association may increase disease burden in the future under climate-change scenarios in already malnourished pediatric population through multiple pathways.

## India co-chairs Global Methane Initiative Steering Leadership Meeting

### In News

A Steering Leadership meeting of Global Methane Initiative (GMI) has been held virtually.

### About GMI

- **Global Methane Initiative(GMI)** is a voluntary Government and an informal international partnership having members from 45 countries including the United States and Canada. The forum has been created to achieve global reduction in anthropogenic methane emission through partnership among developed and developing countries having economies in transition.
- The forum was created in 2004 and India is one of the members since its inception and has taken up Vice-Chairmanship for the first time in the Steering Leadership along with USA. The Chairperson of the Steering Leadership is from Canada.
- Several decisions including holding of next round of meeting in near future were taken. Both Canada and the US appreciated the actions taken by India in reducing and harnessing methane gas.

## Heavy Metal in Rivers

### In News

Samples taken from two-thirds of the water quality stations spanning India's major rivers showed contamination by one or more heavy metals, exceeding safe limits set by the Bureau of Indian Standards.

### Major Findings

- Central Pollution Control Board (CPCB) in association with State Pollution Control Boards/Committees in different States/Union Territories (UTs) have been monitoring water quality of rivers and other water bodies, across the country through a network of 4294 monitoring stations under the National Water Quality Monitoring Programme.
- The monitoring is conducted and samples analyzed for various physico-chemical, micro- biological and micro-pollutants (metals & pesticides) parameters as per Guidelines for Water Quality Monitoring, 2017 issued by Ministry of Environment, Forest & Climate Change (MoEF&CC).
- The concentration range of various heavy metals such as Arsenic (As), Cadmium (Cd), Copper (Cu), Lead (Pb), Chromium (Cr), Nickel (Ni), Zinc (Zn), Mercury (Hg), Iron (Fe) and Manganese (Mn) observed in major rivers of the country during the year 2020.

- As per the Provisions of Environment Act, 1986 and Water Act 1974, industrial units are required to install effluent treatment plants (ETPs) and treat their effluents to comply with stipulated environmental standards before discharging into river and water bodies.
- As per the orders of NGT, regular review on implementation of action plans is undertaken in the States/UTs and also at Central level.

## 6th India Water Impact Summit

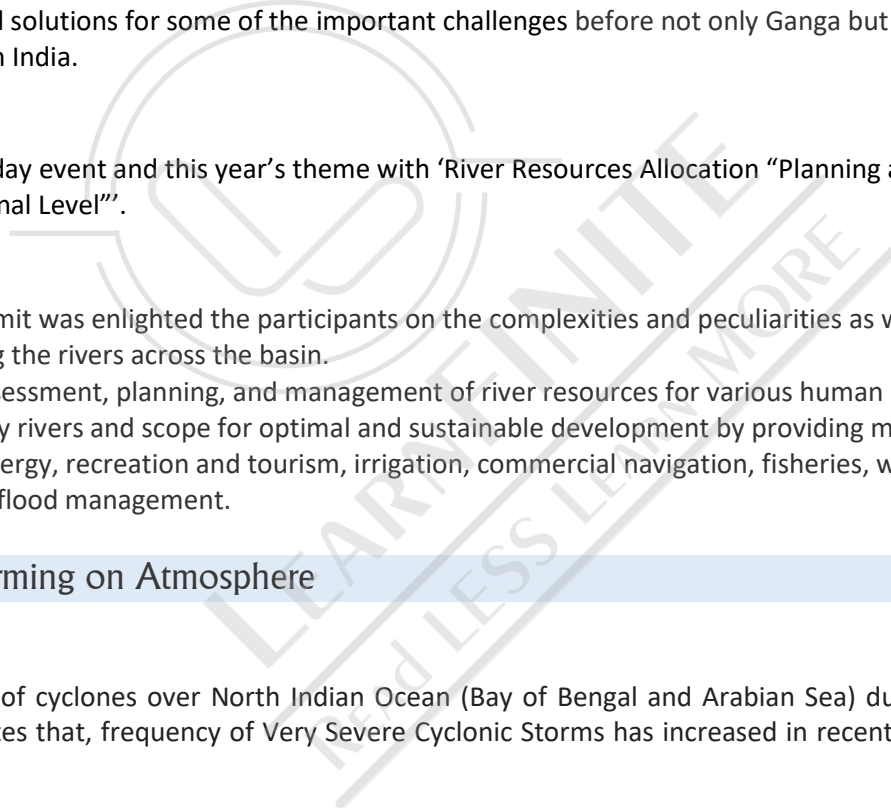
### In News

The National Mission for Clean Ganga (NMCG) alongwith the Centre for Ganga River Basin Management and Studies (c-Ganga) was organized from the 6<sup>th</sup> edition of the India Water Impact Summit (IWIS) from 9<sup>th</sup> December to 14<sup>th</sup> December 2021.

### Aim

- The summit was being organized in a hybrid mode - online and physically at the NMCG office, New Delhi and IIT, Kanpur.
- The IWIS 2021 provided knowledge enriching platform to all stakeholders and aim to discuss, debate and develop the model solutions for some of the important challenges before not only Ganga but all rivers and the water sector in India.

### Theme

The IWIS 2021 was a five-day event and this year's theme with 'River Resources Allocation "Planning and Management at the Regional Level"'.  


### Focus

- This year the Summit was enlightened the participants on the complexities and peculiarities as well as the scales of managing the rivers across the basin.
- The systematic assessment, planning, and management of river resources for various human requirements was ensure healthy rivers and scope for optimal and sustainable development by providing municipal water supplies, hydro-energy, recreation and tourism, irrigation, commercial navigation, fisheries, waste management and flood management.

## Impact of Global Warming on Atmosphere

### In News

The analysis of past data of cyclones over North Indian Ocean (Bay of Bengal and Arabian Sea) during the period from 1891 to 2020 indicates that, frequency of Very Severe Cyclonic Storms has increased in recent few years over the Arabian Sea.

