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Heat Waves

Why in News

Recently, the **India Meteorological Department (IMD)** has forecasted the “**heatwave to severe heatwave conditions**” over northwest, central and adjoining peninsular India along with heavy rain over northeast India.

- Many parts of coastal Andhra Pradesh, Odisha and Maharashtra have also observed **increase in temperatures above 42°C**, triggering heatwave conditions.
- The heat wave has been observed due to **dry northwesterly winds** prevailing over northwest and central India.

India Meteorological Department

- The India Meteorological Department (IMD) was established in **1875**.
- It is an agency of the **Ministry of Earth Sciences** of the Government of India.
- It is the principal agency responsible for meteorological observations, weather forecasting and seismology.

Heat Wave

- A heat wave is a period of **abnormally high temperatures**, more than the normal maximum temperature that occurs during the summer season in the North-Western and South Central parts of India.
- Heat waves typically occur **between March and June**, and in some rare cases even extend till July.
- Higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally **due to climate change**.

Criteria for Heat Waves

- The heat wave is considered when the maximum temperature of a station reaches at least **40°C for Plains** and at least **30°C for Hilly regions**.
- If the **normal maximum temperature** of a station is **less than or equal to 40°C**, then an **increase of 5°C to 6°C** from the normal temperature is considered to be **heat wave** condition.
Further, an increase of **7°C or more** from the normal temperature is considered as **severe heat wave condition**.
- If the normal maximum temperature of a station is **more than 40°C**, then an **increase of 4°C to 5°C** from the normal temperature is considered to be **heat wave condition**. Further, an **increase of 6°C or more** is considered as **severe heat wave** condition.
- Additionally, if the actual maximum temperature remains **45°C or more** irrespective of normal maximum temperature, a **heat wave is declared**.

Health Impacts of Heat Waves

- The health impacts of Heat Waves typically involve **dehydration, heat cramps, heat exhaustion and/or heat stroke**.
- It also causes heat cramps, fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.

Way Forward

While climate change does have a strong link with the occurrence of extreme weather events, it **isn't the cause for extreme weather events**. Episodes of heat waves are growing more common as climate change intensifies. Therefore, the intensity and frequency of heatwaves can be reduced if the global community adopts and adheres to a lower emissions scenario in the future.

Source:TH

Egypt-Ethiopia Conflict on GERD

Why in News

Recently, **Egypt** has announced that it is willing to resume negotiations with **Ethiopia** and **Sudan**, concerning the **Grand Ethiopian Renaissance Dam** (GERD).

The dam is located on River **Blue Nile** (a tributary of River Nile) in Ethiopia and is the centre of a dispute involving several East-African countries, dependent on the river's waters.

Ethiopia's new Nile dam



Key Points

Background:

- Ethiopia began the construction of the GERD in **2011** on the Blue Nile that runs across one part of the country.
 - After completion, the dam hydropower project will be **Africa's largest**.
- **Egypt has objected** to the construction of the dam and proposed a longer timeline for the project.
- **Sudan** has also been **involved** due to its location.
- The Nile is an important water source in the region so there are concerns that this dispute may evolve into a full-fledged conflict between Egypt and Ethiopia.
- For the past four years, tri-party talks between Egypt, Ethiopia and Sudan have been unable to reach agreements.
- Recently, the **USA** has stepped in to **mediate**.

