



ORIGINAL RESEARCH PAPER

Economics

AGRICULTURAL SUBSIDIES IN INDIA

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ABSTRACT

India is an agrarian economy even after six decades of independence. Though it contributes 16 percent to national GDP, it employs around 60 percent of its work force. Indian Government play essential role in agriculture sector development. Of all its interventions in the development of agriculture, providing subsidies is very important one. Subsidies are provided in the form of inputs such as seeds, fertilizers, electricity, irrigation, insurance, food prices and credit. A comparison of subsidies among major food countries of the world, India subsidizes farmer by US 14 dollars against US 82 dollars in EEC. India is providing agriculture subsidy of 2.33 percent of total subsidies against 60 percent in South Africa. Fertilizer and electricity subsidies are major agricultural subsidies in India. Electricity and irrigation subsidies have increased annually more in terms of CAGP.

1. Introduction

Indian Government play essential role in agriculture sector development. The government role is diverse and varied. Some of the cited reasons for vital role are self-sufficiency, employment creation, support to small-scale producers for adopting modern technologies and inputs, reduction of price instability and improvement of the income of farm households. This vital role can take a number of forms such as import-export policies and domestic policies like price support programmes, direct payments, and input subsidies to influence the cost and availability of farm inputs like credit, fertilizers, seeds, irrigation water, etc. Of all the domestic support instruments in agriculture, input subsidies and product price support are the most common. Various benefits are cited in justifying input subsidies: economic, environmental and social (Harshal . Salunkhe and Deshmush 2012). Input subsidies can bring economic benefits to society. Inputs like fertilizers, irrigation water and electricity have a significant share in agricultural subsidies in India and fertilizer subsidy has attracted much attention of policymakers, and researchers in the recent past. An agricultural subsidy is a government's financial support paid to farmers and agribusinesses to supplement their income, manage the supply of agricultural commodities, and influence the cost and supply of such commodities. A subsidy, often viewed as the converse of a tax, is an instrument of fiscal policy. Derived from the Latin word, *subsidiium* , a subsidy literally implies coming to assistance from behind. Subsidy is converse of tax and both are aspects of fiscal policy. Few subsidies are visible and few are also invisible.

Chahal (1999), mentions that "... the Indian agrarian economy on the eve of independence was critical in situation. It could be characterized totally primitive, deteriorative and turbulent. After partition, the country is left with 82 per cent of the total population of undivided India as well as only with 69 per cent of land under rice, 65 per cent under wheat and 75 per cent under all cereals. The deficiency of food grains is quite alarming and aggravating at that time."

Similarly, Singh (1994) observes that "after independence tremendous efforts were made to boost the Indian economy through agriculture as one of the tools for development. The Government of India adopted a more positive approach and a well defined policy of integrated production programmes with defined targets and a proper distribution programme was adopted along with other measures for the overall economic development of the country. Specific programmes like new agriculture technology are introduced to convert agriculture into a successful and prosperous one, to bring more land under cultivation and to raise agriculture production. Especially in India, the adoption of new agricultural technique was costly than that of traditional method of cultivation. In traditional method, inputs were less expensive and inputs of

modern technology like high yielding varieties of seeds, fertilizers, farm mechanization and irrigation are very costly and Indian farmers being poor are not in a position to buy these expensive inputs. Then on the recommendations of food grain price committee also known as Jha Committee, the Government of India started the scheme of subsidies on purchase of various agriculture inputs to facilitate the farmers.

While few studies have made an important observations regarding beneficiary of subsidies. They have benefitted largely rich or big farmers causing inefficiencies, fiscal burden, distort trade, and negative environmental effects. However, agricultural subsidies can play an important role in early phases of agricultural development by addressing market failures and promoting new technologies (Fan, 2008).