### Impact of Cyclones

- The number of Cyclones and Number of stations reported very heavy and extremely heavy rainfall events have increased in recent years.
- The increase in frequency over the Arabian Sea has not posed a corresponding increase in the coastal vulnerability along the west coast since most of such Cyclones forming over the Arabian Sea are making landfall over the coasts of Oman, Yemen etc and hence the threat to Gujarat & Maharashtra coasts remains same.
- On an average, out of 5 Cyclones developing over the North Indian Ocean (NIO) comprising Bay of Bengal and Arabian Sea, about 3 to 4 of them make landfall causing loss of life and property. Low lying coastal belts of West Bengal, Odisha, Andhra Pradesh and Tamil Nadu & Puducherry are more prone to the impact of these systems.
- The number of deaths due to cyclones has decreased significantly.

- **The Heat Action Plan** is a comprehensive early warning system and preparedness plan for extreme heat events. The Plan presents immediate as well as longer-term actions to increase preparedness, information-sharing, and response coordination to reduce the health impacts of extreme heat on vulnerable populations.
- IMD has started **Forecast Demonstration Project** (FDP) on heat waves from April 2017 for the hot weather season under which a detailed daily report including realized data of heat waves, weather systems leading to the occurrence of heat waves, diagnosis on the basis of Numerical Model outputs and forecast and warnings for five days is prepared.

## The Dam Safety Act 2021

### In News

The Rajya Sabha passed the landmark Dam Safety Bill (2019), paving the way for enactment of the Dam Safety Act in the country.

### Issue

- After China and USA, India is the 3rd largest dam-owning nation in the world.
- There are around 5,700 large dams in the country, of which about 80% are already over 25 years old.
- Nearly 227 dams that are over 100 years old are still functional.

### The Act provides for

- Adequate surveillance, inspection, operation, and maintenance of all the large dams in the country so as to prevent dam failure related disasters.
- An institutional mechanism at both Central and State levels to address structural and non-structural measures required for ensuring the safe functioning of dams.

### The provision of the Act

- A National Committee on Dam Safety (NCDS) will be constituted to help evolve uniform dam safety policies, protocols, and procedures.
- A National Dam Safety Authority (NDSA) as a regulatory body for ensuring the nationwide implementation of dam safety policies and standards will be established.
- At the State level, the Act prescribes for the constitution of State Committees on Dam Safety (SCDS) and the establishment of the State Dam Safety Organizations (SDSO).
- The Dam Safety Act also addresses in a comprehensive manner, critical concerns related to dam safety on account of emerging climate change related challenges.
- This Act provides for regular inspection and hazard classification of dams. It also provides for drawing up of emergency action plans and comprehensive dam safety reviews by an independent panel of experts.
- Through this Act the Dam owners are required to provide resources for timely repair and maintenance of the dam structure, along with related machinery.
- This Act looks at Dam Safety holistically and provides for not only structural aspects, but also operational and maintenance efficacy through prescription of strict O & M protocols.
- This Act has penal provisions, involving offences and penalties, for ensuring compliance of the provisions.

## Schemes & Policies

## Mission SAGAR

### In News

Indian Naval Ship **Kesari** entered Port of Maputo, Mozambique on 25 December 2021 under the **Mission Sagar**.

### Achievements of Mission Sagar:

- 500 Tons of food aid has been shipped by INS Kesari to support the efforts of the Government of Mozambique to cope with the ongoing drought and concurrent challenges of the pandemic.
- INS Kesari is carrying two Fast Interceptor Craõ and self-defence equipment to be handed over to the Armed Forces of Mozambique. The equipment will be useful as Mozambique is hit by terrorism in its North.

### SAGAR initiative can be defined under the following terms:

- **Security:** Enhancement of coastal security so that land and maritime territories can be safeguarded with relative ease.
- **Capacity Building:** Deepening economic and security cooperation for smooth facilitation of economic trade and maritime security.
- **Collective Action:** Promoting collective action to deal with natural disasters and maritime threats like piracy, terrorism and emergent non-state actors.
- **Sustainable Development:** Working towards sustainable regional development through enhanced collaboration
- **Maritime Engagement:** Engaging with countries beyond our shores to build greater trust and promote respect for maritime rules, norms and peaceful resolution of disputes

## Conformity Assessment Scheme

### In News

The Prime Minister launched a portal and logo to determine the quality of milk products that show conformity with the compliance norms.

### Important Facts:

- The portal and logo for dairy products have been developed by the **Bureau of Indian Standards (BIS)** with the help of the **National Dairy Development Board (NDDB)**.
- The NDDB and BIS have been engaged in the certification of processes and products related to the dairy industry.
- The NDDB awards the 'Quality Mark' to the dairy plants of cooperatives that obey the standard procedures ensuring the safe consumption of the products. This establishes a dairy value chain that enhances consumer confidence.

### Bureau of Indian Standards:

BIS is the National Standard Body of India for the harmonious development of the activities of standardization, marking and quality certification of goods.

## National Consumer Day 2021

### In News

Every 24th day of December is recognized as National Consumer Day which is backed by the fact that on this day, 1986 the Consumer Protection Act got the Presidential assent.



### Aim of National Consumer Day:

- This day acknowledges the importance of strengthening consumer rights and aims at leading India in 'One Nation One Standard' along with more awareness spread across the consumers.
- Emboldening the five pillars of Consumer Rights has been a major objective of the celebration.

### Measures taken by the Government

- Direct selling rules
- Simplified Mediation Rules
- Guidelines against misleading advertising
- Introducing new E-Commerce Rules
- Hallmarking offers consumers a long term right to quality, purity and transparency.
- The **E-Dakhil portal** has facilitated a speedy resolution of complaints filed by the consumers. This portal has been largely instrumental in addressing customer complaints during the pandemic.
- E-books on Landmark Judgements on consumer law and practice, handbook on Mediation under Consumer Protection Act 2019 were inaugurated.
- The National Consumer Helpline portal has been set up to protect consumers from cybercrime.
- BIS Care Mobile app assists the consumers to verify the authenticity of the standard mark on products.
- Hallmarking has been made mandatory for 256 districts with proper guidelines for the establishment of offsite hallmarking centres.

## Project RE-HAB

### In News

Buoyed by the success of its innovative Project RE-HAB (Reducing Elephant-Human Attacks using Bees) in Karnataka, Khadi and Village Industries Commission (KVIC) has now replicated the project in Assam.

