



YOJANA AND KURUKSHETRA

Webinar Handout

CONTENT

YOJANA (OCTOBER 2021) AND KURUKSHETRA (SEPTEMBER 2021)

01	Redefining Science Communication	02-04
02	Drone Policy	05-07
03	Nutrition and Vaccination	08-13
04	Effective Marketing through Rural Collectives and Rural Marketing Infrastructure	14-18
05	Panchayati Raj - Present Status and Future Prospects	19-22



1. Redefining Science Communication

Context: Covid 19 has brought back the necessity to keep up with science and technology through a two-way communication channel between the society (at the receiving end) and the scientific community (at the giving end).

Evolution of Science Communication in India:

- **Historical Scientific research:** Research in fields of mathematics, astronomy, medicine, and material science has been carried out in Indian land since ancient times.
- **Pre Independence Efforts: Vigyan (Science), a monthly science magazine in Hindi** was published by **Vigyan Parishad (a learned society of scientists and academics)** in 1915.
- **Post Independence Efforts:**
 - The first Prime Minister of India, Pandit Jawaharlal Nehru, introduced the concept of **modern 'scientific temper'**.
 - Post Independence, several government agencies and non-governmental organizations (NGOs) became involved in science popularisation.
 - **The National Institute of Science Communication (NISCOM)** began publishing the Hindi popular science journal **Vigyan Pragati (Progress in Science)** in 1952.
 - **The Science Reporter (an English monthly)** and **Science Ki Duniya (an Urdu quarterly)** were also started.
 - In 1980, science communication found its prominence in **India's sixth Five Year Plan**.

Mains Paper

General Studies 2

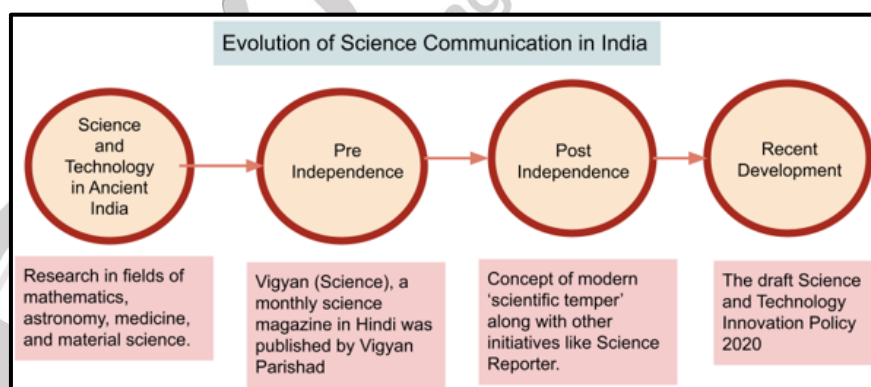
Syllabus:

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation

General Studies 3

Syllabus:

- Science and Technology-developments and their applications and effects in everyday life
Achievements of Indians in science & technology;



- Later on, the **National Council for Science and Technology Communication (NCSTC)** was established.
 - The mandate of the Council is to **integrate, coordinate, catalyze and support science communication and popularisation**, at the micro as well as macro level.
 - NCSTC's programs include **training in science and technology communication, software development, research, field-based projects, and creating information networks and databases**.
- Other government efforts include setting up of **Vigyan Prasar in 1989**, which is an autonomous organization of the Department of Science and Technology and **mandated with an important role of coordinating efforts among various scientific institutions, educational and academic bodies**.
- **The draft Science and Technology Innovation Policy 2020:** Also emphasizes science communication in Indian languages with local and hyper-local contexts for last-mile connectivity.

What is Science Communication?

- Science communication includes a variety of practices that promote **scientific ideas, methods, knowledge, and research to non-expert audiences in an accessible, understandable or useful manner.**
- It includes **research, critiques, and debates** on models of science communication practiced by the scientific community.

Constitutional Mandate for Science Communication: The constitution of India under Article 51A has a special provision “to develop the scientific temper, humanism, and spirit of inquiry”.

Advantages of Science Communication:

- **Public Awareness:** Science communication helps in raising public awareness of science, which in turn increases enjoyment and interest in science, technology, and engineering. This increases **public understanding or opinion of scientific endeavors.**
- **Piquing Interests:** Apart from inspiring and informing, science communication also piques the interests of young people helping the community to understand the significance of science.
- **Developing Scientific Temper:** It is in line with the constitutional values, hence would help people understand and fulfill their fundamental duties.
- **Expansion of Research Base:** It helps the scientists to build on existing knowledge and expand and innovate the research base.
- **Academic Career:** It would help the budding researchers and youth build academic careers by leveraging science-related information.

Channels for Science Communication:

- **Electronic Media:**
 - Vigyan Prasar has been utilizing the medium of audiovisual technology for transmitting scientific information.
 - Recently, in 2020, it has launched critical initiatives such as **DD-Science** and DD-India for telecasting science-related information to the public.
- **Popularising Science in Indian Languages:**
 - Vigyan Prasar, through its **Vigyan Bhasha**, has been expanding science communication through various Indian languages.
 - The program includes monthly newsletters, magazines, and social media initiatives.
- **Facilitating the News World:** The news services through Indian Science Wire and Indian Science News have been highlighting the success of science and technology in India.
- **Science in Print and Publishing:** Vigyan Prasar brings out publications in both Hindi and English, along with other Indian languages to propagate science and technological advancements.
- **Science Film Festivals:** Films are being used as an important tool for promoting scientific temper among communities. Various initiatives such as organizing the International Science Film Festival of India and the National Science Film Festival of India are being taken up.
- **Science, Communication, Popularisation, and Extension (SCOPE) by Vigyan Prasar:**
 - **Radio:** Since 2008, Vigyan Prasar has been actively engaged in promoting science and technology through radio. Since 2018, it has produced programs in 19 languages from more than 117 All India Radio stations across India.
 - **Network Clubs:** The creation of a network of science clubs in schools has also been taken up to inculcate interest in science right from the school level.
 - **Research:** The project by Vigyan Prasar called **Augmenting Writing Skills for Articulating Research (AWSAR)** encourages science scholars to write and publish more and more research papers.
 - **Students:** An initiative called **Vidyarthi Vigyan Manthan** is in operation which focuses on school-going children and is about educating them regarding India's legacy in science and technology.
- **Engage with Science:** It is an interactive platform targeting school teachers and students with the goal of making science learning and teaching a lot more fun.

Conclusion:

Until Covid, science and technology-related information were considered dry and drab for most people. However, this period has thrown across a golden opportunity to revive science communication since both the 'receivers' and the 'providers' are active and aware of its importance in the present world.

Q1. Which of the following statements best describe the term 'Science Communication'?

- (a) Science Communication is a process of putting across scientific information at the international level only, by various intergovernmental scientific institutions and organizations to promote innovation.
- (b) Science Communication is a one-way communication channel in which the government motivates the youth to take up science courses at the university level
- (c) Science communication includes a set of practices that promote scientific ideas, methods, knowledge, and research to non-expert audiences in an accessible, understandable or useful manner.
- (d) Science communication is an interactive platform for pooling in all the scientific achievements and advancements across the world for utilizing it in research and development.

