ROBUST AGRICULTURE MARKETS
STRONGER FARMING COMMUNITY
From the Editor’s Desk

GOOD MARKETING CHANNELS IMPERATIVE FOR INCREASING FARMERS’ INCOME

Agricultural marketing in India is a crucial operation as it determines the profitability of the entire agriculture system. In today’s agri space, considerable changes have taken place with respect to trading and marketing. Once which used to be a door to door endeavor and at the most restricted to local village market yards, the agricultural goods today find their way beyond the international border. The products as part of better marketing antics undergo a series of changes through processing and value addition and are better packaged and stored. This segment alone has assumed the stature of an industry and has huge employment potential notwithstanding its better economic prospects.

The Indian scene of marketing is highly regulated. The current system of organised marketing of agricultural commodities has been promoted through a network of regulated markets. Agricultural Markets in most parts of India are established and regulated under the State APMC Acts. Over a period of time, these established markets became restrictive and monopolistic, providing no help in direct and free marketing, organised retailing and smooth raw material supplies to agro-industries. Although the Centre passed a model APMC Act in 2003, it is yet to be adopted by the state governments. As a further refinement to the existing scenario of agri marketing in India, the government in 2016 announced unification of agricultural markets nationally through National Agriculture Market (NAM). The NAM offered to be a single platform to carry out marketing activities between farmers and traders. Further, in 2017, the government proposed a model law on agricultural marketing which would introduce features such as a single market within a state, private wholesale markets, direct sale by farmers to bulk buyers, and promotion of electronic trading.

Alternativey, India has witnessed several alternative models. Contract farming, is one such model, which arise from an agreement between processing and/or marketing firms for production support at predetermined prices and has been proved as a workable model in Indian agriculture. Direct marketing by farmers through farmers’ market such as Apni Mandi in Punjab, Rytu Bazars in Andhra Pradesh, dairy cooperatives are some of the successful cases in marketing. Cooperatives were another alternative that were initiated to address the problem of the small scale of operation of small and marginal farmers. Marketing cooperatives were established to encourage to provide marketing facilities to small farmers. These cooperatives were supposed to increase bargaining strength of farmers, remove intermediaries and facilitate direct interaction with consumers. Farm producer organisations (FPOs) are emerging as a new model for organised marketing and farm business. Harnessing the power of internet has also become a suitable alternative in marketing, although its full potential in agriculture marketing is yet to be explored completely.

Indian agriculture has apart from fulfilling the food demands of the country, the mammoth responsibility of increasing the producer’s income and safeguarding the livelihood of the rural community. Developing proper channels of marketing locally and abroad is therefore crucial.

Anjana Nair
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Modelling Contract Farming

India is set to draft a Model Contract Farming Act

Contract farming, a practice that intends to offset price risks, was built around the chivalrous idea of having a mighty corporate looming large over the resource poor farmers and aiding them in production process right from the supply of quality inputs to buying the products. However, in the real world, the contracts were sometimes challenged, many times disputed and few times honoured. In the absence of a uniform law or authority that oversaw these arrangements, the producers and buyers bore the risk equally. It was high time a law was formulated to represent both ends of the contract unequivocally and judicially.

The government recently revealed its intention to bring out a draft model contract farming act, to protect farmers from price risks and encourage food processing companies to invest more in infrastructure and farming technology. The draft was placed in the public domain, inviting proposals and suggestions to be incorporated in the final act. The draft law follows a Union budget announcement that a contract farming act would be drafted to integrate farmers with agro-industries to ensure better price realisation for their produce as part of an initiative to double the incomes of farmers in the country.

The draft model act addresses many anomalies and areas of dispute in the existing regulatory framework. For instance, the requirement of registering with the Agricultural Produce Marketing Committee (APMCs) and hence the associated market fees and levies to the APMC to undertake contract farming has been done away with. As per the draft Model Act, contract farming will be outside the ambit of the state APMCs which means that buyers need not pay market fee and commission charges to these APMCs to undertake contract farming. Further, the draft Model Act provides for establishing a state-level Contract Farming (Promotion and Facilitation) Authority to ensure implementation of the draft Model Act. Functions of the Authority include levying and collecting facilitation fees, disposing appeals related to disputes under the draft Model Act, and publicising contract farming. Further, the sale and purchase of contracted produce is out of the ambit of regulation of the respective state/UT Agricultural Marketing Act. Under the draft Model Act, every agreement should be registered with a Registering and Agreement Recording Committee, consisting of officials from departments such as agriculture, animal husbandry, marketing, and rural development. Such a Committee can be set up at the district, taluka or block levels.

The draft Model Act has also removed the limits of stockholding set according to the Essential Commodities Act of agricultural produce which was restrictive for the buyers to enter into contracts. Allowing direct sale of produce by farmers, removing fruits and vegetables out of the ambit of APMCs, and setting-up of farmer-consumer markets, electronic trading, and joining electronic National Agricultural Market for the sale of produce are some of the other recommendations.

Although the provisions stated appears ‘model’, there happens to be several challenges that the center would encounter. The law if comes into force will essentially be implemented by the states. Also, the provision in the act to enable companies to purchase directly from the farmer will require an amendment in state’s APMC acts. Many states have been reluctant to touch the APMC act and hence the implementation will be a hard task. In the case of a price rise, farmers may exhibit reluctance to sell their price at the pre agreed price and it may escalate to farmer protests. The chances of companies reneging on the contract are also a possibility if they appear to be discouraged by the quality of the produce.

Contract law is a welcome step. However, it is a tight rope walk and the government should tread carefully.
Propagating Safe Pesticide Use
Safe use of Pesticides must be guaranteed and ensured by law

The Special Investigation Team entrusted with the responsibility of probing the death of 44 farmers in Maharashtra due to pesticide inhalation have submitted their report on the incident lately. While the report remains neatly wrapped and away from the public scrutiny, the big question is what next?

Further to pinpointing the blame on the actual cause and the responsible person, what creates more curiosity would be the next step to check the incidence of similar occurrences. The death of farmers at Yavatmal were accidental and so was the tragedy that killed 100 people in Kerala in 1958 due to accidental mixing of parathion with wheat flour, or the tragedy that killed 23 students in a Bihar school due to midday meal contamination with pesticides or the Endosulfan disaster in Kasargode that is causing mental and physical disorders in the existing and the unborn generations. The repeated occurrences of pesticide poisoning

Pesticide continues to enjoy a free run in India. The procurement, use and misuse is rampant with no intermediation from the government or any other concerned authority. As long as public health is held at ransom to policy lethargy, incidents such as this will occur more frequently and commonly. The pesticide management bill has been languishing in the parliament since 2008 without any headway and the archaic Insecticides Act, 1968 continues to manage the pesticides scene in India.

Pesticides are easily available and they can be used in any combinations by the farmer. The dose, combinations, spraying intervals are left to the fancy of farmers and anyone can get any quantity of these lethal chemicals at any time. In the case of accidents involving deaths and injury, the blame falls squarely on the farmers. India lacks accountability on the front of pesticide usage especially when misbranded or spurious pesticides are involved. The conviction in cases of pesticide accidents are very low. It is not surprising considering the absence of a robust and clearly defined guidelines of pesticide use and storage.

Agriculture is a crucial segment, considering the impact they have on the rural livelihood. The profitability of this vocation and thereby the well being of a major share of the population depends on the uninterrupted yields generated from farming. Plant protection chemicals can guarantee a good crop and hence a good flow of income. However, their restricted and judicious use must be encouraged. Accountability should be instated in pesticide segment. It should be made mandatory for the crop chemicals especially pesticides to have a bar code giving product information. The bar code which encodes crucial information would ensure traceability from the factory floor to farmer’s field and for regulation enforcement. The manufacturing companies should be invested with the mandate of propagating safe use of chemicals. Just like cigarette packets carry disturbing images of the health hazards of smoking, the pesticide labels should depict vividly the hazards associated with improper and overuse of pesticides. Strict laws must be enacted warranting jail terms and deterring punishments to the guilty. There should be continuous revision to the status of pesticides based on field level data and data from research bodies. Knowledge is not static and hence the regulatory bodies should have provisions to accommodate this flux.

Pesticides can be life giving and lifesaving. Unfortunately, their life taking potential is more often highlighted than their intended benefits. Lack of clear cut regulations and muddled policies are factors that pave the way for such allegations. Pesticide Management Bill 2008 can be a good starting point. It can be converted into a top-notch mechanism to regulate the import, manufacture, sale, transport, distribution and use of insecticides with a view to preventing risk to human beings and animals.
The MSP Ignorance

Many farmers in the country are unaware of the existence of MSP regime

Recently our Union Agriculture Minister, Radha Mohan Singh, while fielding questions in the Rajya Sabha, accepted the fact that farmers in the country are not getting the Minimum Support Price (MSP) for their crops. While the minister should be commended for his honesty, the fact that he stated requires immediate attention.

It was an open truth that farmers were not availing the benefits of MSP. The assertion by the minister puts on record the confirmation of this notion. More than five decades to its institution, MSP still has failed to catch the attention of farmers nor that of the policy makers. Since its inception in 1966-67, when MSP was announced for wheat at the wake of green revolution, this safety net has been expanded to include many crops. Currently 23 crops enjoys MSP. MSP was instituted to provide a fair return to efficient farmers and to protect the interests of consumers by keeping the prices of food and other agriculture commodities at reasonable levels. MSP also encourages the farmers to grow a particular crop. It was a necessity when it was instituted as India post-independence was staring at food supply deficits. So it was imperative for a fledgling country like India to ensure assured supply of food as a means to economically meet the demands of the populace than depending on the foreign imports.

But the real question is how many farmers avail the benefit of MSP. It actual terms it is very few. A Niti Aayog study on evaluation of the efficacy of MSP on farmers in the period between 2007-8 and 2010 -11 neatly points out that eighty one percent of the cultivators are aware of MSP for different crops in various states, while 67% of the farmers sold their produces through their own arrangements. A substantial proportion of crops are sold to local private traders and input dealers to whom the resource-poor marginal and small landholders are obliged to sell their crops due to tie-up with credit. According to the National Sample Survey’s (NSS) Situation Assessment Survey of Agricultural Households 2013, even for paddy and wheat, less than one-third of farmers were aware of the MSP; for other crops, such awareness was negligible.