### About Project Re-Hab

- "Bee-fences" are created by setting up bee boxes in the passage ways of elephants to block their entrance to human territories.
- The boxes are connected with a string so that when elephants attempt to pass through, a tug or pull causes the bees to swarm the elephant herds and dissuade them from progressing further.
- It is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals. It is scientifically recorded that elephants are annoyed by the honey bees.
- Elephants also fear that the bee swarms can bite their sensitive inner side of the trunk and eyes. The collective buzz of the bees is annoying to elephants that force them to return.
- **Project RE-HAB** is a sub-mission of KVIC's National Honey Mission. While the Honey Mission is a programme to increase the bee population, honey production and beekeepers' income by setting up apiaries, Project RE-HAB uses bee boxes as a fence to prevent the elephant attacks.
- Project RE-HAB was launched at 11 locations in Kodagu district of Karnataka on 15th March 2021. In just 6 months, this project has reduced elephant attacks by over 70%.

### Why this project?

- Nearly 500 people die every year due to elephant attacks in India. This is nearly 10 times more than the fatalities caused by big cats across the country.
- From 2015 to 2020, nearly 2500 people have lost their lives in elephant attacks. On the contrary, nearly one-fifth of this number, i.e. nearly 500 elephants have also died in retaliation by humans in the last 5 years.

## Programme for Development of Semiconductors and Display Manufacturing Ecosystem in India

### In News

Union Cabinet chaired by Hon'ble Prime Minister Shri Narendra Modi has approved the comprehensive program for the development of sustainable semiconductor and display ecosystem in the country.

### Features of the Program

- The program will usher in a new era in electronics manufacturing by providing a globally competitive incentive package to companies in semiconductors and display manufacturing as well as design. This shall pave the way for India's technological leadership in these areas of strategic importance and economic self-reliance.
- Semiconductors and display manufacturing is very complex and technology-intensive sector involving huge capital investments, high risk, long gestation and payback periods, and rapid changes in technology, which require significant and sustained investments.
- The program will give an impetus to semiconductor and display manufacturing by facilitating capital support and technological collaborations.
- The programme aims to provide attractive incentive support to companies / consortia that are engaged in Silicon Semiconductor Fabs, Display Fabs, Compound Semiconductors / Silicon Photonics / Sensors (including MEMS) Fabs, Semiconductor Packaging (ATMP / OSAT), Semiconductor Design.
- The program will promote higher domestic value addition in electronics manufacturing and will contribute significantly to achieving a USD 1 Trillion digital economy and a USD 5 Trillion GDP by 2025.

### Following broad incentives have been approved for the development of semiconductors and display manufacturing ecosystem in India:

- **Semiconductor Fabs and Display Fabs:** The Scheme for Setting up of Semiconductor Fabs and Display Fabs in India shall extend fiscal support of up to 50% of project cost on pari-passu basis to applicants who are found eligible and have the technology as well as capacity to execute such highly capital intensive and resource incentive projects.
- **Semi-conductor Laboratory (SCL):** Union Cabinet has also approved that Ministry of Electronics and Information Technology will take requisite steps for modernization and commercialization of Semi-conductor Laboratory (SCL). MeitY will explore the possibility for the Joint Venture of SCL with a commercial fab partner to modernize the brownfield fab facility.
- **India Semiconductor Mission:** In order to drive the long-term strategies for developing a sustainable semiconductors and display ecosystem, a specialized and independent "India Semiconductor Mission (ISM)" will be set up. The India Semiconductor Mission will be led by global experts in semiconductor and display industry. It will act as the nodal agency for efficient and smooth implementation of the schemes on Semiconductors and Display ecosystem.

### Comprehensive Fiscal Support for Semiconductors and Electronics

In total, Government of India has committed support of Rs. 2,30,000 crore (USD 30 billion) to position India as global hub for electronics manufacturing with semiconductors as the foundational building block.

## Sandhayak- Survey Vessel (Large) project

### In News

'Sandhayak', the first of the four Survey Vessels (Large) project being built for the Indian Navy, was launched in Kolkata on December 05, 2021.

### About Sandhayak Vessel

- These Vessels have been designed and developed by Defence Public Sector Undertaking, Garden Reach Shipbuilders and Engineers (GRSE) Limited, which is among the leading warship building companies in India.
- 'Sandhayak' made her first contact with the waters of Hooghly River. In keeping with the Naval maritime tradition, launched the ship to the chanting of invocation from Atharva Veda. .
- These survey ships are capable of full scale coastal & deep-water hydrographic survey of Ports & Harbour approaches and determination of navigational channels & routes.
- These ships are also capable of undertaking survey of maritime limits and collection of Oceanographic & Geographical data for Defence applications, thus boosting the maritime capabilities of the country.

### "Main Bhi Digital 3.0" campaign

#### In News

In order to give further impetus to the digital onboarding and training of beneficiaries, Ministry of Housing & Urban Affairs (MoHUA) and Ministry of Electronics & Information Technology (MeitY) jointly launched 'Main Bhi Digital.

#### Main Bhi Digital 3.0

- It was launched jointly by the Ministry of Housing & Urban Affairs (MoHUA) and Ministry of Electronics & Information Technology (MeitY).
- "**Main Bhi Digital 3.0**" campaign is aimed at digital onboarding of Street Vendors (SVs) who have already been provided loans under PM SVANidhi Scheme.
- An Integrated IT Platform has been developed for implementation of this Scheme. The application process is fully online. SVs can apply for loan directly through PM SVANidhiPortal.
- **PM SVANidhi Scheme** is available to all street vendors across the country, including those from Dahod tribal area, who are engaged in vending in urban areas on or before March 24, 2020.

### Puneet Sagar Abhiyan

#### In News

National Cadet Corps (NCC) is carrying out a nationwide campaign to free seashores/beaches from plastic & other waste materials and increase awareness about importance of keeping these clean.

#### About Abhiyan

- The campaign will increase awareness about the importance of keeping the seashores free from plastic wastes across the country.
- According to the Defence ministry, 3.4 lakh NCC cadets from 127 coastal area NCC units have so far collected approximately six tons of plastic waste. The collected plastic wastes will be handed over to NHAI, which afterwards will be used in road construction.
- **Aim**-The aim of the month-long Campaign is to propagate the message of 'Importance of Clean Seashores/Beaches' amongst the local population and future generation in December 2021.
- **Objectives** -Of the campaign are to clean the plastic waste along the seashores in coastal areas, to generate awareness and educate target population about the measures for conservation and impact of plastic pollution along the sea beaches and to sensitise and mobilise support of local population towards prevention of pollution.

