



Gig Workers

For Prelims: Gig Economy, Covid-19 pandemic, Code on Wages, 2019, Code on Social Security, 2020, Different Collar Jobs.

For Mains: Gig economy: meaning, uses, legislations, associated concerns and way forward.

Why in News

The surge in demand for [gig workers](#), particularly in the shared services and logistics segments, in the aftermath of the [Covid-19 pandemic](#) led to mushrooming of job discovery platforms.

Key Points

- **About Gig Economy:**
 - A gig economy is a **free market system** in which temporary positions are common and organisations contract with **independent workers for short-term engagements**.
 - According to a report by **Boston Consulting Group**, India's **gig workforce comprises 15 million** workers employed across industries such as software, shared services and professional services.
 - An estimated **56% of new employment** in India is being generated by the gig economy companies across both the blue-collar and white-collar workforce.

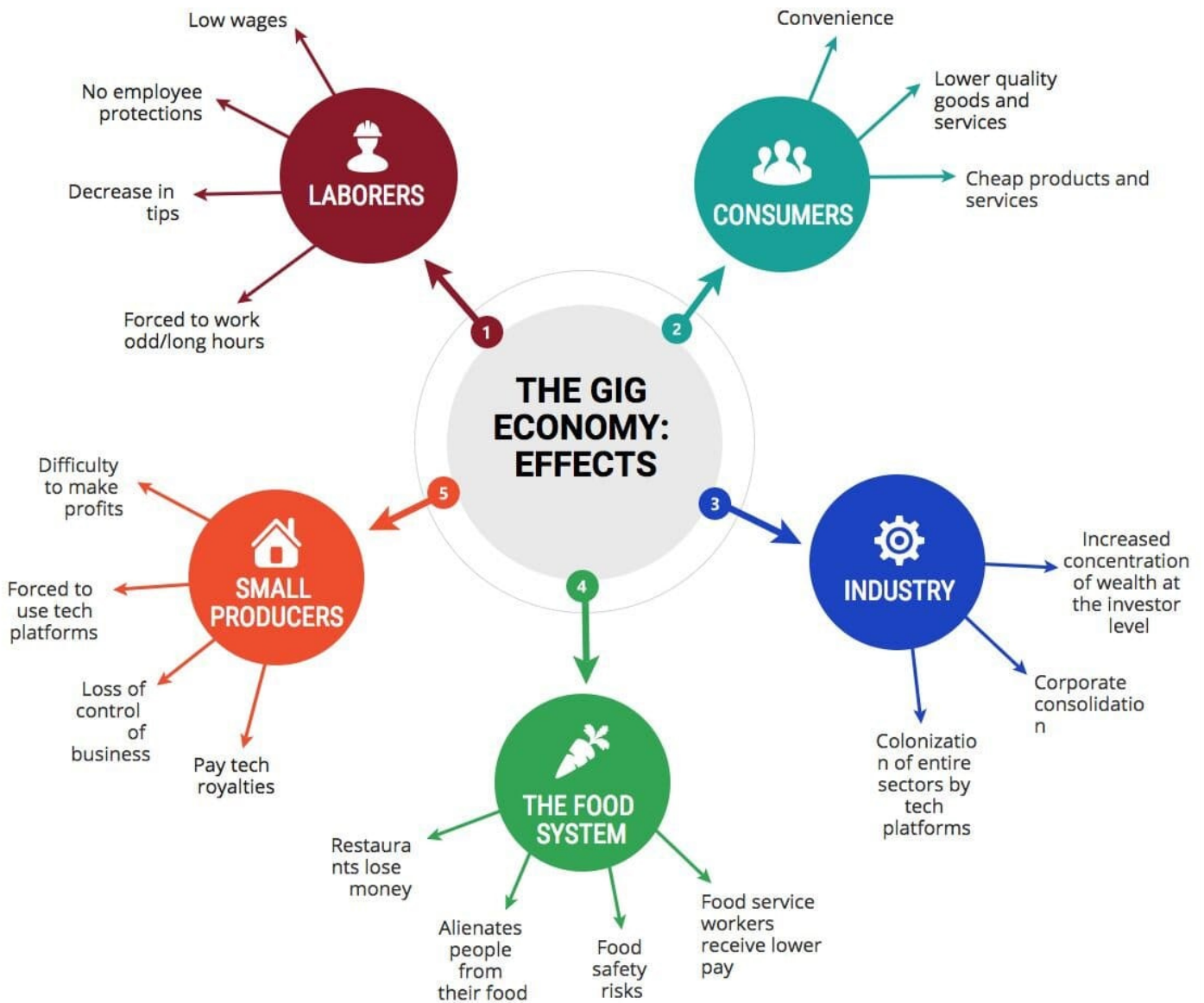
Different Collar Jobs

- **Blue-Collar Worker:** It is a member of the working class, who performs **manual labour and earns an hourly wage**.
- **White-Collar Worker:** It is a **salaried professional**, typically referring to general office workers and management.
- **Gold-Collar Worker:** It is used to refer to **highly-skilled knowledge people** who are highly valuable to the company. Example: Lawyers, doctors, research scientists, etc.
- **Grey-Collar Worker:** It refers to the **balance of employed people** not classified as white or blue-collar.
 - Although grey-collar is something used to describe those who work beyond the age of retirement. **Example:** Firefighters, police officers, health care professionals, Security Guards, etc.
- **Green-Collar Worker:** It is a worker who is **employed in the environmental sectors** of the economy.
 - **Example:** People working in alternative energy sources like solar panels, Greenpeace, World Wide Fund for nature, etc.
- **Pink-Collar Worker:** It is employed in a job that is traditionally considered to be **women's work** and is often low-paid.
- **Scarlet-Collar Worker:** It is a term often used to refer to people who **work in the pornography industry**, especially women entrepreneurs in the field of internet pornography.
- **Red-Collar Worker:** Government workers of all types.
- **Open-Collar Worker:** It is a worker who works from home, especially via the internet.

