WHAT IS AQUACULTURE?

- It is the propagation and husbandry of aquatic plants, animals, and other organisms for commercial, recreational and scientific purposes.

- It is an approximate aquatic equivalent to agriculture—that is, the rearing of certain marine and freshwater organisms to supplement the natural supply.

- This includes production for supplying other aquaculture operations, for providing food and industrial products, for stocking sport fisheries, for supplying aquatic bait animals, for stocking fee-fishing operations, for providing aquatic organisms for ornamental purposes, and for supplying feedstocks to the pharmaceutical and chemical industries.

- There are two main types of aquacultures: marine and freshwater.

- It is generally practised in coastal ocean waters, freshwater ponds and rivers, and even on land in tanks.

- It is one of the fastest-growing forms of food production in the world.

- Globally, aquaculture already supplies more than half of all seafood consumed by humans.

- More than 550 aquatic species are farmed in aquaculture.

- The top fish species include carp, catfish, salmon, and tilapia; commonly farmed shellfish include shrimp, oysters, clams, mussels, and scallops.

- Newer to marine farming are various species of seaweed, which total 27% of annual global aquaculture tonnage.

Major Producers:

- China is at the top of the global aquaculture production, producing nearly 60% of farmed seafood.

- Other leaders include Indonesia, India and Vietnam.

SHOULD PACKAGED FOOD CONTENT BE LABELED?

- A report by the Access to Nutrition Initiative (ATNi) highlights the disparities in the healthiness of food and beverage (F&B) products sold in low-and-middle-income countries (LMICs) compared to high-income countries (HICs).
- This brings attention to the importance of labelling packaged food to guide consumers toward healthier choices.

Key Findings of the Report:

- **Health Star Rating System**:
  - The report analysed over 52,000 products from major brands like **Nestle**, **PepsiCo**, **Unilever**, and others.
  - Products were rated out of 5 stars, with scores above 3.5 considered healthy.
  - Average scores:
    - LMICs: 1.8   HICs: 2.3
- **Disparities in Nutrition**:
  - Fewer affordable healthy options in LMICs.
  - Micronutrient information was less frequently provided for products in LMICs.
- **Historical Patterns**:
  - Previous reports revealed similar issues. For instance, **Nestlé's baby food in India and African markets contained higher sugar levels compared to European versions**, sparking government scrutiny.

Significance for India:

- **Health Crisis**:
  - **Non-Communicable Diseases (NCDs)**: India faces a significant burden, with over 10 crore people suffering from diabetes and high obesity rates.
  - **Undernutrition and Micronutrient Deficiencies**: Coexisting challenges due to unhealthy diets and economic disparities.

- **Dietary Patterns**:
  - o Rising consumption of processed foods rich in sugar and fat.
  - o Over 56% of India's disease burden is linked to unhealthy diets (ICMR, 2023).
- **Affordability Gap**:
  - o Over half of Indians cannot afford a healthy diet.
  - o Household spending on processed foods is increasing.

Recommendations by the Report:

- **Mandatory Regulations**:
  - o Stronger policies for clear labelling of sugar, salt, and fat content on packaging.
- **Public Awareness**:
  - o Campaigns to educate consumers on interpreting nutritional labels.
- **Affordable Healthy Options**:
  - o Incentivizing companies to offer nutritious products at accessible prices for low-income groups.
- **Government Action**:
  - o Strengthening enforcement and adopting global best practices for food labelling.

What is the Indian Nutritional Rating (INR) System?

- The INR system rates the overall nutritional profile for packaged food by assigning it a rating from **½ star (least healthy) to 5 stars (healthiest)**.
- More stars indicate the food product is better positioned to provide for daily human need of nutrients.
- As per the notification, **solid food with a score of more than 25 will be given 0.5 stars, and those with a score less than – (minus)11 will get 5 stars**.
- To generate the star-rating logo for the product, food businesses have to submit nutritional profiles of the products concerned on FSSAI's portal.

FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA (FSSAI):

- o The Food Safety and Standards Authority of India is a **statutory body** under the Food Safety and Standards Act, 2006**.**

- **Objectives:**
  - o To lay down science-based standards for articles of food
  - o To regulate manufacture, storage, distribution, import and sale of food
  - o To facilitate safety of food

- **Role/Functions of FSSAI:**
  - o Framing of Regulations to lay down the standards/guidelines in relation to articles of food.
  - o Laying down mechanisms/guidelines for accreditation of certification bodies engaged in certification of food safety management system.
  - o Collect and collate data regarding food consumption, incidence and prevalence of biological risk, contaminants in food, etc.
  - o Creating an information network across the country so that public receive reliable and objective information about food safety and issues of concern.
  - o Provide training programmes for persons who are involved or intend to get involved in food businesses.

- **Composition**
  - o The FSSAI comprises of a Chairperson and twenty-two members out of which one – third are to be women.
  - o The Chairperson of FSSAI is appointed by the Central Government.

- **Concerned Ministry**: Ministry of Health and Family Welfare

- **At State level:**
  - o The FSSAI appoints food safety authorities at the state level.
  - o The primary responsibility for enforcement is largely with the State Food Safety Commissioners.

AROTRACK

Recently, scientists at the Indian Institute of Technology Bombay (IIT Bombay) have developed a water-pollutant detecting device called 'AroTrack'.

- It accurately detects harmful aromatic xenobiotic pollutants such as phenol or benzene, xylenols.

- It uses proteins typically found in bacteria living in heavily polluted environments to effectively identify multiple aromatic pollutants in water.

- This protein undergoes a highly selective ATP hydrolysis chemical reaction if an aromatic compound is present in the sample.

- This reaction is expressed with a change in the colour of the protein solution, which AroTrack can then detect.