### Make-In-North-East Initiative

#### In News

This programme has been initiated as a follow-up to the government's Make in India programme.

### About the Initiative

- The 'Make in Northeast' approach will not only generate revenue and livelihood opportunities in the region, but it can also reinforce the Government of India's "Act East" policy.
- Under the Department for Promotion of Industry and Internal Trade (DPIIT), a dedicated Northeast Desk has been set up within Invest India, which supports the North East States in their outreach activities to the investors as well as in facilitating and handholding select companies.
- The desk is working closely with One District One Product (ODOP), StartUP and other sector desks of Invest India for their initiatives in the region.

## The Pharmacovigilance scheme

### In News

The Ministry of AYUSH has taken an initiative to prevent the spread of misleading information about herbal medicines through advertisements by strengthening the existing regulations.

### About Scheme

- The ministry is all set to implement a central sector scheme of Pharmacovigilance of Ayurveda, Unani, Siddha and Homeopathy drugs which intends to educate the consumers and the practitioners.
- The Pharmacovigilance scheme will carry out surveillance and report adverse drug reactions.
- There has been a significant increase in misleading advertisements on herbal medicines which were reported by the Pharmacovigilance centres.

## We Think Digital Programme

### In News

NCW Launches Online Resource Center on Cyber Safety Under 'We Think Digital' Programme  
Resource Center to Help Women in Distress on Issues Pertaining to Online Safety Such as Cyber Bullying, Cyber Stalking, Financial Frauds.

### About the programme

- Helps Women in Distress on Issues Pertaining to Online Safety Such as Cyber Bullying, Cyber Stalking, Financial Frauds
- To ensure women safety in cyberspace, the National Commission for Women (NCW) has launched an online resource center to offer help for women in distress on issues pertaining to online safety such as cyber bullying, cyber stalking, financial frauds, etc under the 'We Think Digital' programme, run collaboratively by the Commission, Facebook and Cyber Peace Foundation.
- The project was launched as Digital Shakti in 2018 with an aim to help women across the nation to raise the awareness level on the digital front and to train them to fight cyber-crime in the most effective ways.

## Schemes/programmes implemented by the Ministry of Minority Affairs

### In News

Ministry of Minority Affairs implements various programmes/ schemes for socio-economic and educational empowerment of the six (6) centrally notified minority communities namely Christians, Sikhs, Buddhists, Muslims, Parsis and Jains and all the States avail benefits of these schemes.

### The schemes/programmes implemented by the Ministry of Minority Affairs in brief are as under:-

- Pre-Matric Scholarship Scheme, Post-Matric Scholarship Scheme, Merit-cum-Means based Scholarship Scheme - For educational empowerment of students through Direct Benefit Transfer (DBT) mode.
- Maulana Azad National Fellowship Scheme - Provide fellowships in the form of financial assistance.

- Naya Savera - Free Coaching and Allied Scheme - The Scheme aims to provide free coaching to students/candidates belonging to minority communities for qualifying in entrance examinations of technical/ medical professional courses and various Competitive examinations.
- Padho Pardesh - Scheme of interest subsidy to students of minority communities on educational loans for overseas higher studies.
- Nai Udaan - Support for students clearing Prelims conducted by Union Public Service Commission (UPSC), State Public Service Commission (PSC) Staff Selection Commission (SSC) etc.
- Nai Roshni - Leadership development of women belonging to minority communities.
- Seekho Aur Kamao - Skill development scheme for youth of 14 - 35 years age group and aiming at providing employment and employment opportunities, improving the employability of existing workers, school dropouts etc.
- Pradhan Mantri Jan Vikas Karyakram (PMJVK) – Being Implemented to provide basic infrastructure such as Schools, Colleges, ITIs, Polytechnics, Hostels, Sadbhav Mandap, Skill Development Centres, Drinking water and Sanitation facilities, Primary Health Centres etc. in deprived areas of the Country.

## Sfuri Scheme

### In News

The Ministry of Micro, Small and Medium Enterprises (MSME) assessed the functional SFURTI clusters in terms of their profitability and marketability.

### About the Scheme

- The Scheme for Registration of Traditional Industries is a cluster of 50 artisans that was initiated by MSM and is distributed across 18 districts.
- It was launched to promote cluster development.
- It operates under the Khadi and Village Industries Commission which is the nodal agency for the cluster development of khadi and other village products.

### Cluster Development

- In order to increase the productivity and competitiveness of the micro, small and medium enterprises the MSME had introduced a new method of capacity building known as cluster development.
- These clusters are a group of enterprises located in a particular area or a value chain span over different geographical areas and produce similar products and services which can be linked by a common infrastructural facility.

## RUDRA – India's Indigenous Server

### In News

In order to celebrate Azadi Ka Digital Mahotsav, the Ministry of Electronics and IT released the National Strategy on Blockchain along with the launch of RUDRA, India's first indigenous server.

### About Rudra

- India's first indigenous server was launched during the celebration of Azadi Ka Digital Mahotsav.
- RUDRA is developed by C-DAC (Centre for development of advanced computing) under the National Supercomputing Mission.
- This was backed by the Ministry of Electronics and IT along with the Department of Science and Technology.
- The RUDRA server was a part of Phase – 3 of the National Supercomputing Mission.
- This aims at the design and manufacture of Supercomputers in India offering a secure, reliable, dual-socket updated Intel Xeon scalable processor technology with a faster computing facility.



## SMILE scheme

### In news

Ministry of Social Justice and Empowerment has formulated a scheme “SMILE - Support for Marginalized Individuals for Livelihood and Enterprise”, which includes a sub-scheme - ‘Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging’.

### About the Scheme

- The scheme provides for the use of the existing shelter homes available with the State/UT Governments and Urban local bodies for rehabilitation of the persons engaged in the act of Begging.
- In case of the non-availability of existing shelter homes, new dedicated shelter homes are to be set up by the implementing agencies.
- It is a new Scheme after the merger of existing Schemes for Beggars and Transgenders.
- The scheme is to be implemented on a pan-India basis. It will be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs), institutions and others.
- Currently, the pilot project is ongoing in 7 cities namely Delhi, Bangalore, Hyderabad, Indore, Lucknow, Nagpur and Patna.

### Focus Areas:

The focus of the scheme is extensively on: Rehabilitation, Provision of medical facilities, Counselling, Basic documentation, Education, Skill development, Economic linkages.

