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CREATIVE THOUGHT AND ACTION

MASTER CHECKUP

GS 3 INDIAN AGRICULTURE

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GOVERNMENT TO LAUNCH MAHUA-BASED ALCOHOLIC DRINK

Why in news?

- The government is set to launch a mahua-based alcoholic beverage in the market for the first time. Called Mahua Nutribeverage.
- The beverage has a high nutritional value and relatively low alcohol content, at 5 per cent.
- It has been developed by IIT-Delhi after two years of research in collaboration with **TRIFED (Tribal Cooperative Marketing Development Federation of India)**.

Mahuwa / Mahua

Mahua longifolia is an Indian tropical tree found largely in the central and north Indian plains and forests.

It is adaptable to arid environments, being a prominent tree in tropical mixed deciduous forests in India in the states of Odisha, Chhattisgarh, Jharkhand, Uttar Pradesh, Bihar, Maharashtra, Telangana, Madhya Pradesh, Kerala, Gujarat, West Bengal and Tamil Nadu.

Uses of Mahua

- It is cultivated in warm and humid regions for its oleaginous seeds (producing between 20 and 200 kg of seeds annually per tree, depending on maturity), flowers and wood.
- The fat (solid at ambient temperature) is used for the care of the skin, to manufacture soap or detergents, and as a vegetable butter.
- It can also be used as a fuel oil.
- The seed cakes obtained after extraction of oil constitute very good fertilizer.
- The flowers are used to produce an alcoholic drink in tropical India. This drink is also known to affect the animals.
- Several parts of the tree, including the bark, are used for their medicinal properties.
- It is considered holy by many tribal communities because of its usefulness.

KASTURI MANJAL (WILD TURMERIC)

Why in news?

The spice is becoming extinct and is also facing threats from a counterfeit variety

Details:

- Kasturi Manjal with milk cream or rose water has been “grandma’s potion” for glowing skin.
- Turmeric, an essential ingredient in all Indian kitchens, has gained fame and acceptance for its cosmetic and healing properties and has been a core ingredient of many beauty products and medicines.
- The turmeric can be cultivated in open fields, in flower pots or grow bags.
- The farming methods are easy and it can be harvested in seven to eight months.

PRE-MONSOON CROP CULTIVATION TAKES A HIT

Why in news?

- Despite the State government being on overdrive to ensure that agricultural activities continue to be normal during this unprecedented crisis caused by COVID-19, officials are hopeful about pre-monsoon crop cultivation.
- Besides the main crops such as ragi and maize, farmers cultivate green gram, black gram and sesame, especially in Mysuru, Chamarajanagar, Mandya and Hassan districts, during this season.
- There is concern whether farmers will take up cultivation of these crops given the situation.

Details

- The preparatory work for sowing normally starts by the first week of April.
- In a few places, sowing has been completed, but it has not even commenced in many places.
- In agriculture timing, is very important. If sowing is delayed, it will hurt the yield and overall productivity.
- State Agriculture Department officials are appealing to farmers to continue with their agricultural activities while also staying safe.
- District administrations are working with dealers to ensure there is enough supply of seeds and fertilizers.
- Pre-monsoon crop contributes to less than 10% of the total agricultural production in the State, but remains important.
- The paddy in fields in Raichur, Ballari, Koppal and Gangavathi were ready for harvesting, but farmers were facing labour issues though the department has allowed them to get farm machineries for harvesting.

Background

Kharif Crops

- Kharif crops, monsoon crops or autumn crops are domesticated plants like rice that are cultivated and harvested in India, Bangladesh during the Indian subcontinent's monsoon season, which lasts from June to November depending on the area.
- Kharif crops are usually sown with the beginning of the first rains during the advent of the south-west monsoon season, and they are harvested at the end of monsoon season (October-November).
- These crops are dependent on the quantity of rain water as well its timing.
- Too much, too little or rain at the wrong time may lay waste to the whole year's efforts.
- Kharif crops stand in contrast to the rabi crops, which are cultivated during the dry season.

Kharif Season

- The kharif season varies by crop and region, starting at the earliest in May and ending at the latest in January. In India the season is popularly considered to start in June and to end in October.
- Monsoon rains may begin as early as May in some parts of the Indian subcontinent, and crops are generally harvested from 3rd Week of September to October, again depending upon the region and the crops. Rice, maize, sorghum and cotton are the major kharif crops in India.

Rabi Crops

- Rabi crops or rabi harvest are agricultural crops that are sown in winter and harvested in the spring in India and Pakistan.
- The opposite of rabi crops are the kharif crops which are grown after, the rabi and zaid (zaa-id) crops are harvested one after another respectively.

Rabi Season

- The rabi crops are **sown around mid-November**, preferably after the monsoon rains are over, and **harvesting begins in April / May**.
- The crops are grown either with rainwater that has percolated into the ground, or using irrigation.
- **A good rain in winter spoils the rabi crops but is good for kharif crops.**
- **The major rabi crop in India is wheat**, followed by **barley, mustard, sesame and peas**.
- Peas are harvested early, as they are ready early: Indian markets are flooded with green peas from January to March, peaking in February.
- Many crops are cultivated in both kharif and rabi seasons.
- The agriculture crops produced in India are seasonal in nature and highly dependent on these two monsoons.

WORLD COULD FACE A FOOD CRISIS: UN, WTO

Why in news?

The heads of three global agencies warned on 1st April of the risk of a worldwide “food shortage” if authorities fail to manage the ongoing COVID-19 crisis properly.

Concerns Regarding Food Shortage

- Many governments around the world have put their populations on lockdown causing severe slow-downs in international trade and food supply chains.
- Panic buying by people going into confinement has already demonstrated the fragility of supply chains as supermarket shelves emptied in many countries.
- Uncertainty about food availability can spark a wave of export restrictions, creating a shortage on the global market.
- Disruptions including hampering the movement of agricultural and food industry workers and extending border delays for food containers, result in the spoilage of perishables and increasing food waste.

How to handle concerns of Food Shortage?

- We must ensure that our response to COVID-19 does not unintentionally create unwarranted shortages of essential items and exacerbate hunger and malnutrition.
- In the midst of the COVID-19 lockdowns, every effort must be made to ensure that trade flows as freely as possible, specially to avoid food shortage(s).
- When acting to protect the health and well-being of their citizens, countries should ensure that any trade-related measures do not disrupt the food supply chain.
- Protect employees engaged in food production, processing and distribution, both for their own health and that of others, as well as to maintain food supply chains.
- International cooperation is also essential.

ACTION TAKEN BY DAC&FW DURING LOCKDOWN

Why in news?

In order to facilitate the farmers and farming activities at field level during the lockdown period, the Department of Agriculture Cooperation and Farmers Welfare, Government of India is taking several measures.