MSP has been popular in the green revolution states and in the rest of the country there are only few takers for this. MSP of most of the foodgrains has been increased by over 100% in the past 10 years, but it hardly benefited farmers in eastern and central India as majority there have not even heard of such procurement system. The situation is equally bad in other parts — except in states like Punjab, Haryana, Maharashtra and Western Uttar Pradesh — where farmers don’t get adequate price on time and therefore they have to opt for distress selling route in open market. The studies have repeatedly averred that all the government schemes in agriculture sector mainly benefit “rich” farmers.

The importance of MSP cannot be ignored considering the pivotal role played by the same in increasing India’s food production. It can continue to do the same in years to come. However, awareness of MSP is critical for the success of the programme. If the farmers are aware of the MSP of crops, they can bargain price and refuse to settle for less. Their ignorance would make it easy for middlemen and other traders to exploit the farmers by quoting less price. Also, by suitably introducing MSP for newer crops, the government can influence the decision of the farmers in selecting a particular crop. This can help to break away from monoculture and promote crop diversification in the country.

The government should therefore invest in creating awareness of the MSP regime among farmers. Building awareness is as crucial as the programme itself.
Israel – India’s Agriculture Ally

India and Israel inch closer towards agri cooperation

Agriculture has emerged as the strongest pillar in the India Israel diplomatic ties. The recent visit by the Israeli Prime Minister, Benjamin Netanyahu to India seems to have cemented this fact. Apart from the other sectors, agriculture seems to be a key segment where Israel is keen to make an impression in India and India is also too happy to have received the attention of Israel. Almost 25 years after the establishment of diplomatic relations, agricultural cooperation has undoubtedly emerged as the cornerstone of India-Israel ties.

Israel India cooperation in agriculture go as back as 2006 when the two countries signed the Agreement for Agricultural Cooperation. Titled Indo-Israel Agriculture Project (IIAP) and implemented by MIDH (Mission for Integrated Development of Horticulture) and MASHAV -Israel’s Agency for International Development Cooperation under the Ministry of Foreign Affairs, the programme is aimed at increasing crop diversity, productivity and resources use efficiency. To achieve the goals of the cooperation agreement, it was decided to establish “Agricultural Centers of Excellence” (CoE), funded by both the Federal Government NHM and by individual State Governments, that are also responsible to allocate land and professional manpower. A three-year joint programme (2018-20) has already commenced, under which the Centres of Excellence (COEs) are being set up across the country to train farmers about Israeli farm and water technologies. As many as 28 such centres are being set up under the programme.

The Centers of Excellence provide a suitable platform for a rapid transfer of technology to the farmers. Protected cultivation, drip irrigation and fertigation, canopy management, nursery production, Integrated Pest Management technologies are demonstrated at the centers and later adopted by the farmers to increase their yields and income. The Centers of Excellence target both small and large farm holders, thus offering a wide range of agricultural practices in order to enable all to benefit from the new technologies.

During Mr. Netanyahu’ visit to India, both the prime ministers were upbeat about bringing in Israeli technology and expertise to India. India, already water-stressed, with annual per capita availability of water at less than 1,500 cubic meters (cu m), is facing a grim future with competing water demands from different sectors. So it comes as a relief when the Israeli PM shared the idea of revolutionising Indian farm sector with the use of Israeli water efficiency improving technology. In a joint statement issued after the meeting, India and Israel announced that “both sides are working together on a Five Year Joint Work Plan for strategic cooperation in agriculture and water”.

Water management is a key area where India can learn valuable lessons from Israel. A well-established leader in water management, desalination and recycling techniques, Israel has set a template for reusing wastewater for irrigation. It treats 80 per cent of its domestic waste water, which is recycled for agricultural use and constitutes nearly 50 per cent of the total water used for agriculture. Israel has per capita water availability of less than 200 cu m. It is an extremely water-scarce region, and yet exports high-value agri-produce to Europe and many other countries. So, if India has to learn about how to augment water supplies and how to use it more efficiently, there is no better guru than Israel.

India’s agricultural landscape is much wider and broader than Israel. With the world’s largest area under agriculture, India is currently under tremendous amount of pressure due to dwindling water resources. Israel, a water scarce country, has demonstrated that success in agriculture is not dependent on abundant water resources. Apart from technologies exploring the possibilities of water management, India can learn a lesson or two in the policy domain. As per Israel’s water law, all water in the country is common property resource. The government does accounting for every drop of water, ensuring good water governance. India should shun the populist approach and do away with high subsidies on water and power.
**Dhanuka Agritech awards**

Dhanuka Agritech informed that it was instituting 30 awards for persons and institutions that bring in innovation in farming, water harvesting, agricultural technology and extensions services. Nominations for the prizes, which include a National Farmer of the Year Award, are invited till February 28 and would be given away on March 22.

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**ITC opens Rs 1,500-cr integrated food park at Kapurthala**

Diversified firm ITC rolled out its largest integrated food manufacturing and logistics facility here with the first-ever ‘wheat mandi’ unit to procure the grain from farmers, besides other FCMG units. The facility spread across 8 lakh square feet and entailed an initial investment of Rs 1,500 crore was inaugurated by Punjab Chief Minister Amarinder Singh. ITC CEO and Executive Director Sanjiv Puri said the facility, when operational, will create direct employment of over 2,000 people, besides indirect employment throughout the value chain. “The grains would be weighed electronically with payment on the spot without handling charges so farmers would also save about 2 per cent,” Puri said. The facility would help the farming community’s transition from traditional wheat-crop cycle to more lucrative crops, the chief minister said, adding such projects would be instrumental not only in saving the state’s crunched fertile land and water resources but also in boosting farm income. The plant will manufacture ITC’s popular food brands such as Aashirvaad, Bingo!, Sunfeast, YiPPee! and B Natural, among others. Referring to the plight of potato farmers, who were forced to dump their produce on the roads because of their inability to sell it at a good price, the chief minister stressed the need to end the crisis with projects like this. The facility is part of the company’s plans to open 20 such food processing units pan-India with an investment of Rs 10,000 crore. Puri said more such wheat mandis will be built at its upcoming facilities. The company also plans to enter into milk-based beverages such as milkshakes and allied products by the middle of next fiscal year, Puri said. The dairy plant for the same which is part of the integrated plant will be operational soon. ITC is investing heavily in both agriculture and food segments considering huge potential in these two sectors.

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**Tata Chemicals completes sale of urea biz to Yara Fertilisers**

Tata Chemicals said it has completed the sale of its urea fertilisers business to YaraFertilisers India for Rs 2,682 crore. The deal included transfer of all assets and liabilities (working capital) of the Babrala plant in Uttar Pradesh. It is the first foreign direct investment in the highly regulated urea sector. YaraFertilisers India is a subsidiary of Norway-based Yara International ASA. In a regulatory filing, Tata Chemicals said: “The sale and transfer of urea and customised fertilisers business to Yara as contemplated in the scheme of arrangement has been completed.” The sale has been completed after the receipt of requisite regulatory approvals, fulfilment of conditions precedent and sanction of the National Company Law Tribunal, Mumbai, it said. The company has received the consideration of Rs 2,682 crore (subject to post completion working capital adjustments) from Yara on January 12, 2018, it added. Yara's current turnover of $40 million in India will increase to $350 million, he added. The Babrala plant, which was commissioned in 1994, is the most energy-efficient plant in India with energy efficiency on par with Yara's best plants across the globe.

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Tea firms work out hedging mechanism

Tea companies in the Dooars-Assam area have proposed hedging in tea auctions. The proposal, which is yet to be placed before the Tea Board of India, allows sellers and buyers to set prices in auction centres. If the price falls below that set by the producer, a swap broker will sell the tea and pay the differential to the estate owner. If the price is higher than the producer’s listed price, the garden will have to pay the differential to the broker. According to the Indian Tea Association (ITA), this will help mitigate market volatility and help tea producers as well as swap brokers to make profits. On the other hand, buyers can pre-plan their purchase requirements and will know exactly how much they need to pay for a future order. “In the current auction system, the selling price is often lower than the cost of production. In the export market also, owing to currency volatility, a similar thing might happen. The swap option will eliminate this,” said AzamMonem, chairman of the ITA.

Seed body faults Monsanto for bollworm resistance

The National Seed Association of India, which represents the majority of the cotton seed companies in the country, has blamed Mahyco Monsanto and Monsanto India for widespread resistance developed by pink bollworm to Bollgard-II, the second-generation genetically modified cotton seed technology. The association has threatened to stop selling the seeds developed with BG-II technology if the two Monsanto firms do not vouch for the efficacy of the second gene (which gave in to pink bollworm). It asks the firms to own up to the failure and compensate farmers. The association wrote a separate letter to the Agriculture Ministry disowning any responsibility for the efficacy of the trait (the second gene) that was meant to tackle the pink bollworm. “It (the company) collects the trait value from the farmers through us. It is their responsibility,” it said. Pink bollworm, which showed signs of resistance to technology, turned virulent this kharif, causing extensive damage to cotton crop in several states. The incidence was so high that the Telangana government asked farmers to remove the plants after the second pick (of cotton bolls) so that the fields would be free of pink bollworm for the next season. “You went on to promote the usage of hybrids with the two gene trait (Bollgard-II) even after CICR confirmed incidence of resistance,” Kalyan B Goswami, Director-General of NSAI, said in the letter. NSAI members wanted to go back to the single gene (Cry1Ac) GM seed (which entails no royalty fee) that can take care of other bollworms like American and spotted bollworms. MMBL, which licences Monsanto’s GM cotton technologies to seed firms in India, denied the allegation that it had not addressed the resistance. “We had, as early as in September 2015, informed the Genetic Engineering Appraisal Committee (GEAC) of the high level of tolerance to Cry2Ab protein,” an MMBL spokesperson said.

