

26th April -2nd May Weekly Compilation

(The Hindu+ Indian Express + PIB + Other World Wide News)

❖ Codex Committee on Spices and Culinary Herbs (CCSCH) (PIB)

Why in News: The fifth session of the Codex Committee on Spices and Culinary Herbs (CCSCH) has been virtually inaugurated.

Codex Committee on Spices and Culinary Herbs (CCSCH)

The Codex Committee on Spices and Culinary Herbs (CCSCH) was established in 2013. It was established with the support of more than a hundred countries under the Codex Alimentarius Commission (CAC).

Objective

- To develop and expand worldwide standards for spices and culinary herbs.
- To consult with other international organisations in the standard development process.

India is the host country. Spices Board India acts as the Secretariat for organising the sessions of the committee. Since its inception, the Committee has been successful in developing harmonised global Codex standards for spices and herbs.

Codex Alimentarius Commission (CAC)

Codex Alimentarius Commission (CAC) was established in 1963. It is an intergovernmental body established jointly by the UN's Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO). It was established within the framework of the Joint Food Standards Program.

Objective

- To establish international food standards to protect the health of consumers
- To ensure fair practices in the food trade. Especially while promoting coordination of food standards work undertaken by international governmental and non-governmental organisations.

Membership of the Commission is open to all Member Nations and Associate Members of FAO and WHO. The countries interested in international food standards can become a member of CAC.

The program of work of the Commission is funded through the regular budgets of WHO and FAO. All works are subjected to the approval of the two governing bodies of the parent organisation.

❖ United Nations Economic and Social Council (ECOSOC) (Express)

Why in News: India has been elected to three key bodies of the UN ECOSOC (United Nations' Economic and Social Council).

These bodies are the Commission on Crime Prevention and Criminal Justice (CCPCJ), Executive Board of UN Women, and Executive Board of the World Food Program.

United Nations Economic and Social Council (ECOSOC)

- UN- ECOSOC was established in 1945. It is one of the six main organs of the United Nations.
- Other organs are UNSC, UNGA, Trusteeship Council, ICJ, and UN secretariat.
- **Aim:** To serve as a forum for discussing international economic and social issues. It also works towards formulating policy recommendations addressed to the Member States and the United Nations system.
- **Members:** The Council consists of 54 Member States. The UNGA will elect them for a three-year term.

Commission on Crime Prevention and Criminal Justice (CCPCJ)

- Commission on Crime Prevention and Criminal Justice (CCPCJ) is a functional commission of the UN-ECOSOC
- Purpose: The commission serves as the primary organ that guides the activities of the United Nations. Especially in the fields of crime prevention and criminal justice.
- Members: CCPJ has 40 member states that are elected by ECOSOC.

UN Women

- UN Women is the United Nations entity dedicated to gender equality and the empowerment of women.

- The UN General Assembly established UN Women in 2010 to accelerate the progress on meeting women's needs worldwide.
- Members: The Executive Board of UN Women consists of 41 members.

World Food Program (WFP)

- Both the Food and Agriculture Organization (FAO) and United Nations General Assembly (UNGA) founded the WFP in 1961.
- Aim: To eradicate hunger and malnutrition with the ultimate goal of eliminating the need for food aid itself.
- Significance: It is a member of the United Nations Development Group and part of its Executive Committee.
- Members: The Executive Board of WFP consists of 36 states members. The board provides intergovernmental support, policy direction and supervision of the activities of WFP.
- Funding: Voluntary donations from world governments, corporations and private donors will entirely fund the operations of WFP.

WFP was awarded the Nobel Peace Prize in 2020.

❖ Organization for the Prohibition of Chemical Weapons (OPCW) (The Hindu)

Why in News: India's Comptroller and Auditor General (CAG) GC Murmu selected as an external auditor to Organization for the Prohibition of Chemical Weapons (OPCW). His term will be for 3 years, starting in 2021.

