

MIIRA: INDIA READIES PLAN TO POPULARISE MILLETS ON WORLD STAGE

Why in News?

- With food security and nutrition a top priority in agriculture during its G20 Presidency, India is planning to propose the launch of a **global initiative** - MIIRA, to encourage the consumption and production of millets.
- A draft charter of the initiative is ready and will be placed for approval at the **first meeting of the Agricultural Deputies** (under G20) from February 13-15 at Indore, MP.

What is the Background of MIIRA's Announcement?

- The United Nations General Assembly (UNGA) declared **2023 as the International Year of Millets (IYM)**, a proposal sponsored by the Government of India to promote these "nutri-cereals."
- The declaration will be helpful to the Government of India in articulating its goal of making IYM 2023 a "**People's Movement**" as well as presenting India as the "**Global Hub for Millets**," as India produces one-fifth of the world's millets.
- The year 2023 is also significant because of India's G20 Presidency, which will also have five meetings on agriculture.
- In her Budget speech (2023-24), while describing various types of millets as '**Shree Anna**', the Union Finance Minister said that the **Indian Institute of Millet Research, Hyderabad** will be supported as the Centre of Excellence.
 - This will help in sharing best practices, research and technologies at the international level.

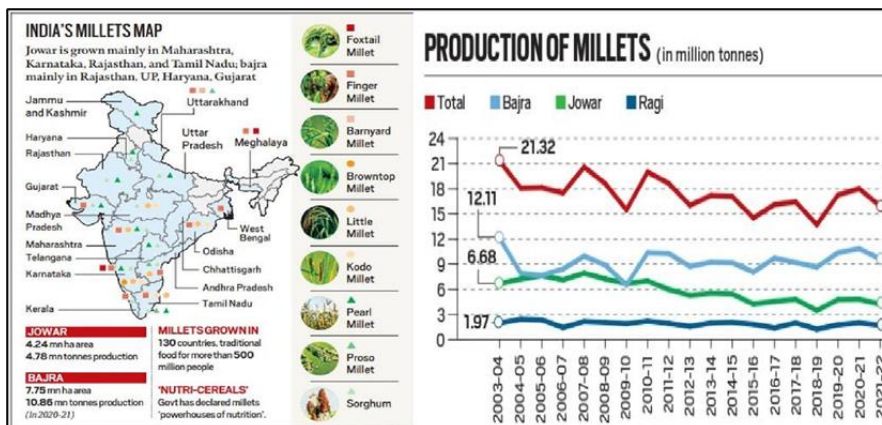
What is Millet International Initiative for Research and Awareness (MIIRA)?

- The global initiative will be aimed at **coordinating millet research programmes at the international level** and will be launched keeping in mind the nutritional value and the **climate resilient nature of millets**.
- Besides setting up a web platform to connect researchers and holding international research conferences, **the plan is also to promote millet consumption by raising awareness**.

- India would provide the "seed money" for MIIRA to take off, and each G20 member will subsequently be required to pay to its budget in the form of a membership fee.
- According to the sources, the MIIRA secretariat will be in **Delhi**, and India being a major producer of millets, **will ensure a flow of investment** from the country's industry and research bodies.

What is the Importance of Millets?

- **Millets are small-grained cereals** such as sorghum (jowar), pearl millet (bajra), foxtail millet (kangni/ Italian millet), little millet (kutki), kodo millet, finger millet (ragi/ mandua), proso millet (cheena/ common millet), etc.
- These crops **require less water** than rice and wheat, and are mainly grown in **rainfed areas**.
- Now grown in more than 130 countries, millets are the **traditional food** for more than half a billion people in Asia and Africa.
- Globally, **jowar** is the most widely grown millet crop and its major producers are the US, China, Australia, India, Argentina, Nigeria, and Sudan.



- **Bajra**, another major millet crop, is mainly grown in some African countries and India, **where millets are mainly a kharif crop**.
- In India, bajra (3.67%), jowar (2.13%), and ragi (0.48%) accounted for

about **7% of the gross cropped area in the country** (during 2018-19).

- In 2018, the Agriculture Ministry declared millets such as jowar, bajra, ragi/ mandua, some minor millets such as kangani/ kakun, cheena, etc, and the two pseudo millets [buckwheat (kuttu) and amaranth (chaulai)] - as '**Nutri Cereals**' for their "high nutritive value".
- Millets are important by virtue of its **mammoth potential to generate livelihoods**, increase farmers' income and **ensure food and nutritional security** all over the world.

