Prelim Bits 05-10-2023 | UPSC Daily Current Affairs

National Turmeric Board

The Government of India has recently notified the constitution of the National Turmeric Board (NTB).

- NTB aims for the growth and development of turmeric and turmeric products.
- It will *provide leadership, augment the efforts* and facilitate greater coordination with other agencies.
- **Objectives** – To increase awareness and consumption, develop new international markets, promote R&D and to develop our traditional knowledge for value addition.
- **Focus** – Capacity building and skill development of growers.
- **Significance** – It will *promote quality and food safety* standards.
- It ensures existing pre-eminent position as exporters of high-quality turmeric and turmeric products in the global markets.
- It *promotes prosperity of the growers* and to exploit turmeric's full potential for humanity.

Composition of the Board

- A *Chairperson* who is appointed by Central Government.
- A *Secretary* who is appointed Department of Commerce.
- Other members from the
    - Ministry of AYUSH
    - Departments of Pharmaceuticals, Agriculture & Farmers Welfare, Commerce & Industry of the Union Government,
    - Senior state government *representatives from 3 states* (on rotation basis)
    - Select national/state institutions involved in research
    - Representatives of turmeric farmers and exporters

Status of Turmeric in India
• India is the largest producer, consumer and exporter of turmeric in the world. • India's turmeric cultivation of 11.61 lakh tonnes production in 2022-23, stands over 75% of global turmeric production. • India has more than 62% share of world trade in turmeric. • Bangladesh, UAE, USA and Malaysia are India's leading turmeric export market. • It is expected that turmeric exports will reach USD 1 Billion by 2030. • More than 30 varieties are grown over 20 states in the country. • The largest producing states are Maharashtra, Telangana, Karnataka and Tamil Nadu.

References

PIB| National Turmeric Board

Nobel Prize in Chemistry 2023

The Nobel Prize in Chemistry 2023 was awarded to Moungi Bawendi, Louis Brus and Alexei Ekimov for the discovery and synthesis of quantum dots.

- Independently of each other, Ekimov and Brus succeeded in creating quantum dots, and Bawendi revolutionised the chemical production of it.

Quantum Dots
• They are ***nanoparticles*** which exhibit unique optical properties due to their small physical size. • Their properties can be changed by changing their size. • At the nanometres scale, matter exhibit size-dependent properties because quantum physical forces start to dominate.

- **Contribution of Alexei Ekimov** – In the early 1980s, he succeeded in *creating size-dependent quantum effects in coloured glass.*
- He demonstrated this using glasses tinted with *copper chloride*.
- **Contribution of Louis Brus** – In 1983, he and his colleagues *prepared similar crystals in a liquid solution*, rather than in a glass.
- These crystals also interacted with light differently depending on small variations in their size.
- **Contribution of Moungi Bawendi** – In 1993, he developed a *technique to make these crystals of well-defined sizes and with high optical quality*.

Applications of Quantum Dots

- It can *light computer monitors and television* screens where they can emit light of different colours.
- They are also used to *map biological tissues* by biochemists.
- *In photovoltaic cells*, to improve the absorption and efficiency in converting solar light into electricity.
- It is used in *treating certain cancers for targeted drug delivery* and other therapeutic measures.
- It can be used as security markers on currency and documents as an *anti-counterfeit measure*.
- Broadly, they can be used *as fluorescent markers to tag and track objects*.

References

1. The Hindu| Nobel Prize for Chemistry 2023
2. The Indian Express | Quantum Dots

Dynamic Injunction

The Delhi High Court passed a "dynamic injunction" in favour of 'Star India Private Limited', the official broadcaster of ICC Men's Cricket World Cup 2023.

- The court restrained 9 websites from illegally broadcasting the matches even before the start of 1st match.
- **Injunction** – An *order by court, to stop someone* from doing something and which are granted only after establishing any infringement of copyrighted works.
- **Dynamic injunction** – It is passed *even before the infringed works are publicly released*, distributed, or created.
- It is to ensure no irreparable loss is caused to its authors and owners.

Case laws related to dynamic injunction

- **UTV vs. 1337x.to** – For the *1st time*, the concept of "dynamic" injunctions was introduced.
- **Universal City Studios LLC v. Dotmovies.baby 2023** – It protect works generated during the case's pendency and which might be created in the future until the court rescues.
- To take action against the rogue websites that indulge in illegalities of uploading the videos of newly released film or series.

1957 Copyright Act

- *Section 37 deals with broadcasting reproduction rights* which is a "special right" extended to every broadcasting organisation.
- *Section 37 (2) enlists infringement categories* of this right.
- *Section 39 provides exceptions* when the reproduction can be considered as 'fair dealing and not as copyright infringement.

References

The Indian Express | Dynamic Injunction

Badis limaakumi

Scientists have recently discovered a new fish species 'Badis limaakumi' from the river Milak in Nagaland.

- **Taxonomy** – A small *freshwater fish*, under the family Badidae having *26 recognised fish species*.
- It also belongs to the *Badis assamensis Sub-group (SG)*.
- It is also *known as chameleon fish*, for their *ability to change colour* that helps them blend with the surroundings when under stress.

- **Habitat**
  - Streams with slow or moderate water flow.
  - Ditches and stagnant water bodies.
  - India, Bangladesh, Nepal, Pakistan, Thailand and Myanmar.
- **Uniqueness** – It differs from other members of the Badis badis SG due to its *larger size* and other physical characterises.
- It has a distinct *dark opercular blotch* at the base of its opercular spine.

  Opercular spine is a bone series that serves as a facial support structure and a protective covering for the gills.

- The spots on the sides and more lateral line scales are absent.

  Milak River flows through Mokokchung District in Nagaland and its main tributary is Tsurong.

- Badis in India were found in the rivers of Brahmaputra, Kaladan and Sharavati and Milak.

References

DTE| Badis limaakumi

North Koel Irrigation Project

The Cabinet Committee on Economic Affairs (CCEA) has given its approval to a proposal Ministry of Jal Shakti to complete the balance works of North Koel Irrigation Project at a revised cost.

- It is an *inter-State major irrigation project* with command area lying in the two States of *Bihar and Jharkhand*.

  The North Koel River rises on the Ranchi Plateau in Jharkhand which is a tributary of River Sone that joins the river Ganga in Bihar.

- **Components of the project**
  - *Mandal dam on North Koel River*.
  - *Mohammadganj barrage*, 96 km downstream of the dam.
  - A right main canal (RMC) and left main canal (LMC) taking off from the barrage with distributaries system for irrigation.

  After bifurcation of Bihar in 2000, the head works i.e. Dam and Barrage lie in

Jharkhand.

- **Irrigation** – Before getting stalled, it was providing annual irrigation to 71,720 hectares.
- On completion, it would provide additional benefits to 42,301 hectares in the 4 drought-prone districts of Jharkhand and Bihar.

References

1. The Hindu| North Koel Irrigation Project
2. PIB| Timeline of the project

