

Expectations galore Pre Budget Consultations

Pre-Budget Consultations with stakeholders yield many productive proposals

The New Year brings expectations and hope. Preparations are afoot to receive the New Year. Pre Budget Consultations at ministry level have been initiated and many suggestions are being voiced for the development of agriculture sector.

The aim of doubling farmers' income by 2022 being so imminent, unquestionably, the proposals for the same seem to gather more support. India, who has been for decade following a 'Food Policy', needs to change this stance and espouse 'Farmers' Policy' in Budget 2018-19. The year 2017 had witnessed a number of farmers' protests, the root cause of which has been falling prices and poor price realization. So instead of following closely a production based approach, the country needs to follow up on farmers' welfare. The Consortium of Indian Farmers Association (CIFA) has therefore demanded an income security act for farmers as well as tenant and farm labourers. The budget therefore is expected to carry schemes that will ensure a steady income support for farmers.

Poor price realization of agricultural commodities usually stems from the fact that they are traded below the MSP – a phenomenon that has become so common these days. Production beyond demand has most often led to glut, forcing the commodities to trade below the MSPs. Unless and until, the government take measures for buffer stocking of those commodities whose prices are trading below their minimum support prices, the income security for farmers will never be guaranteed. Many of the suggestions received by the government has identified giving more thrust to warehouses, cold storages at the local level and giving boost to agro processing facilities in order to optimally manage the increased production of agriculture produce, especially of perishable items. An Integrated Transport System was also recommended so that farmers can send/take their produce to far off market places, where they can get better prices of their produce and in turn, help in containing their prices.

Given the current dilemma of price rise associated with the certain vegetables, it was also suggested that there is need to start 'Operation Veggies' and focus to be given to TOP – tomato, onion and potato – as there is maximum volatility in their prices. The

government should also embark on a preparedness mode. Most often the authorities wait for a distress to occur and then fall into action. This can do only very little to improve the conditions. So it was suggested that a small group of 5-6 agri experts be formed who can monitor the agriculture production data of different crops and global market conditions do advance planning.

There is also need to give more focus on dairy, fruit and vegetable items which has potential to grow 3-4 times more and thereby help in achieving the goal of doubling of the farmers' income by 2022.

Another set of representations demanded increasing credit growth for the sector and effective implementation of crop insurance and irrigation projects. Removal of the Essential Commodities Act and bringing all farm inputs and equipment under the zero tax net under the goods and services tax (GST) were also a significant suggestion that made into the pre budget consultations.

Encouraging investments in research and technology should be another area the new budget can focus on. Separate focus should be laid on climate smart technologies that will help navigate farmers through the troubled climate and still incur minimal losses. The usual challenge of 'One size Fits all Principle' should no longer be applied to a highly diverse sector like agriculture. The states should be given flexibility to mould the central schemes according to their need and demand.

Extent of Mechanization in agriculture needs to be further improved and budget can allocate an appreciable amount towards the same. Horticulture and organic agriculture are also areas that holds the potential to increase income among farmers and hence have to be duly emphasized in the budget.

The year 2017 has in many ways served us reminders for many unsettling and perennial problems in agriculture. The foremost would be to create a stability of prices of agricultural commodities in the market. It would be a great relief for both consumers and farmers, if a check is brought about in assuring prices stability. The Budget 2018-19 can make a real difference to the market volatility.

Marketing Organic

Connecting e commerce to Organic farmers can help in its marketing

Organic agriculture has always successfully borne the label of being safe and healthy. And something which is healthy has always carried the weight of being pricey as well – organic products are no different to this concept. Since demand defeats supply, the organic products sold are rarer, and hence pricier.

India, who hosts the largest area under agriculture in the world and a treasure of traditional knowledge, holds immense potential in expanding organic cultivation. Despite the presence of large area under agriculture and the number of working hands, the possibility of supplying organic produce on par with the demand has never materialized. The Indian agriculture still adheres loyally to conventional farming, as they are considered safe and most importantly has many government supported schemes.

Realizing the lacuna of schemes, recent years have seen active government participation in promoting organic agriculture. The agriculture ministry is discussing a proposal to help organic farmers' organisations tie up with ecommerce companies with state government help. A reliable marketing channel for supplying certified organic farm produce is absent in India. E commerce has emerged as a biggest success story in India, and introducing the same to boost organic agriculture is a wise thought. Firms like Amazon, BigBasket and Grofers, if roped in, can help in maintaining a steady supply of these food items and can help in boosting farmers' income. The agriculture ministry has plans to discuss the same with companies and e-commerce food retail chains, and based on their requirement link them with states, where organic farming is being practised, and FPOs which group organic farmers.

