1. Even though the policy of minimum support prices has benefitted the farmers to an extent, its distortionary effects on the free market economy can't be ignored. The policy has also led to lack of diversification of agricultural produce and its benefits are unequally distributed. Elucidate.

Introduction

The minimum support price mechanism is in place from 1966-67 in the wake of Green Revolution. Minimum Support Price is the price at which government purchases crops from the farmers. Though the mechanism has saved the farmers from the depleting profits, it has resulted in market distortion and increasing farmer inequality.

Body

MSP benefitting the farmers:

After the introduction of MSP, the farm cropped area increased by 10 % with a decade. The average yield due to investment by farmers by additional income because of MSP increased on an average 80% within decades. Apart from this, MSP benefitted farmers by

- Surety of minimum price: MSP acts like a buffer to protect the farmer in case the price of the commodity produced by the farmer falls below the market price due to bumper crop which causes a glut in the market.
- Shock absorber: It prevents distress sale by the farmer in case of a bumper crop and market demand is low to recover the cost of production. Further, it can also counter the agricultural distress brought on by natural hazards in the country.
- Crop diversification: Introduction of new crops like pulses in the MSP will encourage the farmers to grow nutritional crops. It will help in changing the cropping pattern which was long due.
- Farmer Income: A higher Minimum support price regime will also help in achieving the Government s target of doubling farmer s income by 2022.
- Farm Investment: Higher profits for the farmer will also help them to invest in necessary infrastructure and equipment.
- Due to lack of sufficient penetration of agricultural insurance schemes farming has become a risky profession exposed to weather and price fluctuations. The minimum support price to some extent will protect the farmer by guaranteeing a minimum floor price so that they can plan in advance for the next season.

Distortionary effect on free economy:

Almost, 2/3rd of the cereals are procured by the government through MSP leaving only 1/3rd to open market. As a result, a farmer who chooses the MSP route cannot

take advantage of beneficial market prices and has to depend solely on the MSP. It prevents earning of profit by the producer.

- The government policy of MSP and PDS is challenged in the WTO as distortion to free trade.
- The procurement policy of FCI in the MSP mechanism has disadvantages like no auto liquidation, adverse countercyclical policy etc., results in inflation of food grains due to hoarding which in turn impact free economic prices.
- The government being the only player has little involvement from the private sector in MSP regime and hence a free and fair open competition is missing.
- MSP will set a cap on agriculture price and often it is seen that the prices stay below MSP which otherwise would have increased or decreased based on market forces.
- The present setup will affect the farmers directly selling their produce or the agents/mandis selling in to the open market.
- The announcement of MSP will often lead to surplus production which will distort the control of production by market forces. E.g. For example, price incentives given for pulses led to over-production price-collapse.

MSP leading to lack of crop diversification and unequal distribution:

MSP is skewed towards only few crops like paddy and wheat. This has changed the crop pattern in favor of those crops. For instance, despite the lack of water availability, states like Punjab and Haryana mainly produce wheat and paddy only for the reason of MSP. Inclusion of new crops as done recently for pulses is needed. This would help in crop diversification and inclusion of small and marginal farmers. Further, the present mechanism has resulted in

- Regional imbalance: Except for in states like Punjab, Haryana, Karnataka etc., where the procurement mechanism is robust, the farmers are majorly benefited by MSP.
- MSP is successful mainly in irrigated areas with large production farms and therefore the rainfed areas with crop likes millets etc., doesn't benefit much from MSP and hence inequality is created.
- In most states, prices in mandis (wholesale markets) remain below MSP (minimum support price) for most of the season. These are causing the whole MSP policy to leave farmers dissatisfied and in distress.
- Effect on small and medium scale farmers: MSP favors big farmers due to high quantity of production. Without decentralized method of crop collection under MSP, small and marginal farmers are mostly not able to use the mechanism. It results in unequal distribution of profits and benefits.

Conclusion

NITI Aayog estimates an increase of up to 8% due to the hike in MSP in the latest budget. Thus, MSP with not an iota of doubt helps farmer. However, the reforms

needed in procurement mechanism, FCI institutional overhaul with limited buffer stocks, connectivity, decentralized collection as well as diversifying the crop portfolio will help in realizing the objective of MSP.

