Impact Assessment of Goods and Service Tax (GST) on the Use of Selected Agricultural Inputs in Gujarat

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by

S. S. Kalamkar and Kinjal Ahir
Agro-Economic Research Centre
(Ministry of Agriculture & Farmers Welfare, GOI)
H. M. Patel Institute of Rural Development
Sardar Patel University,
Vallabh Vidyanagar 388120,
Dist. Anand, Gujarat (India)

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Prepared by: Agro-Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar

- Dr. S. S. Kalamkar, Director and Professor, AERC, Sardar Patel University, Vallabh Vidyanagar
- Dr. Kinjal Ahir, Deputy Director (Hon), AERC & Asso. Prof, PG Department of Economics, Sardar Patel University, Vallabh Vidyanagar

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The Director
Agro-Economic Research Centre
(Ministry of Agriculture & Farmers Welfare, Govt. of India)
Sardar Patel University,
Vallabh Vidyanagar, Anand, Gujarat.
Ph. No. +91-2692-230106 (direct)
Fax- +91-2692-233106
Email: director.aerc@gmail.com; directoraercgujarat@gmail.com

Printing and Circulation In-charge:

Shri Deep K. Patel

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Foreword

Indian agriculture has set new milestones in its progress. Since independence, major strides have been made in production of food grains, not only due to increase in area but also due to technology. As a result, the food grains production increased from 50.82 million tonnes in 1950-51 to 283.37 million tonnes in 2018-19. The phenomenal growth in agricultural production since independence has been triggered by higher input use, particularly purchased inputs as well as technology induced productivity enhancement, massive extension efforts, improved farm practices and, above all, ingenuity and hard work of Indian farmers since the Green Revolution Period in late 1960s. The introduction of High-Yielding-Varieties of seed (HYVs), the increased use of chemical fertilizers and irrigation were the major features of the Green Revolution, which resulted in increase in production needed to make India self-sufficient in food grains. The Indian farmers widely adopted the technological innovations so as to raise the farm productivity and profits. The increased technological adoption further raised the demand for various agricultural inputs such as farm machinery and equipment, credit and labour, among others. Thus, the key inputs which changed the scenario of agriculture since Green Revolution Period, included adoption of HYV seeds, chemical fertilizers, irrigation, pesticides, farm machinery and equipment, credit and labour. Efficient technologies like drip irrigation and sprinklers have benefits like reduced usage of water, thereby conserving energy and water simultaneously.

Farm inputs determine the fate of farmers even in a normal monsoon year. These inputs, including seeds, fertilizers, pesticides, irrigation tools, machines and appliances, availability of credit, etc., in turn depend on the business and industry dealing with the production and sales of these products and related services. The quality, quantity and prices related information about these inputs determine the costs of production of the agricultural produce. The challenging task before the farmer is to get the best inputs at the lowest prices with the guarantee of quality, quantity and prices being true to the claim. In order to increase productivity and profitability of agriculture, Government has been implementing various schemes providing subsidies on agricultural inputs, farm implements and machinery. However, a policy dilemma was observed recently whereby on one hand various central and state government schemes attempted to support the use of inputs and installation of such micro irrigation schemes, and on the other hand Goods and Service Tax (GST) was levied on such equipment. Prior to GST drip irrigation and sprinklers attracted 5% VAT in the state of Gujarat. With the introduction of GST, the rate levied increased up to 18%. However, due to a revision in GST rates after the GST council meet on 9.9.2017 the revised rates reduced from 18% to 12% on sprinklers and nozzles for drip irrigation equipment. Nevertheless, these rates are still higher compared to the pre-GST regime. Also other agricultural inputs sale reported to be suffer because of same. Hence, various questions arise regarding the implementation of GST on agricultural inputs and its implications. As it is well know that with the rise in the production cost of agriculture products, an immediate rise in inflation, special food inflation can be triggered. Therefore, a need was felt to assess the impact of GST on various inputs and materials used in agriculture

and allied sectors. The current study is an inquiry into the impact assessment of Goods and Service Tax (GST) on the use of selected inputs in Gujarat. The study came out with important and relevant policy implications which would facilitate policy formulations and provide relevant information to prospective researchers.

