‘‘The Role of Subsidies in the Development of Agriculture.’’

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Abstract.

Subsidy in agriculture means providing some important inputs to farmers at a concessional rate that is much lower than its market rate. During 1960s, in order to adopt new technology. HYV seeds and use of modern fertilizers and insecticides, farmers were provided inputs at a subsidised rate. In recent decades, agricultural productivity in middle-income countries, particularly in India, has fallen increasingly behind that of upper middle-income countries. Adequate use of agricultural inputs such as improved seeds and inorganic fertilisers has been identified as one way of enhancing agricultural productivity. However, these inputs can be financially unaffordable or unattractive to many poor farmers in developing countries like India. Agricultural input subsidies aim to make inputs available to users at below market costs as a way of incentivising adoption, increasing agricultural productivity and profitability, increasing food availability and access and ultimately reducing poverty and stimulating economic growth. Agricultural inputs are any external source put into soil that can help a farmer's upcoming yield. They can be anything from high-quality seeds to high-tech tractors. Simply put, they're any resource you use to increase your crop's success. Agriculture is one of the economic sectors where subsidies are the most important. This paper describes the types of subsidies and the importance of input subsidies in the development of agriculture in Indian economy.

Keywords: Input Subsidies, Agricultural Productivity, Government, Farmers, Investments.

Introduction:

The word subsidy has been derived from the Latin word ‘subsidium’ which implies coming to assistance from behind. An agricultural subsidy is a government incentive paid to agribusinesses, agricultural organizations and farms to supplement their income, manage the supply of agricultural commodities, and influence the cost and supply of such commodities. Agricultural input subsidies, were defined as grants (or loans, if repaid at below the market price) given to a farmer as a means of reducing the market price of a specific input used in agricultural production or providing it free of charge.

After independence, the Government of India adopted a positive approach and played vital role in development of agricultural sector. Tremendous efforts were made to boost the Indian economy through a well-defined policy of integrated production programs with defined targets and a proper distribution Programme was adopted along with other measures. The new technologies were used which included the use of high yielding varieties, assured irrigation, chemical fertilizers, insecticides, pesticides and machinery to increase the food production in the country. But, in modern technology, the inputs were very costly and Indian farmers being poor are not in a position to buy these expensive inputs. Therefore, on the recommendations of Food Grain Price Committee (Jha Committee, 1964), the Government of India started the scheme of subsidies on the purchase of various agriculture inputs to facilitate the farmers (Singh, 1994). Agricultural input subsidies have long been used to promote smallholder farmers' use of inputs, increase wages, reduce food prices and promote economic growth. Since many years, the Indian government has been providing input subsidies to agriculture sector in direct and indirect form for encouraging agriculture production.

According to Fan et al., (2007), subsidies in agricultural sector can play an important role in early phases of agricultural development by addressing market failures and promoting new technologies. In India, for overall development of agricultural sector, central as well as state governments are providing subsidies on fertilizers, irrigation (canal water), electricity and other subsidies to marginal farmers and farmers' cooperative societies in the form of seeds, development of oil seeds, pulses, cotton, rice, maize and crop insurance schemes and price support schemes etc. The Department of Agriculture & Cooperation, Government of India, has been implementing various schemes and programs under which these subsidies are provided for the benefit of farmers through State Governments. Rashtriya Krishi Vikas Yojana (RKVY 2007), National Mission on Agricultural Extension & Technology (NMAET 2010), National Food Security Mission (NFSM 2007), Mission for Integrated Development of Horticulture (MIDH 2014), National Horticulture Mission (NHM 2005), National Mission on Oilseeds and Oil Palm (NMOOP 2010), Cotton Technology Mission (CTM 2000) are some of the schemes being implemented to help the small and marginal farmers reduce their cost of cultivation, increase profit and encourage diversification among them. The subsidies under various schemes are given in the form of inputs such as seed, fertilizers, plant protection materials, farm machinery, micro-irrigation units and credit.

Nearly 62 per cent of the people in India are still dependent on agriculture. The subsidies to agricultural sector provided by the government have recorded phenomenal rise during the past two decades. In 1993-94, the agricultural subsidies amounted to Rs. 14,069 crores. The amount of subsidies increased from year to year and stood at Rs. 34,784 crores in 2010-2011. If we take base year as 1993-94, it was noted that the subsidies in 2017-2018 were 277.24 per cent, an increase of about 2½ times within a span of seven years.

Subsidy is necessary as a production accelerating catalyst for those new inventions, which are socially desirable but whose adoption needs huge capital and producers believe it to be risky investment. Subsidy is the right instrument to maximize risk taking. The reduction in input prices is found to be the most appropriate form of subsidy. Subsidies are also for manipulating or balancing the growth rates of production and trade in various sectors and regions, and for equitable distribution of income for protecting the weaker sections of the society. Support and procurement prices and issue prices of major agricultural products are some of the important measures which are to protect the interests of farmers and weaker sections of consumers.