Further, Gulati (2003) has also found that all these agricultural subsidies have served well during beginning stages of green revolution through seed-cum- fertilizer subsidies. Off course this helped India in raising its agricultural production. However, these subsidies overtime have risen. The input subsidies have often been accused of causing most harmful effect in terms of reduced public investment in agriculture on account of the erosion of investible resources, and wasteful use of scarce resources like water and power. Apart from causing unsustainable fiscal deficits, these subsidies by encouraging the intensive use of inputs in limited pockets have led to lowering the productivity of inputs, reducing employment elasticity of output through the substitution of capital for labour and environmental degradation such as lowering of water tables.

The present Study has made an attempt to study different types of agricultural subsidies given by Government of India. The study would compare government's agricultural subsidies of major food producing counties of the world. The study has also tried to analyse the quantity of subsidies provided to agriculture. The present study is conducted using mainly Secondary data collected from various Reports of WTO, Ministry of Agriculture and budget documents of Ministry of Finance, Government of India. The analysis was carried out using tables and Graphs, and Compounded Annual Growth Rates (CAGR).

2. Agricultural Subsidies: Kinds of Agricultural Subsidies in India

The different kinds of agricultural subsidies provided to farmers in India are

1. Input Subsidies:

Subsidies can be granted through distribution of inputs at prices that are less than the standard market price for these inputs. The magnitude of subsidies will therefore be equal to the difference

between the two prices for per unit of input distributed. Naturally several varieties of subsidies can be named in this category.

a. Fertiliser Subsidy:

It is one of the very important subsidies which farmers really fight every year with the start of monsoon. It is distribution of cheap chemical or non-chemical fertilisers among the farmers. It amounts to the difference between price paid to manufacturer of fertiliser (domestic or foreign) and price, received from farmers. Fertilizer subsidies are argued for because of

- (i) Cheap inputs to farmers,
- (ii) Reasonable returns to manufacturer,
- (iii) Stability in fertiliser prices, and
- (iv) Availability of fertilisers to farmers.

In some cases this kind of subsidies are granted through lifting the tariff on the import of fertilisers, which otherwise would have been imposed.

b. Irrigation Subsidy:

It is also another important Subsidy to the farmers which the government bears on account of providing proper irrigation facilities. Irrigation subsidy is the difference between operating and maintenance cost of irrigation infrastructure in the state and irrigation charges recovered from farmers. This may work through provisions of public goods such as canals, dams which the government constructs and charges low prices or no prices at all for their use from the farmers. It may also be through cheap private irrigation equipment such as pump sets.

c. Power Subsidy:

Most of agriculture in India is rain fed. So Indian farmers depend on wells for supplying of irrigation water for which power is very important in pumping out water from the well. In simple, Power is primarily used by the farmers for irrigation purposes. The electricity subsidies imply that the government charges low rates for the electricity supplied to the farmers. It is the difference between the cost of generating and distributing electricity to farmers and 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.

d. Seed Subsidies:

This is very essential input subsidy from the point of productivity. High quality seeds mean higher production. Certainly high quality seeds are priced high. As most of marginal and small farmers couldn't purchase them High yielding seeds are provided by the government at low prices. The research and development activities needed to produce such productive seeds are also undertaken by the government, the expenditure on these is a sort of subsidy granted to the farmers.

e. Credit Subsidy:

It is the difference between interest charged from farmers, and actual cost of providing credit, plus other costs such as write-offs bad loans. Availability of credit is a major problem for poor farmers. They are cash strapped and cannot approach the credit market because they do not have the collateral needed for loans. To carry out production activities they approach the local money lenders.

Taking advantage of the helplessness of the poor farmers the lenders charge exorbitantly high rates of interest. Many times even the farmers who have some collateral cannot avail loans because banking institutions are largely urban based and many a times they do not indulge in agricultural credit operations, which is considered to be risky.

To tackle these problems the government can provide:

- (1) More banking operations in rural areas-which will advance

agricultural loans, and

- (2) The interest rates can be maintained low through subsidization schemes, and
- (3) The terms of credit (such as collateral requirements) can be relaxed for the poor.