Measures Taken

- The Department has circulated the SOP related to crop harvesting & threshing during Kharif 2020 to the States to protect health of farmers and farm workers and to contain the spread of Coronavirus.
- Advisory issued to State Governments/ UT to facilitate Direct Marketing, enabling direct purchase from the farmers/ FPOs/ Cooperatives etc. by Bulk Buyers/Big Retailers/Processors by limiting regulation under State APMC Act.
- The Department is closely monitoring the functioning of fruits and vegetable markets and on inter-State movement of agricultural produce.
- Module of uberisation of logistics aggregator has been recently launched on e-NAM Platform. More than 7.76 lakh trucks and 1.92 lakh transporters are already linked to this module.
- Railways introduced 62 routes for running 109 time table parcel trains to supply essential commodities including perishable horticultural produce, seeds, milk and dairy products at fast speed which will facilitate farmers/FPOs/traders and companies for continuity of supply chain across the country.
- India had a good crop of wheat, in surplus of its own demand. On specific demand from countries, NAFED has been asked to export 50,000 MT wheat to Afghanistan and 40,000 MT wheat to Lebanon under G2G (Government to government) arrangement.

APMC Acts

- At time of Independence, a moneylenders or trader in villages mainly controls the whole distribution system of agriculture commodities; consequently farmers were trapped into a perpetual debt instead of getting any profit. Hence to overcome this problem, different state enacted their APMC acts to set up Agricultural Markets.
- In India, agriculture is a “state subject”. Thus, the wholesaling of agricultural produce is governed by the Agricultural Produce Marketing Acts of various State governments.
- The specific objective of market regulation is to ensure that farmers are offered fair prices in a transparent manner.
- The APMC Act empowers state governments to notify the commodities, and designate markets and market areas where the regulated trade takes place.
- The Act also provides for the formation of agricultural produce market committees (APMC) that are responsible for the operation of the markets. The entire State is divided and declared as a market area wherein the markets are managed by the Market Committees constituted by the State Governments. Currently there are around 7,500 regulated markets in the country.

Need for a Model APMC Act

Centre had circulated the Model Agricultural Produce Marketing Committee (APMC) Act in 2003 and asked them to amend their APMC laws accordingly.

The act provides for the setting up of private markets, direct deals between the growers and end-users of agro-commodities, including out of Mandi transactions, and legalisation of contract farming etc.

While many states have altered their marketing laws on constant prodding from the Centre, most of the amended laws do not conform strictly to the spirit of the Model statute.

Various Issues with the existing APMC acts

- Vested interests in retaining the present Mandi system along with virtual monopoly of the APMCs over the farm produce marketing are too strong to allow the needed legal changes.
- The state level statues have so far unable to address the key issues such as expansion and modernisation of marketing facilities, improvement in marketing information communication and linking small producers with efficient marketing channels.
- Further, task of establishing infrastructure needs massive investment, which the government alone cannot bear. So, Private participation is a must.
- But private investment of this magnitude is unlikely to come about in the absence of a favourable legal framework and policy environment.
- A planning commission working group report said that present model of marketing reforms, which seeks to create space for a new set of modern markets to operate along with the much less transparent APMC regulated markets, is unlikely to attract much private investment in modern marketing infrastructure.

CROP DIVERSIFICATION

Why in news?

Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) is implementing a Crop Diversification Programme (CDP) for replacing paddy crop with less water consuming alternative crops to save water and protect soil in the state of Punjab.

What is Crop Diversification Programme?

Crop Diversification Programme (CDP), a sub scheme of Rashtriya Krishi Vikas Yojana (RKVY) is being implemented in Original Green Revolution States to divert the area of paddy crop to alternate crops and in tobacco growing states to encourage tobacco farmers to shift to alternate crops/cropping system.

Rashtriya Krishi Vikas Yojana (RKVY)

Rashtriya Krishi Vikas Yojana is a special Additional Central Assistance Scheme which was launched in August 2007 to orient agricultural development strategies, to reaffirm its commitment to achieve 4 per cent annual growth in the agricultural sector during the 11th plan. The scheme was launched to incentivize the States to provide additional resources in their State Plans over and above their baseline expenditure to bridge capital gaps.

DOUBLING FARMERS INCOME

Why in news?

The National Sample Survey Office (NSSO) report for 2013-14, farmers' average monthly income stood at Rs. 6,426.

At present as per the last survey available for 2016-17, it stands at Rs. 8,167.

India's plan to Increase Farmers' Income

- National Commission for Farmers was constituted in 2004, chaired by Prof. M. S. Swaminathan, to suggest methods for faster and more inclusive growth for farmers.
- Then, the Government of India in 2016 constituted an expert committee headed by Ashok Dalwai to look into the entire agriculture ecosystem in the country to suggest ways and means to reform it so that farmers' income can be doubled by 2022.
- The Committee submitted its final report to the Government in September 2018.

Steps taken by the Indian Government

Institutional Reforms

- Pradhan Mantri Krishi Sinchai Yojana,
- Soil health card
- Prampragat Krishi Vikas Yojana
- Pradhan Mantri Fasal Bima Yojana- Provide insurance against crop and income loss and to encourage investment in farming.
- Interlinking of rivers (ILP) – To reduce dependence on Monsoon and Increase Crop Production
- 'Operation Greens'- To address price volatility of perishable commodities like Tomato, Onion and Potato (TOP).
- PM Kisan Sampada Yojana- To promote food processing in a holistic manner.

Technological Reforms

- eNAM- A pan-India electronic trading portal.
- **Technology mission on cotton** which aims to increase the income of the cotton growers by reducing the cost of cultivation as well as by increasing the yield per hectare through proper transfer of technology to the growers.
- **Technology Mission on Oilseeds, Pulses and Maize (TMOPM)**
- **Mission for Integrated Development of Horticulture (MIDH)**- a scheme for the holistic growth of the horticulture sector.
- **Sugar Technology Mission**
- **National Mission on Sustainable Agriculture**- aims at promoting sustainable agriculture through a series of adaptation measures.
- In addition, schemes relating to **tree plantation (Har Medh Par Ped)**, **Bee Keeping**, **Dairy and Fisheries** are also implemented.

SCIENTISTS IDENTIFY BACTERIA THAT CAN REPLACE FERTILIZERS AND FUNGICIDES IN TEA PLANTS

Why in news?

- Researchers have found significant plant-growth-promoting and antifungal activities of endophytic actinobacteria associated with Tea plant and related genera, Eurya to find potent plant growth-promoting strains.
- Application of endophytic Actinobacteria could reduce chemical inputs in Tea plantation.

- This research finding confirms that endophytic actinobacteria have the potential to exhibit multiple growth-promoting traits such as IAA production, phosphate solubilization, siderophore production and so on that positively influence tea growth and production.

LAND UNDER IRRIGATION

Why in news?

Under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) – Accelerated Irrigation Benefits Programme (AIBP), 99 major and medium irrigation projects having combined ultimate irrigation potential of 75.43 lakh Ha are under implementation; and under CADWM, development of the command area of these 99 projects have been taken up, targeting 44.35 lakh Ha of Culturable Command Area (CCA) .