River Nile

- The name Nile is derived from the **Greek** word **Neilos** (Latin: *Nilus*), meaning a valley or a river valley.
- It is the **longest river in the world** and is called the **father of African rivers**. It has a length of about 4,132 miles and drains an area estimated at 1,293,000 square miles.
- It **rises south of the Equator** and **flows northward** through **northeastern Africa** to **drain into the Mediterranean Sea**.
 - The Nile River forms an **arcuate delta as it empties into the Mediterranean Sea**. Deltas with triangular or fan-shape are called **arcuate (arc-like) deltas**.
- The Nile is formed by **three principal streams**: the **Blue Nile**, the **Atbara**, and the **White Nile**.
- **Drainage**: Parts of Tanzania, Burundi, Rwanda, the Democratic Republic of the Congo, Kenya, Uganda, South Sudan, Ethiopia, Sudan, and the cultivated part of Egypt.
- **Dam's Importance for Ethiopia**:
 - Ethiopia believes that the dam will **generate approximately 6,000 megawatts** of electricity after completion.
 - This dam will **reduce electricity shortages** and **help** the country's **manufacturing industry**.
 - It will also enable Ethiopia to **supply electricity to neighbouring nations** and **earn revenue** in exchange.
 - Neighbouring countries like Kenya, Sudan, Eritrea and South Sudan also suffer from electricity shortages and they can also benefit from the hydropower project if Ethiopia decides to sell electricity to them.
 - Ethiopia sees the dam as a matter of **national sovereignty** and the dam project **does not rely on external funding** and relies on government bonds and private funds to pay for the project.

- **Cause of Conflict:**

- The hydropower project may just allow Ethiopia to control the Nile's waters, and this concerns **Egypt** because it **lies downstream on the Nile**.
 - The dam would **jeopardise food and water security** and **livelihoods** of ordinary Egyptian citizens.
 - Egypt has also written to the **United Nations Security Council** (UNSC) concerning the matter and has also implied that the dam **would cause armed conflict** between the two countries.
- Egypt has **proposed a longer timeline** because it does not want the water level of the Nile to drastically drop as the dam reservoir needs plenty of water to fill in the initial stages.
 - The longer it takes to fill the reservoir, the less impact will be there on the water level of the river.
- **Sudan** too believes that Ethiopia having control over the river through the dam may **affect the water supplies** of the country. It has proposed **joint management** of the dam.
 - Sudan is likely **to benefit from the power generated by the dam**.
 - The **regulated flow of the river** will save Sudan from serious flooding in August and September.
- There is a possibility that the conflict would **threaten the vital international trade** route through the **Suez Canal** and along the **Horn of Africa**.

Way Forward

- To solve the conflict peacefully, **mediation and facilitation** by the neighbouring countries and the international bodies are necessary.
- In case, the attempt to resolve the conflict does not work out by facilitating negotiations between the conflict parties, then a **compensation method** can be adopted which would need the countries to compensate each others' losses.
- All countries involved in the issue need to **peacefully resolve** the issue so that they can **reap the advantages** of the dam and their **peace and security is restored** again.

Source: IE

Increased Stubble Burning in Punjab

Why in News

Punjab has been experiencing a **problem of stubble burning** once again despite the government's efforts to control the practice since last few years.

The recent **end of wheat harvesting season** is responsible for the increased incidents of the stubble burning in the State.

Key Points

- Total 13,026 incidents have been reported in 2020 compared to 10,476 incidents in 2019 and 11,236 in 2011.
- The ban and action against people burning the crop residue is regulated under the **Air (Prevention and Control of Pollution) Act, 1981**.
- The stubble burning causes diseases such as problems in breathing, lungs etc, which could also affect recovery of patients suffering from **Covid-19**.

Stubble Burning

- **Description:**

Stubble (parali) burning is the act of setting fire to crop residue to remove them from the field to sow the next crop.
- **Causes:**
 - The problem arises due to the use of mechanised harvesting which leaves several inches of stubble in the fields.

Earlier, this excess crop was used by farmers for cooking, as hay to keep their animals warm or even as extra insulation for homes. But, now the stubble use for such purposes has become outdated.
 - In order to plant the next crop, farmers in Haryana and Punjab have to remove the stubble in a very short interval to avoid considerable losses. Therefore, burning is the cheapest and fastest way to get rid of the stubble.