Review of literature

Shivashankar and Uma (2014) reported that an ideal subsidy distribution based on the economic levels, size of the holdings, and fertility of the soil was not present. The large farmers were treated on par with the small and marginal farmers causing regression in the sectoral development.

Anand (2016) studied the stakeholders' opinion on agricultural subsidies and their impact in Punjab and revealed that very less farmers were aware about the agriculture schemes providing subsidies whereas all the farmers were aware of the subsidies being provided in the areas of seeds, plant protection materials, machinery, micro-irrigation, power and price (MSP). The author concluded that lack of awareness of time of availability of subsidy, delay in release of subsidies and misallocation of the subsidies significantly affected the receipt of subsidy by a farmer.

David J. Hemming,Ephraim W. (28 May 2018) Agricultural input subsidies for improving productivity, farm income, consumer welfare and wider growth in low- and lower-middle-income countries: a systematic review. https://doi.org/10.4073/csr.2018.4 This review examines studies that evaluate the impact of agricultural input subsidies, including subsidies for agricultural machinery, seeds or fertilisers, on farmers, farm households, wage labourers or food consumers in low- or lower- middle-income countries. It includes 15 experimental and quasi-experimental studies and 16 simulation modelling studies. The majority relate to sub-Saharan Africa (15 to Malawi) and to subsidised fertilizers and seeds. Models show that introducing or increasing subsidies generally results in positive effects for consumers and wider economic growth. However, the models indicate that the way subsidies are funded, world input prices and beneficiary targeting all have important influences on predicted outcomes. The authors were not able to find any studies examining subsidies for machinery.
Shilpa Shree R, Dr. Medhavini s Katti, (Jan 2020) The role of subsidies in agricultural development programs in India, International journal of Psychosocial rehabilitation, Vol no, 24, Issue,01. They describe, in every year government of India spends lots of money in various agricultural subsidies schemes for the growth of agriculture sector. The government of India uses a different of policy instruments in attempting to achieve these agricultural goals, including domestic subsidies to inputs, outputs, explicit and implicit, transportation, machinery equipment's, storage, electricity, Irrigation, fertilizer and consumption to reduce producer costs and consumer prices.

Sanjeev Kumar (**June 2020)** Agri Mirror: Future India, Impact of Subsidies on Agriculture Sector in India, Subsidies make both positive & negative impact on agriculture sector but without the help of subsidies development of agriculture sector is very difficult. However, the exact measurement of impact of subsidies on agricultural sector is not an easy task as up to which extent subsidies are beneficial to agricultural is a big question. Some researchers suggested that subsidies should be withdrawn in a phased manner, such a step will reduce the fiscal deficit; improve the efficiency of resources use, funds for public investment in agriculture. On the other hand, there is a fear that agriculture production and income of farmers would decline if subsidies are curtailed. Due to corruption & ineffective management in India, subsidies are not reaching to the end users of the country i.e. farmers. All these are very important issues and need serious investigation in future. The central government should adopt some specific criteria to give away subsidies e.g. making subsidy as transparent as possible, framing of farmers' friendly policy in distribution of subsidies, using subsidies for well-defined economic objectives, instituting systems for periodic review of subsidies etc.

Objectives:

1. To understand the types of agricultural subsidies in India.
2. To know the role of input subsidies in the development of agriculture in Indian economy.

Methodology:

For this study the secondary data were collected from WTO Ministerial Conference reports, agricultural trade policy reform, Ministry of Agriculture & Farmers Welfare, Sub Mission on Agricultural Mechanization (SMAM), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Agricultural Marketing Infrastructure (AMI), and through newspapers, various journals, publications, reports, ect.

Types of agricultural subsidies in India.

Agriculture subsidies are the payments by the government to producers of agricultural products for the purpose of stabilizing food prices, ensuring plentiful food production, guaranteeing farmers' basic incomes, and generally strengthening the agricultural segment of the national economy. In India, domestic crop yield can fluctuate considerably depending on the local weather. International crop supply and prices also fluctuate considerably depending on weather, politics, war, and other factors affecting crop yields in foreign countries. As a result of these fluctuations in production levels and prices, there could be very large variations in farm revenues and food available for purchase on the global market. Price support and income guarantees can help to maintain a strong domestic farm sector and domestic food supply, by smoothing farmers' income over time and better ensure that farmers are not required to maintain a hefty float every year to maintain income. Agricultural subsidies have the effect of transferring income from the general tax payers to farm owners.The main types of agricultural subsidies in India are described below;

Seed Subsidy

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 The government can give high-yielding seeds at reasonable prices with future payment alternatives. The government also undertakes the research and development activities required to generate such prolific seeds; the cost of these activities is a form of subsidy provided to farmers.