Details

- The Ministry of Agriculture and Farmers Welfare implements Per Drop More Crop (PDMC) component of PMKSY which focuses on enhancing water use efficiency at farm level through precision/micro irrigation by providing financial assistance to the States.
- The scheme also supports micro level water storage or water conservation / management activities to supplement micro irrigation.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

- Pradhan Mantri Krishi Sinchayee Yojana is a national mission to improve farm productivity and ensure better utilization of the resources in the country.
- The primary objectives of PMKSY are to attract investments in irrigation system at field level, develop and expand cultivable land in the country, enhance ranch water use in order to minimize wastage of water, enhance crop per drop by implementing water-saving technologies and precision irrigation.
- The plan additionally calls for bringing ministries, offices, organizations, research and financial institutions occupied with creation and recycling of water under one platform so that an exhaustive and holistic outlook of the whole water cycle is considered.
- The goal is to open the doors for optimal water budgeting in all sectors.
- Tagline for PMKSY is “more crop per drop”.

Major objectives

1. Convergence of investment in irrigation at the field level
2. Expand cultivable area under irrigation
3. Improve On-farm water use efficiency to reduce wastage of water
4. Enhance the adoption of being precise in irrigation and other water saving technologies (more crop per drop)

LAW FOR RAIN WATER HARVESTING

Why in news?

The Model Building Bye Laws, 2016, has been issued for guidance of the States/UTs which has a chapter on 'Rainwater Harvesting'.

Details

- 33 States/UTs have adopted the rainwater harvesting provisions. The provisions of this chapter are applicable to all the buildings.
- The implementation of the rainwater harvesting policy comes within the purview of the State Government/Urban Local Body / Urban Development Authority.
- As per Model Building Bye Laws- 2016, provision of rainwater harvesting is applicable to all residential plots above 100 sq.m.
- In order to regulate the Over-exploitation and consequent depletion of ground water, the Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development, which includes provision of rain water harvesting.
- Central Ground Water Authority (CGWA) has been constituted under the 'Environment (Protection) Act, 1986' for the purpose of regulation and control of ground water development and management in the Country.
- CGWA is regulating ground water withdrawal by industries / infrastructure/ mining projects in the country for which guidelines/ criteria have been framed which includes rainwater harvesting as one of the provisions while issuing No Objection Certificate.

Conclusion

Water being a State subject, initiatives on water management including conservation and water harvesting in the Country is primarily States' responsibility.

However, the important measures have been taken by the Central Government for conservation, management of ground water and effective implementation of rain water harvesting in the country.

IMPARTING NEW TECHNOLOGIES TO FARMERS THROUGH ELECTRONIC MEDIA

Why in news?

Dept. of Agriculture and Farmer Welfare is educating farmers through following use of electronic media as follows :-

1. **Kisan Suvidha mobile app** facilitates dissemination of information to farmers on the critical parameters viz., Weather; Market Prices; Plant Protection; Input Dealers (Seed, Pesticide, Fertilizer) Farm Machinery; Soil Health Card; Cold Storages & Godowns, Veterinary Centres and Diagnostic Labs.
1. Crop related advisories are regularly sent to the registered farmers through SMSs on **mKisan Portal**
1. The **Indian Council of Agriculture Research (ICAR)** has compiled more than 100 mobile apps developed by ICAR, State Agricultural Universities and Krishi Vigyan Kendras (KVKs) in the areas of crops, horticulture, veterinary, dairy, poultry, fisheries, natural resources management and integrated subjects.

1. Awareness/ education is being created among farmers through various electronic mass media mediums like **DD Kisan Channel, Doordarshan, All India Radio** etc.
1. **Social media** platforms like Facebook, Twitter, YouTube are being used to educate farmers, across the country.

The Government is implementing the following schemes aimed at imparting training to farmers in the agriculture and allied sectors:-

1. **ATMA:** A Centrally Sponsored Scheme on 'Support to State Extension Programmes for Extension Reforms' popularly known as Agriculture Technology Management Agency (ATMA) Scheme. The extension activities under ATMA, inter-alia, include Farmers' Training
1. **KVKs:** Indian Council of Agricultural Research (ICAR) with its network of 717 Krishi Vigyan Kendras (KVKs) has mandate of technology assessment, demonstration and capacity development of farmers. KVKs are imparting training to farmers for getting higher agricultural production and income.
1. Four **Farm Machinery Training & Testing Institutes (FMTTIs)** located in MP, Haryana, AP and Assam are engaged in imparting training to various categories of trainees including farmers, in the field of Farm Mechanization.
1. **National Food Security Mission (NFSM):** is being implemented in identified districts of 28 States and 2 UTs viz. Ladakh and J&K of the country to increase the production and productivity of rice, wheat, pulses, coarse cereals and nutri- cereals (millets) through area expansion and productivity enhancement.
1. **Mission for Integrated Development of Horticulture (MIDH):** A Centrally Sponsored Scheme is being implemented for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. All States and UTs are covered under MIDH.
1. In addition to the above, training of farmers is an inbuilt component under **Sub-Mission on Plant Protection & Plant Quarantine. Farmer Field Schools** are conducted for promoting Integrated Pest Management among farmers.

PM KISAN MAAN DHAN YOJANA

Aim of PMKMDY

To improve the life of small and marginal farmers of the country.

Salient features of the scheme:

(Note: The list is comprehensive, but important from exam point of view).

1. The scheme is voluntary and contributory for farmers in the entry age group of 18 to 40 years.
2. A monthly pension of Rs. 3000/- will be provided to them on attaining the age of 60 years.
3. The farmers will have to make a monthly contribution of Rs.55 to Rs.200, depending on their age of entry, in the Pension Fund till they reach the retirement date i.e. the age of 60 years.
4. The Central Government will also make an equal contribution of the same amount in the pension fund.

5. The spouse is also eligible to get a separate pension of Rs.3000/- upon making separate contributions to the Fund.
6. The Life Insurance Corporation of India (LIC) shall be the Pension Fund Manager and responsible for Pension pay out.
7. In case of death of the farmer before retirement date, the spouse may continue in the scheme by paying the remaining contributions till the remaining age of the deceased farmer.
8. If the spouse does not wish to continue, the total contribution made by the farmer along with interest will be paid to the spouse.
9. If there is no spouse, then total contribution along with interest will be paid to the nominee.
10. If the farmer dies after the retirement date, the spouse will receive 50% of the pension as Family Pension.
11. After the death of both the farmer and the spouse, the accumulated corpus shall be credited back to the Pension Fund.
12. The beneficiaries may opt voluntarily to exit the Scheme after a minimum period of 5 years of regular contributions.
13. On exit, their entire contribution shall be returned by LIC with an interest equivalent to prevailing saving bank rates.
14. The farmers, who are also beneficiaries of PM-Kisan Scheme, will have the option to allow their contribution debited from the benefit of that Scheme directly.
15. In case of default in making regular contributions, the beneficiaries are allowed to regularize the contributions by paying the outstanding dues along with prescribed interest.

Need for and Significance of the scheme:

It is expected that at least 10 crore labourers and workers in the unorganised sector will avail the benefit of the scheme within next five years making it one of the largest pension schemes of the world.