2.How good a policy is it to subsidise electricity and water for the farmers? Critically examine.

Introduction

Subsidy is a transfer of money from the government to an entity. It leads to a fall in the price of the subsidised product. The electricity subsidies imply that the government charges low rates for the electricity supplied to the farmers.

Body

The rationale of subsidising agricultural inputs is to be traced to the role that these subsidies play in stimulating development of any country through increased agricultural production, employment and investment. However, there are arguments advanced on both sides.

- Half of India's workforce is engaged in agriculture and most of them are either marginal or small farmers. Subsidy support is needed to incentivize them as the land-to-man ratio has been falling (from 0.34 in 1951 to 0.15 in 2009).
- There is a strong linkage between electricity, water and agriculture. All of the electricity supplied to agriculture is used for pumping water, mostly groundwater for irrigation. Close to 85% of pumping energy used in agriculture comes from electricity, the rest being mainly from diesel. Therefore subsidizing it will help the marginal farmers.
- Input subsidisation also avoids raising food (and raw material) prices, thus avoiding the plausible adverse effect on the poor (and the industrial sector). This has come to be known as 'cheap-input- cheap-output policy'.
- Electricity is mainly consumed in pumping out underground water. As 70 % of countries agricultural land is Rainfed electricity becomes main input in agricultural produce. For that purpose farmers get highly subsidized or free electricity for agricultural purposes.
- Subsidies help maintain the sustained flow of inputs like fertilizer, irrigation, electricity, hybrid seeds at reasonable prices which is necessary to increase productivity, generate employment in the farms, ensure low food prices and contain the flow of rural population into towns and cities.

However, subsidized and ample electricity has resulted in indiscriminate use of electricity by the farmers, which results in massive wastage of electricity and water. In fact, this is main reason behind depleting ground water. It also provides avenues for pilferage and theft of electricity.

- According to the high-level committee, chaired by NITI Aayog member Ramesh Chand, with resources like power not being charged to the farmer, there has been over-exploitation of water resources, leading to a drop in water table and creation of scarcity situation for water and power.
- Groundwater overexploitation has reached near-crisis level in the states dominated by electric tube-wells and cheap or free power – the nine states of Punjab, Andhra Pradesh, Karnataka, Haryana, Gujarat, Rajasthan, Madhya Pradesh, Maharashtra and Tamil Nadu together account for 85% of India's groundwater blocks that are in critical condition. If current trends of declining groundwater tables continue, 60% of all aquifers in India will be in critical condition by 2025.
- The water availability at watershed levels decreases because subsidies for irrigation efficiency lead to increases in irrigated areas and water withdrawals as well as driving a choice of more water-intensive crops. This is clearly a critical concern for India considering the monsoon response to global warming.
- Electricity use is up for pumping groundwater. The depletion of groundwater tables is alarming in the northwest even though the central-western India shows some groundwater recovery. Irrigation water use shows no decrease even during excess monsoon years which is a clear indication that the subsidies are not incentivising the farmers to produce more crops with less water.
- While the farmers are ostensibly the beneficiaries of subsidized electricity, they suffer from a de facto 'deelectrification' – rationing and poor quality of electricity delivery – which results from the lack of accountability of the power utilities to the farm-sector users.
- Providing unmetered supply to agriculture has undermined energy accounting in power utilities and impaired their internal accountability systems. In addition, lack of verifiable energy accounting helps hide inefficiency and widespread theft of electricity by non-agricultural consumers that gets classified as agricultural consumption. The average technical and commercial loss in the electricity sector in the country is now as high as 40%, and more than 75% of the total technical loss and almost 100% of commercial losses occur during distribution. While the total electricity consumption in India increased 12-fold from 1971- 2000, the estimated agricultural electricity consumption has grown 25-fold during the same period.
- In addition to damaging financial performance, electricity subsidies have eroded skills development among utility staff, hindered infrastructure maintenance, and undermined the utilities' ability to finance the investments required to meet the increasing demands for electricity.