## Child Protection Services (CPS) Scheme

### In News

To deliver services to children in difficult situations, the Ministry of Women and Child Development has decided to implement a centrally sponsored scheme called the **Child Protection Services Scheme**.

### ABOUT Scheme

- The **Ministry of Women and Child Development** is implementing a centrally sponsored scheme namely *Child Protection Services (CPS) Scheme* under which support is provided to States and UT Governments for delivering services for children in need and difficult circumstances.
- The **Child Care Institutions (CCIs)** established under the CPS scheme support inter-alia age appropriate education, access to vocational training, recreation, health care, counselling etc. and equally covers rural and urban children.

### Importance

- According to the census of 201, there are 472 million children under the age of 18 and they make about 39% of the total population.
- Therefore, it becomes extremely important to secure and protect the children and their rights that would lead to the culmination of a welfare state as envisaged by the Constitution.

## SAMPANN Project

### In News

SAMPANN is helping the Telecom Department in the faster settlement of pension cases, improved reconciliation/auditing and ease of accounting.

### About System for Accounting and Management of Pension Project:

- This is an ambitious project of the Government of India and implemented by the Ministry of Communications (Controller General of Communication Accounts, Department of Telecommunications) introduced in the year 2018.
- It is an online pension processing system and payment system for pensioners.
- The direct credit of pension into the bank accounts of the beneficiaries is ensured.
- Over 1 lakh people are getting pensions directly into their bank accounts through the SAMPANN project.
- It has ensured recurring monthly savings to the Government of India on account of Commission being paid to Banks/Post Offices for payment of Pension which approximately amounts to Rs.11.5 Crores as of June 2021.

## Saryu Nahar National Project

### In News

The Prime Minister inaugurated an interlinking of rivers project called the Saryu Nahar National Project which was pending for four decades. The inauguration took place at Balrampur in Uttar Pradesh.

### About Project

- This project intends the interlink five rivers namely Ghaghara, Saryu, Rapti, Banganga and Rohini.
- The onset of the project took place in 1978 and was called **Ghagra Canal** but due to lack of funds and inefficient coordination between the departments, it was stalled for a long time.
- In 1982-83, the scope of the project was expanded to include nine districts of the **trans-GhagharaRapti-Rohini region of Purvanchal** and it was renamed the **Saryu Project**.
- In 2012, the Centre declared it a national project and renamed it the Saryu Canal National Project.
- The project is also connected to the River Valley Linking Project of the Government of India.
- In 2016, the project was included within the ambit of the **Pradhan Mantri Krishi Sinchai Yojana** for its timely implementation and completion.

### Importance

- Interlinking of five rivers-**Ghaghara, Saryu, Rapti, Banganga and Rohini**.
- To ensure **optimum usage of water resources of the region**.
- To benefit about **29 lakh farmers of over 6200 villages** of Eastern Uttar Pradesh.
- Farmers will be able to maximize the **agri-potential of the region**.
- Assured water for the irrigation of **over 14 lakh hectares of land**.
- To benefit **9 districts of Eastern UP namely-** Bahraich, Shravasti, Balrampur, Siddharthnagar, Basti, Sant Kabir Nagar, Gorakhpur, Mharajganj.

## Integrated Bamboo Project

### In News

With the objective to redefine the Bamboo Mission, the integrated bamboo project has been launched at Tamenglong in Manipur and it is funded by the North Eastern Council (NEC) which operates under the Ministry of Doner.

### About the Bamboo Project:

- The project will be implemented by the North East Cane and Bamboo Development Council (NECBDC) which is a designated Bamboo Technical Support Group under the National Bamboo Mission.
- This project intends to promote bamboo technology and up-gradation.
- This project facilitates the industrialisation of bamboo and cane setting up networks that can be augmented as bamboo clusters resulting in employment generation in rural areas.

### Significance of Bamboo

- Bamboo is considered to be a versatile crop with multiple uses.
- It can be used as a food, a substitute of wood, biofuel, incense sticks, construction material and also for handicrafts and paper.
- India is the second-largest cultivator of bamboo with 136 species and 23 genera spread over millions of hectares.
- Despite having a considerable bamboo resource India's commercial share in terms of bamboo is a mere 4% globally.

## Agricultural Technology Management Agency (ATMA) Scheme

### In News

The ATMA scheme and the progress it has made so far have been discussed in the Lok Sabha.

### About Scheme

- It is a centrally sponsored scheme which was launched in the financial year 2005-06.
- The scheme is also known as Support to State Extension Programmes for Extension Reforms that largely focuses upon technology dissemination among farmers with an integrated approach.
- It operates at state, district, block and village levels and it involves a decentralized farmer-friendly extension system.
- The extension process includes activities such as farmers' training, exposure visits, Kisan Mela, mobilization of farmer groups and setting up farm schools.
- The ATMA scheme is assisted by the central government with a funding of 90% from the centre and 10% from the state.
- The 10% share of the state includes cash contributions, beneficiary contributions or the contributions from non-governmental organizations.

## Swadhar Greh Scheme

### In News

Government implements the Swadhar Greh Scheme that caters to primary needs of women in difficult circumstances – women and girls rendered homeless due to family discord, crime, violence, mental stress, social ostracism or are being forced into prostitution and are in moral danger.

### About the Scheme

- The scheme provides institutional support for rehabilitation of these women so that they could lead their life with dignity.
- The Scheme envisages providing shelter, food, clothing, counseling, training, clinical and legal aid along with economic and social security for the women victims of difficult circumstances.
- The funding pattern for the release of funds is 60:40 between the Central Government and States except for North-Eastern and Himalayan States where the applicable sharing ratio is 90:10.
- In case of Union Territories, the entire cost is borne by the Central Government.

## Programme 'She is a Changemaker' for Women in Politics

### In News

To improve leadership skills of grassroot women political leaders, the National Commission for Women (NCW) launched a pan-India capacity building programme, '**She is a Changemaker**' for women representatives at all levels, gram panchayats to parliament members and political workers including office bearers of National/State political parties.

### She is Changemaker Programme

- This programme will be undertaken in association with region-wise training institutes with an objective to undertake capacity building of women political leaders and improve their decision making and communication skills including, oration, writing, etc.
- The official launch of training programmes under 'She is a Changemaker' series was held in collaboration in Thane, Maharashtra.
- This programme will benefit every woman who wishes to make an identity for herself in politics and help her to claim her rightful space in politics.