SMALL FARMERS AGRIBUSINESS CONSORTIUM (SFAC)

Small Farmers Agribusiness Consortium (SFAC) is an Autonomous Society promoted by the Ministry of Agriculture, Cooperation and Farmers' Welfare, Government of India. It was registered under Societies Registration Act XXI of 1860 on 18th January, 1994

- The Society is governed by a Board of Management which is chaired, ex-officio, by Hon'ble Union Minister for Agriculture and Farmers Welfare as the President and the Secretary, Department of Agriculture, Cooperation and Farmers Welfare, Government of India, is the ex-officio Vice-President.
- Society is a pioneer in organising small and marginal farmers as Farmers Interest Groups, Farmers Producers Organisation and Farmers Producers Company for endowing them with bargaining power and economies of scale.
- It provides a platform for increased accessibility and cheaper availability of agricultural inputs to small and marginal farmers and in establishing forward and backward linkages in supply chain management.
- This initiative has triggered mobilization of farmers for aggregation across the country with ultimate aim of sustainable business model and augmented incomes.
- SFAC is an exclusive Society focused on increasing incomes of small and marginal farmers through aggregation and development of agribusiness.
- SFAC has pioneered the formation and growth of Farmer Producer Organizations/Farmer Producer Companies, which is now being implemented across the length and breadth of the country. SFAC is progressing towards establishing an eco system for FPOs/FPCs to make them sustainable and viable in the long run.
- SFAC offers Schemes like Equity Grant and Credit Guarantee Fund Scheme to FPCs to improve availability of working capital and development of business activities.

- SFAC promotes development of small agribusiness through its VCA Scheme for value added processing and marketing linkages.
- SFAC is also implementing the National Agriculture Market Electronic Trading (e-Nam) platform. The purpose is to provide for a single unified market for agricultural products with much higher price discovery for farmers.

SUBSIDIES PROVIDED IN AGRICULTURAL SECTOR

Seeds

The Department is implementing Sub-Mission on Seeds & Planting Materials (SMSP) from the year 2014-15 to promote production and multiplication of quality seeds of agricultural crops, so that the required quantities of seeds could be made available to farmers in the country. To upgrade the quality of farmers' saved seeds, financial assistance for distribution of foundation/certified seeds at 50% cost of the seeds for cereal crops and 60% for pulses, oilseeds, fodder and green manure crops for production of quality seeds is available /provided for one acre per farmer under the component Seed Village Programme of SMSP.

Mechanization & Technology

(A) A Sub Mission on Agricultural Mechanization (SMAM) is being implemented w.e.f. 2014-15. The SMAM provides a suitable platform for converging all activities for inclusive growth of agricultural mechanization by providing a 'single window' approach for implementation with a special focus on small & marginal farmers

Irrigation

There are three components of the Pradhan Mantri Krishi Sinchai Yojana (PMKSY)

- i. PMKSY(Har Khet Ko Pani)
- ii. PMKSY (Watershed) and
- iii. PMKSY (Per Drop More Crop)

Godowns

To promote creation of scientific storage capacity for storing farm produce, processed farm produce and agricultural inputs etc., to reduce post-harvest & handling losses, promote pledge financing and market access including marketing infrastructure (other than storage), the DAC&FW is implementing a capital subsidy sub-scheme "Agricultural Marketing Infrastructure (AMI)" of Integrated Scheme for Agricultural Marketing (ISAM) across the country.

NATIONAL AGRICULTURE MARKET PORTAL E-NAM TO COMPLETE FOUR YEARS

Why in news?

The pan-India Agriculture trading portal e-NAM will be completing four years of implementation on 14th April 2020.

e-NAM

- e-NAM was an innovative initiative in agricultural marketing to enhance farmers accessibility digitally to multiple number of markets & buyers and to bring transparency in trade transactions with the intent to improve price discovery mechanism, quality commensurate price realization and also to develop the concept of One Nation One Market for agriculture produce.
- Keeping in view the need of making marketing of commodities easier for farmers, e-NAM was envisioned and launched by Prime Minister in 21 mandis on 14th April, 2016 which has now reached 585 mandis across 16 States and 02 UTs.
- e-NAM is being expanded to cover additional 415 mandis which will take the total number of e-NAM mandis to 1000 soon. This online platform will prove to be a giant leap in reforming the agriculture market in India.
- We have more than 1.66 crore farmers and 1.28 Lakh traders registered on e-NAM platform. Farmers are free to register on e-NAM portal and they are uploading their produce for sale online to the traders across all e-NAM mandis and traders can bid for the lots available for sale on e-NAM from any location.

Benefits of e-NAM

- e-NAM would help traders to find and arrange timely movement of produces from mandi to various other locations.
- With this interface, Traders would be able to access more than 7.76 lakh trucks through eNAM Platform.
- This intervention brings immense benefits to our farmers in augmenting their incomes by enabling them to realize competitive & remunerative prices in a transparent manner without incurring additional costs.
- Quality assaying testing facilities is being provided in e-NAM mandis which helps farmers in getting prices commensurate with quality of their produce.
- Electronic weighing scales have been provided to accurately weigh the commodities of farmers after bidding on e-NAM platform to bring transparency in weighing, Payment to farmers by traders now can be done through mobile phone using BHIM payment facility.

KISAN RATH TO LINK FARMERS TO TRANSPORT OPTIONS

Why in news?

In a bid to ease the disruption of agricultural supply chains, especially for perishable produce, the Agriculture Ministry has launched a Kisan Rath mobile application, which will connect farmers and traders to a network of more than 5 lakh trucks and 20,000 tractors.

Details

- The application, developed by the National Informatics Centre, is meant to help farmers and traders who are searching for vehicles to move produce.
- This includes primary transport from the farm to the mandis, local warehouses or the collection centres of farmer producer organisations, as well as the secondary transport from the local mandis to intra-and inter-State mandis, processing units, railway stations, warehouses or wholesalers.

Who will it help?

- It will be a stepping stone towards provision of timely transportation service at competitive rates for farmers and traders, besides achieving a reduction in food wastage.
- In a future beyond the pandemic, this app will enhance the connectivity of farmers directly to the seller and reduce the dependency of farmers in reaching the traders improving their profits and reducing the wastage of food.

MINOR FOREST PRODUCE IN EXEMPTION LIST

Why in news?

In the latest set of lockdown relaxations, the Ministry of Home Affairs has added the collection, harvesting and processing of minor forest produce to the list of activities that will be permitted.

Exclusions in the Lockdown

- The new MHA guidelines have also expanded the types of plantations that will be permitted to resume activities with half their workforce from April 20 onwards.
- Earlier, tea, coffee and rubber plantations were given exemptions from the lockdown.
- Now, bamboo, cocoa, arecanut, and spices plantations — most of which are clustered in the southern States — will be added to the list, along with their harvesting, processing, packaging, sale and marketing.
- Cooperative credit societies, which are crucial to provide crop loans to farmers, will be exempted.
- Non- banking financial institutions, including housing finance companies and microfinance institutions, will also be allowed to function with a bare minimum of staff, the guidelines said.
- The Home Ministry also added to the list of construction activities in rural areas which will be exempted from the lockdown from April 20. They now include construction projects related to water supply and sanitation, as well as the installation of power transmission lines and telecom optic fibre and cable.