Way forward

Separation of feeders

Feeder is an electrical cable or group of electrical conductors that runs power from a 'larger central source' to one or more secondary or branch-circuit distribution centers(to end user). We have yet common feeder lines for agricultural and other sectors in all states except Gujarat.

In Gujrat Jyotigram Yojna was initiated in 2006, which separated agricultural feeders from main feeder. Agricultural feeder supply was regulated and power is given only for 8-10 hours per day. Timings of powers are pre declared to the farmers. On the main feeder power is supplied full time. This development has two fold benefits; one is surplus electricity for industry and civilians and second is it arrested rapid depletion of ground water. Result is Gujrat has surplus power of 2000 MW (out of total capacity of 14000 MW) which is sold to other states.

Success of this scheme was recognized by planning commission and it was made central to power reforms under 12th five year plan.

New scheme Pandit Deendayal Upadhyaya Gram Jyoti Yojna, aims for separation of feeders at national level. It is first to be rolled out in Rajasthan and Andhra Pradesh. Scheme would be merged with 'Integrated Power Development Scheme', which aims at improving India's sub-transmission and distribution network.

Conclusion

Ensuring real increases in irrigation efficiency requires carefully combining subsidies with caps and trade-offs of water withdrawal, irrigated area, electricity use, crop selection, weather and extended range forecasts as well as seasonal outlooks and other market factors.

3. Do you agree with the assertion that subsidies ultimately hurt the farmers? Substantiate.

Introduction

An agricultural subsidy is a government incentive paid to agribusiness, agricultural organizations and farms to supplement their income manage the supply of agricultural commodities and influence the cost and supply of such commodities.

Farm subsidies could be -

- Direct farm subsidies rendering cash to the recipient farmers like food subsidy, MSP-based procurement, providing cash directly to the farmers to buy fertilizers etc.
- Indirect farm subsidies are not provided in the form of cash but supporting farmers in an indirect manner. For example- subsidizing fertilizer companies to provide cheap urea to farmers.

Body

Subsidies ultimately hurt the farmers

- Fertilizers subsidy, especially urea when made available cheaply has resulted in overuse, which degraded soil quality, and in return affected the output productivity. Low productivity of Punjab in wheat can be attributed to above cause.
- Most benefits of subsidies are allotted to big farmers while in India, 2/3rd farmers are marginal farmers which can't utilize the benefit of subsidy properly. Thus the value of produce of such farmer's decrease.
- It leads to overproduction of one crop over other like fruit, pulses. Thus sometimes grains are piled up for rotting in warehouse.

However, agriculture is becoming unsustainable enterprise

- 76% of the farmers would like to quit farming if given a chance ('***State of Indian Farmers'*** report)
- Only 23% of rural income comes from agriculture (NABARD survey).
- 86% of the land holding is small and marginal (Agriculture census 2015-16)
- 10 farmers suicide daily (2016, NCRB)
- Non-remunerative price – recently farmers in Shahganj, MP were forced to throw their tomatoes.

In this regard subsidies can be respite for farmers

- "Subsidies are not the cure for the farm crisis but just a prescription for a short term relief" – P. Sainath
- Interest subsidies reduce the debt burden of farmers.

Conclusion

Alternate of subsidies

- Price deficiency payment
- Crop insurance through PMFBY
- Income support through PM-KISAN
- Old age pension scheme for farmers through Kisan Maan-Dhan Yojana

Subsidies must be rationalized and coupled with above support mechanism will help the agrarian distress and make farming remunerative.

4. With the help of suitable examples, illustrate the potential of e-technology in realizing the goal of doubling farmers' income.

Introduction

Agriculture's importance in India is difficult to overemphasize. It accounts for about 13 percent of the country's GDP and employs about 45 percent of its workforce. On average, however, the yield in Indian agriculture is 10 to 50 percent lower than in other Asian countries. Digital applications can play a critical role in improving yields

— as well as reducing costs and increasing the market value of crops — by making it easier for farmers to obtain finance, optimize agricultural inputs, and increase direct access to markets. Digital applications promise to play a significant role in government's quest to double farmers' incomes by 2022.