### Pradhan Mantri Awaas Yojana – Gramin (PMAY-G) extended March 2024

#### In News

Cabinet approves continuation of Pradhan Mantri Awaas Yojana – Gramin (PMAY-G) beyond March 2021 till March 2024.

#### About PMAY-G

- Continuation of PMAY-G beyond March 2021 till March 2024 as per the existing norms to complete remaining houses within a cumulative target of 2.95 crore houses.
- The total financial implication for construction of the remaining 155.75 lakh houses is Rs. 2,17,257 crore (Central Share Rs.1,25,106 crore and State Share Rs.73,475 crores) for achieving cumulative targets of 2.95 crore houses in rural areas under the PMAY-G and an additional requirement of Rs.18,676 Crore towards the interest repayment to NABARD.

#### Benefits:

The continuation of scheme till March, 2024 ensures that the remaining 155.75 lakh households within overall target of 2.95 crore houses under PMAY-G would be provided assistance for construction of Pucca houses with basic amenities to achieve the objective of "Housing for All" in rural areas.

### Hackathon "Sprint04: Market-Tech" under I-Sprint'21

#### In News

Prime Minister of India on 3rd December 2021, inaugurated the "InFinity Forum 2021", the IFSCA's maiden flagship financial technology and global thought leadership event.

#### About The Hackathon

- The event was conducted on 3rd and 4th December 2021 and was hosted by International Financial Services Centres Authority (IFSCA) under the aegis of Government of India (GoI) and in collaboration with GIFT City and Bloomberg in virtual mode. It saw over 95,000+ registrations from across 70+ countries.
- To encourage the promotion of financial technologies ('FinTech') initiatives in financial products and financial services across the spectrum of banking, insurance, securities, and fund management in IFSCs, IFSCA has launched a series of Hackathons, cutting across these sectors under the banner of I-Sprint'21. The finalists of this Hackathon shall be allowed Direct-Entry into IFSCA Regulatory/Innovation Sandbox.

## International Relations

## Observer Status to ISA

### In News

The UN grants observer status to the International Solar Alliance (ISA) in order to offer a progressive move towards equitable energy solutions to the world.

### About International Solar Alliance:

- The ISA was conceived as a joint effort by India and France to mobilize efforts against climate change through the deployment of solar energy solutions.
- It was conceptualized on the side lines of the 21st Conference of Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris in 2015. With the amendment of its Framework Agreement in 2020, all member states of the United Nations are now eligible to join the ISA.
- At present, 101 countries are signatories to the ISA Framework Agreement, of which 80 countries have signed and ratified it.
- The programme aims to focus on countries categorised as Least Developed Countries (LDCs) and the Small Island Developing States (SIDS).
- The organisation is guided by its 'Towards 1000' strategy, which aims to mobilise \$1,000 billion of investments in solar energy solutions by 2030.
- It also eyes to deliver energy access to 1,000 million people using clean energy and instal 1,000 GW of solar energy capacity.

### Importance

- The observer status to the futuristic ISA will be a stepping stone towards the **One Sun One World One Grid** which will help bring equitable energy solutions to the world.
- It will pave the way for well-defined cooperation between the Alliance and the United Nations that would benefit global energy growth and development.
- This would also help in achieving the goal of **net-zero carbon emissions** through global co-operations.

## Social Issues

### Science Technology and Innovation Hub

### In News

The union minister for Science and Technology presented an update on seven Science Technology Innovation hubs established for the socio-economic development of SC (Scheduled Caste) and ST (Scheduled Tribes) communities.

### About STI hubs:

- The STI hubs, established by the Department of Science and Technology, work towards providing training on skill development for capacity building of SC and ST populations in science and technology.
- STI hubs have been set up in the eastern region of West Bengal, Jharkhand, Odisha, Telangana, Hyderabad, Ladakh, Chandigarh, Uttar Pradesh and Meghalaya.
- The STI Hubs will develop, nurture and ensure the delivery of appropriate and relevant technologies for inclusive socio-economic development through the creation of sustainable livelihoods for the SC & ST population in tune with their growing aspirations.



## Child Sex Ratio

### In News

Child Sex Ratio (Census by Registrar General of India) is a decadal process.

### Beti Bachao Beti Padhao

- Beti Bachao Beti Padhao (BBBP) Scheme aims to address declining Child Sex Ratio (CSR) and related issues of empowerment of girls and women over a life cycle continuum.
- The primary objectives of the scheme are, to prevent gender biased sex selective elimination, to ensure survival and protection of the girl child and to ensure education and participation of the girl child.
- BBBP scheme is being implemented as per schematic norms only.
- The implementation of the Scheme is monitored by the task force under BBBP at District, State and National level.

## Gender Inclusion Fund

### In News

The Department of School Education and Literacy, Ministry of Education had called for setting up of the Gender Inclusion Fund under the scope of the National Education Policy.

### About Fund

- The Gender Inclusion Fund aims to deliver quality and equitable education for all girls.
- It will ensure 100% enrollment of girls in schools and record participation rate.
- The funds will assist the states to build up effective community-based interactions that would identify the cause of barriers that prevent girls' education and look into the issues of transgender students.

### Importance

- The Gender Inclusion fund will be a welcoming step to reduce the gender gap and encourage girls to get enrolled in schools without any hesitation.
- This will provide a foundation stone for women empowerment by addressing the important issue of gender equality and result in increasing the nation's capacity to popularise inclusive education for girls, socially and economically disadvantaged groups (SEDG) and individuals with disabilities and transgenders.
- This fund will offer scholarships to the students by a single-window system without any difficulties.

## Defence & Security

### Successful Flight Test of Vertical Launch Short Range Surface to Air Missile

### In News

Vertical Launch Short Range Surface to Air Missile was successfully flight tested by Defence Research & Development Organisation (DRDO) from Integrated Test Range, Chandipur, off the coast of Odisha.

### About the missile

- The launch was conducted from a vertical launcher against an electronic target at a very low altitude.
- The launch of the system was conducted to validate integrated operation of all weapon system components including the vertical launcher unit with controller, canisterised flight vehicle, weapon control system etc. required for future launches of the missile from Indian Naval Ships.

