

Articles

Agricultural Sector: Evolving a Medium Term Framework

VENKAT HARIHARAN ASHA¹, BRIJESH KUMAR PATEL² AND SACHIN BANSAL³**Abstract**

Agriculture continues to be the backbone of the rural economy and is a vital pillar of the national economy. This article presents a case study of the crops sector by focussing on rice and wheat and its associated activities. The paper also brings out factors which would help in diversification in these crops and also underlines the importance of policy implications. An innovative framework manifesting in the form of an 'Agricultural Commission' that would give just representation of medium-term interests aligned with the overall vision is suggested. This would involve the participation of all key stakeholders coming together to deliberate and execute implementation of vital reforms in a holistic manner to achieve its objectives in order to improve the efficiency of resource allocated, sharing of technical know-how also to align priorities in the context of political economy and federal set-up.

Keywords: *Agricultural Commission, governance framework, policy, buffer stock, revealed comparative advantage*

1. Introduction

Hon'ble Union Agriculture Minister informed the Rajya Sabha on 05.02.2022 that, "as per the changing requirements of the country to change the cropping pattern, to make Minimum Support Price (MSP) more effective and transparent, and to encourage natural farming, the process of setting up a committee is under process." This also follows key announcements made in the Union Budget 2022, which inter-alia include promotion of chemical-free farming throughout the country, support to value addition and enhance consumption of millets, a rationalized and comprehensive scheme to increase the domestic production of oilseeds. From the foregoing, it is clear that serious interventions are envisaged with a long-term perspective and vision for the agricultural sector. The paper tries to tread forth by portraying the relative snapshot of the sector in the context of the country's economy. Further in pursuit of building a narrative within the agricultural sector, the paper delves into the dynamics of the commodities of rice and wheat, since these commodities entail the

highest attention in terms of their significant share in economic activity (production, procurement and distribution – characterizing their pan India relevance by virtue) and associated budgetary outgo. Subsequently, the growing diversification towards commodities such as pulses and oilseeds is also touched upon to indicate a shift in patterns as well as to postulate the potential of other major items of the food basket in terms of trends in domestic consumption patterns as well as possible expansion in global market share. Finally, in the backdrop of the narrative of the changing character of commodity profiles thus captured, an idea of evolution of a medium term framework to improve governance of the policy making process to guide and steer through changing dynamics in the sector by taking a holistic account of necessary parameters is put forth.

1.1 Objectives of the study

- i. To depict the importance of agricultural sector in the Gross Value Added (GVA) of the economy as well as share in budgetary outlay.

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- ii. To briefly examine the buffer stock operations of rice and wheat.
- iii. To explore the case for further diversification to other commodities and realize export potential, in view of changing demand-supply dynamics.
- iv. Postulate constitution of an 'Agricultural Commission' as a medium term framework to take into account key priorities in a holistic manner and for appropriate interventions.

2. Discussion

2.1 Macro-economic view

To begin with, the National Accounts Statistics (NAS), 2021 reveals that the Gross Value Added (GVA) at basic prices (constant 2011-12 prices)

for the Agriculture, Forestry and Fishing (AF&F) sector grew from Rs. 15 lakh crore to Rs. 19.7 lakh crore during 2011-12 to 2019-20, thereby recording a Compound Annual Growth Rate (CAGR) of about 3.4%. Further, the major segments of this sector as identified by the NAS include crops; livestock; forestry and logging; and fishing and aquaculture of which the former has exhibited the largest base and the lowest CAGR during the aforesaid period (Table 1). It is desirable that such trends in composition are monitored closely *vis-à-vis* their desirable composition and growth trajectory in the medium term since these have implications over a host of socio-economic variables (employment, wages, migration *et. al*). Further, this would also permit an evaluation of demand-supply gap in essential commodities and distributional aspects across the economic agents involved in these sub-components.