Minor Forest Produce

Minor forest produce includes non-timber items such as bamboo and other grasses, edible or useful roots, seeds, fruits, flowers and plants.

A number of people from scheduled tribes and other forest dwelling communities depend on the collection and sale of such items for their livelihood.

MSP for MFP

- Minimum Support Price Scheme (MSP) for Minor Forest Produce (MFP) is a centrally-sponsored scheme aimed to ensure fair and remunerative price to MFP gatherers.
- The MSP for MFP scheme was first launched in 2013 but the severe gaps in its implementation led to the programme remaining dormant. To revitalize the programme the revised guidelines had been issued in 2019.

Implementing agency: TRIFED

TRIFED

- TRIFED is The Tribal Cooperative Marketing Development Federation of India.
- It was established in 1987. It became operational from April 1988.
- The basic objective of the TRIFED is to provide good price of the 'Minor Forest Produce (MFP) collected by the tribes of the country.
- TRIFED is a national level apex organization functioning under the administrative control of Ministry of Tribal Affairs.

Objectives of the TRIFED are;

1. To provide fair price to the 'Minor Forest Produce (MFP) collected by the tribes and enhance their level of income.
2. To ensure sustainable harvesting of 'Minor Forest Produce (MFP).
3. To save the tribes from the exploitation of the business mediators who purchase the products of the tribes at cheap rate and sell at the higher prices. So TRIFED removed the mediators.
4. If the price of the products fluctuates then TRIFED arranges compensation for the tribes from the Ministry of Agriculture.
5. TRIFED also assures the tribes for purchasing their products at a particular price, primary processing of products, storage of products and transportation etc.
6. TRIFED provides information related to fair price markets for the 'Minor Forest Produce (MFP). Like tribes of all over country sell their products in the trade fair organised at the Pragati Maidan, New Delhi every year.
7. TRIFED helps in increasing the bargaining power of the tribes to fetch good price of the MFP.
8. TRIFED provides adequate training to the tribes to make value addition to their products.

SHORT ON LABOURERS, A LONG HARVEST

Lockdown's Impact on Harvesting

- Usually, 90% of the wheat in Punjab and neighbouring Haryana is harvested using combine harvester machines. But with physical distancing norms in place now, for many small farmers, that system has been thrown out of gear as they can't jointly hire the machine and the produce must be brought to the mandis through commission agents so that people don't congregate.
- The major worry is how to store this harvested produce during this extended period.
- Unfortunately the Indian Meteorological Department (IMD) forecast says a western disturbance is likely to affect the western Himalayan region, which could bring scattered rain and thunder showers over the region on April 17 and 18. Standing crops and harvest stored in the open could face widespread damage.
- The problem may be more acute for those selling perishable crops such as fruits and vegetables.
- The government in its initial order did not specify fruit transport as an essential service. There was confusion. It led to the destruction of fruit crop all over Maharashtra.
- The impact of this virus is much bigger than any drought.

Wheat harvest in India during these tough times in different regions

- Wheat is the major rabi crop in the winter farming season in India, and the only one bought by government agencies at the pre-set minimum support price (MSP).
- In western States such as Madhya Pradesh, Gujarat and even Rajasthan, warmer weather means that the wheat harvest was already under way when the COVID-19 pandemic hit the country, and is now largely over.
- However, the bulk of the country's wheat is grown in Punjab and Haryana, an area known as the bread basket of India. The prolonged winter delayed the maturing of the grain and pushed harvesting dates by at least a week.
- Punjab is expecting a bumper wheat harvest crop this season with production likely to touch 182 lakh tonnes.
- The cash credit limit of ₹22,900 crore has already been approved by the Centre to ensure prompt and seamless procurement operations in the State.

What is being done to help?

- The long list was presented to the States, via video conferencing due to the lockdown, along with another long list of actions taken by the Centre to facilitate agricultural activity.
- All agricultural work was exempted from lockdown restrictions.
- Mandis can function with at least 50% of their workforce. Although migrant labour may have left, local labour is available, so there is no need to panic. Anyway, most Punjabi farmers use machines for harvesting.
- To ensure that farmers get their monetary return at the earliest, the amendment of the Agricultural Produce Market Committee (APMC) Act has been notified to ensure that farmers are paid electronically through commission agents within 48 hours after the produce is lifted.

The coupon system

- With each coupon a farmer will be entitled to bring one trolley of about 50 to 70 quintals of wheat.
- A farmer will be entitled to take multiple coupons each day or on different days depending on space in the purchase centre in order to avoid rush in the mandis.
- As one coupon only allows sale of 50 quintals, it will be a difficult task for farmers with big landholdings to sell their produce.

- Once a farmer uses up the given coupon, until the next coupon is given, the harvest will be out in the open due to lack of storage facilities and face risks. Also, fire incidents during the harvesting season usually go up, which is a major concern for crop safety.

The policy-implementation gap

- The Centre announced a slew of relaxations and support measures for agriculture in the first two weeks of the lockdown.
- All agricultural and horticultural activities, markets, labour and transport were supposed to be exempt from lockdown restrictions.
- Subsidies on crop loans were extended for late repayment. States were asked to relax regulations and allow direct purchases by bulk buyers and retailers.
- The digitally connected e-NAM marketplace system was touted, along with a logistics module connecting farmers and traders to a network of almost 8 lakh trucks and 2 lakh transporters.
- The Railways introduced 67 routes for perishable produce. An “Agri-Transport” Call Centre was set up to handle transport issues.
- However, as farmers from different parts of the country reported, many of these policies were not uniformly implemented on the ground, especially in the first few weeks.
- In many cases, the Centre’s instructions have not percolated down to District Magistrates and Superintendents of Police, resulting in the harassment of farmers and agricultural traders, and supply chain disruptions

Conclusion

- The lockdown has proved one thing: agriculture is truly the backbone of the Indian economy. Coronavirus or not, farm production goes on because the demand for food will always be there.
- But the cost to the farmer, to agricultural workers, is not taken into account in that process.
- Also, this reverse migration proves that they were actually agricultural refugees, who left for the cities only because they could not make a living in the fields
- Everyone is talking about the need to invest in public health once the COVID-19 crisis is over. Our farmers, agricultural workers are also front line workers during this time and they also deserve attention. If we can invest in agriculture and overhaul it so it is profitable, then we will have actually learned something from this crisis.

REVIEW OF DARE/ICAR, TECHNOLOGY ADVANCEMENT VIA ICAR-KVK

Why in news?

The Union Minister for Agriculture & Farmers’ Welfare, took a review meeting of the Department of Agricultural Research & Education (DARE) and Indian Council of Agricultural Research (ICAR) on 23rd April.

He emphasised on enhancing the reach of technologies amongst farmers and reach out to maximum number of farmers through the network of ICAR and Krishi Vigyan Kendras (KVKs).

Developments so far

- Many of the ICAR varieties and technologies are earning foreign exchange and contributing towards food security of the country.