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Agro-Economic Research Centre
For the states of Gujarat and Rajasthan
(Ministry of Agriculture and Farmers Welfare, GOI)
Sardar Patel University,
Vallabh Vidyanagar 388120

(Dr. S.S. Kalamkar)
Director & Professor

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Agro-Economic Research Centre
For the states of Gujarat and Rajasthan
(Ministry of Agriculture, Govt. of India)
Sardar Patel University,
Vallabh Vidyanagar 388120, Anand

S. S. Kalamkar
Kinjal Ahir

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List of Abbreviations

AERC	:	Agro-Economic Research Centre
API	:	Application Programming Interface
Av.	:	Average
CACP	:	Commission for Agricultural Costs and Prices
CED	:	Central Excise duties
CGST	:	Central Goods and Service Tax
CVAT	:	Central Value Added Tax
DISCOMs	:	Electricity Distribution Companies
FAO	:	Food and Agriculture Organization, Rome
GCA	:	Gross Cropped Area
GDP	:	Gross Domestic Product
GEASJT	:	Gujarat Economic Association Silver Jubilee Trust
GGRC	:	Gujarat Green Revolution Company
GIA	:	Gross Irrigated Area
GOG	:	Government of Gujarat
GOI	:	Government of India
GST	:	Goods and Service Tax
GSVA	:	Gross State Value Added
ha	:	Hectare
HSN	:	Harmonized System of Nomenclature
HVYs	:	High Yielding Varieties Seeds
IASRI	:	Indian Agricultural Statistical Research Institute
IGST	:	Integrated Goods and Service Tax
IWMI	:	International Water Management Institute
K	:	Potassium
mha	:	Million hectares
MIS	:	Micro Irrigation System
MRP	:	Maximum Retail Price
MSP	:	Minimum Support Price
mt	:	Million tonnes
N	:	Nitrogen

NSDP	:	Net State Domestic Product
OBC	:	Other Backward Classes
P	:	Provisional
P	:	Phosphorus
SC	:	Scheduled Caste
SGST	:	State Goods and Service Tax
ST	:	Scheduled Tribe
TE	:	Triennium Endings
VAT	:	Value Added Tax

Executive Summary

Impact Assessment of Goods and Service Tax (GST) on the Use of Selected Agricultural Inputs in Gujarat

1. Introduction:

Farm inputs determine the fate of farmers even in a normal monsoon year. These inputs, including seeds, fertilizers, pesticides, irrigation tools, machines and appliances, availability of credit, etc., in turn depend on the business and industry dealing with the production and sales of these products and related services. The quality, quantity and prices related information about these inputs determine the costs of production of the agricultural produce. The challenging task before the farmer is to get the best seeds at the lowest prices with the guarantee of quality, quantity and prices being true to the claim. The same is true of other inputs as well. In order to increase productivity and profitability of agriculture, Government has been implementing various schemes providing subsidies on agricultural inputs, farm implements and machinery. However, despite the best possible development schemes to ensure their availability at subsidised rates and at the right time, farmers often fail to get quality farm inputs at affordable prices

Agricultural production is a function of inputs, and is influenced by physical and policy environment among others. Hence, a change in any of these has repercussions for the whole agricultural production system. Until 2017, the country was under the excise and variable VAT regime of indirect taxation with differential tax rates on commodities across states. In this context, GST has some influence on the costs of agricultural inputs and services as well as on the policy environment in which the inputs, services and output of the agricultural system are being transacted. A policy dilemma was observed recently whereby on one hand various central and state government schemes attempted to increase use of various agricultural inputs, installation of micro irrigation schemes (drip and sprinklers), as well mechanization of agriculture and on the other hand Goods and Service Tax (GST) was levied on such equipment. Various questions have evolved regarding the implementation of GST on agricultural inputs and irrigation tools and its implications. Like, is the levy of such tax justifiable on agricultural inputs and irrigation tools? If at all such a tax were levied, what is the farmer's reaction towards it? Accordingly, what is the impact on the use of agricultural inputs and adoption of irrigation tools? How has it affected the profitability of the farmers, traders and producers involved? Therefore, there is need to have a reality check about the impact of GST levied on various inputs and materials used in agriculture and allied sectors on associated stakeholders like farmers, traders and producers of agricultural inputs in Gujarat.