- **Reasons Gig Economy's Exponential Growth:**
 - In the **digital age**, the worker need not sit at a fixed location—the job can be done from anywhere, so employers can select the best talent available for a project without being bound by geography.
 - The **millennial generation** seems to have quite a different attitude to careers. They seek to do work that they want to do rather than have careers that may not satisfy their inner urges.
 - **Heightened migration** and readily available job training.
- **Associated Challenges:**
 - **Unregulated Nature:** The gig economy thrives largely unregulated, therefore workers have little job security and few benefits.
 - However, few argue that the gig economy in India with respect to workers not getting any social security, insurance, etc. is an extension of India's informal labour, which has been prevalent for a long time and has remained unregulated.
 - **Need for Skills:** A worker needs to be skilled enough. Unless a person is extremely talented, his bargaining power will necessarily be limited.
 - While companies routinely invest in training employees, a gig-economy worker will have to upgrade his skills on his own at his own cost.
 - **Demand-Supply Mismatch:** There are already many more potential online independent workers than jobs, and this demand-supply mismatch will only get worse over time, depressing wages.
- **Impact of Pandemic on Gig Economy:**
 - **Businesses got disrupted because of Covid-19** and these people were looking for an income source to sustain. This led to the pandemic-led boom in demand for gig workers.
 - For instance, in **August 2020**, Google announced the India launch of its **Kormo Jobs app** to connect job seekers with opportunities in industries like on-demand businesses, retail and hospitality.
 - However, as the number of gig workers has grown over the years, especially with consumer internet companies like Zomato, Swiggy, Uber, Ola, Urban Company, etc, the **workers have increasingly complained of a fall in their incomes.**
 - It has had two significant implications on the contractual labour ecosystem:
 - Firstly, it has **created new business models** to cater to the growing requirement for on-demand staffing.
 - Secondly, it has once again put the spotlight on the labour codes that recognise gig workers and provide for a **universal minimum wage.**

Labour Code for Gig Economy

- **Existing Legislation:**
 - The [Code on Wages, 2019](#), provides for universal minimum wage and floor wage across organised and unorganised sectors, including gig workers.
 - The [Code on Social Security, 2020](#), recognises gig workers as a new occupational category.
 - It **defines a gig worker** as a person who performs work or participates in work arrangement and earns from such activities, outside of the traditional employer-employee relationship.
- **Associated Issues in the Security Code:**
 - **No Guarantee of Benefits:** In the Code on **Social Security bill , 2020**, platform workers are now eligible for benefits like [maternity benefits](#), life and [disability cover](#), [old age protection](#), provident fund, employment injury benefits, etc.
 - However, eligibility does not mean that the benefits are guaranteed.
 - None of the provisions secure benefits, which means that from time to time, the Central government can formulate welfare schemes that cover these aspects of personal and work security, but they are not guaranteed.
 - **No Fixed Responsibility:** The Code states the provision of basic welfare measures as a joint responsibility of the Central government, platform aggregators, and workers.
 - However, it does not state which stakeholder is responsible for delivering what quantum of welfare.



Way Forward

- **Need For Clarity:** A categorical clarification could ensure that social security measures are provided to workers without compromising the touted qualities of platform work.
- **Joint Accountability:** There is a need for a socio-legal acknowledgement of the heterogeneity of work in the gig economy, and the ascription of joint accountability to the State and platform companies for the delivery of social services.
- **Concerted Efforts:** To mitigate operational breakdowns in providing welfare services, a tripartite effort by the State, companies, and workers to identify where workers fall on the spectrum of flexibility and dependence on platform companies is critical.

[Source: IE](#)

Consumer Protection (Direct Selling) Rules, 2021

For Prelims: Provisions of the Consumer Protection (Direct Selling) Rules, 2021, Companies Act, Limited Liability Partnership Act, 2008

For Mains: Provisions of Consumer Protection (Direct Selling) Rules, Role of the Consumer Protection (Direct Selling) Rules, 2021 in protecting the consumers rights

Why in News

Recently, the Centre has **notified Consumer Protection (Direct Selling) Rules, 2021** for the direct selling industry.

- It **prohibits promotion of pyramid schemes** and participation in **money circulation schemes**.
- It has been notified in exercise of the powers conferred by the **Consumer Protection Act, 2019**.
- Earlier, the government notified and made effective the provisions of the **Consumer Protection (E-Commerce) Rules, 2020** under the Consumer Protection Act, 2019.