Fertilizer Subsidy

Urea is being provided to farmers at a statutory notified Maximum Retail Price (MRP). The MRP of a 45 kg bag of Urea is Rs.242 per bag (exclusive of charges towards neem-coating and taxes as applicable) and the MRP of a 50 kg bag of Urea is Rs.268 per bag (exclusive of charges towards neem coating and taxes as applicable). The distribution of low-cost chemical or non-chemical fertilizers to farmers. It is the difference between the price paid to fertilizer manufacturers (local or international) and the price received from farmers; the government bears the rest of the burden. This subsidy ensures the cheap inputs to farmers, stability in fertilizer prices, reasonable Returns to manufacture, availability of fertilizers to farmers in Adequate Quantity at the Requirement.

Irrigation Subsidy

The PMKSY- Per Drop More Crop mainly focuses on enhancing water use efficiency at farm level through precision/micro irrigation (Drip and Sprinkler Irrigation). Besides promoting precision irrigation and better on-farm water management practices to optimize the use of available water resources, this component also supports micro level water storage or water conservation/management activities to supplement Micro Irrigation. Under this, umbrella government provides irrigation services at a lower cost than the market rate. It's the difference between the state's operation and maintenance costs for irrigation infrastructure and the irrigation fees paid by farmers.

This could be accomplished by the government constructing public goods such as canals, dams, tube wells, and other such infrastructure and charging farmers little or no fees for their usage (in some situations). It could also be through the use of low-cost private irrigation equipment like pumping sets.

Power Subsidy

The power subsidies indicate that the government charges farmers a cheap rate for the electricity they receive. Farmers primarily use electricity for irrigation purposes. It's the difference between the cost of producing and distributing energy to farmers and the price paid to them. The State Electricity Boards (SEBs) may generate their own power or buy it from companies like NTPC and NHPC. The power subsidy incentivizes farmers to invest in pumping sets, bore-wells, tube wells, and other irrigation systems.

Export Subsidy

This subsidy is granted to farmers in order to help them compete on a global scale. When a farmer or exporter sells agricultural products in a foreign market, he makes money for himself and the government earns foreign exchange. As a result, agricultural exports are generally promoted as long as they do not have a negative impact on the home economy. Export subsidies are financial incentives provided to stimulate exports.

Credit Subsidy

It's the gap between the interest charged to farmers and the actual cost of providing credit, plus other expenses like bad loan write-offs. Credit availability is a key issue for disadvantaged farmers. They lack the funds to purchase agricultural equipment and are unable to access the credit market because they lack the necessary collateral. They approach local money lenders to carry out production activities. Lenders take advantage of the impoverished farmers' weakness by charging exorbitant loan rates. Many times, even farmers with collateral are unable to obtain loans because banking organizations are primarily urban-based and do not frequently engage in agricultural lending operations, which are deemed hazardous.

Agriculture Equipment Subsidy

Subsidies are provided to farmers through State Governments under various schemes such as the Sub-Mission on Agricultural Mechanization (SMAM), Rashtriya Krishi Vikas Yojana (RKVY) for the purchase of various agricultural equipment and machines, National Food Security Mission (NFSM), Mission for Integrated Development of Horticulture (MIDH), and National Mission on Oilseeds and Oil Palm (NMOOP).

Agriculture Infrastructure Subsidy

In many cases, private efforts are insufficient to boost agricultural production. For production and selling operations, good roads, storage facilities, power, market intelligence, transportation to ports, and so on are essential. These facilities are under the category of public goods; whose prices are high but whose advantages are shared by all cultivators in a given area. Because of their bulkiness and accompanying revenue collection issues, no individual farmer will volunteer to supply these facilities (no one can be excluded from its benefit on the ground of non-payment). As a result, the government assumes responsibility for their provision, and given the plight of Indian farmers, a lower price can be paid to the poorer farmers.

The role of input subsidies in the development of agriculture in Indian economy.

Subsidies are meant for poor people and they shall ensure equitable redistribution of resource. Subsidies extended to rich are regressive. They help in keeping poverty intact and create inefficiencies in economy which culminates in inflation and corruption. In order to maximize yield, it's necessary for farmers to aid their harvest with agricultural inputs, especially smallholder farmers. Agricultural inputs are any external source put into soil that can help a farmer's upcoming yield. They can be anything from high-quality seeds to high-tech tractors. Simply put, they're any resource you use to increase your crop's success. Subsidies are one of the quintessential attributes of any welfare state. India, at the eve of independence was left with uphill task of socio-economic development. Markets were almost nonexistence, masses lived in abject poverty and illiteracy, we were not producing enough food to satiate hunger of masses, life expectancy was just 32 years; in short, there was crisis in every sphere; be it agriculture, industry, health or education; partly due to colonial legacy. Given such circumstances, founding fathers of democratic India rightly envisaged Indian state to be a welfare state. However, 70 years down the line only few problems have abated, while new ones cropped up and poverty still stubbornly remains a pressing problem. In this context, latest economic survey rightly points out that despite spending as high as 3.77 lakh crore rupees annually on subsidies there is no 'transformational impact' on standard of living of masses. While subsidies have helped some poor people to do firefighting in life, main allegation on a subsidy economy is that, through subsidies, money meant for poorest is appropriated by richer sections of the society due to mistargeting and leakages.