2. Data and Methodology

The study is based on both primary and secondary level data. The secondary data was collected from various published sources, minutes of the meetings of GST Council, the government publications and research papers amongst others. The primary data was collected by using a structured interview schedule exercised in 2019 over a sample farmers, input dealers, irrigation tool suppliers, and other stakeholders covering the agriculture year 2018-19. The interview schedule was finalized after inputs and necessary corrections from pilot survey. The study is confined to the State of Gujarat and covers all the districts of the state. The time period for analysis include the data collection covering before and after GST period to compare its impact on sale and purchase of agricultural inputs in selected districts of Gujarat. For collection of data for the period before GST from the stakeholders, recall method was used. All the 33 districts of the State of Gujarat were selected for the study. In view to get response on the topic under study, appropriate input market places were selected and data were collected from the stakeholders. From every district, five farmers and five inputs dealers were contacted. Input producers were contacted and information was collected wherever they had their business of production of agricultural inputs. The information related to input use and GST implications were collected from 170 farmers and 168 input dealers and 16 input producers. After scrutiny of schedules, 170 farmers, 168 input dealers and 15 input producers were considered for the analysis.

3. Findings:

- *On a positive note, it was reported that many farmers observed a shut-down of the shop by many suppliers that were expectedly dubious. They had an apprehension that those suppliers were involved in spurious activities. They believed that the dubious suppliers could not sustain in GST regime in continuing with their spurious activities and so they shut down.*
- *Farmers reported that the buyers of their produce were also preparing bills and insisting upon preparing appropriate invoices and were handed over to the farmers by the buyers of their agricultural produce, more often since the implementation of GST.*
- *Most of the traders felt that with the introduction of GST many benefits were deduced like, more timely preparation of accounts, increased transparency and ease due to fully online process, ease in preparation of accounts due to single tax that merged multiple tax. Some traders were also happy with the brunt felt by illegal traders who were compelled to shut down due to increased transparency.*
- *However, traders also felt that introduction of GST induced increased cost of maintenance of records in the form of software installation and maintenance and costs incurred in hiring trained manpower or outsourcing the same.*
- *Traders found it difficult to seek from their suppliers and extend to farmers, certain facilities like credit, return of sold out goods, availing / providing / negotiating discounts, etc. which was smoothly handled before the implementation of GST. Such facilities can prove to be vital for success of agriculture.*
- *Dealers' margins have reduced, which can pose threat of sustainability for the business. With increase in GST, while many manufacturers of tractors in particular have absorbed the increased tax burden, but for some agri-inputs whereby manufacturers have not absorbed the rise in the burden, it's the dealers who have to accommodate the rise in the tax by cutting their margin. Innumerate traders provide important support service to the agriculture sector and are important stakeholders for agricultural businesses. It is important to assure that they continue to provide services in the form of traders to the farmers.*
- *Most of the producers reported a rise in the cost of production due to increased rates of GST charged by their suppliers of raw-materials, machinery and other inputs.*
- *Producers reported that the details regarding GST number was sought by their suppliers, and they too in turn sought the same from the traders to whom they supplied the produced goods. It thus suggested that the rule of tax credit to be sought sequentially through-out the supply chain was being implemented. It would thus be difficult for anyone to survive in the market without GST registration, since they would not be able to further claim GST tax credit paid by them to their supplier. So the chain of paying the tax charged to them continues consecutively.*
- *Impact on producers involved gestation period in production and time-lag to see any kind of impact. Demand for producers' goods is a derived demand from stakeholders vertically foolwoing producers like traders and finally farmers. Once the farmer gets affected, it gets communicated to trader and thus to the producer in the supply chain. Hence if the demand was negatively affected, it cannot be immediately communicated / indicated to the producers or implemented through likewise changes in production instantaneously. Hence a change in sales as an impact of GST was observed to be after time-lag of at-least six months' duration for certain products like fertilizers, insecticides, etc. to more than a few years for inputs like tractors, heavy machineries or irrigation tools.*
- *All producers were on consensus that the GST regime had brought more transparency in the entire logistic supply chain, and thus was a better system than its predecessor.*

4. Recommendations:

- *As was observed, farmers had merely heard about GST, but were largely unaware of the charges, whether it increased the prices of inputs or not and whether the cost of production increased for them or not. To assure a smooth transition and lesser ambiguity among the stakeholders, wide propagation of the strategy of implementation, schedule and method of implementation, before and after implementing the rates of GST, rise or stability in prices to be expected post-implementation,*

etc. and its effective timely communication would have better prepared farmers to be aware as to what to expect from the implementation of GST. Lack of communication and resulting ambiguity can provide an opportunity to those who want to unduly benefit by such lack of clarity.Henceforth, any such policy implementation can take care of such procedural suggestions.