- ICAR and KVKs have contributed positively in implementation of different Government Special campaigns like Krishi Kalyan Abhiyan, Jalshakti Abhiyan, tree plantation campaign and International Women's Day celebrations.
- The Krishi Kalyan Abhiyan (KKA) is being implemented in 112 Aspirational districts of the country.
- So far two phases of Krishi Kalyan Abhiyan have been completed in which 11.05 lakh farmers were trained by KVKs and over 5000 frontline demonstrations at farmer's field were conducted.
- ICAR has developed 66 vaccines & diagnostics during 2014-19 for the diagnosis and control of diseases of animals.
- ICAR proactively worked for the prevention of stress to farmers due to COVID-19.

ICAR

- The Indian Council of Agricultural Research (ICAR) is an autonomous body responsible for co-ordinating agricultural education and research in India.
- It reports to the Department of Agricultural Research and Education, Ministry of Agriculture, and The Union Minister of Agriculture serves as its president.
- It is the largest network of agricultural research and education institutes in the world.

Aims and functions of ICAR

1. To plan, undertake, aid, promote and coordinate education, research and its application in agriculture, agroforestry, animal husbandry, fisheries, home science and allied sciences.
2. To act as a clearing house of research and general information relating to agriculture, animal husbandry, home science and allied sciences, and fisheries through its publications and information system; and instituting and promoting transfer of technology programmes.
3. To provide, undertake and promote consultancy services in the fields of education, research, training and dissemination of information in agriculture, agroforestry, animal husbandry, fisheries, home science and allied sciences.
4. To look into the problems relating to broader areas of rural development concerning agriculture, including postharvest technology by developing co-operative programmes with other organizations such as the Indian Council of Social Science Research, Council of Scientific and Industrial Research, Bhabha Atomic Research Centre and the universities.
5. To do other things considered necessary to attain the objectives of the Society.

Krishi Kalyan Abhiyaan

- The Union Ministry of Agriculture and farmers' welfare has launched the Krishi Kalyan Abhiyaan from June 1, 2018 till July 31, 2018 to aid, assist and advice farmers on how to improve their farming techniques and raise their incomes.
- The Krishi Kalyan Abhiyaan will be undertaken in 25 Villages with more than 1000 population, each in 111 Aspirational Districts identified in consultation with Ministry of Rural Development as per directions of NITI Aayog.

Various activities undertaken under Krishi Kalyan Abhiyaan plan are:

1. Distribution of Soil Health Cards to all farmers
2. 100% coverage of bovine vaccination for Foot and Mouth Disease (FMD) in each village
3. 100% coverage of Sheep and Goat for eradication of Peste des Petits ruminants (PPR)

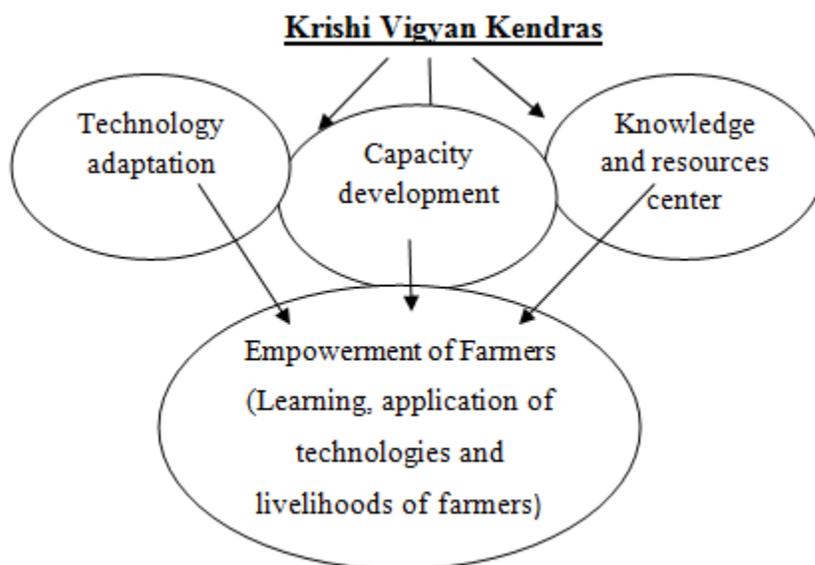
4. Distribution of Mini Kits of pulses and oilseeds to all
5. Distribution of Horticulture/Agro Forestry/Bamboo plant @ 5 per family(location appropriate)
6. Making 100 NADAP Pits in each village
7. Artificial insemination saturation
8. Demonstration programmes on Micro- irrigation
9. Demonstrations of integrated cropping practice

Krishi Vigyan Kendra (KVK)

- A Krishi Vigyan Kendra (KVK) is an agricultural extension center in India.
- Usually associated with a local agricultural university, these centers serve as the ultimate link between the Indian Council of Agricultural Research and farmers, and aim to apply agricultural research in a practical, localized setting.
- All KVKs fall under the jurisdiction of one of the 11 Agricultural Technology Application Research Institutes (ATARIs) throughout India.

Functions of KVKs

1. On-Farm Testing: Each KVK operates a small farm to test new technologies, such as seed varieties or innovative farming methods, developed by ICAR institutes. This allows new technologies to be tested at the local level before being transferred to farmers.
2. Front-line Demonstration: Due to the KVK's farm and its proximity to nearby villages, it organizes programs to show the efficacy of new technologies on farmer fields.
3. Capacity Building: In addition to demonstrating new technologies, the KVK also hosts capacity building exercises and workshops to discuss modern farming techniques with groups of farmers.
4. Multi-sector Support: Offer support to various private and public initiatives through its local network and expertise. It is very common for government research institutes to leverage the network of KVKs when performing surveys with a wide range of farmers.
5. Advisory Services: Due to the growing use of ICT, KVKs have implemented technologies to provide farmers information, such as weather advisories or market pricing, through radio and mobile phones.



FOODGRAIN STOCK WILL LAST TILL NEXT MARCH: FCI

Why in news?

The stock of foodgrains available with the Food Corporation of India is “comfortable” to manage the situation till March 2021, but it would be an exaggeration to hold that the stock is “far in excess” of the buffer stock requirement, which should include additional allocation, according to the Chairman and Managing Director of the FCI.

Additional allocation

- A pandemic, as we are witnessing today, is a different situation and it may demand a revision of the existing norms in view of the additional allocation of foodgrains at 5 kg a person, as being done under the Pradhan Mantri Garib Kalyan Ann Yojana (PMGKAY) for three months (April to June this year in the light of the coronavirus (COVID-19).
- In essence, the buffer norms now need to take into account the additional allocation too.
- In the remaining period of April, May and June, it is expected that there will be an outflow of 200 lakh tonnes for the regular NFSA scheme, 5 kg free for each NFSA beneficiaries given under PMGKAY and the new schemes introduced for non-NFSA cardholders and NGOs.

Kharif procurement

- As the Kharif procurement season for rice is approaching an end and wheat procurement has just started, the stock position at our warehouses will naturally be high on July 1.
- Wheat being once a year crop, it has to be stocked from July for almost a year to meet the year-long demand by the Targeted Public Distribution System (TPDS) till the arrival of the next crop.
- Similarly, we will have to wait at least for six months to start receiving the inflow of Kharif rice.