Securing marketing channels can be a shot in the arm for organic cultivation. Currently only 2.25 million hectares is under organic farming, compared with the government's target of covering 14 million hectares by 2025. Despite the opportunities that exist in organic cultivation, neither the suppliers nor the cultivators exhibit any enthusiasm in expanding

the area under cultivation. There is no dedicated suppliers or market for these kind of products. Area of demand and production are spatially disconnected. The demand for organic products mostly emanates from urban consumers, whereas production is most often restricted to certain pockets of rural areas. If the farmers can connect with the consumers directly, they can easily gauge the quantum of demand existing for their products. Problems of supply inconsistency and high prices which are the challenges faced in the procurement of organic produce in the country can to an extent be addressed by this. Assured demand will help them improve efficiency and offer better prices, making the merchandise more affordable. With better affordability, there will be higher demand.

The area under organic cultivation is increasing in India. Three years ago only 0.7 million hectares were under organic farming which has now quadrupled. Sikkim has been officially declared as an organic state. Meghalaya will soon be following suit. The agriculture department expects 50,000-hectare area to come under organic farming in the northeast region in the coming years. Considering the increasing trend, it is better to create a marketing channel that can direct the flow of organic products from centers of production to centers of consumption. With focus on marketing and brand building by the government, sale of organic produce will receive a push.

Conventional farming has been the best bet for the Indian farmers since green revolution era. With assured and established ways of tackling pest and disease problems in the field, the risks associated were considerably lesser and manageable. Organic farming, on the other hand, resorts to non chemical ways of managing pest and diseases, with substantially higher risk of suffering at the hands of pest and diseases. However, with time, the technologies associated with tackling infestations through organic means have improved and the knowledge of their existence must be propagated among farmers. Combined with better marketing linkages and know how of the technologies, Indian farmers can certainly ride the wave of organic agriculture.

Toiling the Soil

Indian Soils are in deep trouble

Narendra Modi in his recent Mann Ki Baat programme, exhorted the farmers to cut the usage of urea by half to improve soil health and increase production. The appeal came from the concern of Prime Minister on the destructive impact of excessive use of chemical inputs that has led to “damaging the health of Mother Earth”.

Indian soils have entered into a damaging phase. Loss of the top soil which is the fertile soil and which carries many nutrients required for healthy plant growth, is a serious concern. About one millimetre of topsoil is being lost each year, resulting in a total loss of 5,334 million tonnes of fertile soil being eroded annually. Going by the different indicators that represent soil vitality, there is nothing to cheer about. Soil Carbon, a definitive indicator of soil health, is alarmingly low in Indian soils. The content of soil organic matter is 0.3% in the country; ideally, it should be 1-1.5%. Extensive mining of soil fertility, soil degradation and indiscriminate use of fertilizers have all contributed equally in depriving the soil of this important resource. Micronutrient deficiencies, another indicator of poor soil health has been surfacing in different parts of the country.

A high level of Soil Carbon is essential for chemical fertility, physical integrity and moisture retention. The overall stagnation experienced in India agricultural production can be directly linked to the loss of soil carbon. However, the loss is never compensated and it is accentuated by the application of chemical fertilizers over and above the recommended dose. Our approach towards soil fertilization needs to immediately and effectively change. The perspective of farmers that the soil needs continuous supply of chemical fertilizers to yield better has to be altered. The fact that poorly and overly fertilized soils produce food that is poor in quality needs to be properly reinforced among the farmers.

Instead, the farms should be practicing crop rotation, crop diversification, incorporation of compost, intercropping with soil enriching crops and mulching. Soil moisture retention is another key

contributor to better organic matter content in the soil. Changing climate and increasing temperatures are drying up soil of moisture and organic matter.

To properly work with the soil, the farmers need to understand their soil and the nutrients it carries. Blanket application of fertilizers, in line with package of practices, is never the right way to address soil fertility. To understand the soils better, the Government at the Center introduced the ‘Soil Health Cards’. The Soil Health Cards are intended to provide information on acidic levels, micronutrients and organic content of the soils. This is supposed to provide a scientific basis for improving soil fertility. An ambitious number of soil health cards have already been distributed among the farmers. The numbers, however, is not representative of the impact they have on the soil management regime. It is yet to be ascertained how these soil health cards have changed the way the farmers are treating their soil. Nevertheless, it is a noble initiative and the movement in right direction.