DEMAND FOR GREATER TIPRALAND

Why in news?

- The newest political party in Tripura, the Tipraha Indigenous Progressive Regional Alliance (TIPRA) Motha, has created a flutter with its demand for Greater Tipraland.
- The party was floated in 2019 by Pradyot Bikram Manikya Debbarma – the son of Tripura’s last king.
- Tripura was a kingdom ruled by the Manikya dynasty from the late 13th century.
- This dynasty ruled Tripura until the signing of the Instrument of Accession with the Indian government in October 1949.

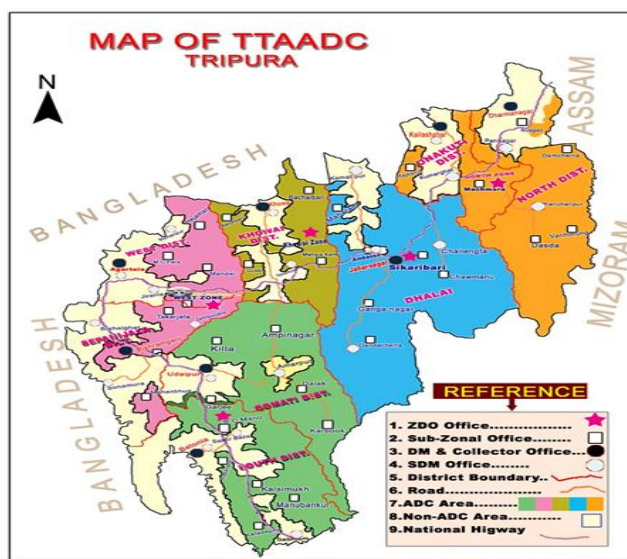
What is Greater Tipraland?

- Greater Tipraland is the core ideological demand of the TIPRA Motha.
- The objective is to carve out a new State for the 19 indigenous tribes of Tripura under Articles 2 and 3 of the constitution.
- **Article 2** - Parliament may by law admit into the Union, or establish, new States on such terms and conditions as it thinks fit.
- **Article 3** comes into play in the case of formation of new States and alteration of areas,

boundaries or names of existing States by the Parliament.

- **Regional extent of the proposed State**

- It includes the region under Tripura Tribal Areas Autonomous district Council (TTAADC) and 36 villages out of it, within the Tripura State boundaries.
- The demand seeks to include every tribal person living in indigenous area or village outside TTAADC



- However, the idea doesn't restrict to Tripura tribal council areas.
- It extends to include Tiprasa (indigenous people of Tripura) spread across different states of India like Assam, Mizoram etc.
- It also includes those living in Bandarban, Chittagong, Khagrachari and other bordering areas of neighbouring Bangladesh.

How did the demand originate?

- **Apprehension of the indigenous communities**
 - The demand mainly stems from the anxiety of the indigenous communities in connection with the change in the demographics of the state, which has reduced them to a minority.
 - It happened due to the huge influx of refugees from East Pakistan. The flood of refugees led to bitter differences.
 - From 63.77 per cent in 1881, the population of the tribals in Tripura was down to 31.80 per cent by 2011.
 - The indigenous people have not only been reduced to a minority, but have also been dislodged from land reserved for them
- **Ethnic conflict and insurgency**
 - Later, ethnic conflict and insurgency gripped the state, which shares a nearly 860-km long boundary with Bangladesh.
 - The conflict between the tribals and the non-tribals escalated in 1980 and took the shape of armed insurgency.
 - The demand for autonomous regions or separate statehood during this time metamorphosed to **sovereignty and independence**.
 - However, after a political truce was reached between the State and the rebel groups, the demand for statehood was revived.
- **Rise of Ethnic-Politics**
 - There has been a revival of ethnic nationalism in Tripura by the newly formed political party.
 - It is trying to unite people from both tribal and non-tribal ethnic identity since 2019.
 - This party claims that a separate state could alone alleviate problems faced by Tripuri tribes.