Answer: (c)

Explanation:

- Science communication includes a variety of practices that promote scientific ideas, methods, knowledge, and research to non-expert audiences in an accessible, understandable or useful manner.
- It includes research, critiques, and debates on models of science communication practiced by the scientific community.

Option a is incorrect: Science communication is not limited to the international level only.

Option b is incorrect: Science communication is no more restricted to being a one-way communication process. It has become a two-way process.

Option c is correct: It is the correct definition of science communication, hence it is correct.

Option d is incorrect: It is a communication process, not any interactive platform.

Q2. The Covid-19 has changed the way 'science communication' is being perceived. In this context, explain the evolution of 'science communication' in India. Also, discuss the ways of science communication along with its advantages.

(15 Marks, 250 Words)

2. Drone Policy

Context: The government has recently released a new and liberal drone policy to encourage scientific spirit and innovation in the country.

Mains Paper

General Studies 2

Syllabus:

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation

General Studies 3

Syllabus:

- Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.
- **Science and Technology-** developments and their applications and effects in everyday life Achievements of Indians in science & technology;
- Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Drones in India:

- India has been using drones since the **1990s for military purposes.**
- The first drones in India were **imported from Israel for usage in active combat.**
- Since then, the **Defence Research and Development Organisation (DRDO)** has been successfully and indigenously developing drones that have been **deployed by the three wings of the India Armed Forces.**

About Drones:

- The term **“drone”** usually refers to any unpowered aircraft.
- Sometimes referred to as **“Unmanned Aerial Vehicles” (UAVs)**, these crafts can carry out an impressive range of tasks, ranging from military operations to package delivery.
- Drones can be as large as an aircraft or as small as the palm of your hand.



Figure: A man Flying Drone

Source: Builtin.com

New Drone Rules, 2021:

- **Essence of the Rules:** The new rules are built on the premise of **trust, self-certification, and non-intrusive monitoring**.
- **Vision:** These rules have been designed to usher in an era of supernormal growth while balancing safety and security considerations.
- **Encouraging in Nature:** The policy recognizes the immense application of drones across various sectors and allows enthusiasts and professionals to explore more in such dimensions within the liberal regulations.
- **Civilian Use:** The new rules allow for greater civilian usage of drones including for recreational activities.
- **Classification of Drones:** Under the rules. **Drones have been classified into five categories** ranging from Mini drones (weighing equal and lesser than 250 grams) to Large drones (weighing heavier or equal to 150 kilograms).
- **Reduced License Fee:** The fee for obtaining a remote pilot license has been reduced to rupees 100 and has also been **de-linked from the size of the drone**.
- **Validity of Licence:** The license would remain valid for **10 years** from the date of obtaining the license.
- **No License:** The government, under the new rules, no longer mandates the requirement of licenses **for mini and nano drones**.
- **No Security Clearance:** The requirement for security clearance before the issuance of registration or license has been done away with.
- **Certificate of Airworthiness:** All drones operated in India must have a 'certificate of airworthiness' – or be exempted from the requirement.
 - **Exemptions:** The following type of drones do not need a certificate of airworthiness:
 - Prototype drones used for research and development
 - Prototype drones provided for obtaining the certificate
 - Nano drones (250 grams or less)
- **Flying Radius:** The previous flying radius of 45 km around airports has been reduced to **12 km** under the new rules.

Present Status of Drones:

- The technological advancements in the field of drones over the last three decades have made drones more **accessible, affordable, and applicable** across various sectors.
- The application of drones now ranges from **aerial photography, infrastructure assessments, agricultural inspection, disaster management, police surveillance to the latest package delivery** by big brands like Amazon.

Indian Drone Market:

- The market for drones in India has received great impetus due to the **growing non-military usage of drones**.
- According to reports, India is the **fastest-growing drone market in the world**.
- As per a **2020 report by Price Waterhouse Coopers (PwC)**, the market size of drones in India is around **USD 885 million and is expected to reach USD 1810 million by 2026**.
- The **global market for drones would surpass USD 43 billion by 2024**, hence, India must strive to leverage this opportunity.
- According to **Stockholm International Peace Research Institute (SIPRI)**, India is the third-largest importer of military grade drones.
- Along with the Defence **Research and Development Organisation (DRDO)**, over **185 startups** are engaged in developing drones for various purposes.
- In this light, the **new drone policy 2021** would further work in enhancing and deepening the market of drones in India.

India's Innovation Potential:

- **Diversity:** As India's economic growth is penetrating diverse geographic and cultural regions, new and diverse talent and innovative voices are joining the mainstream of innovation.
- **Deeper Internet Penetration:** Deeper penetration of the internet in India allows acquaintance with emerging global ideas and adapts them to India's local conditions and needs.
- **Recognition by Government:** The changing characteristic and nature of Indian economy is being recognised by the government, as evident through the new liberal drone rules, which would give an impetus to the Indian economy and its businesses.
- **Easing Drone Regulation:** It has potentially **opened the segment to international funding** which in turn would give a boost to R&D and innovation in this sector.
- **FDI Destination:** Increasing attractiveness of India as a Foreign Direct Investment destination also enhances India's potential for the drone industry.

Conclusion:

Targeted support to the drone industry and making the skies wide open for all to explore would help India witness immense transformation in the field of drone market.

Q1. Consider the following statements with reference to the new drone policy, 2021.

1. The new policy classifies drones under six different categories ranging from mini drones to large drones.
2. The new policy promotes greater civilian usage of drones.
3. All types of drones must qualify for 'certificate of airworthiness' before being operated.

Which of the above statements is/are correct?

- (a) 1, 2, and 3
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 2 only

Answer: (d)

Explanation:

The government has recently released a new and liberal drone policy to encourage scientific spirit and innovation in the country.

Statement 1 is incorrect: Under the new policy, the drones have been classified into five categories.

Statement 2 is incorrect: The new rules allows for greater civilian usage of drones including for recreational activities.

Statement 3 is incorrect: All drones must qualify to obtain the 'certificate of airworthiness' before coming into operation. Exemptions: The following type of drones do not need a certificate of airworthiness:

- Prototype drones used for research and development
- Prototype drones provided for obtaining the certificate
- Nano drones (250 grams or less)

Q2. The Indian government has recently released a liberal drone policy, 2021. In this light, discuss the status and potential of Drone market in India.

(15 Marks, 250 Words)

3. Nutrition and Vaccination

Context: The world including India is facing the twin burden of malnutrition- undernutrition, and obesity- imposing adverse impacts on the health and happiness of people. Hence, for improving the health conditions, especially of women and children, the government of India has been undertaking various initiatives.

Mains Paper

General Studies 2

Syllabus:

- Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources
- Issues relating to poverty and hunger

General Studies 3

Syllabus:

- Issues of buffer stocks and food security.

Status of Nutrition in India:

- The Global Hunger Index (2020), calculated on the basis of total **undernourishment of the population, child stunting, wasting and child mortality**, has placed India at the **94th spot among 107 countries**.