The leftover parali in the field may pose the threat of the pest attacks to the upcoming crop.
- **Effects:**
 - The stubble burning emits large amounts of toxic pollutants in the atmosphere which contain harmful gases like **methane (CH₄), Carbon Monoxide (CO), Volatile organic compound (VOC) and carcinogenic polycyclic aromatic hydrocarbons**.

After the release in the atmosphere, these pollutants disperse in the surroundings, may undergo a physical and chemical transformation and eventually adversely affect human health by causing a thick blanket of smog.
 - The burning of wheat straw **reduces the soil fertility**, besides polluting the environment.
 - Additionally, the heat generated by stubble burning penetrates into the soil, leading to the loss of moisture and useful microbes.

- **Alternative Use of Stubble:**
 - The stubble can be used for preparation of the **high-grade organic fertilizers** by mixing with cow dung and few natural enzymes.
 - **The stubble can be converted to bio coal** and also can be used for **electricity generation**.

Way Forward

- An expansion of schemes like the **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** for **harvesting and composting of stubble** will help to resolve the dual problem of **unemployment and stubble burning**.
- The establishment of the **Farm Machinery Banks (FMB)** for custom hiring of in-situ crop residue management machinery.
- The financial incentives to small and marginal farmers will help to engage in the management of the residue of their non-basmati variety rice crop in Punjab, Haryana and Uttar Pradesh.
- However, in the longer time span, shifting the **cropping pattern** away from paddy to maize, cotton, fruits or vegetables in Punjab, Haryana and UP will also help to resolve the issue.

Source: TH

Restriction on Paddy Cultivation

Why in News

Recently, the farmers from Haryana are protesting against the State Government's order under which farmers have to **diversify at least 50% of their last-year cultivated paddy (rice)** area by growing alternate crops.

Key Points

- **Government's Action**
 - The restriction of cultivation is under the state government's **crop diversification scheme 'Mera Pani, Meri Virasat'** for replacement of paddy by alternative crops in 1 lakh hectare.
 - According to the Government, the step is aimed at **water conservation** and **crop diversification**.
 - Directed farmers to **sow alternative crops** such as maize, millet, and pulses.
 - Offered Rs. 7,000 per acre to farmers shifting the paddy fields to other alternative crops.

- **Farmer's Response/ Stand**

- Farmers have started a '**Kisan Bachao-Kheti Bachao**' campaign against the government's decision under which they are demanding the **freedom to decide what is to be sown in the field.**
- Other options of agriculture are not much viable.
- The soil and climate is not conducive for alternative crops in most parts of the block.
- The compensation amount of Rs. 7000 offered by the government is inadequate.
- It is not the time for experiments in the farming system when the country is battling with **Covid-19.**

Mera Pani Meri Virasat Scheme

- The Haryana government had recently launched 'Mera Pani Meri Virasat' scheme, aimed at **crop diversification** to move away from water-guzzling paddy.
- Under the scheme, farmers sowing alternative crops other than paddy during the ensuing kharif season will get an **incentive of ₹7,000 per acre.**

Crop Diversification

- **Crop diversification** refers to the addition of new crops or cropping systems to agricultural production on a particular farm.
- **Benefits:**
 - Farmers can grow several crops even in areas where the variability of rainfall is high and adequate sources of irrigation are not available.
 - Diversification helps in enhancing nitrogen in the soil and replenishing the soil fertility.
 - This helps to generate employment as the farmers get the opportunity to cultivate different crops.
 - Higher earnings of farmers transforms to greater inputs to the crops such as fertilizers, insecticides and irrigation equipment.
 - Enable farmers to gain access to national and international markets with new products, food and medicinal plants.
 - Diversification can also manage price risk, since not all products suffer low market prices at the same time and increase the profitability of the farming community.

Way Forward

- There is a need for a paradigm shift towards a better farming system which may include transition towards improving water use efficiency, reducing leakages, recharging/restoring local water bodies, etc.

