

- ❑ **It ensures:**
 - Cheap inputs to farmers.
 - Stability in fertiliser prices.
 - Reasonable returns to the manufacturer.
 - Availability of fertilisers to farmers.
- ❑ In order to increase crop yields, it was essential to maintain the ideal NPK ratio of 4:2:1.
- ❑ **Nutrient Based Subsidy (NBS)**
 - Nutrient Based Subsidy (NBS) programme for fertilizer was initiated in the year 2010.
 - Under this policy, a fixed amount of subsidy decided on an annual basis, is provided on each grade of subsidized Phosphate and Potash (P&K) fertilizers depending on its nutrient content.
 - **Benefits**
 - ❖ The P&K fertilizers are made available to farmers in adequate quantities.
 - ❖ More grades of P&K fertilizers have been brought under the purview of the NBS Scheme giving the farmers a wider choice to use complex fertilizer grades.

Initiatives to improve soil fertility

- ❑ **Soil Health Management (SHM) Programme**
 - Under the National Mission for Sustainable Agriculture (NMSA), it assists the state governments in setting up static/ mobile soil testing laboratories (STLs); strengthening of static/mobile STLs; and training and demonstrations on the balanced use of fertilizers.
- ❑ **Soil Health Card Scheme**
 - It will provide information to farmers on the nutrient status of their soil along with recommendations on appropriate dosage of nutrients to be applied for improving soil health and its fertility.
 - Soil health status will be assessed regularly in a cycle of 3 years, so that nutrient deficiencies are identified and amendments applied.

Power Subsidy

- ❑ It is the difference between the cost of generating and distributing electricity to farmers and the price received from farmers.
- ❑ The State Electricity Boards (SEBs) either generate the power themselves or purchase it from other

producers such as NTPC and other SEBs. Power subsidy “acts as an incentive” to farmers to invest in pump sets, bore-wells, etc.

Pandit Deendayal Upadhyaya Gram Jyoti Yojna

- ❑ It aims for separation of feeders at national level.
- ❑ It is first to be rolled out in Rajasthan and Andhra Pradesh.
- ❑ The scheme would be merged with ‘Integrated Power Development Scheme’, which aims at improving India’s sub-transmission and distribution network.

Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) Scheme

- ❑ Installation of grid-connected solar power plants each of capacity up to 2 MW in the rural areas.
- ❑ Installation of standalone off-grid solar water pumps to fulfil irrigation needs of farmers not connected to the grid.
- ❑ Solarization of tube-wells and lift irrigation projects of the Government sector.

Irrigation Subsidy

- ❑ It is the difference between operating and maintenance cost of irrigation infrastructure in the state, and irrigation charges recovered from farmers.
- ❑ Irrigation subsidies have become unsustainable mainly because the states have failed to devise a rational pricing model for the canal water.
- ❑ Estimates suggest that the pricing of the canal water did not cover more than 20% of the operational and maintenance expenses of the canals.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

It is a national mission to attract investments in irrigation systems at field level, develop and expand cultivable land in the country, enhance ranch water use in order to minimize wastage of water, and enhance crop per drop by implementing water-saving technologies and precision irrigation.

Seed Subsidy

- ❑ It refers to providing high yielding seeds at low prices; or the research and development activities needed to produce such productive seeds are also undertaken by the government.
- ❑ Rashtriya Krishi Vikas Yojna, Macro Management Agriculture, Integrated Scheme for oilseeds, pulses,

Introduction

- ❑ Food Processing includes processes under which food items derived from agricultural products, dairy, animal husbandry, meat, poultry or fishing is transformed in such a way that its original physical properties undergo a change and the transformed product has commercial value and is suitable for human and animal consumption.
- ❑ The techniques involved in food processing helps in food preservation, storage, improving nutrient content as well as its quality.
- ❑ This sector in India includes fruit and vegetables; spices; meat and poultry; milk and milk products, alcoholic beverages, fisheries, grain processing and other consumer product groups such as confectionery, chocolates, cocoa products, soya-based products, mineral water and high-protein foods.
- ❑ At every stage from farmer to fork, there is addition of some value to the product. The value addition can be done by sorting, grading, packaging, branding etc.
- ❑ Moreover, food processing does not merely add value to the agro products, but also increases their utility, for example sugarcane is used to make jaggery, sugar, ethanol, alcohol etc., and sugarcane bagasse can also be used for power cogeneration.
- ❑ Large amounts of food wastage, especially of perishable commodities, leads to less per capita food availability of food products. The food processing industries can help avoid these wastages.
- ❑ It also promotes crop diversification, ensures remunerative prices to farmers, promotes employment and increases earnings through exports.

Segments of Food Processing Industries

- ❑ Food Processing Industries (FPI) consist of three segments - Primary processing of foods, Secondary processing of foods and Tertiary processing of foods.

- ❑ Indian primary and secondary food processing sector constitute around 62% of the sector and rest 38% is in the tertiary sector.

Primary Processing Sector	Storing, grading and packaging of milk, spices, food grains and fruits processing sector and vegetables, etc.
Secondary Processing Sector	Reshaping the food for easy consumption, for example, flour, processing of tea leaf and beverages, etc.
Tertiary Sector	Prime focus is on value addition. For instance, jams, jelly, juices, fortification of flour, etc.

Significance of Food Processing Industries

The Food Processing industry is a sunrise sector and is vital to India's development, primarily due to the linkages and synergies it promotes between the two pillars of our economy – industry and agriculture.

Significance of Food Processing Industries

- ❑ **Employment Generation**
 - Food processing industry provides plenty of direct and indirect employment opportunities.
 - The 12th Five Year Plan identified the Processing Industry as a sector that will create a larger number of skilled and semi-skilled jobs, with higher wages.
- ❑ **Doubling of farmers' income:** With direct agriculture and industry linkages will reduce wastage and remove middle men, thus commensurate rise in the price paid to the farmer, thereby increasing the income.
- ❑ **Reduce malnutrition:** Processed foods when fortified with vitamins and minerals can reduce the nutritional gap in the population. It also preserves the nutritive quality of food and prolongs the shelf life by preventing them from spoilage due to microbes and other spoilage agents.
- ❑ **Reduce food wastage**
 - As per the UN estimates about 40% of production is wasted. Similarly, NITI Aayog estimated annual post-harvest losses of close to ₹ 90,000 crore.