- **Alleged discrimination faced by Tripura Tribal Areas Autonomous District Council (TTAADC)**
 - The TTADC receives two percent of the State budget while it has 40% of the State's population.
 - TTADC was formed under the sixth schedule of the Constitution in 1985.
 - Its aim is to ensure development and secure the rights and cultural heritage of the tribal communities.
 - It has legislative and executive powers and covers nearly two-third of the state's geographical area.
 - It also highlights the unfulfilled demands of revising National Register of Citizens (NRC) in Tripura.

PM MODI'S PUSH FOR SUSTAINABLE CLOTHING: WHY INDIA CAN'T MOVE AWAY FROM FAST FASHION

Context

- In a clear message on sustainability, Indian PM recently donned a blue vest made of recycled plastic bottles, while presenting his speech at the Parliament.
- The article emphasises upon bringing sustainable clothing in mass domain by addressing challenges related to it.

Background

- Under its **Green Initiative of Sustainable Garments**, Indian Oil Corporation Limited, a PSU makes garments from recycled polyethylene terephthalate (PET) bottles.
- The company's flagship uniform brand for its employees, '**Unbottled**', was launched by PM during the India Energy Week held in Bengaluru, India from 6th to 8th February 2023.
- Under this initiative, the company will make uniforms for the customer attendants of other Oil Marketing Companies (OMCs), non-combat uniforms for Army, uniforms/dresses for institutions and sales to retail customers.

How PET Bottles Transforms into a Garment?

- For the utilisation of PET bottles and other plastic materials for making fabric, all the discarded bottles are **first washed, dried and crushed** into small chips.

- The uniform shaped tiny plastic chips are then **heated and passed through a spinneret** to turn them into polyester staple fibre. This fibre made from waste plastic gets its **fluffy, woolly texture** in crimping machine.
- Later, the polyester staple fibre is spun to produce yarn which is further knitted or woven into polyester fabric.
- The PET recycling **helps in reducing import burden** of fossil feedstock and also requires around 59% less energy for production compared to virgin PET (made from fossil sources) and has around 79% **lower carbon footprint**.

What is Sustainable Fashion?

- It refers to clothing that is designed, manufactured, distributed, and used in ways that are environmentally friendly.
- It can save money in the long run as they last longer and require less frequent replacements.

Why there is Growing Need for Sustainable Fashion?

- **Climate change narrative:** As there is a global focus on climate change, it has increasingly been imperative for textile and garment manufacturers to realign their operations **to improve their ecological footprint and embrace alternative fibres** that are recyclable and environment-friendly.
- **Polluting sector:** It is estimated that globally, one-fifth of **industrial water pollution** and 10 per cent of total **carbon emissions** is contributed by the textile industry.
 - Also, 35 kg of **textile waste** is generated per person every year in the US alone.
 - The **National Climate Change Journal** (2018) also lists textile manufacturing as one of the most polluting sectors of the economy.
 - It emits 1.2 billion tonnes of greenhouse gases, which is more than international aircraft and maritime shipping combined.
- **Environmental hazard:** Many traditional fashion materials, such as cotton and polyester, are not environmentally friendly as they **require** large amounts of **water and energy** to produce.

- **Inefficient production process:** The **fast fashion model** being relied upon by many fashion companies prioritizes speed and cost over sustainability, leads to overproduction and waste, as well as poor labour practices.
 - **For example**, according to Levi Strauss, 3,781 litres of water are used during the production and use phase of one pair of its jeans while 33.4 kg of carbon dioxide is created throughout its lifetime.
 - This includes growing cotton, processing denim and washing at home.
- **Wreckful disposal method:** The fashion industry produces a huge amount of waste like non-biodegradable leftovers and traditional disposal methods, such as landfilling or incineration, are not environmentally friendly.
- **Larger impression:** Fast fashion has driven the perception of clothing as a **disposable item** and a **seasonal indulgence** rather than a durable good.
 - Data shows that in the last 20 years, the number of clothes bought has doubled from 50 billion garments to 100 billion.
- **Global shift toward sustainability:** **European Union (EU)** has taken the lead to achieve sustainability in the textile sector by 2030.
 - It is also testing digital passports on its sustainable clothing brands, where shoppers can scan the code on the label and access the item's journey, from source to the consumer, tracking its water usage and carbon emissions.
 - Also, 32 **major fashion companies** from around the world including high-end brands like **Chanel, Prada** and **Hermès** and athletic apparel names like **Nike** and **Adidas** have signed a pact to make the fashion industry eco-friendly.