TABLE 1: MAJOR SEGMENTS OF AGRICULTURE SECTOR AND GROWTH RATE (2011-12 TO 2019-20)

Sub-component of the agricultural sector	Share in GVA at basic prices of Agriculture, Forestry and Fishing		CAGR during 2011-12 to 2019-20
	2011-12	2019-20	
Crops	65.4%	55.9%	1.4%
Livestock	21.8%	29.3%	7.4%
Forestry and logging	8.3%	8.4%	3.6%
Fishing and aquaculture	4.5%	6.4%	8.0%

Source: Computations from 2011-12 constant prices data of National Accounts Statistics (NAS), 2021

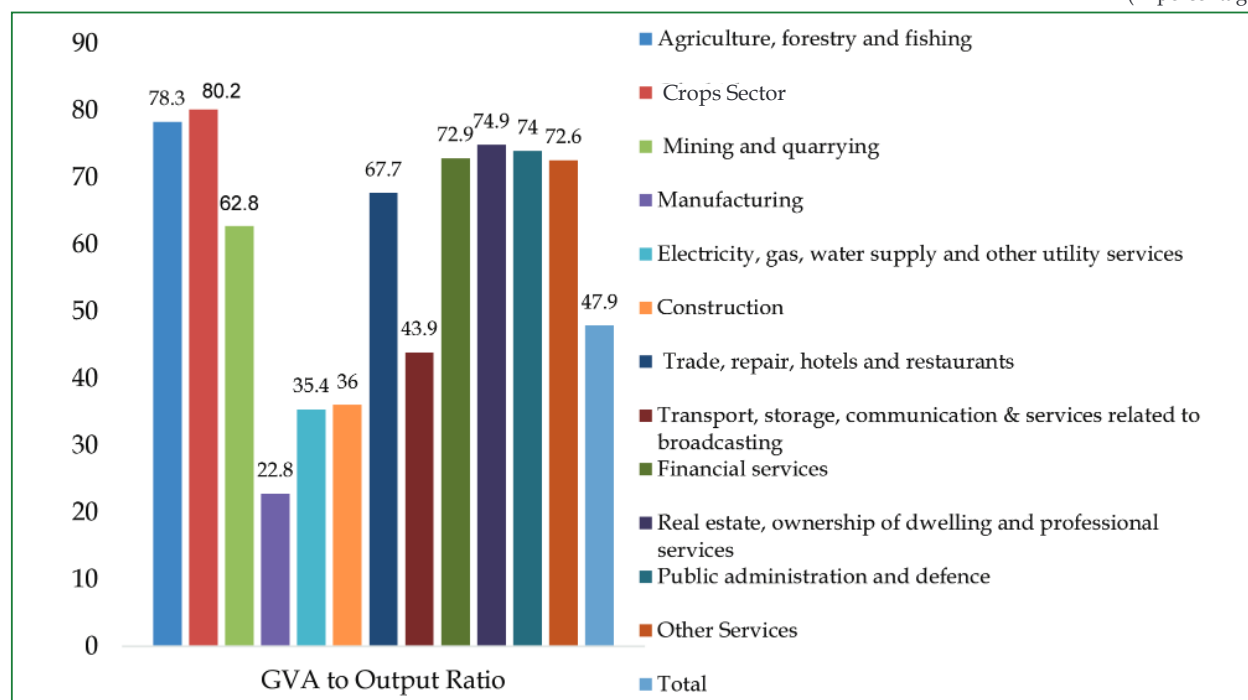
The ratio of GVA to the value of output is 80.2% for the crops sector and 78.3% for the AF&F sector, which is the highest across all sectors⁴. This high ratio is indeed exemplary as a higher output from the sector augurs well for value-added in the economy as a whole, more so with labour-intensive activity being vital. Here, it has been consciously

chosen not to delve into the examination of macro variables like wages, farmer incomes and employment, etc. since our endeavour is to do with the governance process rather than variable-specific analysis and recommendations.

⁴NAS data 2019-20 at constant (2011-12) prices

Graph 1: GVA to Output Ratios

(in percentage)



Source: National Accounts Statistics, 2021. Retrieved from <https://mospi.gov.in/>

In the crops sector, the major contributors to output of Rs. 13.71 lakh crore during 2019-20 comprise of cereals, fruits and vegetables (about 28% each) followed by oilseeds (8.5%). With respect to cereals, paddy and wheat account for 86%⁵.