Key Points

- **About:**
 - The rules **lay down duties and obligations** of both direct selling entities and their direct sellers to “safeguard the interest of consumers”.
 - The **existing direct selling companies** will need to ensure they comply with the rules within 90 days.
 - However the direct sellers as well as the **direct selling entities using e-commerce platforms** for sale shall comply with the requirements of the **Consumer Protection (e-Commerce) Rules, 2020**.
- **Applicability of the Rules:** It will **apply to:**
 - All **goods and services bought or sold through direct selling**.
 - All **models of direct selling**, all direct selling entities offering goods and services to consumers in India.
 - All forms of **unfair trade practises** across all models of direct selling.
 - To **direct selling entities which are not established in India**, but offers goods or services to consumers in India.
- **Major Provisions of the New Rules:**
 - **Mechanism to Monitor Activities:**
 - It directed **State governments to set up a mechanism to monitor or supervise the activities** of direct sellers and direct selling entities.
 - **Grievance Redressal Mechanism:**
 - Direct selling companies will **need to establish an adequate grievance redressal mechanism**.
 - Direct selling entities will have to **bear the liability in any action related to the authenticity** of such goods or services.
 - Every direct selling entity will have to **appoint a nodal officer** who shall be responsible for ensuring compliance with the provisions of the Act and the rules.
 - **Cannot Induce Consumers:**
 - Direct selling companies or their direct sellers **cannot persuade consumers to make a purchase based upon the representation** that they can reduce or recover the price by referring prospective customers to the direct sellers for similar purchases.
 - **Obligation upon Direct Selling Entities:**
 - **Incorporation Under Some Act:**
 - Incorporation under the **Companies Act 2013** or if a partnership firm, be registered under the **Partnership Act, 1932**, or if a limited liability partnership, be registered under the **Limited Liability Partnership Act, 2008**.

- **Have a Physical Location:**
 - A minimum of **one physical location** as its registered office within India will be necessary.
- **Self-declaration:**
 - Entities will have to **make self-declaration** to the effect that Direct Selling Entity has **complied with the provisions of the Direct Selling rules** and is not involved in any **Pyramid Scheme or money circulation scheme**.
- **Significance:**
 - These new rules would also **bring clarity in the marketplace** and would give **impetus to the direct selling industry**, which is already providing livelihood to over 70 lakh Indians, in which more than 50% are women.

Consumer Protection (e-Commerce) Rules, 2020

- **About:**
 - The Consumer Protection (E-commerce) Rules, 2020 are **mandatory and are not advisories**.
- **Applicability:**
 - Apply to all **e-commerce retailers**, whether registered in India or abroad, offering goods and services to Indian consumers.
- **Nodal officer:**
 - E-commerce entities need to appoint a nodal person, resident in India to ensure compliance with the provisions of the act or rules.
 - Prices and Expiry Dates:
 - The sellers through the e-commerce entities will have to display the total price of goods and services offered for sale along with the break-up of other charges.
 - Expiry date of the good needs to be separately displayed.

[Source: PIB](#)

Transition of Livestock Operations into Plant-based Operations

For Prelims: Livestock farming, Plant-based Operations.

For Mains: Significance of Plant-based Operations and what needs to be done for promoting this transition.

Why in News

There is a **revolution happening on farms** around the world where livestock operations are transitioning into plant-based operations and creating safer and better-paid jobs.

Key Points

- **About:**
 - **Livestock Farming:**

- It is simply the **management and breeding of domestic, livestock or farm animals** for the purpose of obtaining their meat and products (milk, eggs, leather, etc.).
- It can also be described as the **economic activity that involves raising domestic animals** for human consumption and obtaining meat, milk, wool, fur, honey, among others.
- **Issues with Livestock Farming:**
 - Animal farming has trapped many farmers in notoriously exploitative contracts, with poor working conditions, low income, high vulnerability to market forces and extreme stress.
- **Transition to Plant Based Operations:**
 - The idea of a Plant Based Operations (**just transition in agriculture**) refers to **frameworks for restructuring food systems based on production and consumption philosophies** that prioritize sustainability, decarbonization, and the wise and fair use of human, financial, and environmental resources.
 - Just transitions **favor farming techniques and practices that do not come from the standard playbook of industrial agriculture**, which extracts profit from the natural world while harming animals, farming communities, and the environment.
 - Contrary to what is often claimed, **transitioning to plant-rich diets** could help improve equitable food distribution and nutrition security. Growing crops only for human use may boost available food calories by up to 70%, serving an additional four billion people.
- **Significance of the Transition:**
 - **Provide Healthier & Safer work:**
 - **Industrialised livestock production** is a dangerous business that poses a serious threat to human health and psychological well-being.
 - The impact of injuries, illness and trauma affects the individual worker and has devastating effects on the families and communities in which they live.
 - **Example:** Emergence of New strains of [bird flu](#) and [swine flu](#) every year poses a major threat to human health.
 - **Climate-friendly Food Systems:**
 - A transition away from industrialised livestock production **empowers farmers to protect the climate** and the very land on which they work.
 - The livestock sector is projected to account for up to **81% of the 1.5 degrees Celsius emissions budget by 2050** if production continues unabated.
 - **Livestock production exacerbates climate change** but a rise in global temperatures is equally damaging for livestock production, posing a major threat to farmers' livelihoods.
 - Further, **climate change increases the emergence of livestock diseases**, reduces animal reproduction and exacerbates biodiversity loss.
 - **Enormous Job-Creation Potential:**
 - According to the [International Labour Organisation](#), transitioning to environmentally and socially sustainable economies can **drive job creation, create better jobs, increase social justice and reduce poverty**.
 - It is estimated that a just [energy transition](#) will create **24-25 million jobs**, far surpassing the 6 or 7 million jobs lost by 2030. Similar benefits will be seen in a just livestock transition.
- **Related Example:**
 - **Denmark has recently announced** a binding decision to halve agricultural emissions by 2030 as a part of their ambition to reach **70% greenhouse gas reductions by 2030**.
 - The government will make USD 90 million available for five years to farmers producing plant-based foods and has committed to creating an annual fund of USD11.7 million until 2030 to support the transition to plant-based food.
- **Challenges:**
 - Lack of technology access and investment in farming, lack of awareness of the benefits of transition to emission reduction, lack of institutional support for diversification within the food sector, lack of compensation payouts for losses, lack of guaranteed income streams, young people moving away from agriculture.