- *A big challenge with regards to any data to be procured from farmers is the lack of record-keeping of the expenses incurred in agriculture. Farmers should be acquainted of the benefits that can be derived by proper record keeping and hence be motivated to maintain agriculture associated records in the form of a log book, for all future references and comparison in such situations as implementation of GST. If they had systematically maintained record, a clear comparison of before and after prices, post implementation of GST paid by them could have improved their bargaining power with the suppliers or even policy makers, while identifying any errors / mal-practices committed by traders or suppliers while supplying agricultural inputs. In the absence of records, they at best rely on recall method and loose power to negotiate with either suppliers or policy makers.*
- *While attempts are being made to 'double farmers' income' besides considering the uncertainties associated with agriculture, it is in the best interest for the country to not charge GST on agricultural inputs. Any tax on agricultural inputs increases the cost of production and thereby reduces the net farmers' income. Instead at best, tax can be levied on those inputs, the use of which is intended to be reduced in phased manner to assure sustainable agriculture, like the use of harmful chemicals, among others. A 'nil' tax rate on water-saving irrigation facilities (like drip irrigation and sprinklers) would motivate its use and prove to be both economically and ecologically helpful. Similarly, 'nil' tax rates on 'green house structures', agricultural technological tools, etc. would motivate the farmers to use them and thereby contribute in doubling farmer's income by producing sophisticated, expensive, and fragile crops at lower cost of production and in turn protecting the environment.*
- *Due to the nature of agricultural income and accordingly lack of working capital, farmers need inputs on credit from suppliers. Besides, certain times farmers feel dissatisfied with the use of certain inputs and may require to exchange, purchased input with an alternate one. However due to stringent and inflexible GST procedures, farmers are largely not given such facilities since its implementation. Such provisions may prove to be helpful to resort such challenges faced by farmers.*
- *Farmers were fearful as well as misguided regarding GST by those who wanted to benefit from the doubts persisting in the minds of the farmers, like vendors or traders. Appropriate communication with the stakeholders particularly with illiterate farmers is important to assure that they are not cheated by miscreants in the name of GST, by charging them for those rates that do not have legal sanctity.*
- *As for the traders, infrequent changes in the GST rates would facilitate the implementation of procedures. There should be non-ambiguous mass communication of the manner in which the rates are charged under the GST regime. Hence it is recommended that rates of GST should not be changed frequently. While the survey was carried out to cover the initial stages of implementation of GST and so changes were frequent, with the passage of time, more stability in the rates can be expected.*
- *Traders dealing with tractor and implement spare parts felt annoyed and irritated due to different rates of GST on different spare parts. Dealers have to deal with hundreds of spare parts every-day and found it difficult to keep abreast with the rate differences. It was suggested that all tractor and agricultural equipment spare parts should charge the same rate of GST to avoid delay and confusion while preparing bills.*
- *Many traders suggested that instead of monthly reporting of the accounts, quarterly preparation of the bills would be more convenient. Monthly reporting by dealers need to accommodate the delays either at the end of suppliers or by the farmers and so the request was for a quarterly reporting. However, there was also a group of traders who appreciated monthly payments since in that manner the burden was equally distributed across the year and the financial year end pressures were mitigated. Since it became a monthly routine it was not found burdensome after certain time due to the familiarity with the procedure.*