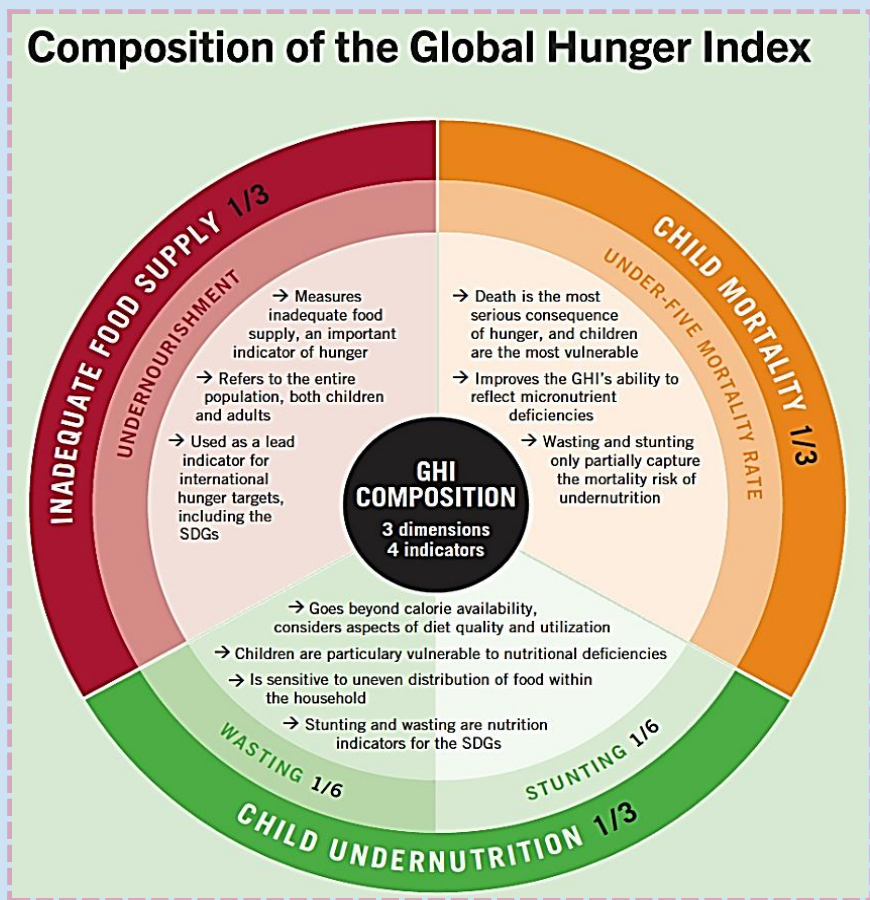


Figure: GHI Parameters
Source: Global Hunger Index

- Child and maternal malnutrition contribute 15 percent to India's total disease burden.

- According to the **Food and Agricultural Organisation (FAO)**, **14.5% of India's population is undernourished.**

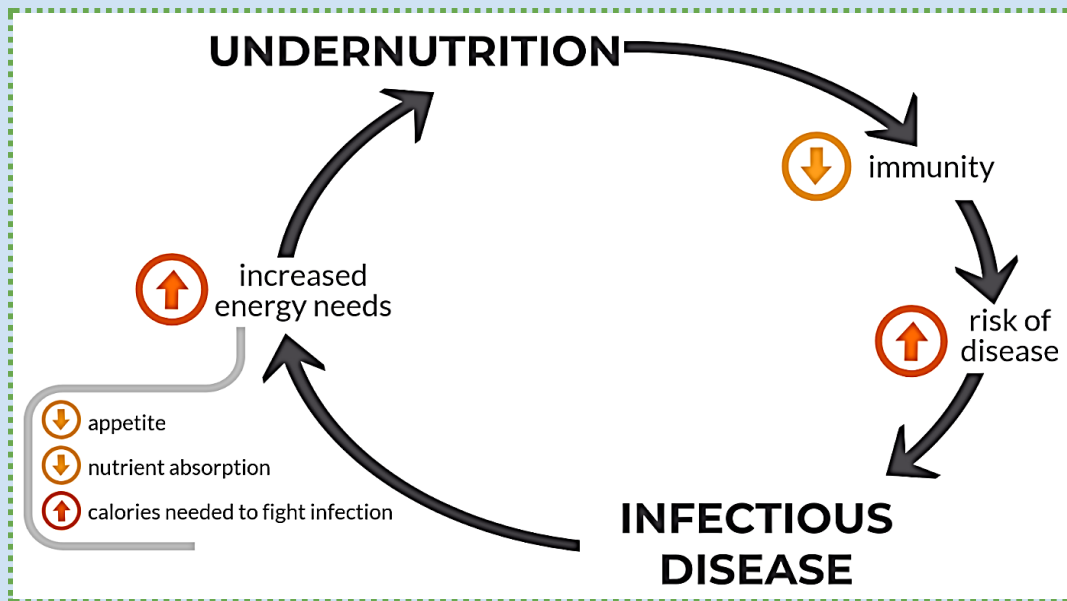


Figure: Vicious cycle of undernutrition
Source: immunizationevidence.org

- The report given by the **Indian Council of Medical Research (ICMR)**, states that the major contributing factor behind the death of children below 5 years of age in India, was malnutrition in children.
- According to the **Global Nutrition Report** India has almost one-third (31%) of the world's stunted children. India tops this list of countries.
- The **fourth round of the National Family Health Survey (NFHS)**, 2015-2016, stated that the prevalence of underweight, stunted, and wasted children under five were at **35.7, 38.4, and 21.0 percent respectively.**

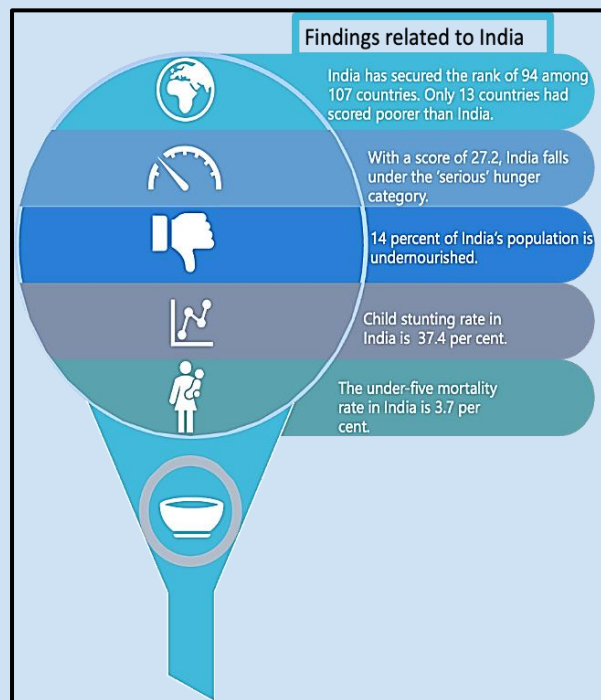


Figure: Findings related to India from Global Hunger Index

- The **fifth round of NFHS (2019-2021)** in 22 states surveyed, states that only nine states showed a decline in the number of stunted children, 10 in wasted children, and six in underweight children. In remaining states the percentage of stunted, wasted, and underweight children increased or remained unchanged.
- Countries such as **Sri Lanka, Nepal, Bangladesh, Myanmar, and Pakistan** have been ranked **higher than India** on the **Global Hunger Index** at **64th, 73th, 75th, 78th, and 88th spots** respectively.