- Furthermore, there is a **lack of financial incentives for farmers**, especially rural smallholders, to adopt sustainable and regenerative agricultural practices, as they cannot bear the associated costs and risks on their own.
- **State of India's Livestock:**
 - India is the **highest livestock owner of the world**. As per the [20th Livestock Census \(2018\)](#), the total Livestock population is 535.78 million in the country showing an increase of 4.6% over Livestock Census-2012.
 - As per the [Economic Survey-2021](#), the contribution of Livestock in total agriculture and allied sector [Gross Value Added](#) (at Constant Prices) has increased from 24.32% (2014-15) to 28.63% (2018-19).
- **Plant Based Operations in India:**
 - A slew of Indian startups are making **meat-eating which is cruelty-free and more eco-friendly**.
 - Plant-based meats or smart proteins are next-generation food innovation that perfectly replicates the taste, smell, and sizzle of animal meat but is made entirely from plant ingredients.
 - Recently, a team of scientists from IIT Delhi has won an innovation contest (Innovate 4 SDG) organised by the United Nation Development Programme (UNDP) Accelerator Lab India for their innovation of a [“plant based mock egg”](#).

Way Forward

- The **science and socioeconomic data clearly indicates** that business as usual is no longer an option. To enable a just livestock transition, ambitious political action is required at all levels.
- Furthermore, such measures should also be **complemented by policies aimed at increasing plant-based food consumption** to prevent emissions leakage and to enable an overall transition to more sustainable food production and consumption.

[Source: DTE](#)

Flex Fuel Vehicles

For Prelims: Flex Fuel Vehicles (FFV) , Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV), BS-6 Norms, Production Linked Incentive (PLI) scheme.

For Mains: Flex Fuel Vehicles: Significance and its usage, Green model of development.

Why in News

Recently, the Government has advised the **Automobile Manufacturers in India**, to start manufacturing **Flex Fuel Vehicles (FFV) and Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV)** complying with [BS-6 Norms](#) in a time bound manner.

Key Points

- **About FFV and FFV-SHEV:**
 - **Flex-fuel vehicles (FFV):** They have engines that can run on flexible fuel — a combination of petrol and ethanol, which can include up to [100% ethanol](#).
 - **Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV):** When FFV is integrated along with strong **hybrid electric technology**, it is referred as FFV-SHEVs.

- **Strong hybrid** is another term for full hybrid vehicles, which have the capability to run solely on **either electric or petrol modes**.
- In contrast, **mild hybrids** cannot run purely on one of these modes and use the secondary mode merely as a supplement to the main mode of propulsion.
- In order to accelerate the introduction of FFVs, the [Production Linked Incentive \(PLI\) scheme](#) has included automobile and auto components of flex fuel engines.
- **Significance of the Move:**
 - **Easing Pressure on Import Bill:** The policy is expected to **reduce the demand for petroleum products**.
 - India presently **imports more than 80%** of its petroleum requirement, and this also represents one of the biggest outflows of money from the country.
 - **Benefiting Farmers:** The wide uptake of ethanol or methanol as a fuel is intended to create an **additional revenue stream for farmers**.
 - This will provide direct benefits to farmers and help in doubling the farmer's income.
 - **Boost to Atma Nirbhar Bharat:** It is in line with Prime Minister's vision of [Atma Nirbhar Bharat](#) and government's policy on promoting ethanol as a transport fuel.
 - **Reducing Greenhouse Gas & Tackling Climate Change:** This move will drastically reduce greenhouse gas emissions from vehicles on a well-to-wheel basis.
 - Thereby, helping India to comply with its commitment made at [Conference of parties \(COP26\)](#) to reduce the total projected carbon emissions by one billion tonnes by 2030.
- **Related Government Initiatives:**
 - [National Policy on Biofuels-2018](#)
 - [E100 Project](#).
 - [Pradhan Mantri JI-VAN Yojana, 2019](#)
 - [GOBAR \(Galvanising Organic Bio-Agro Resources\) DHAN Scheme, 2018](#)
 - [Repurpose Used Cooking Oil \(RUCO\)](#)

6 THINGS TO KNOW ABOUT ETHANOL AND FLEX FUEL

- 1 Flex fuel vehicles can run on both petrol and ethanol
- 2 India is aiming to achieve E10 by 2022 and E20 (which would involve a 20% ethanol blend) by 2025
- 3 At present there are no flex-fuel-powered engines or vehicles with the exception of a limited-edition TVS Apache RTR motorcycle
- 4 Ethanol is hygroscopic, and has a tendency to absorb moisture making it difficult to store in pure form. Its affinity to attract moisture can also lead to impurities settling at the base of the fuel tank and contaminating the engine
- 5 At present E10 isn't available across the country, and will be made so by 2022
- 6 According to the government, all vehicles manufactured since 2008 are E10 compatible (but not optimised). E100 ethanol will be sold at a lower price from ethanol pumps

BS-VI Fuel Norms:

- The Bharat Stage (BS) are **emission standards instituted by the Government of India** to

regulate the output of air pollutants from motor vehicles.