Agricultural subsidies are needed for many reasons, Article 48 of the Indian Constitution, the responsibility of the state to organize agriculture on modern lines. As per FAO, 70% of Indian rural households primarily dependent on agriculture for their livelihood. Subsidies are one of the tools for income distribution and to reduce inequalities (Oxfam report 2020- top 10% holds 72% of wealth). Poor income realization to farmers (farmer's income is less than 1/3rd income of non-farmers) Farm subsidies act as a complementary income to farmers, which can be invested back in agriculture. Farm subsidies Access to quality inputs such as seeds, fertilizers Increase in productivity. Better income to farmers. Farm subsidies in a way motivate farmers to continue farming as an occupation. Insulate farmers from the issues posed by the covid-19 pandemic.

From Direct Farm Subsidies farmers are benefitted a lot, direct Subsidies help in increasing the purchasing capacity of farmers and to raise the standard of living of the people. Direct cash transfers government empowering citizens and gives choice to beneficiaries to purchase as per needs. It also helps to prevent the misuse of public funds as money is reached beneficiaries directly. Direct subsidies also curb the inefficient use of resources. Ex: As farmers will purchase fertilizer at full rate will purchase what needed. The cash farmers receive can be used as capital in agriculture. Reduces government burden freeing transportation and storage costs.

Indirect subsidies are also benefitted for the farmers in many ways, these play a key role in promoting technological and infrastructural advancements in agriculture. Ex: Infrastructural subsidies. Subsidies on Seed and Fertilizer ensure farmers get quality inputs which help to increase the productivity of the farm. Helps to change the behaviour and promote farmers towards sustainable practices like crop diversification. Farmer training also come under Indirect subsidies which make farmer equipped with knowledge. Ensures food security in the country. Help to contain the migration from the agriculture sector to other sectors.

Nutrient Based Subsidy or NBS was introduced in 2010 with objective to promote balanced use of fertilizers and to limit fertilizer subsidy of the government. Idea was to fix subsidy as per nutrients (in per Kg) in the fertilizer and leave the determination of price to suppliers. Presently Urea is not covered under the scheme due to political compulsions. Consequently, subsidized price of Urea remained stagnant even when real costs of production have risen significantly. On the other hand, Potassium and Phosphorous are covered under the scheme and a fixed subsidy as per content of nutrients is given to suppliers and they change Maximum Retail Price as per market signals. Secondary and Micronutrients are also covered under the scheme. (In short urea is still controlled and P, K, are decontrolled) One-third of input subsidies are paid in the form of fertiliser subsidies, which are equivalent to 1 per cent of GDP. Under this subsidy scheme, the Government quotes a maximum retail price for various types of fertilisers and reimburses the seller the difference between the retail price and the 'market' price. The market price for domestically produced fertilisers takes into account transportation, storage, labour and energy costs. The subsidy for imported fertiliser is the difference between the import price and the maximum retail price. Urea fertilisers are a major input into agricultural production and its price has been fixed since 2003 despite large fluctuations in the cost of inputs. While India is able to produce enough urea fertiliser to meet domestic needs, it relies on imports to satisfy its demand for compound fertilisers, so that the increase in global fertiliser prices during 2007 and 2008 saw a large outlay in the subsidies paid for compound fertilisers. There are also substantial subsidies for electricity. Many farms use unmetered power and pay a subsidised lump-sum based on the power ratings of pump-sets used for irrigation purposes.

Conclusion.

Subsidies make both positive & negative impact on agriculture sector but without the help of subsidies development of agriculture sector is very difficult. The biggest dilemma with the subsidies offered to farm sector is that they do not reach 100% to the farmers. While the intention of the Government offering subsidy on seeds, fertilizers, irrigation is not questioned, its implementation remains faulty and the middlemen involved in it usurp a major part of the subsidy amount. Besides, the agriculture subsidy makes the farmer dependent till the subsidy is received from the relevant agency. This is the reason that Government of India has decided to evolve a mechanism to transfer cash directly in farmers' account instead of payin g subsidy of giving loan waiver. This will help the farmer to reduce the financial burden and buy the required inputs for the crop as per his choice.

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