Body

Potential of e-technology in realizing the goal of doubling farmer's income.

Doubling farmers' incomes, which include three themes:

1. **Enabling digital financing and insurance payouts** by facilitating consolidated information, credit scoring models, and yield forecasting models using satellite and weather data.

Example: Digital applications are making crop insurance system faster and more accurate

- **Ministry of Agriculture**
  - Central government launched a Kisan pilot programme in 2015 to see if satellite and drone-based imaging and other geospatial technology could produce timely and accurate crop-yield data. Study is also being conducted to evaluate a remote sensing based index for index-based insurance
  - Pilot study carried out in rice and cotton fields in four districts during the kharif season in Karnataka, Maharashtra, Haryana and Madhya Pradesh. It was also conducted during the 2015–16 rabi season in eight districts in the same states to assess crop yields of rice, wheat, and sorghum
- **Karnataka**
  - SAMRAKSHANE is an end-to-end e-governance solution to handle crop insurance under Pradhan Mantri Fasal Bima Yojana (PMFBY) programme and the Modified Weather Based Crop Insurance Scheme (MWBCIS)

2. **Introducing precision agriculture using data analytics**, with an integrated agricultural data platform across all existing and new data sources (such as the 158.7 million Soil Health Cards dispatched). Based on pilots, this initiative could raise farm productivity by 15 to 20 percent.

   Example: Real-time agricultural data can help to increase yields and decrease costs

   - **Soil Health Card**
     - Ministry of Agriculture launched soil health card in 2015
     - Scheme tests soil samples to encourage judicious use of inputs such as fertilizer
   - **mKisan**

- Ministry of Agriculture launched mKisan in 2013 to increase the information available to farmers on crucial aspects of farming such as weather & soil health

- **mKRISHI**
  - mKRISHI is a technology platform for Indian farmers
  - Tata Consultancy Services designed it to enable farmers in remote areas to access real-time agricultural information, best practices, and market and weather information
  - The service, started in 2013, plans to reach 2.5 million farmers and generate ~$150 million in revenue by 2023
- **MyAgriGuru (Mahindra)**
  - Mahindra launched a web/mobile-based digital platform called MyAgriGuru in February 2017 to create an integrated agri-community
  - The app connects experts and farmers and enables exchange of ideas and information to create an empowering agriculture ecosystem in the country
- **Microsoft**
  - Microsoft started a pilot with Hyderabad-based International Crop Research Institute for Semi-Arid Tropics (a UN agency) in 2016 to build a sowing solution to help farmers to predict the right time for sowing crops
  - Microsoft developed a sowing app to conveniently provide sowing information to farmers

3. **Implementing online agricultural marketplaces** linked to a unified, nationwide market with a set of institutional market facilitators and common assaying and grading standards. Such e-marketplaces could cover 40 to 60 percent of agricultural produce sold in India, leading to 15 percent farmers' price gains, as demonstrated by pilots. Together, these changes could add $50 billion to $70 billion of economic value in 2025.

   Example: Technology is bringing transparency to India's agricultural markets

   - **Karnataka Government and NCDEX Spot Exchange**
     - The Karnataka state government and the National Commodity and Derivatives Exchange (NCDEX) started Rashtriya e-Market Services to encourage competition in agricultural markets and help farmers receive better prices for their crops
   - **eNAM**
     - Ministry of Agriculture in 2015 launched eNam, the electronic National Agriculture Market, to connect the 7,000 APMC mandis across India to promote transparency in agricultural markets
   - **Buyer Seller Platform**
     - Ministry of Agriculture launched Buyer Seller platform / mKisan for farmers to receive local buyer prices over SMS
     - Connect farmers with buyers (farmer producer organisations, exporters, traders, and processors)

Conclusion

Most of the development initiatives and policies for agriculture are implemented by the States. States invest much more than the outlay by the Centre on many development activities, like irrigation. Progress of various reforms related to market and land lease are also State subjects. Therefore, it is essential to mobilise States and UTs to own and achieve the goal of doubling farmers' income. If concerted and well-coordinated efforts are made by the Centre and all the States and UTs, the Country can achieve the goal of doubling farmers' income by the year 2022.