What Needs to be Done to Promote Sustainable Clothing?

- The **Indian government** should prioritize offering **green premiums** to eco-friendly firms, assisting them in competing with “conventional fast-fashion rivals,”.
- It could also enable governmental support through **GST reduction** and other incentives.

- The **fashion companies** must also work to educate consumers and collaborate with policymakers, marketers, and retailers to promote sustainable fashion by rationalizing cost structure, legitimate endorsement by Bollywood stars, sports ambassadors, etc.
- The **commercial scaling of recycling technologies** needs to be promoted by **eco-fashion brands** to increase production of eco-friendly clothes.
- The companies must also shift to a slower, more **deliberate production process** that prioritizes **quality over quantity** to reduce waste and promote recycling and **repurposing of clothing**.

WHAT ARE MAMMATUS CLOUDS?

Recently, NASA's astronomer explained the formation of the Mammatus clouds



About Mammatus clouds:

- Mammatus clouds refer to distinctive cloud formations that are separated by a bulge or protrusion emerging from the base of another cloud.
- They are usually formed in association with large **cumulonimbus clouds**.
- Typically, **turbulence within the cumulonimbus** cloud will cause Mammatus to form, especially on the underside of the projecting anvil as it rapidly descends to lower levels.
- Mammatus clouds generally form in the most unstable cumulonimbus, meaning that there is also a chance of hail, heavy rain and lightning in the vicinity, and if the air is cold enough during winter they can produce snow.

WHAT IS AN AUBRITE METEORITE?

A recent analysis by a group of scientists at the Physical Research Laboratory (PRL), Ahmedabad, has revealed that two villages, Gujarat hit by Aubrite meteorites.



Why in news?

- The pieces that fell in the two villages have been named the Diyodar meteorite, after the taluka in which the villages are located.
- This is only the second recorded crash of an aubrite in India. The last was on December 2, 1852, in Basti, Uttar Pradesh.

Key facts about Aubrite meteorites

- Aubrite meteorites are coarse-grained **igneous rocks** that are formed in **oxygen-poor conditions**.
- They contain a variety of **exotic minerals** that are not found on Earth.
- The recently found aubrite meteorite in Gujarat is composed of orthopyroxene.

What are Pyroxenes?

- Pyroxenes are **silicates** consisting of single chains of **silica tetrahedra** (SiO₄)
- Pyroxenes such as **diopside** and **jadeite** have been used as gems.
- **Spodumene** was historically used as lithium ore and rocks with pyroxene have also been used to make a crushed stone that is used in construction.

PANGONG TSO

India's first frozen lake marathon is set to be held in Ladakh's Pangong Tso.



About Pangong Tso:

- Pangong Lake or Pangong Tso is a **long narrow, endorheic (landlocked)** lake situated at a **height of more than 14,000 ft** (4,350 meters) in the **Ladakh Himalayas**.
- The lake is **5 kilometers wide and 134 kilometers long**, with **one-third of it lying in India & the other two-thirds in China**.
- It is the **world's highest saltwater lake**.
- The lake is also **very deep** and reaches a maximum **depth of almost 328 feet**.
- It is also **known to change colors**, appearing blue, green, and red at different times

WHAT IS THE ORGANIZATION OF THE PETROLEUM EXPORTING COUNTRIES

(OPEC)?

OPEC's Secretary General urged countries to invest much more in oil to meet the world's future energy needs and said climate policies need to be more "balanced and fair."



About the Organization of the Petroleum Exporting Countries(OPEC):

- What is it? It is a permanent intergovernmental organization of oil-exporting countries.
- **Mission:**
 - To coordinate and unify the petroleum policies of its Member Countries.
 - Ensure the stabilization of oil prices in the international oil markets, with a view to eliminating harmful and unnecessary fluctuations.
- **Formation:** It was established in 1960 by the five founding members Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela.
- Currently, it has 13 members, including Algeria, Angola, Congo, Equatorial Guinea, Gabon, Libya, Nigeria, and the United Arab Emirates
- **Headquarters:** Vienna, Austria.

What is OPEC+?

- It is a group of oil exporters consisting of 23 member countries which meet regularly to decide how much crude oil to sell on the world market.
- It comprises 13 OPEC countries plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Russia, Mexico, Malaysia, South Sudan, Sudan, and Oman.