Seed investors who see rich harvest from agri-tech start-ups

“We both believed that agriculture entrepreneurship is going to become a huge sector and that it desperately needed capital, because traditional venture capital funds ignored it,” says Mark Kahn, Founding Partner, Omnivore Partners, a venture capital firm that invests in ventures that come up with breakthrough technologies for food, agriculture and rural economy sectors. “We saw this as an opportunity and decided to raise a fund,” he explains, as to why Omnivore Partners came into being. Jinesh Shah, Founding Partner, adds that they believed agriculture was going through interesting times, thanks to a growing population with changed dietary habits – from a grain-based one to a protein-based diet. They also believed that this shift will last for a couple of generations and decided to focus on agriculture and food sectors. The two launched their fund raising activities in late 2011 and raised Rs 260 crore for the first fund all from domestic investors – a mix of strategic investors, financial institutions, family offices and wealthy individuals. “When we saw our venture capital peers only focussed on urban India, we saw this gap and we found the firm to address that gap,” explains Mark, a graduate from the University of Pennsylvania and an MBA from Harvard, who had worked in Godrej Agrovet before founding Omnivore with Jinesh. Omnivore has 12 active investments and invests in three areas – agriculture technology, innovative food and rural livelihoods. “We are typically seed and Series A investors and then we have follow on for Series B,” says Mark.
Sugar import duty may go up

- The government might lift the import duty on sugar from the current 50 per cent to check any cheaper shipments from Pakistan. However, no final decision has been taken yet, industry sources and officials said. Pakistan is planning to give a subsidy on sugar exports that could make it cheaper for Indian markets, necessitating an increase in imports. The Indian Sugar Mills Association (ISMA) in a statement released on Monday said that the Centre has assured them that it would consider hiking import duty on sugar. “If Pakistan imports do become viable, or if any contracts start taking place for importing sugar into India from Pakistan, especially if the state of Sindh notifies any subsidy, the Government of India is willing to increase the import duty adequately to check any such imports,” ISMA said in a statement. Along with this, other issues related to the sector were discussed last week in a meeting with the food ministry officials. Officials from the ISMA and the National Federation of Cooperative Sugar Factories (NFCSF) were also in the meeting. On sugar exports from India, the ISMA said it was discussed that there would be “no scope for any exports” because the closing stock would be tight at 4 million tonnes (mt) at the end of the ongoing (October-September) 2017-18 season. “Therefore the reduction in the export duty may not make much sense now,” it said. The ISMA has pegged sugar output of India, the world’s second largest producer, at 25.1 mt in 2017-18 against 20.3 mt in the previous year.

Agriculture, rural infra may get a big push in budget

- With an eye on rural votes that look drifting away from BJP-led NDA, the government may unveil a mega rural and agriculture package in the forthcoming budget. Farmers could get a bonanza by way of higher MSPs for all 24 commodities the government procures. The government’s last full budget before the next elections is also likely to shift focus to development of rural infrastructure under Pradhan Mantri Gram Sadak Yojana (PMGSY) that may see a big jump in budgetary allocation from Rs 27,000 crore in FY18 to more than Rs 40,000 crore. Also on the anvil is a restructured crop insurance scheme for farmers and a direct benefit transfer (DBT) scheme for fertiliser with much wider reach, said sources. The whole rural focus not only looks at doubling farm income by 2022, but also eyes 2019 general elections. Post Gujarat results, the government is conscious that it needs a “fresh strategy” on the issue of the minimum support price (MSP) ahead of 2019 battle and state elections in 2018. Three BJP-ruled states (Rajasthan, Madhya Pradesh and Chhattisgarh), where there have been several farmers’ protests, are going to polls in 2018. There is stress and panic among farmers. Prime minister Narendra Modi had promised to double the income of farmers by 2022 and provide minimum support price (MSP) at input cost plus 50 per cent. Sources said government would highlight both these promises in the budget. The government is likely to give in to the demand of farmers for higher MSP on majority of commodities, including paddy in which the margin for farmers has fallen due to increased cost. The increase in MSP could be indicated in the budget speech of finance minister Arun Jaitley while a formal announcement may follow soon after the government receives recommendations of the Committee on Agricultural Cost and Prices (CACP). Normally, CACP makes recommendations in case of hiking the MSPs and this goes outside budgetary allocations.

‘No slowdown in agriculture sector’

- Agriculture minister Radha Mohan Singh said there wouldn’t be a sharp slowdown in the agriculture sector, despite such a forecast by the Central Statistics Office (CSO), because farm activity had picked up in later months that couldn’t be captured by the initial data. “The data provided to the CSO were based on crop estimates until August 2017. The monsoon had a poor start but later picked up. The picture changed in December, when we saw considerable improvement,” Singh told HT. “So, when revised estimates will come, growth in the agriculture sector will be more or less equal to last year’s,” Singh said. Last year, farmer protests had broken out in many states, particularly in Maharashtra, Tamil Nadu and Madhya Pradesh, following a crash in prices that hurt rural incomes, posing a political challenge for the Modi government. According to latest estimates released on Friday by the CSO, India’s overall economy is projected to grow at 6.5% in 2017-18, the slowest pace in four years and down from 7.1% in the previous year. The slowdown is mainly being attributed to disruptions caused by demonetisation and implementation of the goods and services tax (GST). The estimates also showed that the growth in the agriculture sector – critical because it supports nearly half of the population — slowed to 2.1% in the current financial year, compared to 4.9% in the previous year. Despite relatively poorer rainfall, the area coverage under summer crops finally rose to 106.55 million hectares, against a five-year average of 105.86 million hectares, the farm ministry statement said.
GOVT PLANS PANACEA FOR POOR YIELD, FARMERS’ POVERTY

In an attempt to boost agricultural production, doubling farmers’ income and reducing the cost of cultivation, the Narendra Modi Government has decided to introduce customised fertilisers (CFs) across the country. CF is prepared by tweaking the proportions of urea and micronutrients in a way that the end products are suited to meet the special needs of varied types of soil, crops, and climate. And it is understood that the use of CF will increase the agriculture production by 30 per cent and also ensure that the soil fertility is safeguarded. According to Department of Fertilisers to address the special need of a region or crop and to optimise the benefit of fertilisers in a cost-effective manner, farmers and fertilisers companies are being asked to focus on customised fertilisers. Apart from Tata Chemicals, Zuari Agro, Coromandel Fertilisers, Deepak Fertilisers, Petrochemicals Corp and NagarjunaFertilisers are some of the companies which are betting big on customised fertilisers. It is estimated that over Rs 700 crore investments would be made by these companies to make need-based soil nutrients. Several private companies aim to set up over the dozen of new customised fertilisers’ plants at an approximate investment of Rs 60 crore each. Officials said after the introduction of soil health cards in 2015, there has been a paradigm shift in fertiliser use from straight conventional fertilisers to CF.

Hike in Duty on Sugar Imports from Pak Sought

The government has assured that it’ll consider hiking import duty on sugar from the current 50% to check cheaper shipments from Pakistan, the Indian Sugar Mills Association said. In view of steep fall in prices, Pakistan has not been able to export its surplus sugar.

Farm ministry for inclusion of milk in price stabilisation fund

To stem the sharp decline in milk prices, the agriculture ministry has sought inclusion of the milk under the Price Stabilisation Fund scheme of the department of consumer affairs. This, officials said, would enable state governments and milk unions to purchase bulk quantities of fresh milk from farmers and convert it into skimmed milk powder (SMP) and ghee for future use. However, almost 99 per cent of the Rs 35 billion allocated as the central share in the fund has been exhausted till December, much of which has gone into buying pulses from farmers. Officials said once milk was included in the Price Stabilisation Fund, it would also enable states to distribute milk through the public distribution system. The Centre contributes half of the Price Stabilisation Fund, while states chip in with the rest. The agriculture ministry in mid-December had issued an advisory to states and central ministries and departments to include milk in the mid-day meal, public distribution system and other welfare programmes, including distribution through Anganwadis. The recent measures to create additional domestic demand for milk has come against the backdrop of a sharp fall in milk procurement prices mainly due to weak global markets and excess supplies during the flush season. The flush season for milk runs from November to March, when supplies are usually on the higher side.

Come July, label mandatory for food certified as ‘organic’

Come July, it would be illegal to sell organic food that was not appropriately labelled so. The Food Safety and Standards Authority of India (FSSAI) had issued regulations that required food companies selling organic produce to get certified with one of the two authorities — National Programme for Organic Production (NPOP) or the Participatory Guarantee System for India (PGS-India). Companies could also get a voluntary logo from the FSSAI that marked its produce as ‘organic.’ Though NPOP and PGS-India had been in the certification business for some years, it was mostly a voluntary exercise. “From July, any company that claims to sell organic food and not sticking to standards can be prosecuted,” PawanAggrawal, CEO, FSSAI said “...Labelling on the package of organic food shall convey full and accurate information on the organic status of the product. Such product may carry a certification or quality assurance mark of one of the systems mentioned... in addition to the Food Safety and Standard Authority of India's organic logo,” said a FSSAI notification on January 2 and published in the Gazette. These rules were finalised after almost a year of being sent out as a draft for public comments. For nearly two decades now, organic farming certification had been done through a process of third party certification under the NPOP. It was run by the Ministry of Commerce and was used for certifying general exports. Nearly 24 agencies were authorised by the NPOP to verify farms, storages and processing units and successful ones got a special ‘India Organic’ logo. The PGS-India programme, in contrast, had been around for only two years and — unlike the top-down approach of the NPOP — involves a peer-review approach. Here, farmers played a role in certifying whether the farms in their vicinity adhered to organic-cultivation practices. This programme was implemented by the Ministry of Agriculture through the National Centre of Organic Farming.
Shortage of jute sacks hits procurement of groundnut in Gujarat

Climatic adversities that hampered the transportation of groundnut from the eastern part of the country to the western region has temporarily disrupted procurement in Gujarat. Farmers maintained that the non-availability of woven jute sacks brought procurement activity to a temporary halt at several centers in Saurashtra. Adding to the woes was the shortage of storage space. According to farmer leaders, due to the heavy arrivals of groundnut, there is a requirement for large storage spaces. “Some centers in the districts of Rajkot, Jamnagar, Junagadh and Porbandar have stopped procurement activity due to the non-availability of woven jute sacks for over a week. Huge groundnut arrivals continued at the markets, but the procurement is temporarily suspended. Adding to the woes is the non-availability of the storage space in the warehouses,” said Maganbhai Jhalavadiya from Padadhari Taluka Cooperative Union in Rajkot district. However, the agencies responsible for groundnut procurement in the State, maintained that the delay in procurement is only a temporary phenomenon, which will be sorted out once the transportation issue is resolved. “The jute sacks come from Kolkata via road route. The trucks that usually take about a week to reach Gujarat are taking longer due to dense fog in the eastern parts. The disruption in transportation has caused some temporary delay in procurement at few centers,” an official at one of the four procurement agencies informed.