- However, It is more important to pay heed towards farmers' concerns in the coronavirus crisis by providing better compensations and other farming related assistance, rather than restricting or forcing upon anything which may compromise their earning avenues.

Source:TH

Tea, Immunity & Coronavirus

Why in News

During a webinar organised on the occasion of **International Tea Day**, the Institute of Himalayan Bioresource Technology (IHBT), Himachal Pradesh has claimed that **tea chemicals can boost immunity and block coronavirus activity better than anti-HIV drugs.**

IHBT, Palampur, Himachal Pradesh is a constituent of **Council of Scientific and Industrial Research (CSIR)**.

Key Points

- There was a **special focus on polyphenols** (bioactive chemicals) **that could bind to a specific viral protein** more efficiently than commercially available anti-HIV drugs approved for treating Covid-19 patients.
These chemicals can **further block the activity of the viral protein that helps the virus to thrive inside human cells.**
- A combination of anti-HIV drugs **Lopinavir and Ritonavir** is being used in many countries to treat Covid-19.
- The findings on Kangra tea comes days after an earlier research study where Indian and Japanese scientists **claimed that Ashwagandha - a popular herb in Ayurveda - may hold an efficient anti-Covid-19 drug.**

Polyphenols

- Polyphenols are a category of compounds naturally found in plant foods, such as fruits, vegetables, herbs, spices, tea, dark chocolate, and wine.
- They have **antioxidant properties** that can protect against various diseases. They can be subdivided into **flavonoids, phenolic acid, polyphenolic amides, and other polyphenols.**
- Polyphenols may help prevent blood clots, reduce blood sugar levels, and lower heart disease risk. They may also promote brain function, improve digestion, and offer some protection against cancer.

Kangra Tea

- **Kangra tea** is grown in the **Kangra district of Himachal Pradesh**.
- It is well known for its **unique colour and flavour**.
- Kangra tea has got the **Geographical Indication (GI) tag**.
- It is loaded with **antioxidants** like **catechins and polyphenols**, and said to offer these health benefits: promotes weight loss, builds immunity, improves oral health and mental alertness, etc.
- It is also **used in making sentizers, soap, vinegar, wine** etc.

Source: PIB

Katkari Tribe

Why in News

Katkari tribal youth from Shahpur in **Maharashtra** are making a name by **selling Giloy and other products online** during lockdown.

- They received help under the **Pradhan Mantri Van Dhan Yojana (PMVDY)** run by the **Tribal Cooperative Marketing Development Federation of India (TRIFED)**.
TRIFED is a national level apex organisation functioning under the administrative control of the Ministry of Tribal Affairs.
- **Giloy** (*Tinospora Cordifolia*) is an Ayurvedic herb that has been used and advocated in Indian medicine for ages..

Key Points

- Katkari is one of **the 75 Particularly Vulnerable Tribal Groups (PVTGs)**.
- Katkaris are **located** primarily in Raigad and in parts of Palghar, Ratnagiri and Thane districts of Maharashtra as well as in some places of Gujarat.
- Katkaris were historically forest dwellers.
 - The name **Katkari is derived from a forest-based activity** – the making and bartering or sale of Catechu from the Khair tree (*Acacia Katechu*).
 - **Catechu** is an extract of acacia trees used variously as a food additive, dye, etc. It is extracted by boiling the wood in water and evaporating the resulting brew.
- The British administration had classified them under **the Criminal Tribes Act, 1871**. The Act described certain groups of people as 'habitually criminal'. The stigma associated with the Act continues.

Pradhan Mantri Van Dhan Yojana

- Pradhan Mantri Van Dhan Yojana (PMVDY) is a **retail marketing led value addition plan for Minor Forest Produce (MFP)**, meant for forest-based tribes to optimize the tribal income, locally.
 - MFP **means all non-timber forest produce of plant origin** and includes **bamboo, canes, fodder, leaves, gums, waxes, dyes, resins and many forms of food including nuts, wild fruits, honey, lac, tusser etc.**
 - It provides both **subsistence and cash income** for people who live in or near forests. They form a major portion of their food, fruits, medicines and other consumption items and also provide cash income through sales.
- Under the program, MFP-based tribal groups / enterprises of around 300 members are formed for collection, value addition, packaging & marketing of Minor Forest Produces (MFPs).