- India **directly shifted from BS-IV to BS-VI norms**. The switch to BS-VI vehicles was to happen in 2022 but looking at the poor air condition, the move was advanced by four years.
- In BS-VI fuel, the volume of [Particulate Matter 2.5](#) ranges from 20 to 40 micrograms per cubic metre whereas in BS-IV fuel it is up to 120 micrograms per cubic metre.
- BS-VI fuel **will bring down sulphur content by 5 times** from the current BS-IV levels. It has 10 ppm of sulphur as against 50 ppm in BS-IV.
 - Sulphur in the fuel contributes to fine particulate matter emissions. High sulphur content in the fuel also leads to corrosion and wear of the automobile engine.
- With BS-VI fuel, for every one kilometre, **a car will emit 80% less particulate matter** and nearly 70% less nitrogen oxide.
- [Air pollutants](#) in BS-VI fuel are much less as compared to BS-IV fuel.
- BS-VI norms also **seek to reduce the level of certain harmful hydrocarbons** in the emissions that are produced due to incomplete combustion of fuel.

[Source: PIB](#)

Nuclear Submarine Alliance: AUKUS

For Prelims: AUKUS, QUAD, NATO, South China Sea, Nuclear Submarines.

For Mains: AUKUS Alliance, its impact on Indo-Pacific and QUAD grouping, its implications for India.

Why in News

Recently, **Australia, the US and the UK** signed an agreement allowing the exchange of sensitive **“naval nuclear propulsion information”** between their nations.

- It is the first agreement on the technology to be publicly signed since the three countries announced the formation of a **defence alliance, AUKUS**, to confront strategic tensions in the Pacific where China-US rivalry is growing.
- Under the AUKUS deal, Australia would obtain **eight state-of-the-art, nuclear-powered but conventionally armed submarines** capable of stealthy, long-range missions.

AUKUS

- **About:**
 - In September 2021, the US announced a new trilateral security partnership for the [Indo-Pacific](#), between **Australia, the UK and the US (AUKUS)**.
 - The major highlight of this arrangement is the sharing of US nuclear submarine technology to Australia.
 - Its Indo-pacific orientation **makes it an alliance against China’s assertive actions in the South China Sea**.
 - It will involve **a new architecture of meetings and engagements between the three countries**, as well as cooperation across emerging technologies ([applied AI, quantum technologies and undersea capabilities](#)).
- **Impact on Indo-Pacific Realm/QUAD:**
 - There is concern that AUKUS **could leave a deep scar on US-EU relations and the**

[North Atlantic Treaty Organisation \(NATO\)](#), and weaken the international coalition in the Indo-Pacific.

- NATO was established by the North Atlantic Treaty (also called the Washington Treaty) of 4th April, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.
- NATO's primary goals are the collective defence of its members and the maintenance of a democratic peace in the North Atlantic area.
- France had cancelled a scheduled meeting of the foreign ministers of Australia, France, and India at [the UN](#).
 - In the last couple of years, the trilateral has become an important element in the emerging Indo-Pacific architecture. But the cancellation of the meeting is a blow to the trilateral engagement.
- It is not clear whether **the QUAD and AUKUS will reinforce each other** or remain mutually exclusive.
 - There are some beliefs that the “Anglosphere nations” — which share common cultural and historical ties to the UK — inspire more confidence in each other.
 - **QUAD is a grouping of India, USA, Australia and Japan** which aims to safeguard the interests of democratic nations in the Indo-Pacific region and address global challenges.

▪ **Implications for India:**

- India has stated that the **new partnership is neither relevant to the Quad, nor will it have any impact on its functioning.**
- Despite indifference towards AUKUS, India **may derive secondary benefits from the AUKUS arrangement** having three advanced nations with arguably the most sophisticated military power in the world coming together to support a free and open Indo-Pacific in the light of the increasingly assertive attitude of China in the region. This could provide **some degree of deterrence to China.**
- Also, India's concerns regarding 'encirclement' by China **may be partially mitigated by AUKUS.**
 - China has made **massive inroads in India's neighbourhood** in terms of infrastructure development projects and presence.
- There is apprehension, the deal may eventually lead to crowding of nuclear attack submarines (SSNs/submersible ship nuclear) in the **Eastern Indian Ocean, eroding India's regional pre-eminence.**

Defence pact to counter China

The U.S., UK and Australia have launched AUKUS – a new Indo-Pacific defence alliance to counter China's influence. The pact will enable Australia to build nuclear-powered submarines

Pacific region security treaties



■ **AUKUS: Australia-UK-U.S.**
Pact scuppers \$40 billion deal with France to build diesel-powered submarines

Australia will receive Tomahawk Cruise Missiles, AGM-158 JASSM standoff air-launched cruise missiles and anti-ship missiles

Countries to collaborate in cyber, quantum technologies and artificial intelligence



■ **ANZUS Treaty: Australia-New Zealand-U.S.**

Treaty to protect security of Pacific emerged in 1951 during Cold War

■ **QUAD: U.S., Japan-Australia-India.** Quadrilateral Security Dialogue established in 2007 to contain China's territorial claims in Indo-Pacific



■ **Five-Eyes: U.S.-UK-Canada-Australia-New Zealand**
Cold War-era anti-Soviet intelligence-sharing partnership. Four members oppose China's vow to "take back" Taiwan by 2049 – New Zealand has opted out of confronting China, its largest trading partner



Way Forward

- While the warming of the Indo-US relationship brings comfort to Indians, **India should beware of hyperbole, obscuring reality, in the bilateral discourse.**
 - American offers of help "to make India a great power" and declarations that "two of the world's great democracies should also have the world's two greatest militaries," must be taken with a generous pinch of salt.
- We need all the technologies being offered to Australia, in addition to "know-how" and "know-why"

of much else, including stealth fighters, jet engines, advanced radars and nuclear propulsion for submarines as well as aircraft-carriers.