Maharashtra to formulate policy for pesticide sales due to farmer deaths

In view of multiple deaths of farmers in Maharashtra due to suspected pesticide poisoning, the State government is in the process of formulating a new policy for pesticide sales. It wants to stop the sale of non-standard and non-recommended pesticides in the State. Since October 2017, suspected poisoning caused 21 deaths in the cotton growing district of Yavatmal in the State, causing a huge hue and cry across the country. The farmers had resorted to heavy pesticide spraying due to the persistent attack of pink bollworms on cotton crop. Agriculture Secretary of Maharashtra of Bijay Kumar informed that the State government wants to have a traceability of all pesticides sold to farmers in the State, therefore the new policy is being formulated. The attempt is to ensure that only pesticides registered with Central Insecticides Board and Registration Committee (CIBRC) and with Maharashtra government are sold in the State, he said. He pointed that many a time pesticides are produced by one company but the marketing is undertaken by another. This arrangement in the trade parlance is called co-marketing. However, a number of violations have been found in co-marketing ventures, therefore the rules for such sale would be further tightened. The pesticides sold under co-marketing route need to be properly labelled with the name of the manufacturer and the marketing company properly displayed. Kumar said that in co-marketing venture both parties will be responsible for the product. The new policy will be in place before the beginning of Kharif season (June). It will attempt to bring lesser toxic and more economical pesticides to the farmer, he said.

Move to boost economic status of State tea garden workers

In order to boost the economic status of the tea garden workers in State, the Government of Assam has started a unique policy christened ‘Chah Bagicha Dhan Purashkar Mela’ in the tea estate areas of the State. As part of the Union government’s policy of demonetisation, this initiative was undertaken in two tea estates of Dimoria to create awareness among the tea garden labourers and to help them get direct benefit under the banking system. An awareness programme to this effect was held at Sonapur Tricem Hall this afternoon, which was attended by Dispur LAC MLA Atul Bora, DDC Barnali Sarma, Sonapur Circle Officer Dhrubajyoti Hazarika, Bank Officer Ashish Ganguly and Labour Officer Gaurav Sharma. The first instalment of Rs 2,500 out of the total Rs 5,000 each was announced to be credited to the bank accounts of the tea garden labourers by January 12 as per the promises made by the State government recently. A similar programme will be held in the Amchong Tea Garden under Sonapur revenue circle tomorrow.
Ragi to return to Karnataka’s public distribution system

After a gap of nearly three years, the Karnataka government will re-introduce ragi, or finger millet, in its Public Distribution System (PDS) this year, as part of an effort to promote the production and consumption of the grain. The stated aim is to bridge the nutritional gap, mitigate the impact of failing rains, promote sustainable agriculture and stabilise farmers’ incomes. Considered a drought-resistant crop, ragi is being promoted as a long-term solution to Karnataka’s perennial water distress. With failing rains and waters from two important rivers—Cauvery and Mahadayi—entangled in disputes with other states, the Karnataka government is hoping that farmers will take up alternatives to water-intensive crops like paddy and sugarcane. Ragí will be distributed as part of the Siddaramaiah-led Congress government’s flagship programme, Anna Bhagya (free rice), and will be available to beneficiaries in south Karnataka, where the millet is consumed widely. The state government initiated the procurement of ragi about a week ago and the exercise will continue for another month. “When we close the procurement, it takes about a month for government of India to give us permission; only then, after March, we can actually put it in PDS,” Krishna Byre Gowda, Karnataka’s minister for agriculture said. Under the popular Anna Bhagya scheme, every beneficiary is given seven kilos of foodgrains a month. In July last year, the state government decided to add tur (lentils which have high protein content) to the scheme, The Times of India reported. Ragi, with higher nutritional value than Rice, is also being promoted with a public health message. The government is also looking to introduce jowar into PDS for the northern part of the state. Gowda said ragi would be procured at Rs2,300 per quintal as against the market price of around Rs1,600. This includes a bonus of Rs400 from last year to encourage farmers to start growing the crop.

350 mills to stop purchase of cotton waste from Tamil Nadu

Condemning the abnormally high price of cotton waste fixed by spinning mill owners, more than 350 open end mills and regular buyers from the State have decided to totally boycott purchasing it in Tamil Nadu. With tonnes of cotton waste expected to be dumped everyday, the threat to pollution also increased substantially. Open end (OE) mills manufacture yarn using cotton waste. There are more than 400 OE mills established in the State. Jeans, nighties, terry towels, bed spread, window screens, petticoats and various other products are manufactured using the yarn made in the OE mills. Each day, on an average 20 lakh kilos of yarn is manufactured in OE mills in Tamil Nadu. Annually, yarn valued at Rs. 7,000 crore is manufactured in the OE mill sector. Though all types of cotton waste is purchased from the spinning mills, comber noil cotton waste is the one in demand. Open end (OE) mills manufacture yarn using cotton waste. There are more than 400 OE mills established in the State. Jeans, nighties, terry towels, bed spread, window screens, petticoats and various other products are manufactured using the yarn made in the OE mills. Each day, on an average 20 lakh kilos of yarn is manufactured in OE mills in Tamil Nadu. Annually, yarn valued at Rs. 7,000 crore is manufactured in the OE mill sector. Though all types of cotton waste is purchased from the spinning mills, comber noil cotton waste is the one in demand. Recently, the price of all types of cotton waste has been increased.

AAU bid for GI tag to Assam lemon, phulam gamosa, komal chaol

After successfully facilitating the fetching of Geographical Indication (GI) for the aromatic joha rice variety of Assam in April last year, the Assam Agricultural University (AAU) is now trying to acquire the same tag for kadji nemu (Assam lemon), phulam gamosa and komal chaol (soft rice). Geographical Indication is a mechanism employed to identify agricultural, natural or manufactured goods which possess certain special qualities or characteristics based on climatic or production conditions unique to a geographical location. In India, the GI is granted by the GI Registry Office based in Chennai, established under the Geographical Indications of Goods (Registration & Protection) Act, 1999 that came into force with effect from September 15, 2003. Muga silk, Assam (orthodox) tea, Karbi Anglong ginger and Tezpur litchi are the other products from Assam that have acquired the GI tag. Director of Agri Research, AAU, Dr GN Hazarika told The Assam Tribune that the university has undertaken an initiative to offer its expertise to organisations seeking GI for indigenous products of the State to protect the identity and originality of these products to tackle the threat of other organisations from outside Assam laying claim of ownership over the products by applying for GI.
World Bank loan for Tamil Nadu irrigation overhaul

Tamil Nadu will get a World Bank loan worth $318 million for the revival and modernisation of over 5,000 irrigation tanks and check dams, benefiting about 500,000 small and marginal farmers in the State. Central and State government officials have signed a loan agreement with a representative of the World Bank for the Tamil Nadu Irrigated Agriculture Modernisation project, which is aimed at promoting climate resilient agriculture technologies, an official release said. The funds will be used to rehabilitate and modernise about 4,800 irrigations tanks, 477 check dams, spread across 66 sub-basins in the State. The project is expected to bring over 1,60,000 hectares of cultivated land, currently partially irrigated, into full irrigation and would help farmers increase the yield of rice, maize, and pulses by 18 to 20 per cent, the release said. The loan has a five-year grace period, and a maturity of 19 years.

Agri NBFCs upbeat on warehouse receipts

Bank lending to priority sector including agriculture may have witnessed a de-growth in the last couple of years; but agricultural NBFCs (non-banking financial companies) are betting big on warehouse receipt and other agri-financing options. Agricultural NBFCs cater to the entire value chain including farmers, traders, small agro-processing units and joint liability groups. Many of these NBFCs were floated by agri-marketing or warehousing companies, primarily to service their existing clients. According to industry experts, banks and NBFCs put together have lent close to Rs 35,000 crore against warehouse receipts till date. The industry is projected to grow to Rs 1 lakh crore by 2020. “This segment is growing exponentially and the introduction of GST will further enhance the potential for overall growth,” Sandeep Sabharwal, CEO, SohanLal Commodity Management (SLCM) Group, told BusinessLine. SLCM Group’s NBFC arm, Kissandhan Financial Services, has a loan book of Rs 250 crore and the company intends to close it around Rs 500 crore by the end of this fiscal. Some of the warehousing companies including SLCM, Origo Commodities, StarAgri, Shree Shubham Logistics and National Collateral Management Services among others have already set up agri-NBFCs to tap this segment. Most of these NBFCs finance “stable commodities” (the ones with less volatility) such as paddy, wheat, oilseeds and soyabean. The tenure of such loan usually extends between 6 and 12 months and the rate of interest typically ranges between 14 and 15 per cent (both depending on the nature of commodity).