2.2 Examination of food grain situation and buffer stock operations for rice and wheat

The total food grain production for crop year 2020-21 is estimated at 307.31 million tonnes which includes 231.3 million tonnes of rice and wheat taken together. A total of 99.01 million tonnes was procured by the Government at MSP during the 2020-21 Marketing Season. Purchases

at MSP are currently only restricted to purchases by the Government and are primarily driven by considerations of food security. All-in-all, in terms of aggregate production and availability of rice and wheat, India has successfully buried behind the times of famines and food shortages which were a feature of the 20th century. Hence, the time is right to orient towards equitable distribution and diversity of diets with the overall aim of wholesome nutrition.

The Food Corporation of India (FCI) oversees the buffer stock operations of rice and wheat in the country. The buffer stock norms for rice and wheat comprise of two components *viz.*; the operational stock and the strategic stock.

TABLE 2: BUFFER STOCK NORM (2017-18 TO 2021-22)

(in lakh MT)

As on	Rice			Wheat		
	Operational stock norm	Strategic stock norm	Total	Operational stock norm	Strategic stock norm	Total
1 st April	115.8	20	135.8	44.6	30	74.6

⁵ibid.

As on	Rice			Wheat		
	Operational stock norm	Strategic stock norm	Total	Operational stock norm	Strategic stock norm	Total
1 st July	115.4	20	135.4	245.8	30	275.8
1 st October	82.5	20	102.5	175.2	30	205.2
1 st January	56.1	20	76.1	108	30	138

Source: Food Corporation of India. Retrieved from <https://fci.gov.in>

An examination of the actual stock positions as on the said dates over the past 4 years (2017-18 to 2021-22) reveal that the buffer levels

have on all occasions surpassed the norms for all quarters. Moreover, the excess amounts have shown an increasing trend, year-on-year during the said period.

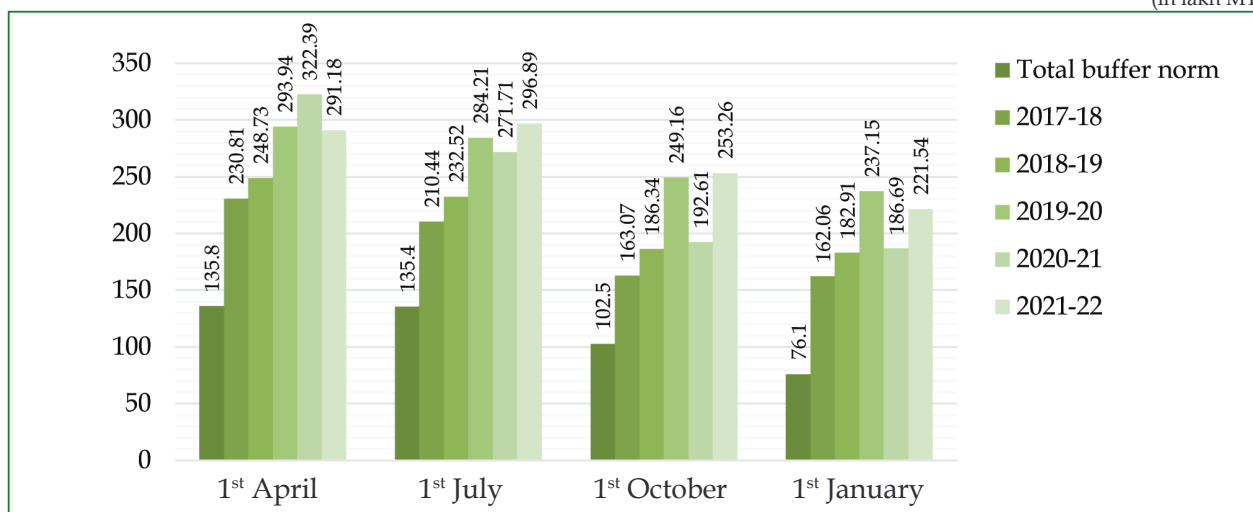
TABLE 3: INSTANCES (NO. OF QUARTERS) OF BUFFER BEING MORE THAN STIPULATED NORM (2017-18 TO 2021-22)