Definitions

- **Stunted:** The children who have a “**low height for their age**” are referred to as suffering from stunting, reflecting chronic undernutrition.
- **Wasting:** This is the condition when children under five have **low weight for height**. Such condition results from disease and/or acute significant food shortage
- **Malnutrition** refers broadly to the state of having either **undernutrition** (caused by deficiencies) or **overnutrition** (caused by unbalanced diets).

Indian Initiatives for Nutrition

Anganwadi Services Scheme/ Integrated Child Development Scheme (ICDS)

- It’s a major flagship program launched in 1975 and is considered as one of the world’s largest and unique initiatives for early **childhood development**.
- **It is a wholesome package of six services, mainly:**
 - Supplementary Nutrition (SNP)
 - Health & Nutrition Check-Up
 - Immunization
 - Non-Formal Education for Children in Pre-School
 - Health and Nutrition Education
 - Referral services
- These services are provided by **Anganwadi centers** that have been established mainly in rural areas and staffed with frontline workers.
- The beneficiaries of the scheme are **children from age groups 0-6 years and pregnant and lactating mothers**.

POSHAN Abhiyaan

- Poshan Abhiyaan, also called the **National Nutrition Mission (NNM)**, was launched in 2018 by the Government of India with the objective of tackling the **malnutrition problem** prevalent in India.

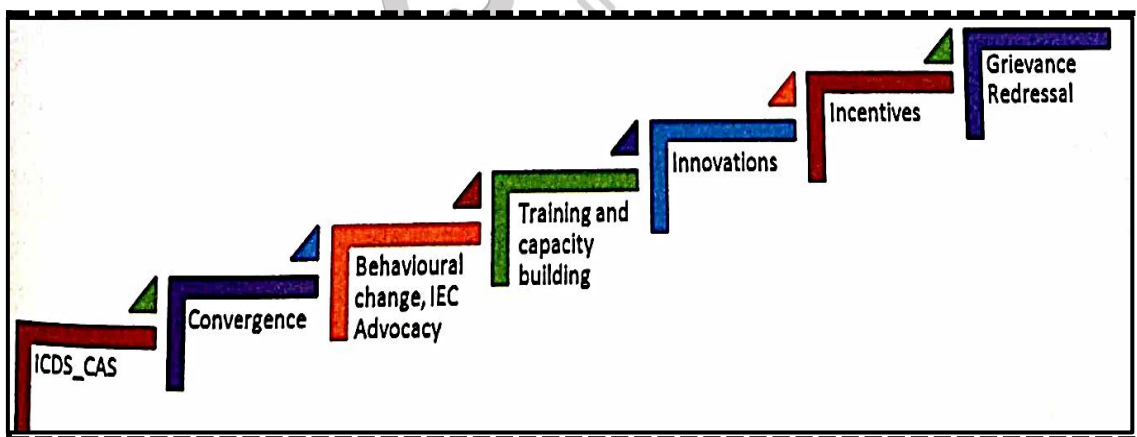


Figure: Pillars of Poshan Abhiyaan
Source: Yojana

- The chief objective of the mission is to reduce the level of under-nutrition and also enhance the nutritional status of children in the country.
- The mission is multi-ministerial, aiming at removing malnutrition from the country by 2022.
- The term ‘**Poshan**’ in the name of the program stands for ‘**Prime Minister’s Overarching Scheme for Holistic Nutrition**’.

#POSHANAbhiyaan

POSHAN Abhiyaan
 PM's Overarching Scheme for Holistic Nourishment
 सही पोषण - देश रोशन

will promote positive behaviour change towards infant & young child feeding practices.

- Early initiation of breastfeeding within an hour after birth
- Exclusive breastfeeding for the first 6 months
- Complementary feeding from 6 months, along with breastfeeding up to 2 years



Figure: About Poshan Abhiyaan
 Source: Ministry of Women and Child Development

- The program has set particular targets for reducing **stunting, anemia, under-nutrition, and low birth weight.**
- As per 'Mission 25 by 2020', the National Nutrition Mission aims to reduce stunting from 38.4% to 25% by 2022.

Pradhan Mantri Matru Vandana Yojana (PMMVY)

- The scheme is targeted at pregnant or lactating women aged 19 years or above for the first live birth.
- The program seeks to provide **partial compensation for wage loss during childbirth and afterward during childcare.**
- It also seeks to provide **information on good feeding and nutrition** for both mother and child.




First Installment	Second Installment	Third Installment
 <p>Early registration of pregnancy with frontline worker, within five months of pregnancy</p>	 <p>Receipt of at least one antenatal care (ANC) check-up in first six months of pregnancy</p>	 <p>Registration of child birth and Receipt of first cycle of immunisation (BCG, OPV, DPT, Hepatitis-B, or its equivalent/substitute)</p>
INR 1,000	INR 2,000	INR 2,000
Total Value of Cash Transfer under PMMVY: INR 5,000		

Figure: Cash Transfer under PMMVY
 Source: Yojana

- The PMMVY is a continuation of the **Indira Gandhi Matritva Sahyog Yojana (IGMSY)** launched in 2010. It was **relaunched in 2014 as Matritva Sahyog Yojana** and took its present form in late 2016.

Other Initiatives for Nutrition:

- **Scheme for Adolescent Girls:**
 - The **Scheme for Adolescent Girls (SAG)**, devised in 2010 as a special intervention for **adolescent girls in the age group 11 – 14 years** for breaking the **intergenerational life-cycle of nutritional and gender disadvantage**.
 - It also offers a supportive environment for the **self-development of adolescent girls** in the country.
- **National Program of Mid Day Meal :**
 - The 'National Programme of Mid Day Meal in Schools,' is popularly called the Mid-Day Meal Scheme.
 - Recently, in September 2021, the Mid-Day Meal Scheme has been **renamed 'PM POSHAN' or Pradhan Mantri Poshan Shakti Nirman**.
 - PM POSHAN would extend the service of hot cooked meals to students studying in **pre-primary levels or Bal Vatikas of government and government-aided primary schools**, along with those already covered under the mid-day scheme.
- **Anemia Mukht Bharat**
 - The Anemia Mukht Bharat is an **intensified Iron-plus Initiative** aiming to strengthen the existing mechanisms and foster newer strategies for tackling anemia.
 - It focuses on **six target beneficiary groups**, through **six interventions and six institutional mechanisms** for achieving the envisaged target under the **POSHAN Abhiyan**.