Nabard Plan 2023: Double balance sheet to Rs 7 lakh cr

With Nabard’s resources set to get augmented substantially following Parliament’s nod to a six-fold increase in its authorised share capital to Rs 30,000 crore, the development financial institution (DFI) is eyeing a balance sheet size of Rs 7 lakh crore by 2023 against Rs 3.90 lakh crore now. The rural India focussed DFI plans to achieve this balance sheet size by stepping up focus on providing support to irrigation projects, dairy farming, improving market infrastructure in rural areas (so that farmers get remunerative prices for their produce), enhancing credit flow to deprived areas such as central and eastern States, and support to rural housing. Harsh Kumar Bhanwala, Chairman, Nabard, said the increase in authorised capital will help the paid-up capital to go up to Rs 9,600 crore from Rs 4,700 crore. This will be on account of the transfer of share capital deposit (amounting to Rs 4,900 crore with Nabard) to paid-up capital. “The increased capital will enable Nabard to leverage higher borrowings. Among ‘AAA’ rated companies, we are the cheapest borrower,” said Bhanwala. With the institution adding about Rs 750 crore every quarter to its reserves, coupled with the balance Rs 600-crore capital infusion expected from the government, Nabard’s net owned funds position will strengthen to Rs 37,300 crore by March-end 2018 from Rs 35,800 crore now. Bhanwala said loan approvals to existing co-operative dairies from the Rs 8,000-crore Dairy Processing & Infrastructure Development Fund will happen from March 2018. The Nabard chief emphasised that creation of market infrastructure, including warehouses, electronic weigh bridges, assaying laboratories, and roads in rural markets, is important for agriculturists. He assessed that each Agriculture Produce Market Committee and primary market may require an investment of about Rs 5 crore each to achieve this objective.
SBI to Boost Lending to Farmers Under JLG Model, Joins Hands with Nabard

State Bank of India has teamed up with National Bank for Agriculture and Rural Development (Nabard) to grow its priority-lending book, as the country’s largest lender plans to raise its stake with small and medium farmers, most of whom do not have access to bank loans. The loans under this agreement will be given to small homogeneous groups of farmers carrying the joint liability to repay. Lending to joint liability groups (JLGs), pioneered by Nobel prize winner Muhammad Yunus of Bangladesh and implemented in India by microfinance companies such as Bharat Financial Inclusion or the likes of Bandhan Bank, is now an effective way of doing rural business for large private sector banks such as Axis Bank and HDFC Bank, helping them gain priority sector exposure directly. “Having seen the success of private sector banks in lending through JLG, we thought public sector banks and regional rural banks should take the opportunity available in this space,” said GR Chintala, Nabard’s chief general manager of micro credit innovation department. JLGs are made up of 4-10 members who are engaged in similar economic activities, including farming. SBI is the first one to join hands with Nabard to promote the JLG method of lending to farmers at 7% interest. Nabard sanctions assistance for promotion of such groups through its partner NGOs. SBI, Nabard and five NGOs in West Bengal signed a tripartite agreement on Tuesday with a view to lend to 2,500 groups in the state, which is characterised by fragmented landholdings and low credit penetration. “Agricultural credit of commercial banks in this state is not up to the desired level. This initiative will help us to extend loans to the financially excluded sections, especially landless farmers,” said SBI chief general manager in Kolkata Partha Pratim Sengupta. Nabard officials said that Syndicate Bank may join this initiative soon. “We hope other regional offices of SBI to take it forward as well,” Nabard regional director in Kolkata AK Raybarman said.

Microfinance firms brace for write-offs of Rs 5,000 crore

The microfinance sector is bracing to write off close to Rs 5,000 crore as bad loans, on account of debt waiver schemes by state governments. This excludes write-offs by small finance banks-commercial banks and non-MFI non-banking finance companies (NBFCs). “We estimate the amount of write-offs to be Rs 4,000-5,000 crore. Anyone who has defaulted would not get a fresh loan. In several parts, defaulters have even stopped coming to group meetings, which makes recovery even more difficult,” said Ratna Vishwanathan, chief executive officer, MFIN (Microfinance Institutions Network). Of the amount stuck as bad loans, the biggest defaults are in Vidarbha district of Maharashtra, around Rs 1,000 crore is estimated to be the amount of defaults, according to informal estimates by MFIN. Repayment had been severely impacted in western Uttar Pradesh and pockets of Maharashtra. In certain pockets, repayments had come down by 20 to 30 per cent to around 70 per cent. From the recovery estimates of around 99 per cent, it now stands at around 90 per cent for the microfinance industry. According to data available from MFIN, at the end of the June quarter of 2016-17, for NBFC MFIs the portfolio at risk (PAR) at more than 30 days was still high at 7.46 per cent, against 0.32 per cent in the corresponding quarter in 2016-17.

Farm Insurance Scheme Covers a Third of Agri Households

The Prime Minister’s farm insurance plan has covered nearly a third of the agricultural households within a year of being launched, as the government pushes for total coverage ahead of the elections in 2019, official data revealed. The ‘Pradhan Mantri FasalBimaYojana’ scheme, which is being implemented by Agriculture Insurance Corporation and 15 other insurance companies, was introduced from kharif 2016. As per official data, over 50.9 million farmers were covered under the scheme as on March 31, 2017. The industry had collected Rs 17,255 crore during 2015-16. The same year, about 9 million farmers filed claims and the industry paid out Rs 6,573 crore. Agriculture Insurance Corporation was the largest insurer, covering over 23 million farmers, followed by United Insurance at 5.1million. A Crisil report said 77% of domestic crop insurance premiums were ceded to reinsurers in 2016-17. The premium income in the farm segment is expected to reach Rs 25,000 crore this fiscal year, from Rs 21,000 crore last year, making it the fastest growing insurance business in the country.
Coffee exports from India set to decline in 2018

Coffee exports from India, the third-largest producer in Asia, is set to drop this year as unfavourable weather and pest attacks is likely to lower production amid slump in the prices. The exports may slide about 5% to 2.40 lakh tonnes in 2018 calendar year, said Ramesh Rajah, president of Coffee Exporters Association. The country had exported 2.53 lakh tonnes in last year after the Coffee Board approved shipments for 3.86 lakh tonnes. Normally, when production is down, prices should be higher. But due to a global surplus, overall prices are down and that has affected rates in India too. The coffee production in the world is estimated at 159.9 million bags (of 60kg each) in 2018, according to US department of agriculture. Rajah said since the previous year had even higher level of production globally, the coffee prices are depressed. Farmers in India have realised Rs 6,500-Rs 7,000 per bag (of 50kg each) in the crop harvested from October 2017 as compared to Rs 9,000-10,000 per bag in the year-ago period. He said that top countries like Brazil, Vietnam and Colombia had good production whereas India’s output declined after lower rainfall during peak time when the crop blossoms. Additionally, there were also pest attacks in some of the growing areas. Vietnam and Indonesia are the top two coffee growers of Asia. To help stabilise Indian coffee price, there is a need to increase domestic consumption, said Anil Kumar Bhandari, president of India Coffee Trust. The per capita consumption has only increased to 100 grams in India from 89-90 gram five years ago, while in many other countries it is in kilogram, he said.

Tripura exports pineapples to Dubai

Under the aegis of the Agricultural and Processed Food Products Export Development Authority (APEDA), an apex organisation under the Ministry of Commerce and Industry, Government of India, a consignment containing 1.05 MT of Kew variety of pineapple originating from Tripura was exported to Dubai. It was well received in the market, an APEDA release said, adding that it paved way for further consignments. Earlier, the second consignment of pineapples was sent on December 14, 2017, from Agartala to Dubai via the same route. APEDA has been entrusted with the responsibility for promotion and development of export of various agro products. APEDA now has made efforts to link the remote areas of the North-east with major international markets by using the air routes for export of fruits and vegetables. One such consignment of fresh mandarin orange of about 0.8 MT from Dambuk, Lower Dibang valley of Arunachal Pradesh and fresh pineapple of 0.2 MT from Ri-Bhoi district of Meghalaya were exported from Guwahati to Dubai on January 2. According to information, production of pineapple per hectare in Tripura is 18.73 tonnes, which is higher than the national average of 15.80 tonnes. Dhalai district, another buffer zone of pineapple cultivation records the highest yield per hectare production in the state with 21.88 tonnes. The Tripura government has taken a number of steps to encourage pineapple cultivation among the farmers in the State. “As pineapple has a good demand in the global market, the Tripura farmers should boost their production to tap the global market,” an expert claimed.

$ 850/tonne MEP on onion to be applicable till Jan 20

With onion prices continue to be high, the government today said the minimum export price (MEP) of USD 850 per tonne would be applicable on shipments of the commodity till January 20. In November, the government had imposed MEP to increase domestic supplies and check rising prices. MEP, which is the benchmark price below which no shipments can take place, was applicable till December 31. “Export of all varieties of onions will be allowed only on letter of credit subject to a minimum export price of USD 850 per tonne till January 20 this year,” the Directorate General of Foreign Trade (DGFT) has said in a notification. Retail onion prices are ruling at about Rs 40-45 per kg in most cities. The prices have shot up due to tight domestic supplies. Supplies got exhausted as large quantity of exports were undertaken in the first four months of the current fiscal. The country exported 1.2 million tonnes in April-July of this fiscal, up by 56 per cent from the year-ago period.
Spices export rises 24% in April-September

Buoyed by surging demand for its quality spices in international markets, India exported 5,57,525 tonnes of spices and spice products valued at Rs 8,850.53 crore during April-September 2017 as against 4,50,700 tonnes worth Rs 8,700.15 crore during the corresponding period a year earlier, registering an increase of 24 per cent in volume and 2 per cent in rupee terms. In dollar terms, the exports of spices and spice products during the first half of the current fiscal were pegged at $1,373.97 million against $1,299.96 million during the same period in 2016, notching an increase of 6 per cent. Spices Board Chairman A Jayathilak said chilli, cumin, turmeric, cardamom, garlic and mint products have been the favourites in global markets. Moreover, the Board’s efforts to promote these spices have resulted in an appreciable increase in their exports. “What is satisfying is that India’s exports of spices and spice products have been consistently moving up despite the volatility in international markets and the stringent food safety regulations imposed by countries,” he said. Chilli retained its position as the most-in-demand spice with exports of 235,000 tonnes (valued at Rs 2,125.90 crore) followed by cumin with a total volume of 79,460 tonnes worth Rs 1,324.58 crore. Next in line was turmeric with an export volume of 59,000 tonnes valued at Rs 547.63 crore. The export of mint products added up to 11,280 tonnes in volume and Rs 1,317.40 crore in value. Shipments of small cardamom, cumin, garlic, asafoetida, tamarind and seeds like ajwain, mustard, dill and poppy registered an increase both in volume and value as compared to April-September 2016. The export of value-added products like curry powder, mint products and spice oils and oleoresins also rose both in volume and value terms during the period. During the period, 8,800 tonnes of spice oils and oleoresins valued at Rs 1,332.22 crore were shipped against 6,617 tonnes worth Rs 1,237.06 crore last year.