- As India discovers that every European nation, from tiny Luxembourg to a rising Poland, has something to offer, Europe has become a thriving hub of India's international relations.
 - The last few years have seen an intensification of India's strategic engagement with France. For example, the government has overcome the earlier reluctance in Delhi to work with France on Indian Ocean security.
- One is to remind France, Australia, the UK and US of the shared interests in securing the Indo-Pacific and the dangers of letting the current quarrel undermine that larger goal.

[Source: TH](#)

Honey Farmer Producer Organisations: TRIFED

For Prelims: Sweet Revolution, Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs), TRIFED.

For Mains: Beekeeping in India and related initiatives.

Why in News

Recently, the Ministry of Tribal Affairs has launched 14 [Honey Farmer Producer Organizations \(FPOs\) of TRIFED \(Tribal Cooperative Marketing Development Federation of India\)](#) along with various other initiatives such as The TRIFED Van Dhan Chronicle, The MIS Portal for Minimum Support Price for Minor Forest Produces etc.

- The **TRIFED Van Dhan Chronicle** documents the work done for the promotion of tribal enterprises in the country and the achievements of tribal entrepreneurs under the [Van Dhan Vikas Yojana](#).
- The **MIS Portal for Minimum Support Price for [Minor Forest Produces](#)** (MFPs), is a ready dashboard for the authorised users of The Ministry of Tribal Affairs and TRIFED. In this dashboard, data is available on a real-time basis, pertaining to the list of procurement centres and their locations, and the procurement of MFPs being done across the country.

Key Points

- **About:**
 - A [central sector scheme](#) titled "Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs)" was launched in 2020 to ensure economies of scale for farmers over the next five years.
 - Under this scheme, **special emphasis has been laid on beekeeping by the formation of 100 FPOs** in identified potential Districts/States.
 - Beekeeping activity has been recognized as one of the important activities by Govt of India for its promotion and development to achieve ["Sweet Revolution"](#) in the endeavour of enhancing income of farmers.
 - The **National Bee Board (NBB)**, under the **National Beekeeping & Honey Mission (NHBM)**, has planned to develop the scientific bee-keeping value chain for honey across 100 clusters in the country.
 - **TRIFED has been made the implementing agency by Ministry of Agriculture to undertake the formation of 14 Honey FPOs alongside**

NAFED (National Agricultural Cooperative Marketing Federation of India Ltd) and **NDDB** (National Dairy Development Board) in the states of Chhattisgarh, Himachal Pradesh, Uttarakhand, Tamil Nadu, Karnataka, Andhra Pradesh, Odisha and Gujarat.

▪ **Benefits:**

- **Skill Upgradation** in scientific beekeeping.
- **State of the art infrastructural facilities** for processing honey and allied beekeeping products like bee's wax, propolis, royal jelly, bee venom, etc.
- Quality upgradation by **quality control laboratories**.
- Better **supply chain management** by improving collection, storage, bottling and marketing centres.
- Promotion and Formation of FPOs is the first step for converting Krishi into Atma Nirbhar Krishi.

▪ **Other Efforts by Government to Promote Beekeeping:**

- Government is promoting beekeeping as part of its aim **to double farmers' income and ensure tribal upliftment**.
- The Government has allocated Rs. 500 crore towards beekeeping under the [Atmanirbhar Abhiyan](#).
- **Apiary on Wheels:** It is a unique concept designed by the [Khadi and Village Industries Commission \(KVIC\)](#) for the easy upkeep and migration of Bee Boxes having live Bee colonies.
- The National Bee Board has created four modules to impart training as part of the **NBHM (National Beekeeping & Honey Mission - central sector scheme)**.
 - Under it, 30 lakh farmers have been trained in beekeeping and are also being financially supported by the Government.
 - Mini Mission 1, Mini Mission 2 and Mini Mission 3 are schemes under the mission.
- The Government launched NBHM as part of '**Sweet Revolution**'.
 - The 'Sweet Revolution' was launched in 2016-17 to promote beekeeping and associated activities.

[Source: PIB](#)

Star Rating Protocol of Garbage Free Cities

For Prelims: Swachh Bharat Mission, Swachhta Survekshan, Solid Waste Management, Garbage Free Cities.

For Mains: Star rating protocol in Improving Cleanliness and its significance, Garbage in India.

Why in News

On the eve of [Good Governance Day](#) (25th December), the Ministry of Housing and Urban Affairs (MoHUA) launched the '**Star Rating Protocol of Garbage Free Cities- Toolkit 2022**.'

- It is the most important governance tool of waste management – the **Star Rating Protocol for Garbage Free Cities**.
- In the revised protocol the **entire process of applying for certification has been simplified** and made completely digital, paperless.
- And **new components** pertaining to Information, Education & Communication (IEC) , capacity building, revenue from sale of waste by-products **have been added** to encourage cities to build an ecosystem **to strengthen waste management systems**.