	Rice	Wheat
Up to 1.5 times from the norm	0	5
1.5 times up to double the norm	7	7
More than double and less than triple the norm	12	6
More than triple the norm	1	2
Total	20	20

Source: Food Corporation of India. Retrieved from <https://fci.gov.in>

Graph 2: Buffer Norms v/s Actual Buffer Levels of Rice

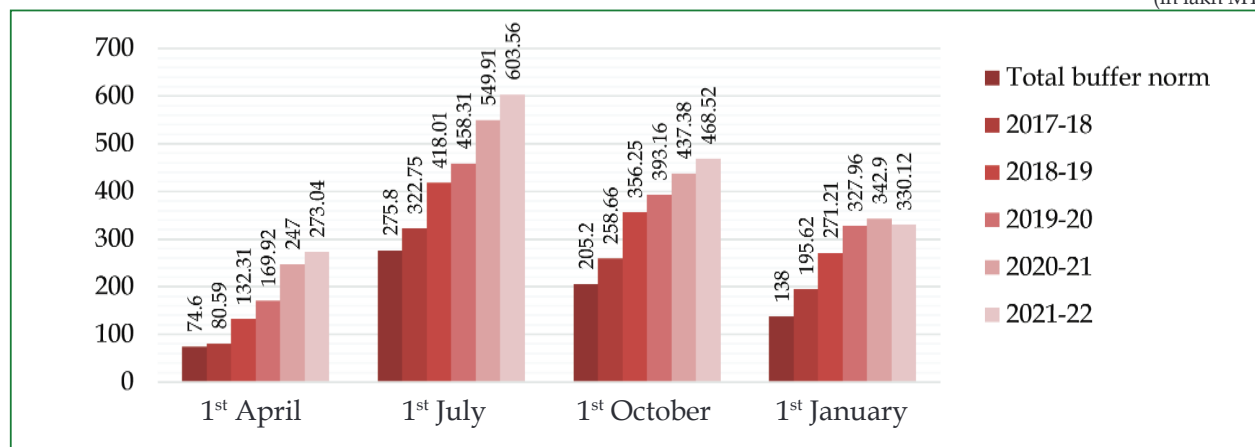
(in lakh MT)



Source: Food Corporation of India. Retrieved from <https://fci.gov.in>

Graph 3: Buffer Norms v/s Actual Buffer Levels of Wheat

(in lakh MT)



Source: Food Corporation of India. Retrieved from <https://fci.gov.in>

These excess food grains above stipulated norms not only entail additional financial burden owing to their economic costs (incidental costs and distribution costs in addition to the MSP), but also opportunity costs in terms of alternate crop production or land uses. It is to be noted that the total allocation of food grains (rice and wheat) under the Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY) from April, 2020 until November, 2022 is about 9.99 crore MT. Thus, the actual buffer levels are indeed higher than the norm (depicting an increasing trend as compared to pre-Covid times), notwithstanding this mega distribution drive which exhibited multiple positive externalities, is welfare oriented and a timely intervention to mitigate the hardships of the poor during the unprecedented ongoing COVID-19 pandemic. The bifurcation of per quintal economic cost, sales realization and subsidy component for rice and wheat buffer operation is as given below.

TABLE 4: BREAK-UP OF ECONOMIC COST FOR 2020-21
(in Rs./Qtl.)

Commodity	Economic Cost	Sales Realisation	Subsidy
Rice	3,939.26	371.13	3,568.13
Wheat	2,731.75	331.8	2,399.95

Source: Food Corporation of India. Retrieved from <https://fci.gov.in>

FCI decides buffer stocking norms for rice and wheat which is the level of stock in the Central

Pool that is sufficient to meet the operational requirement of food grains and exigencies at any point of time. This includes operational stock and strategic reserve. For January, 2021 itself, actual buffer for rice is 111 LMT excess than stocking norm, while in case of wheat it is 205 LMT in excess. If only the excess stock for this particular month is considered, subsidy for these excess stocks amounts to Rs. 39,571 crore for rice and Rs. 49,199 crore for wheat.

