

GI tag for Mayurbhanj's superfood 'ant chutney'

(GS Paper 3, Economy)

Why in news?

- In Odisha, scientists are now fine-tuning their research to make a presentation for the Geographical Indications (GI) registry of Kai chutney.
- Applied under food category, the GI tag will help develop a structured hygiene protocol in the preparation of Kai chutney for standard wider use.



GI Tag:

- Geographical Indications labels enhance the reputation and value of local products and support local businesses.

About Kai ants:

- Weaver ants, *Oecophylla smaragdina*, are abundantly found in Mayurbhanj throughout the year. They make nests with leaves of host trees.
- The Kai family consists of three category members — workers, major workers and queens. Workers and major workers are mostly orange-colored. Kais feed on small insects and other invertebrates, their prey being mainly beetles, flies and hymenopterans.

What is Kai Chutney?

- The weaver ants are popular among the people, mostly of the tribes, of Mayurbhanj district in Odisha for the mouth-watering dish made of them, the Kai chutney.
- This savoury food item, **rich in proteins, calcium, zinc, vitamin B-12, iron, magnesium, potassium, sodium, copper, fibre and 18 amino acids**, is known to boost the immune system and keep diseases at bay.

Medicinal properties:

- The tribes of Mayurbhanj consume Kai chutney or soup to get rid of flu, common cold, whooping cough, to increase appetite and enhance eyesight naturally without corrective eye wear and to treat joint pain and stomach diseases, and for the development of a healthy brain and the nervous system.
- The tribal healers also prepare medicinal oil by dipping the collected Kais in pure mustard oil. After 30 days, this oil is used as baby oil and externally used to cure rheumatism, gout, ringworm infection and skin diseases.

Amendment to Foreign Contribution (Regulation) Act (FCRA) rules 2011

(GS Paper 2, Polity and Governance)

Why in news?

- Recently, the Central government has **made seven key amendments** to existing rules of the **Foreign Contribution (Regulation) Act (FCRA) rules 2011** that aim at **prohibiting acceptance and utilization of foreign contribution or foreign hospitality** for any activities detrimental to the national interest.
- The new rules, now renamed as **Foreign Contribution (Regulation) Amendment Rules, 2022**, came into effect on July with the Ministry of Home Affairs (MHA) issuing a notification and its publication in the Official Gazette.
- The new rules are an amendment to the Foreign Contribution (Regulation) Rules, 2011.



Key amendments:

- Among those, there are two amendments in rule 6 by substituting the words **‘one lakh rupees’ with the words ‘ten lakh rupees’**; and the words **‘thirty days’ with the words ‘three months’**.
- There is also an amendment in rule 9, in sub-rule (1), in clause (e), for the words "fifteen days", the words "forty-five days" shall be substituted; and in sub-rule (2), in clause (e), for the words "fifteen days", the words "forty-five days" shall be substituted.
- **Clause (b) of rule 13** has been omitted from the fresh rules; and in rule 17A, for the words "fifteen days", the words "forty-five days" shall be substituted.
- The last amendment is done in rule 20, and it mentions that for the words "on a plain paper", the words "in such form and manner, including in electronic form as may be specified by the Central Government" shall be substituted.

Foreign Contribution (Regulation) Act (FCRA), 2010:

- The Foreign Contribution (Regulation) Act (FCRA), 2010 consolidates the law to regulate the acceptance and utilization of foreign contribution or foreign hospitality by certain individuals or associations or companies and to prohibit acceptance and utilization of foreign contribution or foreign hospitality for any activities detrimental to the national interest and for matters connected therewith or incidental thereto.
- The Act **extends across India and also applies to the citizens of India outside India**. Associate branches or subsidiaries, outside India, of companies or bodies corporate, registered or incorporated in India also have to follow the rules of the Act.