II. Price Subsidy:

It is the difference between the price of food-grains at which FCI procures food-grains from farmers, and the price at which PCI sells either to traders or to the PDS. The market price may be so low that the farmers will have to bear losses instead of making profits. In such a case the government may promise to buy the crop from the farmers at a price which is higher than the market price.

The difference between the two prices is the per unit subsidy granted to the farmers by the government. The price at which the government buys crops from the farmers is called the procurement price. Such procurement by the government also has a long run impact. It encourages the farmers to grow crops which are regularly procured.

III. Infrastructural Subsidy:

Private efforts in many areas do not prove to be sufficient to improve agricultural production. Good roads, storage facilities, power, information about the market, transportation to the ports, etc. are vital for carrying out production and sale operations. These facilities are in the domain of public goods, the costs of which are huge and whose benefits accrue to all the cultivators in an area.

No individual farmer will come forward to provide these facilities because of their bulkiness and inherent problems related to revenue collections (no one can be excluded from its benefit on the ground of non-payment). Therefore the government takes the responsibility of providing these and given the condition of Indian farmers a lower price can be charged from the poorer farmers.

IV. Export Subsidies:

This type of subsidy is not different from others. But its purpose is different. When a farmer or exporter sells agricultural products in foreign market, he earns money for himself, as well as foreign exchange for the country. Therefore, agricultural exports are generally encouraged as long as these do not harm the domestic economy. Subsidies provided to encourage exports are referred as export subsidies.

3. Comparison of Subsidies given to Agriculture sector in major food growing countries

Agricultural subsidies are a worldwide phenomenon. No country of the world is an exception of it. Every country strives to support their farmers, therefore, agricultural or farm subsidies are existent phenomenon in part of the world.

WTO was established in 1994 as a Successor to GATT. The main objective of WTO is to promote international trade and economic cooperation among its members by reducing or removing tariff and non-tariff barriers. WTO plays a role of watch dog in the sphere of international trade and its agreements have been extended to various agricultural, industrial products and services. Agriculture was out of GATT purview until Uruguay round of conference. Therefore, no conditionalities and restrictions were made on production and export of agricultural commodities. With developed countries supporting hugely their farmers with large subsidies due to farm lobbies distorted international trade totally. However, Uruguay Conference, also known as 8th Round of multi lateral trade negotiations started approaching issues rightly to order the distorted trade. The Agreement on Agriculture, which came into force on January 1, 1995, intended to set the ground for a fair and market oriented agricultural trading system with reform programs comprising of specific commitments to reduce farm support, export subsidies and to promote market access within a stipulated time frame (Panagariya, 2005).

Table.1 Farm subsidies by different countries of the world

Country	Subsidy per hectare	% subsidies	Population dependent on agriculture
EEC	\$82	37%	8%
USA	\$32	26%	5%
Japan	\$35	72%	4%
China	\$30	34%	24%
South Africa	\$24	60.67%	18%
India	\$14	2.33%	60%

Source: Compilations from WTO Reports

Table.1 Compares of phenomenon of subsidy per hectare, percentage of subsidies and percentage of population depending on agriculture by different countries of the world. It is observed that European Economic community (EEC) taken together provides subsidy of US 82 dollars per hectare. It is maximum farm subsidy given to agriculture. As a single country, Japan gives farm subsidy of US \$ 35 followed by United States of America (USA) with \$32 and China with US \$ 30. On the other hand, India is giving its farmers lowest subsidy of US \$ 14. South Africa is also giving relatively lower farm subsidy of US \$24 to its farmers.

In terms of percentage of subsidy given to agriculture of its total subsidies, Japan has 72 % farm subsidies followed by South Africa with 60.67 %, EEC with 37 % and China with 26 %. India is giving its farmers very less and in fact negligible share of subsidies to agriculture (2.33 %). However, the people depending on agriculture are meagre 4% in Japan, 5% in USA, 8% in EEC, 18% in South Africa and 24% in China. India has maximum of its population depending on agriculture. About 60% of India's populations are depending on agriculture.