Initiatives for Vaccination**Mission Indradhanush**

- **Mission Indradhanush (MI)** was launched by the **Ministry of Health and Family Welfare (MOHFW) in December 2014** aiming to expand immunization coverage to all children across India.
- Children across socio-economic, cultural, and geographical spectrums in India, are being immunized under this program.
 - The **Intensified Mission Indradhanush (IMI)** was launched in 2018 by the Central Government with the **objective of covering all children under the age of two and pregnant women for immunization who were not covered under the Universal Immunization Programme (UIP)**.
 - This program was aimed to **intensify the Mission Indradhanush** that was launched in 2014.

Universal Immunization Programme (UIP)

- The Universal Immunisation Programme (UIP) was rolled out in India in 1985, extending the Expanded Programme for Immunisation (EPI), which had attempted to provide recommended vaccines against tuberculosis, polio, and other diseases for all Indian children.

Covid-19 Vaccination Drive

- **Mission COVID Suraksha:**
 - The Government of India launched the 'Mission COVID Suraksha', a **vaccine development program** for Indian researchers working on the COVID-19 vaccine.
 - Under this mission, the Government would facilitate the clinical development, manufacturing, and licensing of Indian vaccines to curb the virus attack.
- **World's Largest Vaccination Drive:**
 - India launched the "World's Largest Vaccination Program" on January 16, 2021, which is India's first-ever adult vaccination drive.
 - The Drug Controller General of India (DCGI) had granted the emergency-use approval for **two indigenous vaccines**:
 - COVISHIELD by Serum Institute of India and
 - COVAXIN by Bharat Biotech.

- **Challenges associated with Covid Vaccination:**

- **Vaccine Hesitancy:** Due to alleged side effects and suspicion, people have been hesitant in taking vaccines.
- **Issues with Co-Win Application:** Issues like lack of internet penetration, lack of usage of smartphones, etc persisted.
- **Lack of Experience:** Since it was the first-ever adult vaccination drive, lack of experience was a challenge.
- **Wastage:** Since each vaccine vial contains 10 doses and must be used within 4 hours of opening, this led to vaccine wastage in few cases.

Conclusion:

India needs to take care of both the nutrition as well as the vaccination system in order to reap the true potential of its 'Demographic Dividend'. The initiatives taken up must already be implemented in letter and spirit to actualize the vision of a healthy and wealthy India.

Q1. Which of the given factors are considered while calculating the Global Hunger Index?

1. Undernourishment
2. Stunting
3. Wasting
4. Per Capita Income
5. Food Basket Expenditure

Choose the correct answer from the codes given below:

- (a) 1, 2, and 4
- (b) 2, 3 and 5
- (c) 1, 2 and 3
- (d) 3, 4, and 5

Answer: (c)

Explanation:

- The Global Hunger Index (2020), calculated on the basis of total **undernourishment** of the population, **child stunting, wasting and child mortality**, has placed India at the 94th spot among 107 countries.
- **Per capita income and food basket expenditure are not** the components of the Global Hunger Index.

Q2. Nutrition must be backed by vaccination to ensure the proper health of people. Justify by giving various examples of the initiatives taken up by the government for the same.

(15 Marks, 250 Words)

4. Effective Marketing through Rural Collectives and Rural Marketing Infrastructure

Context: To double farmer Incomes, there is a need for effective marketing of agri produce and robust rural infrastructure. Rural collectives can play a huge role in realizing the potential of the Indian agricultural economy.

Need of Effective Marketing:

- Non Realisation of profits by farmers despite increased production and productivity due to non-existence marketing at the source.
- Better price discovery for Producers themselves who are currently **captive sellers of Middlemen**.
- Lack of warehousing in rural areas compels the farmers to sell their products at throwaway prices due to **dismal forward linkage** with the market.
- Reliable, efficient, competitive and accessible markets with adequate post-harvest and marketing infrastructure have the potential in generating net positive returns to the farmer producers.
- Seamless marketing channels will ensure that problems of **regional and seasonal price variability in Agri produce is stabilized**.

Government Initiatives to create Agri-Market Infrastructure: The government has been trying to create infrastructure to support marketing via the following measures-

- E-National Agriculture Market (e-NAM) to connect mandis across India.
- GrAMs to develop rural haats into Gramin Agricultural markets
- Creation and utilization of Agri-Market infrastructure Fund
- Linking rural markets through Pradhan Mantri Gram Sadak Yojana.
- Developing cluster-based Agri products for better demand-supply management.

Real challenges to Effectively Implement the Above Measures:

- To identify the right infrastructure at the right place
- To identify the right stakeholders for the effective implementation of development interventions at the grassroots level.
- To ensure that rural marketing architecture is all-inclusive, hassle-free, active, efficient and sustainable.
- Rural community collectives like Self Help Groups (SHGs), Producer Groups (PGs), Farmer producer Organisations (FPO) and Cooperatives can help with these challenges in an effective way due to their collective strength.

Mains Paper

General Studies 2

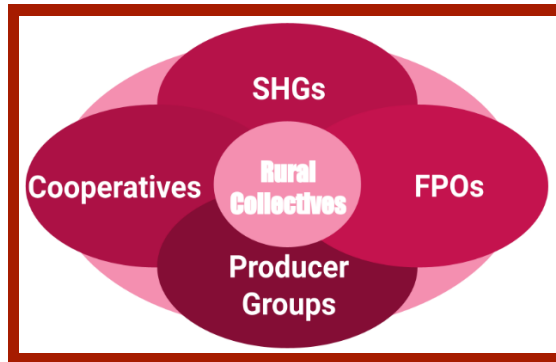
Syllabus:

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation
- Development processes and the development industry the **role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders**

General Studies 3

Syllabus:

- Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.
- **Transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers**
- Supply chain management.



Challenges of Agri and Rural Marketing in India and Scope of Rural Collectives to meet those challenges:



- **Marketing Facilities:** Rural collectives can indulge in creating vibrant marketing facilities like **storage centres/collection centres** at the cluster level, mini storage centres at the village level, and **nano packaging units**.
- **Capacity Building:** They are well suited to **strengthen marketing skills** amongst the stakeholders in the community through the initiation of capacity building programs and by facilitating bank linkages, technology adoption and logistics management.
- **Community-Based Platform:** The collectives are in a better position to act as a social community-based platform for performing activities and providing facilities for exchanging commodities between the buyers and sellers.
- **Coordination among stakeholders:** The collectives can be oriented easily -
 - To ensure **effective coordination with village-level producer groups**
 - To devise **commodity-wise market development plans** in consultation with the line department of the district administration.
- **Market Research and Planning:** The community with the help of an expert resource Person can **adopt a detailed Strength, Weakness, Opportunity and Threat (SWOT) analysis** on -
 - Drawing up a crop calendar
 - Financial resources envelopes
 - Convergence requirements
 - Available markets and marketability
 - Future market avenues outside the community cluster etc.
- **Handling Marketable Surplus:** Collectives like SHGs, Cooperatives and FPOs have the potential in effectively handling and managing marketable surpluses of agricultural and allied produce including horticulture livestock, poultry, fishery, bamboo, minor forest produce by **creating markets, exploring existing rural/ peri-urban/urban markets, providing required facilities in the market areas and developing market infrastructure** for the common good.
- **Technology and Innovation:**
 - Collectives of the modern times can take advantage of the digital revolution in India and **can ensure promotion of innovative and latest technologies in pre and post-harvest and agricultural produce management and preservation systems**.