Soil is a finite resource which is lost every year. It takes thousands of years to make one metre deep soil. So, in effect, it is non renewable. For a country like India which hosts 17 per cent of the world population, it is an alarming situation. If the country has to continue producing food of enough quantity and quality, this problem must be immediately attended to. Our soil health management needs to go beyond tokenism and introduce some concrete efforts on the ground with solid indicators. We do not need number of soil health cards, but we need to see the level of soil carbon that has been replenished due to introduction of soil health cards. We need to be shown the effects these policies have on the grass root level.

Every December the World Soil Day is observed, and each year the world is sensitized about the impact our farming ways has on the soils. Strangely, we continue to do so and the ‘alarming’ situation has never ceased to exist. It is time to take control of the situation.

The Dying Water Table

The MI Census report points to surge in ground water irrigation projects

Ground water has remained an important source of irrigation in India. Decades of intensive agriculture has destroyed the ground water resources. Records of depleting groundwater levels in agriculturally dominant states like Punjab and Haryana confirms this stark reality. The latest 5th MI (Minor Irrigation) Census Report of the Union Ministry of Water Resources, River Development and Ganga Rejuvenation has reiterated this fact.

According to the report, groundwater still accounts for the lion's share of 94.5 per cent of all the minor irrigation schemes in the country. Interestingly, despite the depleting ground water levels, the country has witnessed a surge in ground water projects and a concomitant decline in surface water schemes. The Census report has noted that while the irrigation potential created and utilised from ground water schemes has gone up since the 4th MI Census conducted in 2006-07, the potential created from surface water has declined in the interim period. Between the 4th Census and the latest Census with 2013-14 as the reference year, the irrigation potential created from Minor Irrigation (MI) structures has seen an increase of 6.5 per cent. Irrigation potential created has increased to 89.52 million hectares in 5th Census from 84.03 million hectares in 4th Census.

Groundwater structures including dug wells, shallow tube wells, and deep tube wells continue to be popular among the farmers, especially small and marginal farmers. Another disturbing factor in the report is that majority irrigation schemes (96.7 per cent) and ground water minor irrigation schemes (98.7 per cent) continue to remain under private ownership which includes individual farmers (land owners) or group of farmers and, therefore have maximum outreach for irrigation. The MI structures are mostly financed from farmers' own savings or from borrowings from money lenders.

India is the world's largest user of groundwater. India accounts for 25 percent of the world's extracted groundwater, more than the next two countries, China and the United States, combined.

Unfortunately the rate of natural replenishment have reduced, threatening the sustainability of aquifers in the Indo-Gangetic Basin, which constitute one of Asia's most densely populated and agriculturally productive regions. The Indus Basin, which accounts for a significant share of India's population and food production, was declared in a 2015 NASA study to be the second most overstressed aquifer in the world.

Despite these alarming statistics, there has been no respite in using the groundwater resources. It is high time a legislation be implemented in all its seriousness to arrest the unmindful extraction of groundwater. At the same time, alternatives which are more sustainable and sensible needs to take center stage. Micro irrigation, which works on the principle of 'more crop per drop' is a safe bet. Research organizations, government institutions, offices, colleges and schools can take the lead in popularizing the idea and to reaffirm the notion that less water can yield more crop. To cement the idea further, the government can ban the use of under water resources for irrigation in its premises. The step can be symbolic, but it will reiterate the concept. These premises can also serve as demonstration units of the efficacy of MI. There is an urgent need for strengthening the network of MI structures for irrigation as it will also help in boosting farmers' income. With respect to the existing structures dependent on underground water, the users must be encouraged to recharge underground water. Water harvesting, rain pits and water recycling are ways by which it can be replenished. Awareness campaign can also give a boost in the fight against arresting depleting ground water levels.

Agriculture relies heavily on water resources to produce the desired results. On one hand, we are compelled to derive the maximum from agriculture and at the other hand, we are concerned about over exploitation of limited resources. At this point, we have to develop plans that can maximize the output with minimum input. Micro Irrigation holds the answer to this riddle.