5. There are many affluent farmers in the country who are earning in crores from modern farming. However, they are exempt from paying the income tax. What are your views on this? Shouldn't big and affluent farmers be brought under the net of income tax? Substantiate your views.

Introduction

Comptroller and Auditor General of India (CAG) called for greater efforts to check tax evasion through claims of tax exemption on farm income in audit report of the revenue department. Earlier NITI Aayog proposed the idea to tax agricultural income beyond certain threshold. It has been remained issue of debate in India whether agricultural income should be taxed or not.

Body

There is no theoretical justification for the continued exemption from the income tax of income derived from agriculture. However, there are administrative and political objections to the removal of the exemption at the present time. It is very sensitive issue as very idea of taxing agriculture income may prove political suicide for popular leadership of political party.

There is need to bring big and affluent farmers in the net of income tax as agricultural income exemption has become loophole for tax exemption and generation of black money. The exemption for agricultural incomes is benefiting rich farmers and agricultural companies, which was not the intended outcome.

- Evasion through Exemptions: Tax exemption was granted in hundreds of cases where land records were not available or proof of farm income was not available in terms of ledger account or invoices.
- Absence of targeted benefits: In assessment year 2014-15, nine of the top 10 claimants for tax exemption of agricultural income were corporations; the 10th was a state government department.
- Money Laundering: Tax Administration Reform Commission report of 2014 points out, Agricultural income of non-agriculturists is being increasingly used as a conduit to avoid tax and for laundering funds, resulting in leakage to the tune of crores in revenue annually.

- Political courage already evident as six states currently have agricultural tax legislation on the books—Tamil Nadu, Kerala, Assam, Bihar, Odisha and West Bengal—even if implementation varies substantially, from taxes not being levied at all to being levied only upon income from plantations.
- Those who own more than 4 hectares of land form just 4% of the total agricultural households but hold over 20% of agricultural income. Just by taxing the incomes of the top 4.1% of agricultural households, at an average of 30%, as much as Rs 25,000 crore could be collected as agricultural tax.
- There is need to move beyond a reflexive rejection of the very concept of agricultural tax.

However, the road to taxing agricultural income is not easy due to various reasons such as,

- From a Constitutional standpoint, only the states are entitled to levy this tax.
- Extent of the informality that still exists in the agricultural sector, implementation of an agricultural tax would admittedly not be easy as concerns about accuracy and flexibility of crop specific prices and income with geographical variation.
- Agriculture sector is already facing crisis due to various reasons like indebtedness, uncertainty of rainfall due to climate change, pest attacks due to increasing microbial resistance almost 2000 farmer commit suicide every year in India.
- Centre for Study of Developing Societies (CSDS), study report, "State of Indian Farmers" says that 76 per cent farmers would prefer to do some work other than farming. Sixty-one per cent of these farmers would prefer to be employed in cities because of better education, health and employment avenues.
- The very thought of taxing agriculture income could demoralise farmers and further weaken their resolve to continue subsistence farming activity as 70% of agricultural households in India have marginal holdings (under 1 hectare).
- The focus should on increasing farmer's income rather than taxing meagre income from agriculture.

There is need to find prudent path as India has very low tax to GDP ratio.

- It would be to amend the definition of 'agricultural income' under the tax laws, and impose an appropriate monetary threshold after careful deliberation and study. Income that is not covered by this revised definition can then be subject to income tax. This would ensure that only the high-income farmers come under the purview of taxation, and the interest of small scale and mid-scale farmers is protected.
- Another alternative is for the parliament to formulate a model law for the states to adopt, with a reasonable threshold and slab rates, much like income tax, to tax agricultural income.

However, there can be no easy answer to the question of whether agriculture income should be taxed, as it would have far reaching implications, as well as technical and legal challenges.

Conclusion

It's important to find the right balance between the taxing agricultural income and avoiding disincentivising the agriculture sector. The current focus of the government to bring farmers under the formal system by promoting digital economy is a step in the right direction.