- Startups can create innovation hubs of new age marketing and can market their products in a systematic way without compromising on the delivery speed of agri-products.
- **Create Marketing Channels:** Collective efforts are required to develop competitive marketing channels through the existing network of SHGs/FPOs/Cooperatives in rural areas for agricultural and allied products.
- **Inviting Investments:**
 - Collectives can tie up with national and global entrepreneurs and angel investors, and open ways and means to incentivise private as well as cooperative sectors to make investments for creating modern markets and for ensuring a feasible and transparent marketing environment at the grass-root.
 - Collectives due to their collective financial strength **can promote pledge financing and market access** without depending on outside agencies.
- **Awareness on Marketability:** Awareness Generation campaigns, sensitisation workshops and basic-orientation programmes through FPOs/SHGs/Cooperative members about processing and marketing of processed produce can help generate more income for the farmer members of such collectives.
- **Storage Capacity Constraints:**
 - Collectives with their cumulative and group efforts are adept in promoting the creation of scientific storage capacity for storing farm produce, processed farm produce and agricultural inputs etc. so as to reduce post-harvest & handling losses.
 - It is the community which can better assess the storage capacity needs of the locality and can help in meeting the gap by investing in creation/ expansion of storage capacity.
- **Agri-Value Chain:** Community financial institutions like SHG, Cooperatives and FPOs besides delivering Credit at the door-step can play the role of market information centres and become major stakeholders in the agri-value chain.
- **Contract Farming and Marketing by Collectives**
 - The collectives have the required strength to ensure collective participation through contract farming, land leasing arrangements and community marketing which can facilitate accelerated technology transfer, capital inflow and assured markets for agricultural produce.
 - Since agri-markets are largely buyer-driven and vertically integrated, contract farming through community-based farmer co-operatives would offer the best possible income stream to the farmers by reducing labour-related transaction costs, costs of other inputs, technology and innovation.
 - In comparison to individual farmers, co-operatives/FPOs/SHGs can reap the benefits of lower input costs, stability and longevity of contract farming arrangements and can ensure a fair distribution of profits amongst the member farmers,
 - Further, community producer Organisations can balance the complex dynamics between firms and farmers through -
 - Collective bargaining
 - Creation and maintenance of long-term relationships with input venders and logistic support providers
 - Timely mitigating risk and uncertainties faced by the farmers.
- **Agri-marketing Infrastructure through Community Participation:**
 - Co-operative marketing systems in agriculture can eliminate excessive dependence on agents and intermediaries in the organised wholesale markets (APMC Mandis) and unorganised rural periodical markets (Village Agricultural Markets).
 - Rural Collectives can ensure appropriate price discovery by resolving issues of
 - Effective information dissemination
 - Use of digitised means of marketing
 - Management of transportation costs by joint transportation of commodities
 - Establishment of a **network of warehouses** for effective and timely storage of perishable and semi-perishable agri-commodities.

About Rural Marketing Infrastructure:

- It includes Physical connectivity, Information and Communication, Electricity, storage and Processing related infrastructure in rural areas.
- **Need:** Agricultural and horticultural produce is more often than not, perishable. Hence, it requires faster and efficient transport, storage, and even processing to retain freshness and other qualitative aspects.
- **General Physical Infrastructure:**
 - Physical or hard infrastructure such as roads, bridges, railways, electricity and fuel are important to enable transport, storage and physical access between producers and consumers.
 - **Government Initiatives for General Physical Infrastructure:**
 - **PMGSY** for rural connectivity
 - **Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY)**, and **Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya)** for rural electricity

Physical Marketing Infrastructure:

- It includes post-harvest agricultural marketing infrastructure and markets.
- **Initiatives:**
 - **Integrated Scheme for Agricultural Marketing.**
 - **Subscheme for Agricultural Marketing Infrastructure (AMI):** It is envisaged as a subsidy of 33.33 percent of capital investments in warehousing, cold storage, primary processing, refrigerated vans, quality testing, grading, sorting packaging and so on.
 - e-NAM
 - E-Negotiable Warehouse Receipt (e-NWRS)
 - **Gramin Agricultural Markets (GRAMs)** scheme to develop retail markets near the rural periodic markets or haats, which would also serve the purpose of aggregation and turn into feeder markets for APMCs.
- **Digital Infrastructure**
 - **National Optic Fibre Network:** Through this, the government aims to provide high-speed broadband connectivity to nearly 2.5 lakh Gram Panchayats.
 - **Pradhan Mantri Gramin Digital Saksharta Abhiyan** to increase digital literacy.
- **Skills and Organisational Support Infrastructure:** Development of marketing skills in people and helping build organisations is critical for the success of rural marketing.
 - **Government Initiatives:**
 - **For Skill:** The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is a landmark scheme that aims at:
 - Development of Skills
 - Promotion of apprenticeship
 - Development of entrepreneurship
 - Apprenticeship and training
 - Skill acquisition and knowledge awareness for livelihood promotion
 - Skill strengthening enhancements
 - **For Organisational Support:**
 - Development of **Farmer Producer Organisations (FPOs) or Farmer Producer Companies (FPCs).**
 - FPOs enable collective farming, or aggregating produce, as a result of which farmers gain bargaining power, reduce costs, and can take up value chain activities such as processing, branding, and retailing.
 - The Ministry of Textiles has the **Dastkar Sashaktikaran Yojana** that focuses on developing self-help groups (SHGs), artisan groups or cooperatives in clusters where artisans are located.
 - **National Handloom Development Programme** and **National Handicraft Programme** envisage that cluster development and group formation will enable artisans to grow as entrepreneurs, bring efficiency in their operations, and improve competitiveness, besides giving them a platform to connect to the market directly.

Conclusion:

Sky is the only limit as far as the potential of rural collectives to change the face of rural marketing in India is concerned. **However**, there is a need to sensitise these collectives on **governance, organisational skills, team spirit of work, interpersonal communication, work allocation, payment/transaction, market systems, supply chain** etc. so that the efficiency in rural market systems are maximised and rightful benefits of value addition and quality price discovery of agri-products are ensured for the Participating players of rural Markets.

Q1. Which of the following can be termed as rural collectives?