India was also selected as a member of the Executive Council of the OPCW. It is representing Asia Group for another two-year term during the OPCW Conference of State Parties.

Organization for the Prohibition of Chemical Weapons (OPCW)

- OPCW is an intergovernmental organisation and the implementing body for the Chemical Weapons Convention. This convention is in force since 1997 and 193 members.
- Aim: To achieve the vision of a world free of chemical weapons by implementing the provisions of the Chemical Weapons Convention.
- **Objectives:**
 - Destroying all existing chemical weapons under international verification.
 - Monitoring chemical industry to prevent chemical weapons from re-emerging.
 - Providing assistance and protection to States Parties against chemical threats.

- Fostering international cooperation to strengthen implementation of the Convention and promote the peaceful use of chemistry.

Powers:

- The OPCW is authorized to perform inspections to verify that signatory states are complying with the convention.
- It can also perform testing of sites and victims of suspected chemical weapons attacks.
- Members: It has 193 members including India.
- Headquarters: The Hague, Netherlands.
- **Significance: The OPCW was awarded the Nobel Peace Prize in 2013.**
- Relations with UN: OPCW is not a United Nations (UN) organization. However, by the 2001 Relationship Agreement between the OPCW and the UN, the OPCW reports on its inspections and other activities to the UN through the office of the Secretary-General.

❖ Breakthrough infection

(Source: Express)

Why in News: The union health ministry has said that the breakthrough infection rate is low for both Covaxin and Covishield vaccines.

Breakthrough infection is a case of illness in which a vaccinated individual becomes sick from the same disease for which the vaccine was administered. Simply, it occurs when vaccines fail to provide immunity against the pathogen they are designed to target.

Possible Reasons for Breakthrough Infections:

India's healthcare and frontline workers were on the priority list for vaccination during the first phase. They were always prone to more occupational exposure to the corona virus disease. The second wave of Covid-19 is highly transmissible; it might also have contributed to the breakthrough infection rates.

India's Breakthrough Infections Data:

- **Covishield:** After the first dose two per 10,000 people get re-infected and after the second dose, three per 10,000 people get re-infected.
- **Covaxin:** After the first dose four per 10,000 people get re-infected after the number remains the same for the second dose too. This type of Infections are mostly mild or asymptomatic because the individuals still have partial protection.

Concerns:

According to a US study, people with no symptoms transmit more than half of all cases. This means that controlling this silent transmission from persons without symptoms is very important for controlling the pandemic.

Hence, it is very possible that an asymptomatic breakthrough infection can result in the further spread of the disease in the community. This happens especially because people may become careless following vaccination and many such infections are asymptomatic.

❖ World Press Freedom Index 2021

(Source: Express)

Why in News: Currently, Oxygen concentrators are in much demand for oxygen therapy. Demand is high especially among patients in home isolation and for hospitals running out of oxygen.

Oxygen Concentrators:

- Oxygen Concentrator is a medical device. It filters oxygen from the atmosphere and helps individuals inhale it through a mask or cannula.
- Atmospheric air has about 78% nitrogen and 21% oxygen with other gases making up the remaining 1%.
- The concentrator takes in this atmospheric air, filters it through a sieve. Further, it releases the nitrogen back into the air and works on the remaining oxygen.
- This oxygen compressed and dispensed through a cannula, is 90-95% pure. A pressure valve in concentrators helps regulate supply, ranging from 1-10 liters of oxygen per minute.

How is it different from oxygen cylinders and LMO?