In other way round, It is contradictory that the dependency on agriculture sector is more in developing countries & less in developed countries but farm subsidies are more in developed countries and less in developing countries.

4. Agricultural Subsidies in India

Agriculture plays an important role in the economic development of Indian economy. It employs 60 percent of its workforce. It contributes about of 16 percent was India's GDP. Almost all economic activities in India revolve around agriculture. The rationale behind providing subsidies in India is that most of the Indian farmers are medium, marginal and small farmers who are either financially weak or poor with limited resources. Subsidies will enable them to purchase seeds and fertilizers every year at affordable prices and cultivate their given piece of land. It will improve their economic condition and thus promoting development of India.

Major items of agricultural subsidies are food, fertilizer, irrigation, power and credit. While food and fertilizer subsidies are borne by the Centre, power and irrigation subsidies are borne by the respective state governments. Credit subsidies are given through the banking system. Food subsidy is the difference between the price at which the Food Corporation of India (FCI) procures from farmers and sells through the Public Distribution System (PDS).

For fertilizer inputs, subsidy is the difference between the price paid to fertilizer manufacturers and price received from the farmers. For other inputs, it is the difference between economic cost of input and issue price to the farmers, which is paid by the government. Credit subsidy is applicable for short term loans provided for production purpose for a period of one year. In addition to these, Gol is also providing subsidies to farmers in the form of seeds, oil seeds, cotton, pulses, rice, maize, crop insurances through farmer cooperatives.

Table.2 Major Agricultural Subsidies in India (1993-1994 to 2009-2010)

Year	Fertiliser	Electricity	Irrigation	Insurance	Total
(At Current Prices At 1993-94 Series)					

1993-94	4562	2400	5872	1235	14069
1994-95	5769	2338	6772	1246	16125
1995-96	6735	1977	7931	1034	17677
1996-97	7578	8356	9221	895	26050
1997-98	9918	4937	10318	983	26156
1998-99	11596	3819	11827	1182	28424
1999-00	13244	4276	11487	1810	30817
(At Revised 1999-00Series)					
1999-00	13244	6033	11196	3118	43025
2000-01	13800	8919	13259	2733	50771
2001-02	12595	10410	13009	3234	56747
2002-03	11015	8521	12794	3173	59679
2003-04	11847	14544	10921	4132	66625
2004-05	15879	17977	12290	3598	75542
2005-06	18460	19431	14280	6504	81752
2006-07	26222	19729	16978	-	86943
2007-08	32490	20661	19457	-	103936
2008-09	76603	27489	23665	-	171508
2009-10	52980	NA	NA	-	108982
CAGP	13.32	16.95	6.61	15.00	14.19

Source: Ministry of Agriculture, Govt. of India. (11349), (On116)

Figure.1 Major Agricultural Subsidies in India (1993-1994 to 2009-2010)

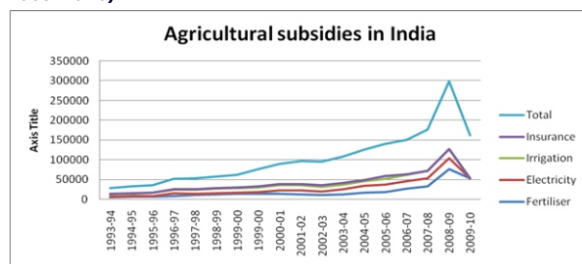


Table.2 and Figure.1 shows Agriculture Subsidies in India from 1993-1994 to 2009-2010. It is seen that Irrigation has dominated in terms of agricultural subsidies from 1993-94 to 1999-00. However fertilizer subsidies dominated subsidy scenario in the later years from 1999-00 to 2009-10. In 1993-94, total agricultural subsidies were to the tune of Rs. 14,069 crores of which irrigation subsidies were to the tune of Rs.5872 crores and Fertilizer subsidies to the tune of Rs. 4562 crores and electricity subsidies were to the tune of 2400 crores.