Food Corporation of India (FCI)

- Food Corporation of India (FCI) is a Public Sector Undertaking, under the Department of Food & Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, GOI.
- **It is a statutory body set up in 1965 under the Food Corporations Act, 1964.**
- It was established against the backdrop of major grains shortage, especially of wheat.

Objectives of FCI

- To provide farmers remunerative prices
- To make food grains available at reasonable prices, particularly to vulnerable sections of society
- To maintain buffer stocks for food security
- To intervene in market for price stabilization

KISAN SABHA APP TO CONNECT FARMERS

Why in news?

The Kisan Sabha App developed by CSIR-Central Road Research Institute, to connect farmers to supply chain and freight transportation management system, was remotely launched on 1st May 2020.

The Kisan Sabha app is a one stop solution for farmers, transporters and other entities engaged in the agriculture Industry and offered that ICAR can work together with CSIR and use the Krishi Vigyan Kendra's (KVK) networks for implementation.

Key Features:

- The portal connects the farmers, transporters, Service providers (like pesticides/ fertilizer/ dealers, cold store and warehouse owner), mandi dealers, customers (like big retail outlets, online stores, institutional buyers) and other related entities for timely and effective solution.
- The portal acts as a single stop for every entity related to agriculture, be they a farmer who needs better price for the crops or mandi dealer who wants to connect to more farmers or truckers who invariably go empty from the mandis.
- KisanSabha also works for people in agriculture services sector such as dealers of fertilizers/ pesticides,who can reach out to more farmers for their services.
- It would also prove to be useful for those associated with cold store(s) or godown(s). KisanSabha also provides a platform for people who want to buy directly from the farmers.
- Kisan Sabha has 6 major modules taking care of Farmers/Mandi Dealers/Transporters/Mandi Board Members/ Service Providers/Consumers.

Kisan Sabha aims to provide the most economical and timely logistics support to the farmers and increase their profit margins by minimizing interference of middlemen and directly connecting with the institutional buyers.

It will also help in providing best market rates of crops by comparing nearest mandis, booking of freight vehicle at cheapest cost thereby giving maximum benefit to the farmers.

GOVERNMENT RAISES MSP FOR MFP

Why in news?

In a crucial announcement affecting the livelihoods of tribal gatherers, the Government, on 1st May 2020, revised the Minimum Support Price (MSP) for Minor Forest Produce (MFP) of 49 items.

In view of the exceptional and very difficult circumstances currently prevailing in the country on account of COVID-19 pandemic and the potential of the instant scheme to offer the much needed support to the tribal MFP gatherers, the competent authority has decided to relax the existing provisions in the scheme guidelines and effect revision of MSP in respect of the MFP items currently covered under the scheme after the due consultation with MFP Pricing Cell.

MANDIS LINKED TO E-NAM SEE 65% RISE

Why in news?

COVID-19 has given a boost to e-NAM, the national digital platform for agricultural trade, with the number of connected mandis, or wholesale markets, up 65% since the lockdown, according to Agriculture Ministry data.

The Centre recognised the potential of e-NAM in overcoming some of the hurdles of the lockdown, and introduced some important new features in April:

1. A trading module allowing Farmer Producer Organisations (FPOs) to trade produce directly from their collection centres without bringing it to mandis
2. A warehouse-based trading module
3. A logistics module offering users trackable transport facilities through aggregators with access to 11 lakh trucks.

SIGNIFICANT RISE IN SOWING AREA COVERAGE OF SUMMER CROPS

Why in news?

Sowing Area Coverage of Summer Crops is as follows:

- **Rice:** About 34.80 lakh ha area coverage under summer rice as compared to 25.26 lakh ha during the corresponding period of last year.
 - **Pulses:** About 8.77 lakh ha area coverage under pulses as compared to 5.44 lakh ha. during the corresponding period of last year.
 - **Course Cereals:** About 9.12 lakh ha area coverage under coarse cereals as compared to 5.49 lakh ha. during the corresponding period of last year.
 - **Oilseeds:** About 8.87 lakh ha area coverage under oilseeds as compared to 7.00 lakh ha. during the corresponding period of last year.

Background: Types of Crops

India has three cropping seasons — **Rabi, Kharif and Zaid.**

Rabi Crops

- **Rabi crops are sown in winter from October to December** and harvested in summer from April to June.
- Some of the important rabi crops are **wheat, barley, peas, gram and mustard.**
- Though, these crops are grown in large parts of India, states from the north and north-western parts such as Punjab, Haryana, Himachal Pradesh, Jammu and Kashmir, Uttarakhand and Uttar Pradesh are important for the production of wheat and other rabi crops.
- Availability of precipitation during winter months due to the western Temperate Cyclones help in the success of these crops.
- However, the success of the green revolution in Punjab, Haryana, western Uttar Pradesh and parts of Rajasthan has also been an important factor in the growth of the abovementioned rabi crops.

Kharif Crops

- **Kharif crops** are **grown with the onset of monsoon** in different parts of the country and these are harvested in September-October.
Important crops grown during this season are **paddy, maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut and soyabean**.
Some of the most important rice-growing regions are Assam, West Bengal, coastal regions of Odisha, Andhra Pradesh, Telangana, Tamil Nadu, Kerala and Maharashtra, particularly the (Konkan coast) along with Uttar Pradesh and Bihar.
- Recently, paddy has also become an important crop of Punjab and Haryana. In states like Assam, West Bengal and Odisha, three crops of paddy are grown in a year. These are **Aus, Aman and Boro**.

Zaid Crops

- In between the rabi and the kharif seasons, there is a short season during the summer months known as the **Zaid season**.
- Some of the crops produced during 'zaid' are watermelon, muskmelon, cucumber vegetables and fodder crops. Sugarcane takes almost a year to grow.

INTEGRATED SOIL NUTRIENT MANAGEMENT: SOIL HEALTH CARD

Why in news?

Government has called for making integrated soil nutrient management a farmers' movement. Reviewing the progress of the Soil Health Programme

Details:

- Major focus of the programme would be on mass awareness programme for farmers in over 1 lakh villages covering all districts of the country and setting up of village level Soil Testing Labs by youth having education in agriculture, Women Self Help Groups, FPOs etc.
- SHC scheme will focus on enabling employment generation after appropriate skill development.
- The Department of Agriculture, Cooperation and Farmers' Welfare will launch a comprehensive campaign on soil test based rational application of fertilisers and promotion of organic farming including Bhartiya Prakritik Krishi Padhati (BPKP) for safe nutritious food in association with the Departments of Panchayat Raj, Rural Development and Drinking Water and Sanitation.

What is Integrated Soil Nutrient Management?

Integrated Nutrient Management refers to the maintenance of soil fertility and of plant nutrient supply at an optimum level for sustaining the desired productivity through optimization of the benefits from all possible sources of organic, inorganic and biological components in an integrated manner.

Concepts

1. Regulated nutrient supply for optimum crop growth and higher productivity.
2. Improvement and maintenance of soil fertility.