- The oxygen cylinder gives you a finite amount of oxygen. When the cylinder is empty, it needs to be refilled. Whereas the concentrator pulls oxygen from the air. So it can provide a consistent supply of oxygen, and it only needs a power source to draw in Atmospheric air.
- Oxygen Concentrators are portable and need no special temperature. On the other hand, Liquid Medical Oxygen (LMO) needs to be stored and transported in cryogenic tankers.
- Oxygen from Concentrators is not as pure as Liquid Medical Oxygen (LMO) which is 99% pure oxygen. But it is good enough for mild and moderate Covid-19 patients with oxygen saturation levels of 85% or above. However, it is not advisable for ICU patients.
- Oxygen concentrators are the easiest alternatives to cylinders but can only supply 5-10 liters of oxygen per minute (critical patients may need 40-50 liters per minute).

- Oxygen Concentrators are more expensive than Oxygen cylinders. But it is largely a one-time investment. Apart from electricity and routine maintenance, there is a little operational cost. While oxygen cylinders incur refilling and transportation costs.

❖ Exercise Varuna

(Source: PIB)

Why in News: The 19th edition of the Indian and French Navy bilateral exercise VARUNA-2021' was conducted in the Arabian Sea.

Exercise Varuna

Exercise Varuna 2021 is a bilateral naval exercise between India and France.

The exercise was initiated in 1993. Since 2001, the exercises are called 'VARUNA'. It aims to develop interoperability between the two navies. Further, it aims to foster mutual cooperation by learning from each other's best practices to conduct joint operations.

From the Indian Navy's side the following frigates and submarines participated in the exercise.

- Guided-missile stealth destroyer Kolkata
- Guided-missile frigates Tarkash and Talwar
- Kalvari class submarine and
- P8I Long Range Maritime Patrol Aircraft

Exercises between India and France

- **Exercise Garuda:** It is a bilateral exercise between the Indian and French Air Force. The first edition of the exercise was held in 2003.
- **Exercise SHAKTI:** It is a biennial military exercise conducted between India and France. It was first conducted in the year 2011.
- **Exercise La Pérouse:** It is a multilateral maritime exercise led by the French Navy. Indian Navy has participated in this exercise for the first time in 2021.

❖ Oxygen Enrichment Technology

(PIB)

Why in News: CSIR-CMERI in association with MSME-DI has indigenously developed Oxygen Enrichment Technology.

Oxygen Enrichment Technology

- It is a device that concentrates the oxygen from the air around us by selectively removing nitrogen to supply oxygen-enriched air.
- The concentrated Oxygen is delivered to the patients, having respiratory diseases, through an oxygen mask or nasal cannula.

Uses:

- The device can be used in remote places, homes, or hospital-like facilities for patients with chronic obstructive pulmonary diseases (COPD), chronic hypoxemia and pulmonary edema.
- It may be used as an adjunct treatment for severe sleep apnea.

Key Features of the Oxygen Enrichment technology developed by CSIR-CMERI:

- The unit works on the principle of Pressure Swing Adsorption (PSA). It utilizes Zeolite Columns to selectively remove nitrogen from air under certain pressure thereby increasing the Oxygen Concentration.
- The unit is capable of delivering medical air in the range of up to 15 Liters Per Minute (LPM) with oxygen purity of more than 90%. If required, this unit can even deliver up to 70 LPM at a purity of around 30%. It is way better in comparison to other commercially available devices.
- The commercially available Oxygen Enrichment Units generally work till 8000 ft from sea level. However, this unit can work up to the altitude of 14000 ft thereby making it very handy for usage at the high altitude terrain battlefield in contingencies.
- Note: **Pressure swing adsorption (PSA)** is the process by which atmospheric air passes through an internal filtration system (e.g. a molecular sieve [zeolite granules or membranes]). This system has a large enough total surface area to separate Nitrogen (N₂) from the air concentrating the remaining oxygen (O₂) to a known purity.

❖ **GloLitter Partnerships Project**

(The Hindu)

Why in News: Around 30 Countries from across the oceans have joined the GloLitter Partnerships Project to tackle marine plastic litter.

GloLitter Partnerships Project

- **GloLitter Partnerships Project was launched by the International Maritime Organization (IMO) and the Food and Agriculture Organization of the United Nations (FAO).** The Government of Norway provided initial funding for the project.