- The FCRA regulates foreign donations and ensures that such contributions do not adversely affect internal security. **First enacted in 1976, it was amended in 2010** when a slew of new measures were adopted to regulate foreign donations.
- The FCRA is **applicable to all associations, groups and NGOs** which intend to receive foreign donations. It is mandatory for all such NGOs to register themselves under the FCRA.
- **Members of the legislature and political parties, government officials, judges and media persons are prohibited from receiving any foreign contribution.**

Astronaut study reveals effects of space travel on human bones (GS Paper 3, Science and Tech)

Why in news?

- A recent study of bone loss in 17 astronauts who flew aboard the International Space Station is providing a fuller understanding of the effects of space travel on the human body and steps that can mitigate it, crucial knowledge ahead of potential ambitious future missions.

Source:

- The research amassed new data on **bone loss in astronauts caused by the microgravity conditions of space and the degree to which bone mineral density can be regained on Earth.**
- It involved 14 male and three female astronauts, average age 47, whose missions ranged from four to seven months in space, with an average of about 5-1/2 months.



Key observations:

- A year after returning to Earth, the **astronauts on average exhibited 2.1% reduced bone mineral density at the tibia and 1.3% reduced bone strength.** Nine did not recover bone mineral density after the space flight, experiencing permanent loss.
- The bone loss occurs because bones that typically would be weight-bearing on Earth do not carry weight in space.
- During spaceflight, fine bone structures thin, and eventually some of the bone rods disconnect from one another. Once the astronaut comes back to Earth, the remaining bone connections can thicken and strengthen, but the ones that disconnected in space can't be rebuilt, so the astronaut's overall bone structure permanently changes.

- The study showed that longer space missions resulted both in more bone loss and a lower likelihood of recovering bone afterward.

Other microgravity affects to human body:

- The cardiovascular system also experiences many changes. Without gravity pulling blood towards feet, astronauts experience a fluid shift that causes more blood to pool in the upper body. This can affect the cardiovascular system and vision.
- Radiation is also a large health concern for astronauts as the further they travel from Earth the greater exposure to the sun’s radiation and increased cancer risk.

Way Forward:

- Space travel poses various challenges to the human body key concerns for space agencies as they plan new explorations.
- In-flight exercise, resistance training on the space station proved important for preventing muscle and bone loss.
- For instance, NASA is aiming to send astronauts back to the moon, a mission now planned for 2025 at the earliest. That could be a prelude to future astronaut missions to Mars or a longer-term presence on the lunar surface.

UN Ocean Conference: 198 countries adopt Lisbon Declaration

(GS Paper 3, Environment)

Why in news?

- All 198 members of the United Nations unanimously adopted July 1, 2022 the Lisbon Declaration on ocean conservation.
- The nations, at the UN Ocean Conference 2022, committed to follow science-based and innovative actions on an urgent basis



Commitments:

- They also recognised that developing countries, particularly small island developing states and least developed countries, need assistance with capacity building.

- Participants at the conference also agreed to work **on preventing, reducing and controlling marine pollution**. It includes:
 - a) Nutrient pollution
 - b) Untreated wastewater
 - c) Solid waste discharges
 - d) Hazardous substances
 - e) Emissions from the maritime sector, including shipping, shipwrecks
 - f) Anthropogenic underwater noise
- Other pledges include developing and promoting innovative financing solutions to help create sustainable ocean-based economies as well as expanding nature-based solutions to help conserve and preserve coastal communities.

Empowering women:

- Member nations have also committed to **empowering women and girls**, recognising their participation is crucial to building a sustainable ocean-based economy and achieving the UN-mandated Sustainable Development Goal 14.
- The representatives called upon all stakeholders to urgently take ambitious and concerted action to accelerate implementation to achieve Goal 14 as soon as possible.

What's next?

- The conference has set the stage for the fifth session of the intergovernmental conference on an international legally binding instrument for the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.
- The fifth round of negotiations to implement the international treaty will be held in New York from August 15-26, 2022.
- It aims to protect biodiversity in Areas Beyond National Jurisdiction, which lie outside the 200-mile (322-kilometre) exclusive economic zones of countries.
- The participants expect to get the finance for solutions discussed in Lisbon at the 27th Conference of Parties (CoP 27) to the United Nations Framework Convention on Climate Change. It will be held in Egypt in November 2022.