India extends crop fumigation exemption

India has extended by six months an exemption to its policy for crop cargoes to be fumigated with methyl bromide, a gas once widely used as a pesticide but now banned or restricted in most parts of the world, two government officials said. The country’s plant quarantine authority had earlier said that after 31 December India would only accept cargoes fumigated for pests with methyl bromide at the country of origin, threatening to disrupt supplies of pulses from Canada and wheat from Europe and the Black Sea region.

Global shortfall to help India tea industry

Global shortfall in tea production is expected to help Indian tea this year after a disappointing performance in 2017. Robust domestic demand and higher exports is estimated to help in price recovery this year after auction prices saw marginal decline due to a variety of factors including a change in tax regime, traders said. India is the second largest producer of tea in the world and makes up 26% of the global tea production. “Tea had a bad time last year when we saw the prices going down post-GST. Given the lower global production we expect 2018 to be positive,” R Sanjith, commodities head, United Planters’ Association of Southern India (UPASI) pointed out. The auction prices for 2017 up to November stands at an average of Rs 132.80 per kg across India as compared to Rs 134.42 per kg in the comparable period of 2016. South Indian tea prices till November stand at Rs 96.91 per kg as against Rs 103.35 per kg in 2016. For North India, the average auction price for the eleven months of 2017 stands at Rs 143.97 per kg as compared to Rs 144.73 per kg in 2016. Sriram Narayanawamy, president, Global Tea Brokers, said lower production in Kenya is likely to help South Indian CTC tea, while the quality problems faced by neighbouring Sri Lanka would help in better demand for orthodox tea. Russia placed temporary restrictions on imports of tea and all other agricultural products from Sri Lanka after a beetle was found in a consignment.
Spices Board urges farmers to get GI labels for projects

Spices Board chairman A Jayathilak has urged farmers and exporters to obtain geographical indication (GI) labels for their quality spices. He said that geographical indication is one of the tools to promote products in the global market. Speaking at Spices Board’s Buyer-Seller Meet (BSM) conducted on the sidelines of the five-day Global Kokan Festival 2018 at CIDCO Exhibition and Convention Centre, Vashi, Navi Mumbai on Sunday, Jayathilak urged exporters to export commodities specifying the GI. “The only commodity in which India has 50 per cent of the world trade is spices,” he was quoted as saying. Maharashtra has got 14 GIs registered while the Konkan region’s KonkanSugandha nutmeg and KonkanTej cinnamon hold the potential for GI registration. An estimated potential business transaction of 600 tonnes of spices valued at Rs 7 crore was carried out at the BSM. Around 50 exporters and 160 farmers took part in the meet and the first transaction between the farmers and the exporters was held in the presence of Commerce Minister Suresh Prabhu during the inauguration of the conference.

Israeli firm develops tiniest cherry tomato

They say bigger is better, but in the succulent world of cherry tomatoes, one Israeli company is going smaller than ever before. The ‘drop tomato’ is about the size of a blueberry and the Kedma company in the country’s southern Arava desert says it is the smallest one ever cultivated in Israel, perhaps even in the world. It’s a point of pride in a country known for its agricultural innovation, where fruits and vegetables are taken seriously and where several strands of the cherry tomato were first invented. “The idea is that it is comfortable,” said Ariel Kidron, a Kedma grower. “You can throw it in a salad, you don’t need to cut it. It just explodes in your mouth.” The seed, originally developed in Holland, was modified to match the arid growing conditions in southern Israel. Rami Golan, of the Central and Northern Arava Research and Development center, who accompanied the project, said it was definitely the smallest ever to be grown in Israel where tomatoes are incredibly popular. The tiny tomato, smaller than a one shekel Israeli coin, is offered in red and yellow varieties, and will be presented to the public at a three-day international agricultural fair in Israel later this month. Early indications are that it could be a big hit.

New muga worms to heat climate change

To overcome the threats of climate change on muga crop, the Central Silk Board has embarked upon an ambitious plan to develop new muga silk worm breeds in Assam by promoting research in the area of genetic engineering. The new breeds are to be developed in a manner that they can withstand the adverse impacts of soaring temperature, caused by the climate change. The Northeast is the only region in the world which produces all commercially known silks such as mulberry, eri, muga, tropical tussar and oak tussar. In this regard, Assam, which has been granted a geographical indication certificate, is the only producer of the unique muga or golden silk. It is significant to note that muga silk (mugapaat) or the golden silk is not only a nature’s gift to Assam, but also a symbol of rich Assamese culture. It represents the brilliance of traditional attire of the region. The most significant characteristic of muga silk is its golden bright hue. Pointing out the impact of climate change on muga crops of the state, sericulture director MuktanathSaikia said, “Since muga has no second breed, it is also facing breeding recession, which is reflected in its reduced productivity. There is, hence, a need to develop new breeds of muga.” To achieve this objective, the sericulture directorate has set up a wild muga sanctuary. It is significant to note that muga worms are still bred and reared in the wild; they are yet to be domesticated. Presently, there are five cocoon banks — one each at Boko, North Lakhimpur, Udalguri and Sualkuchi. They are run by the sericulture directorate, while the fifth one at Sivasagar is run by the Central Silk Board. Also, the directorate has proposed to set up five more cocoon banks at Dibrugarh, BiswanathChariali, Nagaon, Silchar and Dhakuakhana within March 2018, he said. The idea was to promote muga as one of the major economic activities for the farmers in the state, MrSaikia added.
‘Wheat output may touch all time high of 100MT this year’

The country’s wheat production is expected to touch an all-time of over 100 million tonnes in the current 2017-18 crop year (July-June) due to likely increase in acreage and yields, Agriculture Secretary S K Pattanayak said on Monday. In the 2016-17 crop year, wheat production had reached a record 98.36 million tonnes. The previous high was 95.85 million tonnes in 2013-14. The government has kept a target of 97.50 million tonnes wheat output for the current year. Sowing of wheat, the main rabi (winter) crop, begins from October and harvesting from March. “Rabi sowing is progressing well. We are hoping wheat production to touch over 100 million tonnes this year,” Pattanayak said. Wheat acreage is lower so far, but the area will be covered up. Sowing got delayed as fields were not free for planting of the wheat crop, he said. The Secretary said the wheat acreage is lower largely in Uttar Pradesh. However, the sowing window is till January-end, so it will be covered. “The UP government has said the wheat acreage will be covered because weather is conducive and has enthused planting,” he added. As per the agriculture ministry’s data, area sown to wheat remained lower by 4.77 per cent at 283.46 lakh hectare till last week of the rabi season compared to 297.67 lakh hectare in the year-ago period. Besides UP, less coverage of wheat was reported in Madhya Pradesh, Rajasthan, Maharashtra and West Bengal till last week of the season, the data showed. Wheat is sown in an average area of 301.74 (rpt) 301.74 lakh hectare.

For persistent farmers, vanilla brings flavour of success

Vanilla cultivation seems to have turned a viable proposition for farmers, as the current season ends on a positive note fetching them good returns. A handful of farmers engaged in vanilla cultivation in Kerala, Karnataka and Tamil Nadu has benefited from the harvest as the crop prices are now ruling at Rs 5,500/kg for green beans and Rs 30,000/kg for dry beans. The three-month harvest season, which ended in December, recorded a production of around 10 tonnes from the three States. As there is no official data on production, unconfirmed reports put the figure between 10 and 20 tonnes. Prices have been on the higher side in recent times due to low yield in Madagascar because of climatic issues. This, coupled with the declining production in Indonesia, helped push up domestic prices. Yet, not many farmers are ready to take up vanilla cultivation as it is a labour-intensive crop and requires manual pollination of flowers. Besides price volatility of the crop, he said labour shortage, threat of fungal disease, also discouraged many from taking up vanilla farming.

ICAR backs use of cow urine in organic farming

Indian Council of Agricultural Research (ICAR), the autonomous body responsible for coordinating agricultural education and research in the country, has put a stamp over the use of cow urine in organic farming. Under its Network Project on Organic Farming, ICAR observed that cow urine can supplement the nutrient value of the soil and help in the management of insects, pests and diseases under the organic production systems. ICAR evaluated cow urine in different cropping systems. Assistant Director General, ICAR, Dr S Bhaskar said, “Spraying of cow urine has been found to be beneficial as it fulfills the nutrient requirement during the process of organic farming, but more study is needed into this. The spray must be a mixture of 10 per cent cow urine and 90 per cent water. Keeping the same in view, National Dairy Research Institute is conducting further study.” ICAR officials said that the use of fermented cow urine enhances soil fertility and it can also be turned into liquid fertiliser as a pesticide for crops. Liquid manure from cow urine is easy to make and is good for plants in comparison to artificial fertiliser.