- The first trial was conducted on 22 February 2021 and this is confirmatory trial to prove the consistent performance of the configuration and integrated operation.
- This system will further enhance defence capability of Indian Naval Ships against aerial threats, and also has paved the way for integration of weapon system onboard Indian Naval Ships.

## Pinaka Extended Range System

### In News

The Pinaka Extended Range (Pinaka- ER), Area Denial Munitions and indigenous fuzes carried out successful tests.

### About Pinaka

- It is a multi barrel rocket launcher system which is tested at the Pokhran range.
- It offers a range of 70km which is 45 km over the existing range of the missile.
- The Pinaka – ER is designed by the laboratories of Defence Research and Development Organisation – the Armament Research and Development Establishment (ARDE), Pune and High Energy Minerals Research Laboratory in Pune.

### Fuzes

- Fuzes are devices that detonate any explosive material under specified conditions along with safety mechanisms.
- There are indigenously developed proximity-fuzes for Pinaka rockets which are being tested.
- These fuzes will replace the imported fuses and reduce the foreign dependency
- Miniaturised fuses have been developed by ARDE for Area Denial Munitions and anti-tank munitions.

## Stand-Off Anti-Tank Missile

### In News

Defence Research and Development Organisation (DRDO) and Indian Air Force (IAF) flight-tested the indigenously designed and developed Helicopter launched Stand-off Anti-tank (SANT) Missile from Pokhran ranges on December 11, 2021.

### About Missile

- Defence Research and Development Organisation (DRDO) and Indian Air Force (IAF) flight-tested the indigenously designed and developed Helicopter launched Stand-off Anti-tank (SANT) Missile.
- The flight-test was successful in meeting all its mission objectives. The release mechanism, advanced guidance and tracking algorithms, all avionics with integrated software, performed satisfactorily and tracking systems monitored all mission events.
- The missile is equipped with a state-of-the-art MMW seeker which provides high precision strike capability from a safe distance. The weapon can neutralise targets in a range up to 10 kms.
- The SANT missile has been designed and developed by Research Centre Imarat (RCI), Hyderabad in coordination with other DRDO labs and participation from industries

## Pralay Missile

### In News

The first flight test of indigenously developed surface to surface missile 'Pralay' has been conducted by DRDO from Dr APJ Abdul Kalam Island off the coast of Odisha.

### About Parlay

- 'Pralay' is India's first conventional quasi-ballistic missile.

- It is a quasi-ballistic missile that has a low trajectory, and as it is largely ballistic, it can manoeuvre in flight.
- The missile has been developed in a way that it is able to defeat the interceptor missiles and also can change its path after covering certain range mid-air.
- It is powered by a solid-propellant rocket motor and many new technologies.
- The missile guidance system includes a state-of-the-art navigation system and integrated avionics.
- Pralay is a next-generation short-range ballistic missile with a carrying capacity of a 1-tonne warhead.
- The payload capacity is 500 – 1000 kg.

## PANEX – 21

### In News

PANEX 21 is a Humanitarian Assistance and Disaster Relief exercise between the members of BIMSTEC countries which is going to take place later in the month of December 2021.

### About Exercise

- The event witnessed the presence of subject matter experts on Disaster Management and delegates from Bangladesh, India, Nepal, Bhutan, Myanmar, Sri Lanka and Thailand.
- The intention is to tackle the implications of disasters like the pandemic which requires the intervention of different agencies involving transnational coordination.

## Miscellaneous

### Hornbill Festival

#### In News

The Hornbill Festival is a reflection of the rich culture, lifestyle and food habits of Nagaland and it is the largest festival of the warrior tribes of Nagaland wherein the celebration continues for 10 days.

#### About Festival

- The 10-day cultural and tourism extravaganza annually begins at the start of December and coincides with Nagaland's statehood day.
- It is organised by the State Tourism and Art & Culture Departments, the Hornbill Festival is held at Naga Heritage Village, Kisama, about 12 km from Kohima.
- The nomenclature of KISAMA is derived from two villages namely, Kigwema (KI) and Phesama (SA) and MA which means village, on whose land the Naga Heritage Village is established and commissioned by the State Government of Nagaland.
- The festival derives its name from the bird hornbill (also called Dhanesh bird) which occupies an important place in the culture and historic tales of Naga tribes. The festival is a tribute to this bird, known for its qualities of grandeur and alertness.

### President's Standard

#### In News

The 22nd Missile Vessel Squadron, also known as the Killer Squadron, will be awarded the President's Standard.

### About President's Standard

- The President's Standard is the highest honour bestowed by the Supreme Commander to a military unit in recognition of the service rendered to the nation.
- It is the same honour as the President's Colours, awarded to a relatively smaller military unit.
- To mark this occasion, a Special Day Cover along with a commemorative stamp will also be released by the Postal Department.

### 22nd Missile Vessel Squadron:

- The 22nd Missile Vessel Squadron was formally established at Mumbai in October 1991 with ten Veer Class and three Prabal Class missile boats.
- The 22nd Missile Vessel Squadron is fitted with state of the art weapons and sensors, manned by the youngest and most motivated crew.
- It has participated in Op Vijay, Op Parakram and most recently, during the heightened security state following the Pulwama attack deployed within striking distance of the Pakistan coast.
- The year 2021 marks fifty years since the inception of the Killers who over the past five decades have maintained the capability of delivering a credible offensive punch from the sea.
- The year 2021 is also the 50th anniversary of the victory in the 1971 war and is being celebrated across the country as Swarnim Vijay Varsh.

## Impact of Use of Mobile and Internet on Children

### In News

The National Commission for Protection of Child Rights (NCPCR) has recently conducted a study on "Effects (Physical, Behavioural and Psycho-Social) of using Mobile Phones and other devices with internet accessibility by children" with sample size of 5000 from rural and urban all the zones of the country.

### Findings of the study

- The National Commission for Protection of Child Rights (NCPCR) has recently conducted a study on "Effects (Physical, Behavioural and Psycho-Social) of using Mobile Phones and other devices with internet accessibility by children" with sample size of 5000 from rural and urban all the zones of the country.
- As per the study, 23.80 percent of children use smart phones while they are in bed, before going to sleep which increase with age; this has adverse impact on children. Use of smart phones at inappropriate times can have detrimental impact on health and well-being of children.
- One such impact is reduction in level of concentration among children. As per the study, 37.15% of children, always or frequently, experience reduced levels of concentration due to smart phone use.
- As per information received from NCPCR, based on the findings of the study, it recommends- a bigger portion of land in the communities needs to be identified as a playground for children that will encourage the children to involve themselves in games and sports.