Fertilizer subsidies have increased annually at Compounded Annual Growth Rate of 13.32%. Fertilizer subsidies in 1999-00 were 13,244 crores. It increased to Rs. 15879 crores in 2004-05, 26222 crores in 2006-07 and 76603 crores in 2008-09. From 2001-02 to 2003-04, fertilizer subsidies had declined. Similarly, electricity subsidies have also increased from 2400 crores in 1993-94 to 4279 cores in 1999-00, 10410 crores in 2001-02, 19729 crores in 2006-07 and 27489 crores in 2008-09. Electricity subsidies have increased at CAGP of 16.95% every year from 1993-94 to 2008-09.

Another important subsidy is irrigation subsidies. They have increase annually by CAGP of 6.61 percent. In 1993-94 irrigation subsidies had top most priority. However, by 2008-09, they are third most preferred subsidy of all agricultural subsidies. Irrigation subsidies were to the tune or Rs. 5872 crores in 1993-94, which increased to Rs. 11827 cores (1998-99) and 23665 crores (2008-09).

Although all these three subsidies are provided in visible form, insurance is invisible subsidy as it cannot be seen. It can be realised only on the grounds of failure or crop owing to failure of monsoons or drought or floods or any artificial and natural calamities. In 1993-94 agricultural insurances were provided to the tune of Rs. 1235 crores, which increased to 1810 crores by 1999-00, 3234 crores by 2001-02, 4132 cores by 2003-04 and Rs.6504

crores by 2005-06. During this period subsidies given for insurances have increased annually at CAGP of 15 percent.

In total, agricultural subsidies have increase annually at CAGP of 14.19 percent from 1993-94 to 2009-10. In 1993-94, agricultural subsidies were given to farmers to the tune of Rs.14069 crores. It increased to Rs. 26050 crores (1996-97), 50771 crores (2000-01), 86.943 crores (2006-07), 103,936 crores (2007-08) and 171,508 crores (2008-09). It is observed that every year, agricultural subsidies have increased. It is due to continuous failure of monsoons in certain states such as Karnataka, Maharashtra, undivided Andhra Pradesh and Tamilnadu. In few years for political reasons also, subsidies were given to farmers to attract their votes towards their party. In 2008-09, the amount was high because of central governments waive off 60,000 crores loan waive off programme.

1. Conclusion

Agricultural subsidies are boon for an agriculture economy whereas a bane to overall economy. These subsidies enable poor purchase seeds, fertilizers on time at affordable prices. Electricity subsidies give impetus for farmers to go for agriculture. Insurance subsidies protect the crop from unforeseen calamities. The world comparison indicates that developed countries such as Japan, European Economic Community (EEC), and USA have lesser dependent population. Notwithstanding they get more subsidies per hectare than farmers in developing countries such as India. Even the percentage of agriculture subsidies to total subsidies is highest in these developed countries. On the other hand, Indian agriculture has lesser share.

A comparison among major subsidies of agriculture in India from 1993-94 to 2009-10, it is found that fertilizer subsidies are relatively more, followed by electricity, irrigation and insurance subsidies. Of the all, Fertilizer subsidies have grown at CAGP of 16.95 followed by insurance subsidies at CAGP of 15 percent. Overall agricultural subsidies have increase annually at CAGP of 14.19 percent from 1993-94 to 2009-10.

India has huge arable land and all land is not ploughed every year given limited financial and economic resources. Although financial aid in the form of agricultural subsidies have increased over the years, in absolute numbers, they are still very low compare to other major food producing countries of the world. Government of India and respective state governments should take steps in increasing these subsidies as they are still unmatched to the needs of Indian agriculture. This can enhance agricultural productivity and total production and thereby improving well being and welfare of farming communities.

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