3. Zero adverse impact on agro – ecosystem quality by balanced fertilization of organic manures, inorganic fertilizers and bio- inoculant

Determinants

1. Nutrient requirement of cropping system as a whole.
2. Soil fertility status and special management needs to overcome soil problems, if any
3. Local availability of nutrients resources (organic, inorganic and biological sources)
4. Economic conditions of farmers and profitability of proposed INM option.
5. Social acceptability.
6. Ecological considerations.
7. Impact on the environment

Advantages

1. Enhances the availability of applied as well as native soil nutrients
2. Synchronizes the nutrient demand of the crop with nutrient supply from native and applied sources.
3. Provides balanced nutrition to crops and minimizes the antagonistic effects resulting from hidden deficiencies and nutrient imbalance.
4. Improves and sustains the physical, chemical and biological functioning of soil.
5. Minimizes the deterioration of soil, water and ecosystem by promoting carbon sequestration, reducing nutrient losses to ground and surface water bodies and to atmosphere

What is Soil Health Card Scheme?

The scheme aims at issuing soil health cards to farmers every two years so as to provide a basis to address nutritional deficiencies in soil. The scheme ensures additional income to farmers by increase in yields and it also promotes sustainable farming.

SHC is a printed report which contains nutrient status of soil with respect to 12 nutrients: pH, Electrical Conductivity (EC), Organic Carbon (OC), Nitrogen (N), Phosphorus (P), Potassium (K), Sulphur (S), Zinc (Zn), Boron (B), Iron (Fe), Manganese (Mn), Copper (Cu) of farm holdings.

Soil health card is field-specific detailed report of soil fertility status and other important soil parameters that affect crop productivity.

Objectives of Soil Health Card Scheme:

- To improve soil quality and profitability of farmers.
 - Employment generation for rural youth.
 - To update information on soil analysis.
 - To provide soil testing facilities to farmers at their doorstep.

Extra bytes on Soil Health Card Schemes:

- The country wide application of **soil health card** has led to a decline in the use of chemical fertiliser by 10%. A study conducted by the **National Productivity Council (NPC)** says the application of Soil Health Card recommendations has led to a decline of 8-10% in use of chemical fertilizers.
- In the current financial year, a pilot project "**Development of Model Villages**" is being implemented under which the sampling and testing of cultivable soil is being encouraged in partnership with the farmers. Under the project a Model Village has been selected for aggregation of soil samples and analysis of each agricultural holding.
- Under the scheme village youth and farmers up to 40 years of age are eligible to set up soil health laboratories and undertake testing. A laboratory costs up to Rs 5 lakhs, 75% of which can be funded by the central and state governments.

177 NEW MANDIS INTEGRATED WITH THE E-NAM

Why in news?

The Union Minister of Agriculture and Farmers Welfare launched integration of 177 new mandis with the National Agriculture Market (e-NAM) on 11th May.

This will strengthen agriculture marketing and facilitate farmers to sell their harvested produce through the online portal.

e-NAM

- e-NAM was an innovative initiative in agricultural marketing to enhance farmers accessibility digitally to multiple number of markets & buyers and to bring transparency in trade transactions with the intent to improve price discovery mechanism, quality commensurate price realization and also to **develop the concept of One Nation One Market for agriculture produce.**
- **Small Farmers Agribusiness Consortium (SFAC) is the lead agency** for implementing eNAM **under the aegis of Ministry of Agriculture and Farmers' Welfare, Government of India.**
- e-NAM networks the existing APMC mandis to create a unified national market for agricultural commodities with a vision to promote uniformity in agriculture marketing by streamlining of procedures across the integrated markets, removing information asymmetry between buyers and sellers and promoting real time price discovery based on actual demand and supply.
- This online platform will prove to be a giant leap in reforming the agriculture market in India.
- Farmers are free to register on e-NAM portal and they are uploading their produce for sale online to the traders across all e-NAM mandis and traders can bid for the lots available for sale on e-NAM from any location.
- We have more than 1.66 crore farmers and 1.28 Lakh traders registered on e-NAM platform.

Benefits of e-NAM

- e-NAM would help traders to find and arrange timely movement of produces from mandi to various other locations.
- With this interface, Traders would be able to access more than 7.76 lakh trucks through eNAM Platform.
- This intervention brings immense benefits to our farmers in augmenting their incomes by enabling them to realize competitive & remunerative prices in a transparent manner without incurring additional costs.

- Quality assaying testing facilities is being provided in e-NAM mandis which helps farmers in getting prices commensurate with quality of their produce.
- Electronic weighing scales have been provided to accurately weigh the commodities of farmers after bidding on e-NAM platform to bring transparency in weighing, Payment to farmers by traders now can be done through mobile phone using BHIM payment facility.

60% OF FARMERS FACED LOSSES

Why in news?

Despite most Farmers managing to harvest their crops despite the COVID-19 pandemic, 60% of them still faced losses, mostly related to the lockdown, according to a new survey in 12 States.

Details

- A majority of farmers say the lockdown has hurt their preparations for the upcoming sowing season either because they cannot afford inputs such as seeds and fertilizer or because of labour shortages.
- The situation is worse for wage workers, with 80% seeing their incomes fall over the last month.
- On average, wages were 76% lower compared to the same time last year.
- The survey found that 63% of respondents had harvested a crop in the past month, while 26% said this was not a harvesting season for them.
- **Only 10% were UNABLE to harvest their rabi or winter season crop, due to lockdown-related issues** such as low market prices, difficulty in market access, government restrictions and a shortage of labour and machinery.

Complicated situation

- Wheat is the biggest rabi crop and harvesting rates were especially high in northern States like Punjab (95%) and Haryana (81%) which also have high rates of mechanisation. In Rajasthan, while 86% of the crop has been harvested, less than 15% has been sold.
- The situation is worse with regard to other crops, especially vegetables which are a perishable crop highly vulnerable to the supply chain disruptions of the lockdown. In Karnataka, **less than 40% of vegetables were harvested. Out of that, less than 60% could be sold.**
- About 60% of farmers reported losses in yield, **with bad weather being the single biggest reason.** However, nearly 40% reported lockdown-related issues.

High Cost

- 50% of Farmers were worried about the high cost of seeds and fertilizers, especially given the last season's losses, while one in five said these key inputs were not even available.
- Almost 40% are worried about labour shortages, given that the primary kharif crop is paddy, which involves labour-intensive transplanting operations.
- **Wage earning households saw a 76% fall in wages, with 90% of landless households experiencing a hit to incomes.**

How has Government Helped farmers during the Lockdown?

- The Indian government announced a massive relief package of ₹ 1.7 lakh crore to cover those hit the hardest – farmers, rural workforce, women and other vulnerable groups.
- The package promises free cereal and pulse grains for three months through the Public Distribution System (PDS) and cash transfers to vulnerable people, mainly in rural areas.
- The government has promised an additional 15 kg food grains per person for 800 million people, thanks to about 60 million tonnes of grain buffer stock in the country.
- The government has also exempted the movement of agriculture commodities; farm labourers and harvesting and other machinery from the shutdown restrictions.
- Transportation and other logistics have to be organised well for the smooth availability of seeds and other agro-inputs at right time.