- **The project aims to** help the maritime transport and fishing sectors to adapt to a low-plastic future. To achieve this goal, this initiative will assist developing countries to apply best practices for prevention, reduction, and control of marine plastic litter from those sectors.
- **Participating Countries:** 30 Countries will be participating in the project. India is one of the participating countries.

Significance

- The project will promote compliance with the Voluntary Guidelines of the MARPOL Convention. It contains regulations against discharging plastics into the sea.
- Further, protecting the marine environment is also the objective of Sustainable Development Goal (SDG) 14.

MARPOL

- International Convention for the Prevention of Pollution from Ships (MARPOL) is one of the main international conventions. It aims at the prevention of pollution of the marine environment by ships from operational or accidental causes.
- The Convention was adopted by the International Maritime Organisation (IMO) on 2nd November 1973.
- India is a signatory to the MARPOL Convention.

❖ SCRI or Supply Chain Resilience Initiative

(The Hindu)

Why in News: India, Japan, and Australia have launched the SCRI or Supply Chain Resilience Initiative in a virtual Trilateral Ministerial Meeting.

Supply Chain Resilience

It is the capability of the supply chain of a country to handle any kind of disruption and function normally in difficult times. One approach is diversifying the source of supply across a group of supplying nations instead of being dependent on just one or a few.

Need: Disruption of supplies from a particular country can happen due to natural calamities such as pandemics or man-made events such as armed conflicts. It can adversely impact the destination country's economic activities.

Example: Japan imported \$169 billion worth from China in 2019 accounting for 24% of its total imports. However, Japan's imports from China fell by half in February 2020 that impacted Japan's economic activity.

Supply Chain Resilience Initiative

The initiative aims to create a virtuous cycle of enhancing supply chain resilience to attain strong, sustainable, balanced, and inclusive growth in the region. The initial projects under the SCRI will be:

- Sharing of best practices on supply chain resilience and
- Organizing Investment promotion events and buyer-seller matching events. It will provide stakeholders an opportunity to explore the possibility of diversification of their supply chains.

The possible policy measures may include:

- Supporting the enhanced utilization of digital technology and
- Supporting trade and investment diversification.

The meeting by the trade ministers of three countries will be convened at least once a year. It will be helpful in the implementation of the SCRI as well as to consult on how to develop the Initiative.

❖ **Country of Particular Concern (CPC)** **(The Hindu)**

Why in News: The Chandler Good Government Index (CGGI) 2021 has been released.

Chandler Good Government Index (CGGI)

- The Chandler Good Government Index (CGGI) is published by the Chandler Institute of Governance (CIG). It is an international non-profit organization, with headquarter in Singapore.
- The index measures the effectiveness and capabilities of 104 governments around the world in terms of government capabilities and outcomes. The Index is made up of 34 indicators which are organized into seven pillars:
 - Leadership and Foresight
 - Robust Laws and Policies
 - Strong Institutions
 - Financial Stewardship
 - Attractive Marketplace
 - Global Influence and Reputation
 - Helping people rise.

Key Findings

- **India's ranking:** India has been ranked 49th in the Chandler Good Government Index (CGGI).
- **Topped by:** Finland has topped the index.
- **South Asian Countries:** Sri Lanka has been ranked at 74th. Further, Pakistan is at 90th and Nepal at 92nd.
- Seven of the top ten countries are from Europe. But there are four continents represented in the top ten with Singapore first in Asia, New Zealand leading Oceania, and Canada leading in the Americas.
- All the top ten countries are high-income as defined by the World Bank.

❖ **Classical swine fever (CSF) & Sheep Pox Vaccines (PIB)**

Why in News: ICAR-Indian Veterinary Research Institute has transferred the Technology for the Classical swine fever (CSF) & Sheep Pox Vaccines to M/s Hester Biosciences through Agrinnovate India Limited.