## Jyotirlingam Temples of Maharashtra

### In News

In continuation under "75 Destinations with Tour Guides" a webinar on 'Jyotirlingam Temples of Maharashtra' was conducted on 11th December 2021.

### Tryambakeshwar/ Trimbakeshwar Jyotirlingam

- It is located in South West of Nashik and it is also one of four places where Sinhastha Fair (Kumbh Mela) is held which draws people from all over India.
- This temple built of black stone in the Nagara style of architecture is enclosed in a spacious courtyard.

### Bhimashankar Temple

- It is an ancient Shiva Temple in the Sahyadri Mountain Ranges of Maharashtra attracts devotees from all over India.
- Located in Pune District, it is one of the important pilgrim centres of India. It is also the source of the river Bhima.
- The temple is closely associated with the legend of Shiva slaying the demon Tripurasura.
- The Temple is built in the Nagara style of architecture.

### Grishneshwar Jyotirlingam

- It is situated in Aurangabad, the temple was constructed by Ahilyabai Holkar. It is also known as Ghushmeshwar.
- The archaeological antiquity goes back to the 11th-12th century CE.
- The temple name has been mentioned in Purana literature such as Shiva Purana and Padma Purana.
- The current temple structure is the one that was constructed by Queen Ahilyabai Holkar. It is made from red stone and has a five-tier nagara style shikhara.

### Aundha Nagnath

- It in Hingoli District of Maharashtra is a 13th –century temple.
- Aundha Nagnath is supposed to be the finest Jyotirlinga. It is considered to be the first or 'Ádhyā' linga supposedly installed by the Pandavas.
- The temple of 'Nagnath' built in the Hemadpanti style of architecture and has exquisite carvings. The temple was built by Yadavas of Devgiri,

### The Jyotirlingam Temple of Parali Vajjnath

- It is also called Vaidyanath and it was renovated by Rani Ahilyabai Holkar.
- The temple is built on a hill using stones. Temple is approximately at a height of 75-80 feet from ground level.

### The Kashi Vishwanath temple

- Believed to be the abode of Lord Shiva, Varanasi is among the seven sacred cities in the country.
- The Kashi Vishwanath temple's present structure was built in 1780 by Rani Ahilya Bai Holkar of Indore and the temple's iconic 15.5 metre-high gold spire and gold dome were donated by Ranjeet Singh, the ruler of Punjab in 1839.

## Siddha Day

### In News

The Ministry of Ayush celebrated the fifth Siddha Day on the eve of the birth anniversary of Agathiyar which falls during the Ayilyam star of Margazhi month.

### Siddha Day

- The 23rd day of December 2021 has been observed as the fifth Siddha day by the Ministry of Ayush with an aim of preventing several communicable diseases and reviving the ancient art of medicine.
- Theme- **"Strength of Siddha Medicine for Communicable Diseases"**.
- The Ministry of Ayush celebrated the fifth Siddha Day on the eve of the birth anniversary of Agathiyar which falls during the Ayilyam star of Margazhi month.

### About Agathiyar:

- Agathiyar (Agastya) is the leader of all Siddhas and he is also known as Kurumuni.
- He played a pivotal role in spreading the Vedic religion in southern India.
- Agastya is one of the seven great sages (Saptarishis).



- Therayar and Tholkappiar were his disciples and students.

### Siddha System of Medicine

- Siddha system of medicine is one of the most ancient codified traditions of healthcare.
- The word Siddha means established truth, and individuals associated with the Siddha school of thought were called Siddhars.
- The documents of this traditional medicine, yoga and astrology were found in Tamil scripts.
- According to the Siddha system of medicine, an individual is considered as a part of the Universe whose body consists of 5 primordial elements: earth, fire, water, air and space.
- It was founded by the **Siddhars** who have achieved the ashta siddhis or the eight supernatural powers.
- It derives its origin from the Dravidians of peninsular India.
- Siddha employs eight methods of examination called Envakai Thervukal which are intended for diagnosis, aetiology, treatment and prognosis.

## India's view point on GLOBAL HUNGER INDEX 2021

### In news

Indian Government had been criticizing the report presented by the 'Welthungerhilfe' and 'Concern Worldwide' titled Global Hunger Index.

### About GHI

- As per Global Hunger Index 2021 report prepared by 'Welthungerhilfe' and 'Concern Worldwide', India's score is 27.5 and it has ranked 101 among 116 countries.
- Global Hunger Index is based on four indicators - **Undernourishment, Child Stunting, Child Wasting and Child Mortality**.
- Global Hunger Index (GHI) does not reflect India's true picture as it is a flawed measure of 'Hunger'. It should not be taken at face value as it is neither appropriate nor representative of hunger prevalent in a country.
- Out of its four indicators, only one indicator, i.e., undernourishment, is directly related to hunger.
- The two indicators, namely, Stunting and Wasting are outcomes of complex interactions of various other factors like sanitation, genetics, environment and utilisation of food intake apart from hunger which is taken as the causative/outcome factor for stunting and wasting in the GHI.
- Also, there is hardly any evidence that the fourth indicator, namely, child mortality is an outcome of hunger.
- Data used in the GHI report are sourced from international agencies which are not updated as per the latest data available in the country.

### Government Stance

- Government conducts National Family Health Survey (NFHS) at regular intervals. As per recently released NFHS report, Child Stunting in the country has decreased from 38.4% (NFHS-4, 2015-16) to 35.5% (NFHS-5, 2019-21) and Child Wasting has decreased from 21.0% (NFHS-4, 2015-16) to 19.3% (NFHS-5, 2019-21).
- Further, percentage of underweight children has gone down from 35.8% (NFHS-4, 2015-16) to 32.1% (NFHS-5, 2019-21).

### Schemes

- The Government is implementing several schemes and programs under the Umbrella Integrated Child Development Services Scheme as direct targeted interventions to address the problem of malnutrition in the country.
- In order to achieve zero hunger target, Government has implemented National Food Security Act (NFSA) 2013, which provides for coverage of upto 75% of the rural population and upto 50% of the urban population for receiving highly subsidized foodgrains under Targeted Public Distribution System (TPDS), which as per census 2011 comes to a maximum of 81.35 crore.