- AroTrack contains a light emitting diode [LED]-phototransistor assembly that shines a light of appropriate wavelength through the sample and detects how much is absorbed.

- The key component of the device is a biosensing module called MopR - a sensitive sensor for detecting phenol.

- The device also reliably worked in water temperatures up to 50 degrees Celsius and completed the tests in less than 30 minutes.

Significance: It's low cost, battery-operated nature, and portability can be ideal for rural and low-income settings that often lack resources and have difficulty accessing expensive laboratory tests.

GLOBAL ENERGY EFFICIENCY ALLIANCE

The UAE has unveiled an ambitious initiative to establish the 'Global Energy Efficiency Alliance' during COP29, hosted in Azerbaijan.

- It aims to double global energy efficiency rates by 2030 and contribute to significant emission reductions.
- It also encourages strategic public-private partnerships and bolster investments in energy efficiency initiatives.
- This initiative aligns with the 'UAE Consensus' from COP28, where all 198 participating countries in COP28, organisations, and companies committed to reducing carbon emissions and minimising natural resource consumption.
- The UAE plans to lead the alliance by sharing its expertise in energy efficiency, fostering knowledge transfer, and building effective partnership models with the private sector.

Significance

- The alliance is designed to support the reduction of carbon emissions and the sustainable use of natural resources through knowledge sharing, capacity building, and standardization efforts.
- The alliance will focus on compiling and disseminating best practices, with a particular emphasis on assisting African nations.
- This support will extend to developing financing options and technological solutions vital for the continent's progress in energy sustainability.

BHU-NEER PORTAL

- It is an advanced portal developed by Central Ground Water Authority (CGWA), under the Ministry of Jal Shakti, in collaboration with the National Informatics Centre (NIC).
- It is for improved groundwater regulation across the country.

Features

- The portal will serve as a one-stop platform for managing and regulating groundwater resources, aimed at ensuring transparency, efficiency, and sustainability in groundwater usage.

- It is designed to provide comprehensive details regarding the legal framework governing groundwater extraction, regulations at the state and national levels.

- Its centralized database will allow users to access critical information on groundwater compliance, policies, and sustainable practices.

- The portal is developed with several user-friendly features to offer streamlined process flow to the project proponents seeking groundwater withdrawal permits.

- Having a simplified yet informative interface, and features like PAN based single Id system, NOC with QR code etc., "Bhu-Neer" marks a significant improvement over its previous version NOCAP.

- The portal is another step towards promoting Ease of Doing Business by making ground water regulation a seamless and faceless exercise.

- The portal is now live for public use and all project proponents can visit the portal for ground water withdrawal related queries, clarifications, tracking application status, payment of statutory charges.

INTERNATIONAL FILM FESTIVAL OF INDIA (IFFI)

The 55th edition of the International Film Festival of India (IFFI) kick-started with a star-studded opening ceremony at the Dr. Shyama Prasad Mukherjee Indoor Stadium in Panaji, Goa, recently.

- The IFFI, founded in 1952, is one of the most significant film festivals in Asia.

- It is held annually, currently in the state of Goa.

- The IFFI aims at providing a common platform for filmmakers of the world to project their excellence in film art, contributing to the understanding and appreciation of film

cultures of different nations in the context of their social and cultural ethos, and promoting friendship and cooperation among people of the world.

- The first edition of the event was held in Mumbai, which in the subsequent years moved to Calcutta, Delhi, Madras, and Trivandrum.

- Since its third edition, the event has become competitive.

- Since 2004, IFFI has moved to its permanent venue at Goa, where it is jointly organized each year by the National Film Development Corporation of India Ltd. (NFDC), Ministry of Information and Broadcasting, Government of India, in collaboration with the State Government of Goa and the Indian Film Industry.

- It is the only film festival in South Asia that is accredited by the International Federation of Film Producers and Associations (FIAPF) as a Competitive Feature Film Festival.

PM VIDYALAXMI SCHEME

- It is a new **Central Sector initiative** aimed at supporting meritorious students financially so they can pursue higher education without economic constraints.

- This scheme is rooted in the National Education Policy, 2020, which advocates for financial assistance to deserving students across both public and private Higher Education Institutions (HEIs).

Objectives

- **Ensure Financial Inclusion in Education**: Enable meritorious students to pursue higher education without financial hurdles.

- **Support Top Educational Institutions**: Applicable only to top-quality HEIs as per the National Institutional Ranking Framework (NIRF).

- **Provide Transparent and Digital Access**: Use a fully digital, transparent, and student-friendly platform for loan processing and management.

Features

- **Loan Availability:**

- **Eligibility**: Any student who secures admission to a Quality Higher Education Institution is eligible.

- **Loan Terms**: **Collateral-free** and **guarantor-free loans** will be offered through banks and financial institutions, covering the full amount of tuition and other course-related expenses.

- **Institutional Coverage**: Applies to **institutions ranked in the NIRF top 100 (both government and private)** and state government HEIs ranked in the 101-200 bracket, as well as all central government institutions.

- **Coverage Scope**: In the initial phase, 860 QHEIs qualify, potentially benefiting over 22 lakh students.

- **Credit Guarantee Support**:

  - For loans up to ₹7.5 lakhs, a 75% credit guarantee on the outstanding amount is provided, encouraging banks to make education loans accessible to more students.

- **Interest Subsidy**:

  - Eligibility: Students with an annual family income of up to ₹8 lakhs and not benefiting from other government scholarships or interest subvention schemes.

  - Subsidy Terms: A 3% interest subvention on loans up to ₹10 lakhs during the moratorium period.

  - Beneficiary Priority: Preference is given to students in government institutions and technical/professional courses.