Further, variability on the counts of production, yield and procurement is a well-documented narrative. Uttar Pradesh and West Bengal account for the largest share in production of rice but lowest share of its procurement amongst the 11 major states. Further, in addition to these two states, share of procurement is lower than share in marketed surplus for Bihar, Madhya Pradesh and Tamil Nadu. Punjab accounts for about 1/4th of rice procurement although its share in rice production is only 1/10th in the country. Similarly, average procurement per farmer is highest in Punjab and significantly lower in Chhattisgarh, Karnataka, Kerala and West Bengal. The average yield of rice in Punjab is the highest, more than double that of Chhattisgarh, which is at the lower end of the spectrum in major producing states.

Expanding the current practice of annual announcement of the MSP to incorporate a medium term horizon (say a 5 year period) will help to

better plan and operationalize buffer operations in terms of actual levels *vis-à-vis* the norm, optimal assessment and utilization of storage space and better calibrate procurement operations to rein in excesses. Further, a gradual shift (re-allocation) in state-wise operations can also be planned in a smooth manner, if so desired.

2.3 Diversification

The above facts being widely acknowledged have urged attention and action towards crop diversification. A significant step in this direction is the increase in procurement of pulses (tur, urad, moong, masur and chana) by the Government under the Price Support Scheme and the Price Stabilization Fund. In the case of oilseeds, it is a well-known fact that India's 60% demand for edible oil is met from imports. Accordingly, the intent of increasing the area under oilseeds as also noted in the Union budget is a welcome move. Demand-side factors for diversification are also relevant and should be responded to. The 68th Round of NSS on Household Consumption of various goods and services in India (2011-12) noted a fall in per capita consumption of rice to 5.98 kg per month in 2011-12 from 6.38 kg per month in 2004-05 in rural India and a fall from 4.71 kg per month to 4.49 kg per month in urban India in the same period. A similar trend is observed in case of per capita consumption of wheat. These trends for rice and wheat have been accompanied by a rise in per capita consumption for pulses and pulse products group as a whole from 705 gm per month to 783 gm in the rural sector and from 824 gm to 901 gm in the urban sector. Hence it would be reasonable to assume their growing significance over time.

Also, monthly per capita expenditure for milk and milk products is higher in urban areas (Rs. 184) as compared to rural (Rs. 115). In case of fruits (urban- Rs. 90, rural- Rs. 41) and beverages, refreshments and processed foods (urban- Rs. 236, rural- Rs. 113) the difference is more than double between urban and rural counterparts. The rising trend in urbanization would also fuel aggregate consumption of these to a greater extent, necessitating a responsive supply chain to meet demands in an affordable manner. An increase in per-capita income in the times to come

would also entail a situation of 'weaning away from entitlements' currently bestowed under the regime of food security towards diversification and greater degree of choice and accessibility to other sources of nutritional diets.

It is also heartening to note the emphasis on non-price interventions to boost manoeuvrability of growers as far as inputs are concerned. Apart from the flagship programme of the Union Government of PM-KISAN that provides annual income support of Rs. 6,000 to farmer households, Andhra Pradesh, Telangana, Odisha, West Bengal, Chhattisgarh and Madhya Pradesh are supplementing the same with their respective schemes at State level.

Thus, diversification needs to be reviewed and guided objectively. If seen in the context of demand-side consumption requirements, it shall definitely lead to more efficient outcomes. Further, a medium-term horizon is also a suitable timeframe to examine the preference of recent interventions like income transfer (across regions and economic profiles) and behavioural trends that they ensue to guide further policy action.

2.4 Deepening and expanding export markets

Another bright spot as far as the agriculture sector is concerned is the recent performance in exports. Agricultural exports crossed the \$50 billion mark for the first time during FY 2021-22, which indeed is a tremendously significant achievement. India may emerge as a global major in the sector. Further, as per latest available data of APEDA, the total export of agri and processed food products for the period April to December in 2021 increased to Rs. 2,64,929 crore from Rs. 2,12,386 crore in the corresponding period in 2020, registering a growth rate of 24.7%. Moreover, Revealed Comparative Advantage (RCA) for vegetables, fruits, wheat, rice and oilseeds have also been computed. The RCA reflects export strength of any given product and exists when ratio of export of the concerned product to total exports of a given country exceeds the same ratio for the world as a whole⁶. The RCA index may take values from zero to infinity, with values greater than one indicating global competitiveness of the product concerned (Table 5).