Key Points

▪ About:

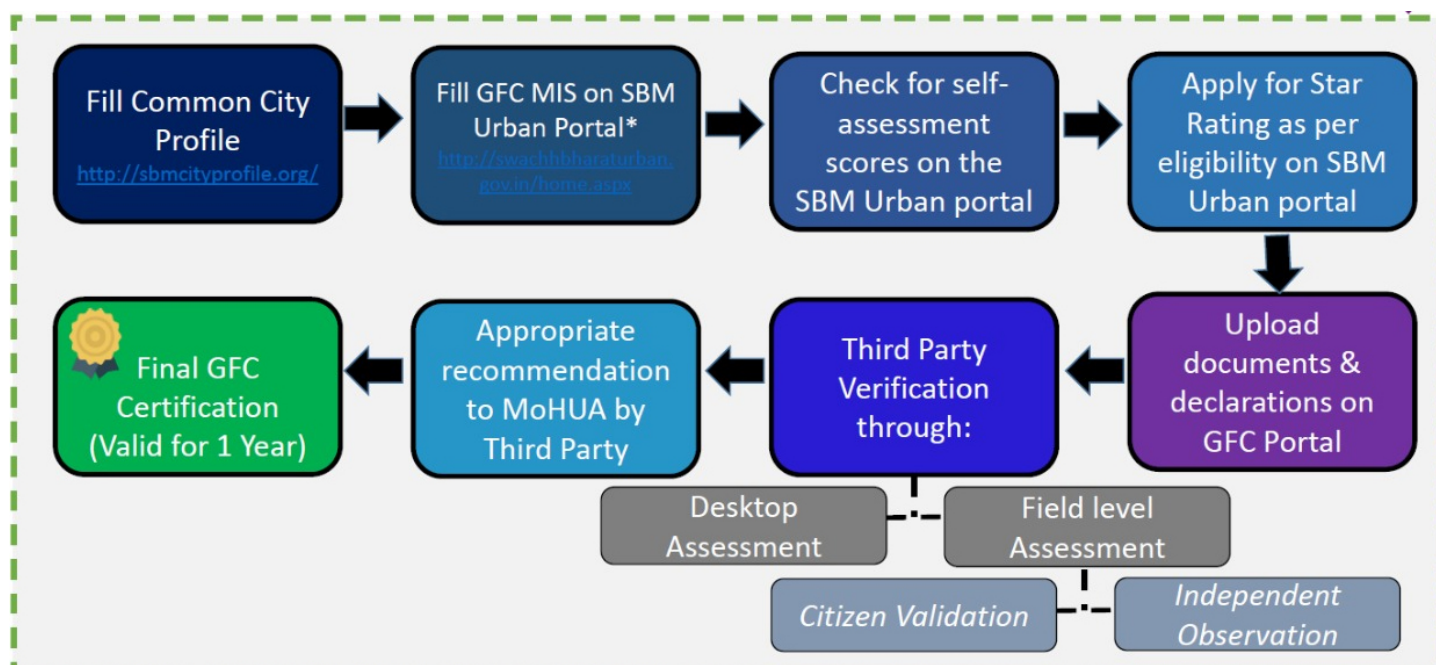
- The Star Rating Protocol was launched by the MoHUA in **2018** to **institutionalise a mechanism for cities to achieve Garbage Free status**, and to motivate cities to **achieve higher degrees of sustainable cleanliness**.
- In the recently concluded certification exercise for Garbage Free Cities nearly 50% of **ULBs(Urban Local Bodies) (2,238 cities)** participated in the certification exercise, of which a total of 299 cities have been certified.
 - 9 cities have been rated as **5-star**, 143 cities rated as **3-star** and 147 cities as **1-star**.
 - In October 2021, **Swachh Bharat Mission-Urban 2.0** was launched, to create **“Garbage Free Cities” (GFC)**, thereby placing India on a new trajectory of growth towards an ecosystem of holistic sanitation and waste management.
- It is one of the various initiatives which intends to make **Swachh Bharat Mission-Urban (SBM-U)** a successful project.

▪ Based On:

- It is based on 12 parameters which follow a **SMART framework - Single metric, Measurable, Achievable, Rigorous verification mechanism and Targeted towards outcomes**.
 - The star rating conditions have been designed in a way to enable **cities to gradually evolve into a model (7-star) city**, with progressive improvements in their overall cleanliness.
- It is a comprehensive framework that assesses cities across 23 different components of **Solid Waste Management (SWM)** and is graded based on overall marks received.

▪ Procedure:

- The Star Rating is supported by self-assessment and self-verification for achieving a certain star rating. It also **ensures the involvement of citizen groups for a transparent system of self-declaration**.
- Further, the self-declaration is further verified through an independent third party agency appointed by MoHUA.



▪ Significance:

- The performance of cities under the Star Rating Protocol is **crucial as it carries significant weightage for their final assessment in Swachh Survekshan**.
 - Swachh Survekshan is the **annual urban cleanliness survey** conducted by the government.
- It also ensures **certain minimum standards of sanitation** through a set of prerequisites

defined in the framework.

- Since the rating is conducted at a city level, it **makes the process easier to implement and helps the cities incrementally improve** their overall cleanliness.
- The rating protocol is **an outcome-based tool that helps MoHUA and other stakeholders to evaluate cities** on the basis of this single rating.

Garbage in India

▪ About:

- India generates the **highest amount of waste** in the world (as of January 2020, 147,613 metric tonnes (MT) of solid waste is generated per day) — that's more than even China. But the **per person waste generated by both India and China** at present is a small fraction of that by developed countries.
- The per capita waste generation in Indian cities ranges from 200 grams to 600 grams per day. Only **about 75-80% of the municipal waste gets collected** and only **22-28 % of this waste is processed** and treated.
- It is estimated that by 2050, India's waste generation **will double** whereas growth in China's waste generation will be much slower.

▪ Related Initiatives:

- [Open Defecation Free \(ODF\) Plus status.](#)
- [Swachh Bharat Mission.](#)
- [Solid Waste Management \(SWM\) Rules 2016.](#)
- [CSIR-CMERI's Municipal Solid Waste Processing Facility.](#)

[Source: PIB](#)

Apatani Textile Product

Why in News

Recently, an application seeking [Geographical Indication \(GI\) tag](#) for the Arunachal Pradesh **Apatani textile product** has been filed by a firm.