About the technology transfer:

- ICAR-IVRI has developed both the CSF vaccine and Sheep pox vaccine. But to provide commercialisation and build sustainable public-private partnerships ICAR-IVRI decided to perform technology transfer. Further, the technology transfer will also help in the following,
- It will provide the Vaccine at a cheaper price and ensure longer immunity of livestock.
- It is a great game-changer for the farmers or people involved in animal husbandry practices

Classical swine fever (CSF)

- Classical swine fever (CSF) also known as hog cholera. It is a contagious viral disease of domestic and wild swine (pigs).
- It is caused by a virus of the genus Pestivirus of the family Flaviviridae.
- The most common method of transmission is through direct contact between healthy swine and those infected with the CSF virus.
- Humans are not affected by this virus. Swine are the only species known to be susceptible.
- The disease has a 100% mortality. However, Vaccination can prevent the spread of the disease.

Vaccine for CSF:

In India, the disease is controlled by a lapinized CSF vaccine. This vaccine is produced by killing large numbers of rabbits.

- To avoid this, the ICAR-IVRI developed a Cell Culture CSF Vaccine (live attenuated). This is developed using the Lapinized Vaccine Virus from a foreign strain. Live attenuated vaccines use a weakened (or attenuated) form of the germ that causes a disease.
- The new vaccine has been extensively tested for safety and potency. It has been found to induce protective immunity from the 14th day of the Vaccination till 18 Months.

Sheep Pox Disease:

- Sheep Pox is a highly contagious viral disease of sheep caused by a poxvirus. The disease is the most severe of all the animal pox diseases. It can result in some of the most significant economic consequences due to poor wool and leather quality.
- Transmission: The sheep pox virus is an aerosol. So it can be transmitted via contact with an infected animal.
- Treatment: There is no treatment for the sheep pox virus, thus efforts are directed towards prevention.

Vaccine for Sheep Pox:

- A live attenuated Sheep Pox Vaccine using indigenous strain was developed by the Institute for preventive vaccination in the sheep population.
- The Vaccine is safe, potent and immunogenic [efficacious] for sheep aged more than six months of age. Also, it protects the Vaccinated animals for a period of 40 months.

Agrinnovate India Limited

It is a registered Company under the Companies Act, 1956. It is owned by the Government of India in the Department of Agricultural Research and Education (DARE).

Functions

- It aims to work on the strengths of DARE's Indian Council of Agricultural Research (ICAR)
- Further, Agrinnovate India also promotes the development and spread of R&D and its outcomes through IPR protection, commercialization and forging partnerships for the public benefit.

❖ Python-5

(The Hindu)

Why in News: Indigenously-developed Tejas Aircraft has been cleared to carry fifth-generation Python-5 air-to-air missile as part of its weapons package. This move would significantly enhance the combat prowess of the Tejas Aircraft.

Python-5

- Python-5 is a fifth-generation air-to-air missile (AAM) manufactured by Israeli Rafael Advanced Defense Systems.
- The Python-5 Missile was first used in the 2006 Lebanon war. During the war, it destroyed two Iran made UAVs.

Key Features

- The missile can be launched from very short to beyond-visual ranges with greater kill probability and excellent resistance.
- Python-5 is capable of “lock-on after launch” (LOAL). The missile also has a full-sphere/all-direction (including rearward) attack ability.
- The missile also features an advanced seeker with an electro-optical and imaging infrared homing seeker. This seeker scans the target area for hostile aircraft, then locks on for the terminal chase.

Light Combat Aircraft (LCA) Tejas

It is a single-engine, fourth-generation, multirole light fighter aircraft designed by the Aeronautical Development Agency (ADA). It was developed in collaboration with Hindustan Aeronautics Limited (HAL) for the Indian Air Force (IAF) and Indian Navy.