These tribal enterprises are in the form of **Van Dhan Self Help Groups (SHGs)** which is a group of 15-20 members and such 15 SHG groups will further be federated into a larger group of **Van Dhan Vikas Kendras (VDVKs)** of around 300 members.
- TRIFED supports the VDKs through providing them with model business plans, processing plans & tentative list of equipment for carrying out the value addition work of MFPs.

Source:PIB

CoAST India

Why in News

Recently, India Observatory has come up with a **Geographic Information System (GIS)-enabled dashboard** called **Collaboration/Covid Action Support Group (CoAST India)** to monitor the movements of migrants.

Key Points

- The CoAST India dashboard includes an **India map**, which **reflects the movement of migrants** in **real time**, often on foot, **along with facilities and relief organisations on their routes.**
- It **draws information from 55 organisations** on the ground, mostly in villages.
- The dashboard **aims to make such data available to governments and small local civil society groups** to be used for planning and providing assistance to migrants.
- The dashboard has been made in collaboration with **Foundation for Ecological Security (FES).**

- India Observatory was set up in December 2019, with FES. It focused on ecological issues about forests, water bodies, conservation, etc.
However, after **Covid-19** broke out, it has decided to focus on the movements of people.
- The National Disaster Management Authority has also developed '**National Migrant Information System (NMIS)**' to maintain a central repository of migrant workers.

Geographic Information System

- A GIS is a **computer system for capturing, storing, checking, and displaying data** related to positions on Earth's surface.
- By relating seemingly unrelated data, GIS can help individuals and organizations better understand spatial patterns and relationships.
- GIS can use **any information that includes location**. The location can be expressed in many different ways, such as latitude and longitude, address, or ZIP code.
- GIS can include **data about people, such as population, income, or education level**.
It can also include **information about the sites of factories, farms, and schools, or storm drains, roads, and electric power lines etc.**

India Observatory

- It is **India's first socio, economic and ecological open-source** integrated Geospatial data platform.
- The observatory is **designed to supplement local level decision** making by village communities, Panchayats, NGOs and government officials.
- It has the '**India Data Platform**' at its core, which is built on open source and brings together data on over 1,600 parameters, ranging from village to national level in the form of maps, graphs, tables and infographics.
- It is freely available for civil society organizations, students, government departments and citizens.

Foundation for Ecological Security

- The Foundation for Ecological Security (FES) is a registered **non-profit organisation** based in Anand, Gujarat.
- It works towards the **ecological restoration and conservation of land and water resources** in ecologically fragile, degraded and marginalised regions of the country.
- It works with the concentrated and collective efforts of village communities.

Source: IE

World Turtle Day

Why in News

Recently, World Turtle Day was observed on 23rd May to increase attention on conservation of Turtles and Tortoises.

The theme for the **World Turtle Day 2020** is '**Adopt, Don't Shop**'.

Key Points



- World Turtle Day is an **annual event** that has been taking place **since 2000**.
- It is being organised by the nonprofit organisation namely, **American Tortoise Rescue (ATR)**.
- It aims to protect the turtles and tortoises from illegal smuggling, exotic food industry, habitat destruction, global warming and pet trade.
- The day was observed in India by the **National Mission for Clean Ganga (NMCG)**, along with the **Wildlife Institute of India (WII)**.