Key Points

▪ About:

- The Apatani weave comes from the [Apatani tribe](#) of **Arunachal Pradesh** living at Ziro, the headquarters of lower **Subansiri district**.
 - The Apatani community weaves its own textiles for various occasions, including rituals and cultural festivals.
- The woven fabric of this tribe is known for its **geometric and zigzag patterns** and also for its **angular designs**.
 - The tribe predominantly weaves shawls known as **jig-jiro and jilan** or jackets called **supuntarii**.
- The people here use different **leaves and plant resources for organic dyeing** the cotton yarns in their traditional ways.
 - **Only women folk** are engaged in weaving.
- The **traditional handloom** of this tribe is a type of **loin loom**, which is called Chichin, and is similar to the traditional handloom of the [Nyishi tribe](#).
 - It is portable, easy to install and operated by a single weaver, especially the female members of the community.

▪ Apatani Tribes:

- Apatani are a **tribal group of people living in the Ziro valley** in Arunachal Pradesh.
- They speak a **local language called Tani** and **worship the sun and the moon**.
- They follow a **sustainable social forestry system**.
- They celebrate major festivals - **Dree** with prayers for a bumper harvest and prosperity of all humankind and **Myoko** to celebrate Friendship.
- The Apatanis practice aquaculture along with rice farming on their plots.
 - **Rice-fish culture** in the valley is a unique practice in the state, where two crops of rice (Mipyra and Emoh) and one crop of fish (Ngihi) are raised together.
- It is a [scheduled tribe](#) in Arunachal Pradesh.

Present GI Products from Arunachal Pradesh

- Arunachal Orange (Agricultural)
- Idu Mishmi Textiles (Handicraft)

Tribes of Arunachal Pradesh

- The tribes of Arunachal Pradesh include: Abor, Aka, Dafla, Galong, Khampti, Khowa, Mishmi, Monpa, Momba, Any Naga tribes, Sherdukpen, Singpho.

Geographical Indication (GI) Tag

▪ About:

- A **Geographical Indication (GI)** is a sign used on products that have a **specific geographical origin and possess qualities or a reputation that are due to that origin**. In order to function as a GI, a sign must identify a product as originating in a given place.
- It is used for **agricultural, natural and manufactured goods**.

▪ International Protection for GI:

- Internationally GI are covered as a **component of [Intellectual Property Rights \(IPRs\)](#)** under the **Paris Convention** for the Protection of Industrial Property.
 - The **Paris Convention, adopted in 1883**, applies to industrial property in the widest sense, including patents, trademarks, industrial designs, utility models, service marks, trade names, geographical indications and the repression of unfair competition.
- GI is also governed by the **[World Trade Organisation's \(WTO's\)](#) Agreement on [Trade-Related Aspects of Intellectual Property Rights \(TRIPS\)](#)**.

▪ GI Protection in India:

- India, as a member of the World Trade Organisation (WTO), enacted the **Geographical Indications of Goods (Registration & Protection) Act, 1999** which came into force with effect from 2003.
 - The Act provides registration and also protection of GI goods in India.
 - This Act is administered by the Controller General of Patents, Designs, and Trademarks, who is also the Registrar of Geographical Indications.
- The **Geographical Indications Registry for India is located in Chennai**.
- The registration of a geographical indication is **valid for a period of 10 years**. It can be renewed from time to time for a further period of 10 years each.
- Some of the examples of Geographical Indications in India include **basmati rice, Darjeeling tea, Kancheepuram silk saree, Nagpur orange and Kolhapuri chappal**.

▪ Benefit of GI tag:

- Once the GI protection is granted, **no other producer can misuse the name to market similar products**. It also provides **comfort to customers** about the authenticity of that product.
- Having a GI tag for a product **prevents unauthorised use of a registered Geographical Indication** by others, **boosts exports of Indian Geographical indications** by providing legal protection and also enables **seeking legal protection in other WTO member countries**.

[Source: TH](#)

Extreme Cold Weather Clothing System

Why in News

Recently, [DRDO \(Defence Research and Development Organisation\)](#) has handed over a Technology for indigenous **Extreme Cold Weather Clothing System (ECWCS)** to five Indian companies.

- Earlier, DRDO successfully conducted maiden flight test of a new indigenously developed surface-to-surface missile '[Pralay](#)'.

Key Points

▪ About:

- It is an **ergonomically designed modular technical clothing** with improved thermal insulation and physiological comfort based on the insulation required at **various ambient climatic conditions in Himalayan regions** during different levels of physical activity.
- The ECWCS embodies physiological concepts related to **the reduction in respiratory heat and water loss, unhindered range of motions and rapid absorption of sweat** while providing waterproof, windproof features with adequate breathability and enhanced insulation as well as strength features required for high altitude operations.
- It is designed **to suitably provide thermal insulation over a temperature range of +15 to -50 degrees Celsius** with different combinations of layers and intensity of physical work.

▪ Significance:

- It is **required by the Indian Army for its sustained operations in glacier and Himalayan peaks**. The Army, till recently has been importing extreme cold weather clothing and several Special Clothing and Mountaineering Equipment (SCME) items for the troops deployed in high altitude regions.
- It provides **an advantage of fewer combinations to meet the required insulation** for the prevailing climatic conditions, thereby providing a viable import alternative for the Indian Army.

Defence Research and Development Organisation

- DRDO was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- It works under the **administrative control of the Ministry of Defence** with the aim to establish **a world class science and technology base for India and provides our Defence Services decisive edge** by equipping them with internationally competitive systems and solutions.

[Source: HT](#)