Scientists shine light on tobacco ‘night thief’

For decades, the tobacco cutworm, or the ‘night thief’ as it is known in Japan, had wreaked havoc on more than 100 crops, emerging as a major pest across Asia. Now, a consortium of Indian-Chinese-Japanese scientists, has unravelled the mystery behind the pests’ destructive nature by using molecular biology techniques. They have sequenced its genome, peeped into its basic mechanism of action, and are confident to tame it. The tobacco cutworm, or Spodopteralitura, causes heavy crop yield loss, ranging between 10 to 30 per cent. It is widely found throughout tropical and sub-tropical areas of Asia, especially in India, China and Japan. The main crops that come under the pests’ attack include castor, cotton, groundnut, amaranthus, chillies, sunflower, pulses and cole-crops. It’s short life cycle and high rate of population increase and outbreak make it a lethal enemy for a wide range of crops. It is nicknamed ‘night thief’ because it feeds during the night and disappears into the soil by day, according to Arun Kumar of Hyderabad-based Centre for DNA Fingerprinting and Diagnostics. To top it all, the pest has developed resistance to every class of pesticide used against it, including the biopesticide Bt, foxing scientists and farmers who are trying to fight it effectively.
Marketing of agricultural commodities determines the profitability of the agricultural operations. Agriculture has emerged from being a simpleton activity that surrounded the primary centers of production to an activity with longer and wider connect. Today, in a more business oriented approach, products are raised for markets and hence the determinants influencing production also encompasses factors that dictates market preferences. Although traditionally, agriculture marketing is considered as the sum of the entire activity downstream of cultivation, today market demands play a crucial role in the cultivation aspects as well. Choosing a crop, a variety, pesticides, fertilizers etc., all have a direct bearing on the marketing and hence it is chosen according to the taste of the market. So agricultural marketing has broadened blurring the boundaries that demarcates different operations in agriculture and has become the broadest and the biggest entity in agriculture.
Agriculture Markets of India

In India, marketing of agricultural commodities has been promoted through a network of regulated markets. Most state governments and UT administrations have enacted legislations to provide for the regulation of agricultural produce markets. The purpose of state regulation of agricultural markets was to protect farmers from the exploitation of intermediaries and traders and also to ensure better prices and timely payment for their produce.

Agricultural Markets in most parts of India are established and regulated under the State Agricultural Produce Market Committee (APMC) Acts. Accordingly, the State is divided and declared as a market area wherein the markets are managed by the Market Committees constituted by the State Governments. Once a particular area is declared a market area and falls under the jurisdiction of a Market Committee, no person or agency is allowed freely to carry on wholesale marketing activities. Apart from Kerala, Jammu and Kashmir, and Manipur, all other states have enacted marketing legislations known as APMC Acts.

Over a period of time, these established markets became restrictive and monopolistic markets, providing no help in direct and free marketing, organised retailing and smooth raw material supplies to agro-industries. Exporters, processors and retail chain operators cannot procure directly from the farmers as the produce is required to be channelised through regulated markets and licensed traders. There
is, in the process, an enormous increase in the cost of marketing and farmers end up getting a low price for their produce. Monopolistic practices and modalities of the state-controlled markets have prevented private investment in the sector. Eventually, the marketing channels for agricultural produce became longer and non remunerative for farmers. On an average, four to six transactions take place before the produce reaches consumers from the point of sale by producers increasing the price spread between consumers and producers.

Although the Centre passed a model APMC Act in 2003, it is yet to be adopted by the state governments. The model legislation provides for the establishment of private markets/yards, direct purchase centres, consumer/farmers’ markets for direct sale and promotion of Public-Private Partnership (PPP) in the management and development of agricultural markets in India. Provision has also been made in the Act for constitution of State Agricultural Produce Marketing Standards Bureau for the promotion of grading, standardisation and quality certification of agricultural produce. This would facilitate pledge financing, direct purchasing, forward/future trading and exports.

As a further refinement to the existing scenario of agri marketing in India, the government in 2016 announced unification of agricultural markets nationally. Prime Minister, Narendra Modi launched India’s National Agriculture Market (NAM) on April 14, 2016 coinciding with Ambedkar Jayanthi. The NAM offered to be a single platform to carry out marketing activities between farmers and traders. NAM explored the possibility of unhindered trade between farmers and traders of different states, different market areas, different languages through a common e marketing platform. The middle men who formed the core of the mandis and their hefty commissions which were the norm of the mandi markets was to be eliminated and the complete bargaining power was transferred to the farmers. They were linked up electronically via a kiosk or their phones, fixed the trade and materialized
it with the click of a button.

The e-NAM platform—a key initiative of the National Democratic Alliance government’s promise to double farm incomes by 2022—promises to connect 21 mandis from eight states in the first phase. With the initiative, the centre is aiming to bring 585 mandis across India on to the platform by March 2018. The eight states that will be part of the platform in the first phase were Gujarat, Telangana, Rajasthan, Madhya Pradesh, Uttar Pradesh, Haryana, Jharkhand and Himachal Pradesh. The platform traded 25 crops, including wheat, maize, pulses, oilseeds, potatoes, onions and spices.

Further, in 2017, the government proposed a model law on agricultural marketing which would introduce features such as a single market within a state, private wholesale markets, direct sale by farmers to bulk buyers, and promotion of electronic trading. The draft law proposes to cap market fees and commission charges payable by a farmer after bringing produce to a wholesale market, and help create a national market with provisions for an inter-state trading license. Under the new model law, traders will be able to
transact in all markets within a state by paying a single fee and sell perishables such as fruits and vegetables outside existing mandis (wholesale markets). The states will be free to adopt portions or the entire model act as agricultural marketing is a state subject and the centre can only advise states to free up agricultural trade. The new model act replaces an earlier model act proposed by the Centre in 2003 which the states were reluctant to adopt. Further, under the model law, while existing market committees will help develop marketing facilities, all regulatory powers will lie with the office of the director of agricultural marketing in the state, who will also issue licenses to traders and new private players. A cap on levy of market fees at 2% (of sale price) for fruits and vegetables and 1% for foodgrains have also been proposed.

**The Alternate Models of Market Contract Farming**

Contract farming which arise from an agreement between processing and/or marketing firms for production support at predetermined prices has been proved as a workable model in Indian agriculture. It is emerging as a viable solution considering the increasing demand for more standardized, higher-quality agricultural produce and the difficulty of underdeveloped supply chains and small farm sizes to meet this exceeding demand.

PepsiCo was one of the earliest promoters of the contract-farming model in India. The company initiated a tomato processing plant in Punjab in 1989 where they tied up with local farmers to grow tomato varieties needed for ketchup. Encouraged by the sweeping success of contract farming in tomato in several districts of Punjab, PepsiCo has been successfully emulating the model in food grains (Basmati rice), spices (chillies) and oilseeds (groundnut) as well, apart from other vegetable crops like potato. The company, which had been involved in the export of Basmati rice since 1990, was the first processor in India to invest and strengthen backward linkages for Basmati rice. Similarly, PepsiCo planned a foray into contract farming in groundnut with the farmers of Punjab with the objective of producing export-quality, value-added groundnut such as roasted and salted peanuts, flavoured and coated peanuts, and peanut butter.
Since then India has been a hotspot for contract farming. Many new companies entered and seized the excellent opportunities of contract farming. Appachi Cotton Company (ACC), the ginning and trading house from Pollachi (Coimbatore district of Tamil Nadu, India) in 2002 integrated about 600 farmers belonging to various districts of Tamil Nadu on a holistic plank to grow cotton. The contract assured the farmers easy availability of quality seeds, farm finance at an interest rate of 12% per annum, door delivery of unadulterated fertilisers and pesticides at discounted rates, expert advice and field supervision every alternate week, and a unique selling option through a MoU with the coordinating agency (ACC). This is the first time ever that a cotton farmer in India has been forwardly integrated to the consumer textile industry. By integrating backward and forward with the producing and the consuming communities, ACC has attempted to address all the existing maladies of the cotton supply chain.

Belgaum (Karnataka)-based Ugar Sugar Works Ltd., which established a successful backward linkage with farmers of Northern Karnataka for supply of barley for its malt unit, is another success story. It introduced barley in a traditionally sugar growing area quite successfully and farmers derived excellent benefits from it.

Contract farming, the tried and tested model of agriculture marketing can iron out many inequities existing in the supply chain. Easy access to inputs, knowledge and market will make it easier for farmers to use their land sensibly and sustainably. Absence of middle men and shorter supply chain elevates the chances of income enhancement. In the recently concluded World Food Summit, Prime Minister Narendra Modi extolled the virtues of contract farming and his confidence in the model is evident from his words, “Private sector participation has been increasing in many segments of the value chain. However, more investment is required in contract farming, raw material sourcing and to create agri linkages. Many international companies in India have taken a lead in contract farming initiatives. This is a clear opportunity for global supermarket chains to consider India as a major outsourcing hub.”

Farmers’ Markets
Small and marginal farmers are constrained by scale of operation which perpetually adds to the woes of marketing. Collective marketing where the famers pool their produce puts them in an advantageous position. Cooperatives, farmer producer organizations have all been successful in deriving the

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expected results.

ApniMandi in Punjab, Rytu Bazars in Andhra Pradesh, dairy co-operatives are some of the successful cases in direct marketing. The real challenge lies in organising the small and marginal farmers for marketing and linking them to high value agriculture. Thus, group approach is needed for getting benefits from marketing. Small farmers can also benefit from the emerging super markets and value chains if linked effectively. ApniMandi scheme provides self-employment to the producers and also remove the social inhibition among them for retail sale of the produce.

A similar concept under the moniker - Rythu Bazars was established in the year 1999 by the Andhra Pradesh government. Rythu Bazar was developed to facilitate direct marketing between consumers and farmers. Rythu Bazars serves as the interface between farmers and consumers eliminating intermediaries in trade, in the process securing remunerative income to farmers and fresh vegetables and fruits to the consumers at reasonable rates.

Hadaspur vegetable market in Pune and Uzhavar Mandies in Tamil Nadu are other examples of farmers’ markets which work on similar lines. In these markets, farmers enjoy better marketing infrastructure free of cost and receive considerable higher prices for the products than what they receive from middlemen at villages or primary markets at town. Farmers also get good quality seeds and other inputs in the market itself.

**Collective Marketing**

Cooperatives were another alternative that were initiated to address the problem of the small scale of operation of small and marginal farmers. The Cooperative movement in India is one of the largest movements in the world, with a legacy spanning over a century. The Cooperative movement was introduced in the country primarily to free the farmers from the clutches of money lenders. Thus the first Cooperative Credit Societies Act of 1904 was passed with a focus on freedom for farmers from debt burden. Later on different types of cooperative societies operating in India with different activities were formed such as Production Cooperatives, Marketing Cooperatives, Service Cooperatives and Allied Service Cooperatives.
Cooperatives.