Turtle and its Significance

- **Description:**
 - Turtles are the reptiles of the order **Testudines**, characterized by a special bony or cartilaginous shell developed from their ribs and acting as a shield.
 - It can reside inside **freshwater or saltwater**.
 - **Tortoise** are distinguished from other turtles by being **land-dwelling**, while many (though not all) other turtle species are at **partly aquatic**.
 - Turtles are cold-blooded species.
 - **Cold blooded species** have a higher range of body temperature and move between environments to make themselves warmer or cooler. E.g. Insects, arachnids, fish, reptiles, and amphibians.
 - They have very **slow metabolism** and can survive without food and water for a long time.
 - According to the **International Union for Conservation of Nature (IUCN)** most of the species of turtles and tortoises are **vulnerable, endangered or critically endangered**.
- **Significance:**
 - Turtles play an important role in the river by scavenging dead organic material and diseased fish by controlling the water pollution.
 - They also help in maintaining healthy fish stocks in the water by giving them habitat over their body.
 - Turtle populations could improve seagrass ecosystem health by removing seagrass biomass and preventing sediment formation.
 - Turtles are also transporters of nutrients and energy to coastal areas.

Turtle Conservation in India

- There are five species in Indian waters i.e. **Olive Ridley, Green turtle, Loggerhead, Hawksbill, Leatherback**.
 - The **Olive Ridley, Green Turtle and Loggerhead** are listed as **endangered** in the IUCN Red List of Threatened Species
 - The **Hawksbill** and the **Leatherback** are listed as **critically endangered**. They are protected in **Indian Wildlife Protection Act of 1972**, under Schedule I.
- Turtles have been protected in India under the **Biodiversity Conservation and Ganga Rejuvenation** programme.

Way Forward

Turtles play an important role in ocean ecosystems by maintaining healthy seagrass beds and coral reefs, providing key habitat for other marine life. It also helps to balance marine food webs and facilitate nutrient cycling from water to land. Thus, conservation of turtles will help to conserve biodiversity and to maintain natural balance.

Puntius Sanctus: New Freshwater Fish

Why in News

Recently, ***Puntius Sanctus***, a new freshwater fish, has been found in Velankanni, Tamil Nadu. It has been found in a small waterbody.



- The fish has been identified and named by the Department of Zoology, BJM Government College in Kollam. Sanctus means holy (pilgrim town) in Latin.
- Species of Puntius are known from India mainly from the drainages of the Western and Eastern Ghats, as well as the Eastern Himalayas.

Key Points

- **Puntius Genus:**
 - The genus shows great species richness in Kerala and Tamil Nadu.
 - The Puntius species are known locally as **Paral** in Kerala and **Kende** in Tamil Nadu.
 - It belongs to the family '**Cyprinidae**'.
- ***Puntius Sanctus*:**
 - It is a silver-hued fish. The species is small in size and grows to a **length of 7 cm**.
 - It is different from other species.
 - It has a protractible (extended) mouth, a pair of maxillary barbels (a sensory organ near the snout).
 - It bears lateral line scales and pre-dorsal scales.
 - The lateral line scales are found within the dermis i.e. under the skin of a fish and usually have sense organs.
 - The dorsal scale row in a fish consists of a series of deep scales devoid of spines.

- **Cyprinidae:**
 - It is the family of freshwater fish, collectively called cyprinids, that includes the minnows, goldfish, bitterlings, barbs, and carps.
 - It ranges from small aquarium sized species to huge fish.
 - **Freshwater fish** are those that spend some or all of their lives in freshwater, such as rivers and lakes, with a salinity of less than 1.05%. E.g. **Rohu, Katla, Hilsa** etc.
- The new fish has been deposited in the **Zoological Survey of India** at Pune.
- It has also been registered with Zoo Bank of the **International Commission of Zoological Nomenclature**, the official authority for naming animals.

Zoological Survey of India

- It is a subordinate organization of the **Ministry of Environment, Forest and Climate Change** and was established in 1916.
- It is a national centre for faunistic survey and exploration of the resources leading to the advancement of knowledge on the exceptionally rich faunal diversity of the country.
- It has its **headquarters at Kolkata** and 16 regional stations located in different geographic locations of the country.