1. Self Help Groups
2. Producer Groups
3. Trade unions
4. Farmer producer Organisations
5. Cooperatives
6. University student unions

Select the correct answer using the codes given below:

- (a) 1, 2, 3 and 5
- (b) 2, 4, 5 and 6
- (c) 1, 2, 4 and 5
- (d) 3 and 6 only

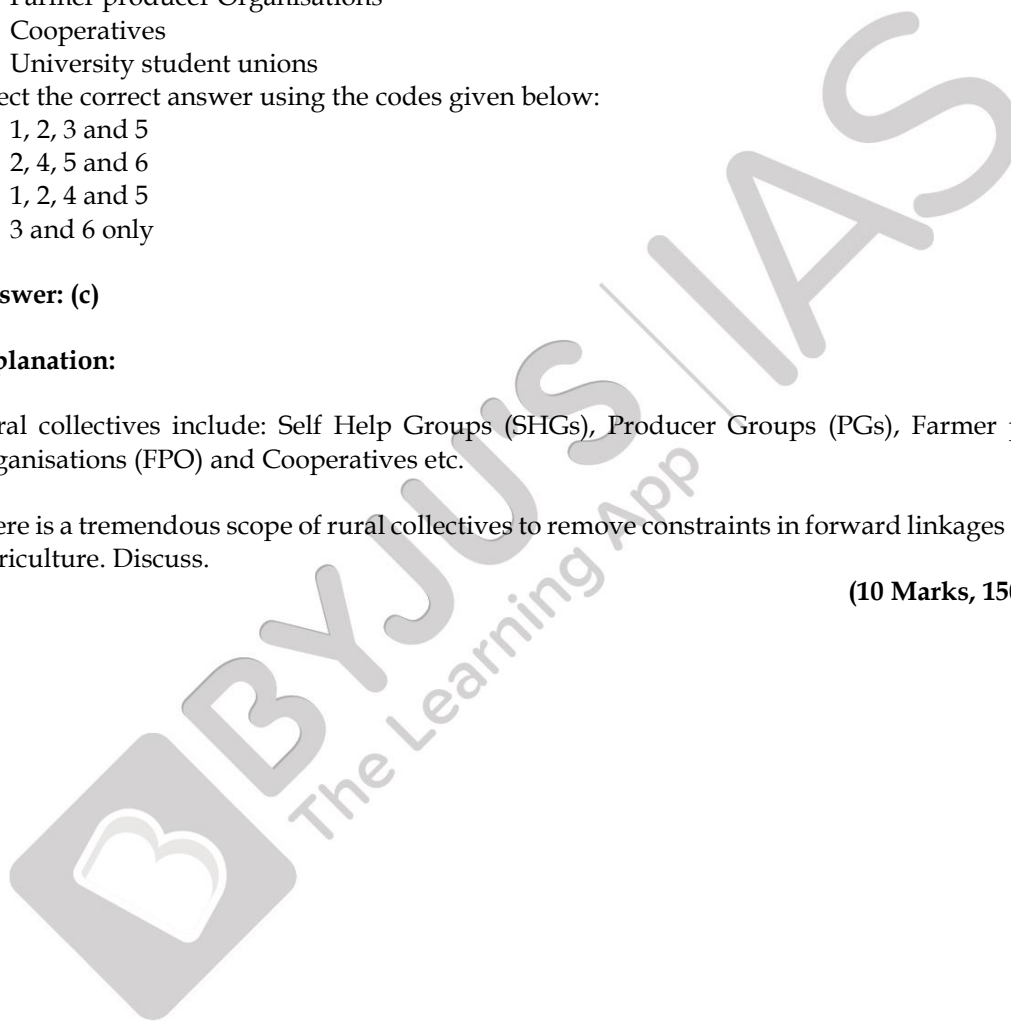
Answer: (c)

Explanation:

Rural collectives include: Self Help Groups (SHGs), Producer Groups (PGs), Farmer producer Organisations (FPO) and Cooperatives etc.

Q2. There is a tremendous scope of rural collectives to remove constraints in forward linkages of Indian Agriculture. Discuss.

(10 Marks, 150 Words)



5. Panchayati Raj - Present Status and Future Prospects

Context: Year 2021 marks 28 year since Panchayati Raj Institutions (PRIs) came into existence as constitutional bodies in 24th April 1993.

Mains Paper

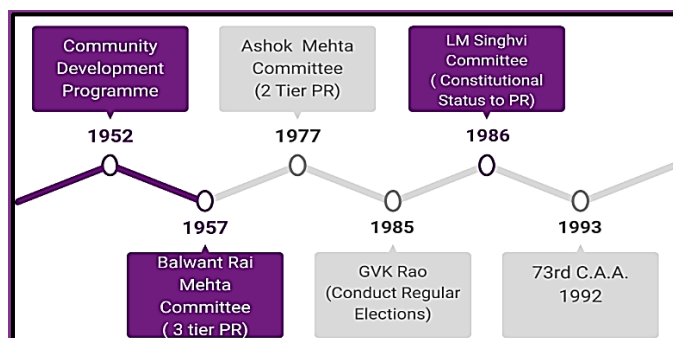
General Studies 2

Syllabus:

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation
- issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein
- Powers, functions and responsibilities of various Constitutional Bodies

Evolution of PRIs as Units of Local Governance

- **Ancient times:** The Panchayati Raj System is an integral part of our culture and civilization. In the Ancient Indian Subcontinent, Panchayats were usually elected councils with executive and judicial powers.
- **Medieval times:** During the Mughal era panchayats were made controlled local bodies which helped the kings in their trading and taxation interests.
- **British Era:** Despite recommendations of several commissions to devolve power to local self-governments, Local bodies under colonial rule were not independent and were in control of British administration.
 - Mahatma Gandhi was the first and prominent Indian nationalist leader who advocated Panchayati Raj at grassroot level. PRIs were at the center of his economic development vision for India.
- **Post Independence:** India became a Socialist leaning democratic state with centralising tendencies and hence the village panchayats were put in the **Directive Principles of State policy in article 40** and were made dependent on the state government for everything.
 - **Community development Programme 1952:** It was the first attempt to tackle the problem of rural governance but it failed due to the absence of an effective instrument for people’s participation.
 - **Committees to study the self government at the rural level:**
 - **Balwant Rai Mehta committee 1957:** Recommended a three tier Panchayat system.
 - **Ashok Mehta committee 1977:** It suggested a two-tier system for Pnachayats.
 - **GVK Rao 1985:** It advocated for the conduct of regular elections for the local governments.
 - **L.M. Singhvi 1986:** It recommended awarding constitutional status to local self-government.
 - **73rd Constitutional Amendment Act of 1992:**
 - It came into force on **24th April 1993**.
 - It added to the constitution the **Part IX ‘The Panchayats’** and the **eleventh Schedule** containing the **29 functional items** for Panchayats.
 - It states that the election process in PRIs will be held independent of the State Government’s will.
 - It brought the Panchayats to the Justiciable part of the constitution.
 - It added provisions for reservation of seats for weaker sections, regular flow of funds through the State Finance Commission and periodic conduct of elections.



Current Status of PRIs in India:

- There are **660 District, 6836 Block and 255479 Gram Panchayats** in the country which are providing a diverse, widespread and strong political foundation for inclusive and participative growth.
- **Political decentralisation is almost complete but the fiscal and administrative decentralisation is still lacking** due to lack of power transfer to local governments regarding **funds, functions and functionaries**.