⁶UNCTAD-STAT

TABLE 5: REVEALED COMPARATIVE ADVANTAGE

Commodity group/Year	2017	2018	2019	2020
Vegetables	0.754	0.742	0.694	0.738
Fruits	0.540	0.345	0.355	0.325
Wheat	0.083	0.066	0.089	0.314
Rice	17.252	15.485	14.589	18.151
Oilseeds	8.179	8.477	7.971	7.847

Source: World Integrated Trade Solution (WITS). Retrieved from <https://wits.worldbank.org/>

From the above, it is evident that there remains much potential to explore as far as vegetables, fruits and wheat is concerned, since their current RCA value is less than 1. While the export policy is one at the national level, the action is from regions across the country which exhibits their own heterogeneity. A federal mechanism monitoring exports will help to promote export competitiveness of the country by better understanding States' dynamics. Further, dedicated interventions in high-potential commodities can be framed.

2.5 Budgetary glimpse

Agriculture continues to be the backbone of the rural economy and is indeed a vital pillar to the nation. The Economic Survey, 2022 mentions that the agriculture and allied sectors alone registered annual positive growth rates of GVA at constant (2011-12) prices of 4.3%, 3.6% and 3.9% during 2019-20 (1st RE), 2020-21 (PE) and 2021-22 (1st AE), respectively, which is a strong indicator of the resilience of this sector. The budget allocation to agriculture and allied activities is estimated at Rs. 1,51,521 crore for 2022-23. In addition, fertilizer and food subsidy are estimated at Rs. 1,05,222 crore and Rs. 2,06,831 crore, respectively. These put together account for as much as about 12% of the total budgeted expenditure for 2022-23, which is a sizeable sum devoted to this life-oriented sector. In addition, state-wise budgetary flows need to be documented and evaluated along with support from the Centre to get a holistic view of outputs *vis-a-vis* resource allocated. This ought to be aligned with the larger macro vision of the sector and the economy. This would, in due course enable re-allocation towards more efficient interventions. Hence, monitoring these in a medium term sense becomes imperative.

3. Policy recommendations

With the objective of evolving a set-up to facilitate a more robust and dynamic process of policy discourse and implementation with a visionary perception, there is a need to constitute a comprehensive 'Agricultural Commission', preferably with a permanent secretariat, to work with Terms of Reference over a 5-year horizon may add further value. This is not only in terms of better efficiency in resource allocation but also in keeping pace with the changing priorities of the prevailing times which would necessitate dynamism in policy response with a futuristic lens.

This conception is largely motivated from the existing robust mechanisms *viz.*; the Finance Commission (FC), the Goods and Services Tax (GST) Council and the Monetary Policy Committee (MPC). The common thread amongst the three is their democratic construct and legal mandate with defined terms of reference. The perceived benefits of the proposed Agricultural Commission are the following:

- Firstly, the current construct of the Commission for Agricultural Costs and Prices (CACP) has a limited mandate only over those crops under the ambit of the MSP. Further, the horizon encompasses a year. A comprehensive view of the agriculture sector is needed over a medium term horizon for its holistic development. Such a commission can have broad based representation including elected representatives, bureaucrats, technical experts like agricultural scientists and economists, FPOs, farmer unions as well as industry across the Centre and States.