International Commission of Zoological Nomenclature

- It regulates a **uniform system of zoological nomenclature** ensuring that every animal has a unique and universally accepted scientific name.
- It creates and revises the **International Code of Zoological Nomenclature**.
- It is based in the Lee Kong Chian Natural History Museum, National University of **Singapore**.

Source: TH

Purandara Dasa

Why in News

The **Department of Archaeology, Heritage and Museums, Karnataka** will soon commence field research work at **Araga in Malnad** (Malenadu) region in **Karnataka**, to end the **speculations regarding the birthplace of Purandara Dasa**.

The department comes **under the Ministry of Culture** and is **responsible for archaeological studies and the preservation** of cultural monuments.

Key Points

- **Issue About Birthplace:**

- It was widely **believed** that the Purandara Dasa was born in **Purandharagad, Maharashtra**. However, many **people in Malnad claimed that he hailed from their region**.
- On **literary evidence**, it is being **speculated that Purandara Dasa was born near Araga**. However, **definitive conclusions can be reached only if tangible archaeological evidence** like inscriptions, coins, remains of building-related to the name Srinivasa Nayaka or Purandara Dasa **are found**.



- **About Purandara Dasa:**

- Purandara Dasa belonged to the **Vaishnava tradition** during the **Vijayanagar rule**.
- Prior to the adoption of Vaishnava tradition, he was a rich merchant and was called **Srinivasa Nayaka**.

The proponents of the theory that Purandara Dasa was born in Malnad, refer to his older name and point out that **Nayaka title** was attributed to locally influential people, including wealthy merchants in Malnad during the Vijayanagar rule.
- He was a great **devotee of Lord Krishna**, a **poet** and a **musician**. He is considered the **father of Carnatic Music**.
 - He formalized the music system which was a **blend of various traditions of South India and the musical science** as explained in the Vedas.
 - He **identified 84 ragas** and devised a system of teaching Carnatic music in graded lessons.
- He **composed songs in Kannada and Sanskrit** with the pen name **Purandara Vithala**.
- In his compositions, he expressed his love for Sri Krishna **describing various aspects of Krishna's life**.

Home Delivery of Shahi Lichi and Zardalu Mango

Why in News

The Government of Bihar has partnered with the Department of Posts to supply "Shahi Lichi" and "Zardalu Mango" to the people at doorstep.

This has been done to meet the demand of the public and for giving market space directly to farmers to sell their fruits without any middlemen.

Key Points

- **Shahi Lichi:**

- The Shahi Lichi is a variety of lichi that is **grown in Muzaffarpur** and has high pulp and is juicier compared to the litchi grown in other parts of the country.
- **Humid condition and alluvial soil having fairly good amount of calcium content** in Muzaffarpur, Darbhanga, and nearby areas, proved ideal for lichi cultivation in Bihar.
- India is the **second largest producer of lichi in the world after China** and **Bihar is the leading state for lichi production** in the country. Production is mostly **organic**.
- It was **accorded the Geographical Indication (GI) tag recognition in 2018**.
- Lichi is most commonly blamed for the **Acute Encephalitis Syndrome (AES) outbreak** in Bihar.
 - However, experts are of the view that fruit is only a triggering factor for malnourished children as the toxin **methylenecyclopropyl glycine (MCPG)** can lead to hypoglycemia (fall in sugar levels) in undernourished children that in turn results into unconsciousness, coma and even death.
 - **AES** is a basket term used for referring to hospital, children with clinical neurological manifestations which include mental confusion, disorientation, convulsion, delirium or coma.

- **Zardalu Mango:**

- Zardalu is a **unique mango variety** from **Bhagalpur**.
- It is known for its light yellow skin and distinct special aroma.
- It was accorded the Geographical Indication (GI) tag in 2018.