Assessment of Panchayats: Role, Responsibilities and Achievements

- **Women and Weaker Sections' Representation:**
 - Enforcing the **Positive Discrimination Philosophy, Article 243D** mandates that not less than one third of all seats at all levels shall be reserved for women.
 - But 20 States like **Bihar, Madhya Pradesh and Himachal Pradesh** etc so far have gone beyond the constitutional mandate and have provided for **50 percent reservation for women**.
 - At present there are around **32 Lakh Elected Representatives(ER)** in the country of which **14.5 lakh are women**.
 - Of the total ERs, **19 percent are from scheduled castes and 12 percent from Scheduled tribes**.
- **Functional Responsibilities:** Gram Panchayats have basically **three types** of responsibilities-
 - **Mandatory Functions:** These are civic and regulatory functions which no other agency performs.
 - **General Functions:** These include planning, supervising and execution of all developmental programmes.
 - **Kerala Model of PRI:** The general functions here, also include awareness against social evils, relief operations, gathering of statistical data and legal awareness etc.
 - **Sectoral / Agency Functions:** These are the functions handled by various line departments in consultation approval with the Gram Panchayats.
- **Funds Flow to Panchayats:**
 - **State Finance Commissions** established under the **article 243-I** help structure the intergovernmental fiscal relations between State and local self-governments(LSGs).
 - **Mandate of SFC:**
 - To review the financial position of the panchayats, ascertain fiscal gaps and **suggest remedial measures and recommendations to the governor** such as tax devolution and grant-in-aids by the state government.
 - **SFC ensures regular flow of funds to Panchayats**, by defining revenue sharing arrangements between the state governments and the PRIs.
- **Decentralised and Participatory Planning:**
 - Several Initiatives have been taken by the Central and state governments to enable the Panchayats to prepare decentralized participatory plans.
 - For example, **People's Plan Campaign-1996 of Kerala** where the state government promised to devolve 35-40 percent of plan funds. This facilitated the direct participation of People in designing and implementing development plans.
 - **Gram Panchayat development Plan (GPDP) guidelines, 2015:** Ministry of Panchayati Raj (MoPR) issued general guidelines to enable the gram Panchayats to prepare their own plan.
 - Critical analysis of Gram panchayat plans revealed that there was miniscule presence of major sectors like Agriculture, Health, Women and Child Development and Education.
 - **In 2020 MoPR** has also come up with a **framework for preparation of Block and District Panchayat development plans**.
 - **Sabki Yojana Sabka Vikas(SYSV):**
 - Since 2018, every Year, from Mahatma Gandhi's birthday till december 31st, MoPR organises **People Plan Campaign also known as SYSV to formulate GPDP**.
 - MoPR + Central Line Ministry + State Panchayat Raj Department + frontline workers of line Ministries related to 29 subjects of PR, jointly facilitate the campaign.
 - It is an intensive and structured programme for planning through convergence between GPs and concerned line departments where gram sabha meetings are held to prepare GPDPs.

- **Localising Sustainable Development Goals:**
 - According to estimates nearly 2/3rd of SDG targets in India are under the scope of Panchayat interventions since 70 percent of India's population is still in rural areas.
 - Localisation of SDGs refer to adapting, implementing and monitoring the SDGs upto the village level for last mile adaptation.
 - Formulation of GPDP presents an opportunity for synchronization of SDGs with local plans which can be achieved through disaggregating the SDGs into gram panchayat level targets.
- **Recent Initiatives in Panchayat Governance:**
 - **E-GRAM SWARAJ portal:** Launched on 24th April 2020, it is a unified portal for effective monitoring and evaluation of Panchayat works.
 - **E-GSPI: Launched in 2021, it is an Electronic Fund Management System** which integrates e-gram swaraj and Public Fund Management System **for utilization of Central Finance Commission funds.**
 - **Spatial Development Planning:** A unified platform called '*Gram Manchitra*' was launched in 2019 which helps to visualize various works and provide a decision support system to Panchayats for planning.
 - **Online Auditing:** Audit-Online app was launched in 2020 for online and digitally stored Audits. From 2021-22, 100 percent of Panchayats auditing will be done online only.
 - **Citizen Charter For Panchayats:** In July-August 2021 a campaign called '*Meri Panchayat, Mera Adhikaar- Jan Sevaayein Humare Dwar*' was organised where Panchayats across the nation created Citizen Charters.
 - The basic objective of the Panchayat Citizen Charter is to empower the people at the grassroot in relation to public service and improve the service quality as per their expectations.
- **Future Prospects for PRIs in India:**
 - To make decentralisation meaningful, it is necessary that states **devolve more functions, funds and functionaries** to empower PRIs.
 - **District Planning Committees** created to expedite decentralised planning need to be made functional.
 - To ensure greater people participation, Gram Sabha needs to be strengthened in many states.
 - **Parastatal bodies** created by state and central governments for specific projects of health and education etc need to work under Panchayats and in sync with them to avoid duplication of efforts in villages.
 - There is a need to persuade Panchayats to generate '**Own Source Revenue**', since it provides long term sustainability to public services.

Conclusion:

Panchayats play an irreplaceable role and despite many challenges, they, as the Third Government, are trying to keep alive the spirit of democratic decentralisation.

Q1. Consider the following statements:

1. At present there are around 3.2 million Elected Representatives(ER) in panchayats in the country of which more than 50 percent are Women.
2. The Seventy-Third Constitutional amendment Act added the eleventh schedule to the constitution with 29 subjects for Panchayats.
3. 24th April is celebrated as Panchayati Raj Diwas in India.

Which of the above statements is/are *incorrect*?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 only
- (d) 1, 2 and 3

Answer: (c)

Explanation:

The Panchayati Raj system has politically empowered a large number of people from weaker sections of society.

Statement 1 is incorrect: At present there are around 32 Lakh Elected Representatives (ER) in the country of which 14.5 lakh are women. (which is less than 50 percent)

Statement 2 is correct:

73rd Constitutional Amendment Act of 1992:

- It came into force on **24th April** 1993.
- It added to the constitution the **Part IX** 'The Panchayats' and the **eleventh Schedule** containing the **29 functional items** for Panchayats.

Statement 3 is correct: 24th April is celebrated as the Panchayati Raj Diwas since the 73rd CAA came into force on this day in 1993.

Q2. The Panchayat Raj System established by the 73rd Constitutional Amendment Act got the skeleton 28 years back but it is still in search of flesh and blood. Justify. Suggest measures to make Panchayati Raj a true self-governing institution as envisaged in the Indian constitution.

(15 Marks, 250 Words)



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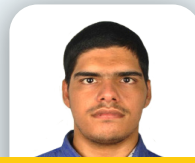
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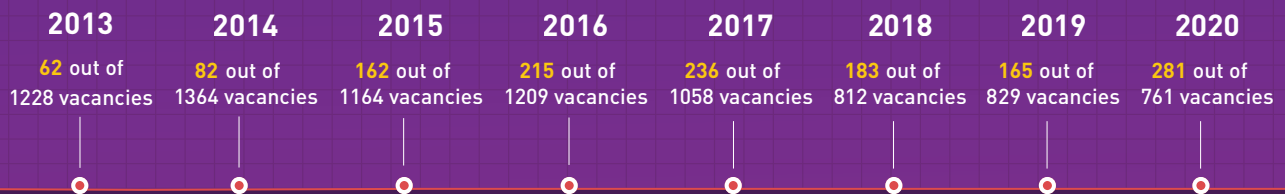


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