- Secondly, agriculture is a 'State' subject with state-specific interventions. There is a need to have a cohesive framework where interventions of the Centre and the respective state can be viewed in complementary terms, to the extent feasible. The Commission would also fulfil the capacity of a 'repository' of all interventions across Centre and state. This shall facilitate both a spatial and temporal analysis (including impact evaluations) of all such interventions which should finally aid better allocation of resources and efficacy in outcomes.
- Thirdly, most of the issues involved, be it, scientific, technological, financial or governance-related are well documented along with solutions for desired objectives. However, the implementation needs further strengthening. The Agricultural Commission shall help to spur dynamism and healthy dialogue along with facilitating peer-review and 'nudge' states to perform better. It will also help to suitably redress the so-called 'one-size-fits-all' approach in tune with state-specific requirements.
- Fourthly, for effective results, it is important that monitoring and implementation framework be largely of collaborative nature, in a federal setup. In the absence of the same, there is a tendency to 'shy away' from addressing the sensitive issues. These may entail reforms in the current public distribution system (both procurement and distribution aspects), agricultural taxation, and so on. Also, it will help sharing best practices of FPOs, help in discussion and debates on pressing issues like marginalization of farmers, migration trends as well as novel topics like extent of permitting commodity trading in secondary markets, and so on.
- Fifthly, the proposed Commission will help in compiling a rich database across states, which will facilitate objective diagnosis and analysis of real, financial & economic parameters. The real parameters may include trends and vision in terms of production, yield, international trade, input efficiency, soil health, technology and R&D as well as output and outcomes of Central and state interventions, both individually as well as taken together. The financial parameters may include wages, income, credit, cost of inputs, inflation, and most importantly, budgetary support. Analysis of these would eventually help prudence and efficiency in future allocation of scarce finances. It will also help to take stock of supply side variables like production and procurement against demand side requirements of consumption and nutrition in the backdrop of economic and environmental well-being. Also, it will help in undertaking long-term price stabilization measures in commodities like pulses, oils and vegetables and subsequently reduce the urge for knee-jerk reactions.
- Sixthly, the 'big ticket' aspects which spread beyond administrative/state boundaries like marketing reforms, infrastructure and exports which are essential to transition towards a unified market can be implemented on mission mode. This would indeed help initiatives like e-NAM and Soil Health Card better realise their potential and efficiency in operations/ outcomes. It will also facilitate smoother transition from entrenched practices like chemical based farming towards organic and zero budget farming aligning interests of all stakeholders concerned to the extent possible.
- Seventhly, increase in India's share in global trade is an indicator of growing integration in global supply chains. This is also supplemented with increasing global trade partnerships which include the recently concluded Comprehensive Economic Partnership Agreement (CEPA) with UAE and the Economic Cooperation and Trade Agreement with Australia. Similar agreements with UK, Israel, Canada and the EU are also expected soon. Other global negotiations including WTO's Agreement on Agriculture, public stockholding for food security purposes, as well as those encompassing intellectual property rights shall only increase in terms of their complex character. Such forums of international trade policy require technical

expertise and sophisticated negotiation skills to best represent the nation's interest in the context of enhancing gains from trade for the world as a whole. A commission would definitely be of great assistance in this endeavour by combining its vital strengths of institutional memory, holistic representation of diverse interests across regions in an objective manner aligned with domestic agricultural requirements. Further, it can also help to bring about a more stable and predictable regime as far as tariff policy is concerned, which is known to be more volatile than other tradables owing to its largely perishable nature.

- Eighthly, a short-term horizon is generally biased against medium and long-term interests including investment and capital formation. An institutional approach towards implementing and monitoring capital-intensive activities including building state-of-art storage capacities, private agricultural, food testing laboratories, digital transformation, farm infrastructure, food processing facilities, dedicated export infrastructure is the need of the hour to pursue these priorities in a calibrated and regionally-balanced manner.

These would in-turn, spur 'crowding in' of investments by the private sector.

- Lastly, such a setup would help in sending appropriate signal to the farmers and key agents in the agricultural sector helping them to take rational decisions which should, in turn, promote long-run stability and development.

4. Conclusion

For the development of the agricultural sector in the long run, it is essential that all the concerned stakeholders unite and evolve policy in a manner that 'enables' rather than 'supports'. While the former is liberating, the latter assumes connotation of a crutch and hence needs to be dispensed at the appropriate time. This is essential to propel independence and innovation-led growth similar to the one witnessed in IT and pharmaceutical sectors. For this, institutionalizing a robust framework of governance is vital to guide appropriate interventions at the level of the Government, incentivize key agents of the sector and propel the sector to realize its potential in the welfare of all concerned stakeholders.