❖ Kopili Fault Zone

(Express)

Why in News: The National Centre for Seismology (NCS) has said that the tremors in Assam can be attributed to the Kopili Fault Zone. The fault zone is located closer to Himalayan Frontal Thrust (HFT).

Recently an earthquake of magnitude 6.4 on the Richter scale hit Assam. Following the main tremors, six aftershocks (of magnitude ranging from 3.2 to 4.7) also occurred within two-and-a-half hours. The NCS recently mentioned that these tremors were attributed to the Kopili Fault Zone.

Kopili Fault Zone:

- The Kopili fault zone is a 300-km northwest-southeast trending fault. It is extending from the western part of Manipur to the tri-junction of Bhutan, Arunachal Pradesh and Assam.
- A fault is a fracture or zone of fractures between two blocks of rock. Faults allow the blocks to move relative to each other. This movement may occur rapidly, in the form of an earthquake. Or it may occur slowly, in the form of creep.

- **Seismically Active:** This zone is a seismically active area, so it falls into the highest Seismic Hazard Zone V.
- The zone is associated with collisional tectonics because of the Indian Plate subducting beneath the Eurasian Plate. Subduction is a geological process in which one crustal plate is forced below the edge of another.
- **Characteristics:** Kopili fault zone and its neighbouring areas are characterised by alluvial soils. These alluvial soils have a higher potential of trapping seismic waves. Thus making the region the most earthquake-prone zone in North East India.
- Kopili fault zone has witnessed many seismic activities in the past. This includes the 1869 earthquake (7.8 Magnitude) and the 1943 earthquake (7.3 magnitude)

❖ **Global Forest Goals Report 2021**

(Source: The Hindu)

Why in News: The Department of Economic and Social Affairs of the United Nations has released the Global Forest Goals Report 2021.

Findings of the Global Forest Goals Report 2021:

- The report finds that the world is making progress in key areas such as increasing global forest area through afforestation and restoration. However, the Covid-19 pandemic has aggravated the challenges faced by countries in managing their forests.
- Forests have been a lifeline for millions of people during the pandemic. Some of the most vulnerable segments of society depend on forests for their most essential subsistence needs. This has increased pressures on forest systems.

Global Forest Goals Report 2021

- It is the first evaluation of the global status of implementing the United Nations Strategic Plan for Forests 2030.
- The report provides an overview of progress towards achieving the United Nations Strategic Plan for Forests 2030. The plan has six Global Forest Goals and 26 associated targets for forests.
- The report draws upon data from 52 voluntary national reports and 19 voluntary national contributions. Together they represent 75% of forests in the world.

United Nations Strategic Plan for Forests 2017-2030 (UNSPF)

- The first-ever UN Strategic Plan for Forests was adopted at a special session of the UN Forum on Forests held in 2017.

- The plan contains a set of six Global Forest Goals and 26 associated targets to be reached by 2030. All these are voluntary in nature and universally applicable.
- It also includes a target to increase forest area by 3% worldwide by 2030. This is an increase of 120 million hectares, an area over twice the size of France.
- The Six Global Forest Goals are:
 - Goal 1: Reverse the loss of forest cover worldwide. This is by adopting sustainable forest management, including protection, restoration, afforestation and reforestation.
 - Goal 2: Enhance forest-based economic, social and environmental benefits. This includes improving the livelihoods of forest-dependent people.
 - Goal 3: Increase significantly the area of protected forests worldwide and other areas of sustainably managed forests.
 - Goal 4: Mobilize significantly increased, new and additional financial resources from all sources. This is for the implementation of sustainable forest management and strengthening scientific and technical cooperation and partnerships.
 - Goal 5: Promote governance frameworks to implement sustainable forest management.
 - Goal 6: Enhance cooperation, coordination, coherence and synergies on forest-related issues at all levels.

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has released the Global Assessment Report on Biodiversity and Ecosystem Services. The report highlighted that one million species were at risk of extinction and 100 million hectares of tropical forest were lost from 1980-2000.