- *A reduction in the penalty due to delay was suggested, since at times traders faced genuine issues like internet connectivity issues, power supply, crowding on portal and thus lack of response, etc. Some farmers learnt to cope-up with the passage of time by doing the procedures much before the deadline to avoid delays or penalties.*
- *GST council should acknowledge and provide for facilities to extend credit, discounts and scope for prolonged return of goods, since these are vital for fragile agriculture sector, which would facilitate extending such facilities in a manner similar to that before the implementation of GST. Large part of the farmer community belongs to the small and marginal section with lack of financial liquidity. Credit facility and deferred payment facilities that was provided by the traders was a survival strategy to cope up with deferred income.*
- *The fact that the sales of fertilizers, pesticides, and oil engines was negatively affected and that of solar equipment, organic material was positively affected indicates, that GST can be used as a tool to incentivize and dis-incentivize appropriately the use of different agricultural inputs. For example, if organic production is to be motivated, then organic inputs should be imposed less GST and inorganic inputs should be charged higher GST.*
- *Some of the traders also voiced concerns that for the sustainability of agriculture sector and to truly achieve 'doubling of farmers' income' GST should be completely abolished on all agri-inputs. It was not found convincing that on one side we are trying to assure doubling of farmers' income, while on the other side increasing the costs of agriculture.*
- *Lesser of nil GST on efficient irrigation systems like sprinklers, and drip irrigation are inevitable to motivate the users to buy more of the same. This would prove ecologically/environmentally beneficial besides being economically promising by saving the water usage on the most water exhausting activity – agriculture. Besides technological upgradation inducing equipment like tractors, rotavator, green-house structures and their spare-parts, if charged with lesser GST can result in increased farmers' income with the production of more sophisticated and mechanized agricultural output.*
- *Most of the traders unanimously suggested that all agri-inputs should be charged uniform GST, if at all, and at very low rate, so that no one can cheat farmer, the end user by charging higher in the name of GST. Amidst ambiguity, asymmetric information and confusion few traders may indulge into malpractice of charging higher rates from the farmer. Uniform GST rates across the logistic supply chain will reduce the scope of misdeeds by any of the stakeholders and with increased awareness the stakeholders will also be less vulnerable to such malpractices. At the same time, it would also reduce transaction costs, time and efforts during transactions facilitating all stakeholders. It would also reduce time, efforts and money involved in filing GST.*
- *Producers faced a peculiar dilemma that they paid higher GST rates on the inputs supplied by their suppliers and instead could not charge as much GST on the finished product sold by them with the change in the nature of the product produced. Hence, if a common same percentage is charged in the entire logistic supply chain, such dilemmas could be overcome. For example, if the supplier of raw material was charging eighteen percent and if the producer was able to charge only five percent on the finished goods with value addition sold by him. Due to the nature of the finished product, he would have to face loss since the producer will be able to get tax credit for the amount that he is able to charge from his trader to whom he supplies the finished goods. Instead if the supplier of raw material was also charging five percent and if the producer was also charging five percent on the finished goods with value addition sold by him, such a problem would be solved.*
- *Seed-cum-fertilizer drill, zero till drill, lazer levelers and various farm implements and tools need to be popularized along with bullock drawn implements for small and marginal farmers. Seed dressers, sprayers, weeding implements, and other drudgery reduction implements should be further popularized. Custom hiring system should be promoted and popularized using the concept of Agri-Clinics.*

Chapter I
Introduction

1.1 Introduction

Agriculture's role in the process of economic growth has been a central theme in development economics for several decades (e.g., Johnston and Mellor, 1961, Schultz, 1968). In most of the developing economies, agriculture is the core sector providing livelihood to a significant proportion of the population, especially in rural areas. The sector faces the largest brunt of underemployment, unemployment and poverty. Increasing the productive capacity of agriculture through higher productivity has been an important goal in developing countries. Accordingly there is a lot of scope for the growing agriculture and allied sector to contribute vastly to overall growth and poverty alleviation. It has been suggested that due to limited scope for expansion of arable land, there is a need to increase yields to their technically highest levels through appropriate investment in basic infrastructure, human development, and research and extension services (Chavas, 2006; Zepada, 2006). Some of these issues are very relevant for a country like India where agriculture continues to be the core sector of the economy, with over two third of country's population dependent on it for their livelihood.

Agriculture is the main stay of Indian economy because of its high share in employment and livelihood creation notwithstanding its reduced contribution to the nation's Gross Domestic Product (GDP). The share of agriculture in GDP has registered a steady decline from 36.4 percent in 1982-83 to 17.8 percent in 2018-19. Yet this sector continues to support more than half a billion people providing employment to 52 percent of the workforce. Agricultural sector also contributed 12.86 percent to national exports in 2017-18 (GOI, 2019). Therefore, in the predominantly agricultural country like India, the performance of the agricultural sector influences the growth of the Indian economy. Agricultural development is important not only because of its high potential to raise the income and employment to poverty stricken rural masses but also due to its capacity to provide food, raw material and ever expanding market for industrial goods. It can thus result into speedy development of overall economy (Kalamkar, 2004). Agriculture forms the backbone of Indian economy and despite large industrialization in last fifty years; agriculture still occupies a place of pride. In spite of rapid urbanization during last few decades, India's rural