Marketing cooperatives were established to provide marketing facilities to small farmers. These cooperatives were supposed to increase bargaining strength of farmers, remove intermediaries and facilitate direct interaction with consumers. The added advantages of availing cheaper credit and transport, storage facilities, grading and processing of agricultural produce also propelled the establishment and their growth. While discussing the marketing cooperatives, dairy cooperatives emerge as a perfect example of the success they can achieve.

In 1946, the milk producers went on a strike, which led to the setting up of the Kaira District Cooperative Milk Producers’ Union Ltd. in Anand. Under this Union, cooperatives were formed at every village to collect surplus quantities of milk from small producers and a modern dairy was established to process the milk locally. The products were sold under the brand name Amul since 1955. The success of this dairy soon spread across the neighbouring districts of Gujarat. To support these Dairy Federations and to expand the activities, the Gujarat Cooperative Milk Marketing Federation, an apex marketing body was set up in 1973. To replicate the successful Anand pattern of dairy cooperatives, the National Dairy Development Board (NDDB) was formed. The Government of India further protected the cooperative dairy sector, by restricting the milk processing exclusively to cooperatives. Presently, 170 Milk Producers’ Cooperative Unions and 15 State Cooperative Milk Marketing Federations are involved in milk processing. However, many of these dairy federations could not function successfully, in the true spirit of a people’s movement, barring a few states. Nevertheless, the dairy cooperatives account for the major share of processed liquid milk marketed in the country.

Farm producer organisations (FPOs) are emerging as a new model for organised marketing and farm business. Such models include informal farmers’ groups or associations, marketing cooperatives, and formal organisations like producers’ companies. Producers can benefit by getting together to sell their produce through economies of scale in the use of transport and other services, and raise their bargaining power in sales transactions, while marketing expenses get distributed. This results in a better share of net returns. Such models are particularly required for small farmers to overcome their constraints of both small size and modest marketable quantities. Aggregating producers into collectives is now universally accepted as one of the most effective means of reducing the risk in agriculture and improving the access of small and marginal producers to investments, technology and markets. Several thousand farmer producer organizations (FPOs) exist across the country, registered under various statutes such as the cooperative laws, trusts, federations, and lately under the Companies Act as producer companies.

Digital age of Agri Marketing

The last few decades have seen technology influencing every singly aspect of human life. Health, transport, communication - every sector has imbibed the advantages from technology development and transformed in due course. However, agriculture sector remains largely detached from this technology revolution and some may aver that e-agriculture is a dream that will take considerable time to materialize in the Indian agriculture scene.

While the power of internet can be utilized to influence agriculture marketing in the country, it is yet to become a routine. The Ministry of Agriculture has launched the ICT based Central Sector Scheme of Marketing Research and Information Network in March 2000. This provides electronic connectivity to important wholesale markets in the country for the collection and dissemination of price and market-related information. The scheme was implemented in the year 2000-2001, and presently, more than 3,000 markets from all over the country have been linked to a central portal (http://agmarknet.nic.in). These markets report the...
daily prices and arrivals for more than 300 commodities and 2,000 varieties from more than 1,900 markets covering nearly all the major agricultural and horticultural produce. The information on arrivals and prices are disseminated in 12 regional languages.

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With the initiative, the centre aimed to bring 585 mandis across India on to the platform by March 2018. The eight states that will be part of the platform in the first phase were Gujarat, Telangana, Rajasthan, Madhya Pradesh, Uttar Pradesh, Haryana, Jharkhand and Himachal Pradesh. The platform traded 25 crops, including wheat, maize, pulses, oilseeds, potatoes, onions and spices.

Besides, this private sector has started to take a keen interest in delivering vegetables and fruits to the consumers through online portals. Mumbai based online groceries portal Fresh n Daily, Chennai –based Veggibazaar.com and Bangalore based Vegwala.com are examples of online services catering to the urban market by procuring products directly from the farmers.

Sensing this opportunity, the agriculture ministry is discussing a proposal to help organic farmers’ organisations tie up with e-commerce companies especially for the sale of organic products. In the absence of a dedicated marketing channel in the country for certified organic farm produce — cultivation of which is thinly distributed across the country — the proposal is expected in boosting farmers’ income and helping firms like Amazon, BigBasket and Grofers maintain steady supply of these food items.

Trading Internationally

Indian agriculture’s excellent production record post green revolution had elevated India’s stand in the world market. India’s share in global farm/food exports and imports is around 2.07% and 1.24% respectively. Thus, India is a net exporter of agricultural products. In terms of global agricultural and food exports, India’s rank is 10.

The largest export product in farm sector in India is Basmati Rice; while largest import product includes edible oils. Place of marine products comes only after Basmati rice in India’s farm exports. India is one of the leading exporters of some farm products such as tea, sugar, oilseeds, tobacco, spices and products with agricultural content (jute, cloth and sugar products). In recent times, Buffalo meat and Guar gum exports have seen significant volume growth in exports of India. Further, the share of processed food such as mango pulp, dried & preserved vegetables, meat and poultry items has also increased.

However, India’s agricultural exports have declined to $33.87 billion in 2016-17 from $43.23 billion in 2013-14 owing primarily to low commodity prices prevailing in the international market. However, import of agricultural commodities...
‘The government should come out with policies supporting the new age entrepreneurs’
Subrata Mondal, MD & CEO, Pick N Serve Foods Pvt Ltd.

“With 1.2 billion population, India itself is one of the largest fresh produce markets in the world. Within next 10-15 years’ time, we might as well adopt the marketing models of the developed world. The days are not far ahead that we have to source for our own need from other countries like many of the fruits and vegetables like apples we do now.

Nevertheless, India enjoys several advantages in being a fruit exporter. Nearness to the gulf countries where fruits cannot be grown puts India in an advantageous position. Also, Indian climate is very much for year round growing and exporting of fruits all over the world. Fruits like Pomegranate can be grown throughout the year and their unique taste and colour with bright red arils and skin has earned the reputation of being the best in the world. The production cost is comparatively lesser. India enjoys better scope for air shipment to Europe & Asia and the volume can be tripled within 5 years period.

Contract farming can give better chances in increasing the flow of commodities to the international market. However, there is no contract farming in India in its true sense, except in Gherkin and in some cases with vegetables. All other farming modes are either pseudo or partial contract farming mode. Contract farming in its true sense has huge potential for both farmers and companies in India but almost impossible to implement at the ground level for majority of the crops except very few.

The world is going to be very tough in the days to come regarding pesticides level. We have started getting higher and higher level norms every year on exportable fruits and vegetables from the importing countries along with temporary ban for not meeting the standards. We have to develop new molecules which would be equally be effective for pest and disease control on fresh fruits and vegetables but while harvesting there would be no residue level. Many companies have started working in those areas and also getting successful.

Apart from this India should concentrate on grading, sorting and branding. India is at its nascent phase for all of these activities. Regional players focusing majorly to urban markets have started getting success nowadays but their volume is negligible. We will be able to see national players within next 3-5 years working with sorting, grading and branding in different fruits and vegetables.

Government policies also influences agriculture marketing. For instance, demonetization has surely hit the fresh fruits and vegetables sectors largely in domestic front due to its nature with cash transaction. The government should come out with policies supporting the new age entrepreneurs who contribute much more on the job creation and can be largely scalable and sustainable”.

Agri exports are good avenues for increased incomes. A report prepared by a not-for-profit organization, Center for Environment and Agriculture (Centegro) emphasizes the need to raise India’s share in global agri exports to increase farmers’ income automatically. The report was prepared in association with experts from Tata Strategic Management Group. The report stresses the need to quadruple India’s agri and allied exports by 2022, if the farmers’ income has to be doubled. Incidentally there is enough space for India to attract a fair share of global market space. The World Trade Organisation (WTO) estimates global export in agricultural products at over $1,500 billion annually of which India’s share stands at less than $35 billion. By participating in the international market, India can efficiently handle excess production thereby preventing fall in domestic prices.

The tapering trade deficit is a worrying trend and shows the unhealthy trend that India is espousing for short term gains. Experts aver that to double farmers’ income by 2022, our strategy should be to increase consumption in the domestic and foreign markets. The domestic consumption, however, is robust considering the increasing population and improving living standards. Our focus should be to develop foreign markets and increase our share in the international market. Once a wider market is established, farmers are motivated to increase their production by resorting to better inputs and technology. The government should encourage exports and hence devise policies that would enable them to do so.

Agriculture marketing is today one of the most important agriculture operations. Minimizing the length between the farm and fork is an ideal solution for increasing farmers’ income and assuring consumers’ satisfaction. With suitable support from logistics and cold chain sectors, agriculture marketing can enhance the income prospects of the Indian farmers.
‘MODERN RETAIL - A CATALYST TO MODERNIZE THE PERISHABLE SUPPLY CHAIN IN INDIA’

bigbasket.com (Innovative Retail Concepts Private Limited) is India’s largest online food and grocery store. With over 18,000 products and over a 1000 brands they deal with fresh Fruits and Vegetables, Rice and Dals, Spices and Seasonings, Packaged products, Beverages, Personal care products, Meats etc. bigbasket.com provides an easy relaxed way of browsing and shopping for groceries as against the drudgery of grocery shopping. With headquarters in Bengaluru, they have broken the myth that that e-commerce will not work for FMCG. They have grown slowly and steadily, with negligible discounts and a strong business model. BigBasket today boasts of over four million registered customers, 2.5 million transacting customers and sales of Rs 150 crore per month. BigBasket is today present in over 25 cities, and is shifting focus from further expansion to deeper penetration. Of the revenue, touching close to Rs 1,800 crore, fruits and vegetables contribute 18 percent, BigBasket staples contribute to 15 percent, branded staples 20 percent and FMCG 45 percent. In an interview with Agriculture Today, Vipul Mittal, Head Fruits & Vegs, Bigbasket.com discusses the agri-marketing scene prevailing in India and how ammendments can be made to the existing situation.

How has the retail chains changed the Indian marketing scene for perishables?
Modern retail – both online as well as offline has been a catalyst to modernize the perishable supply chain in India. These businesses being large & consumer facing, demand consistency in quality for their fresh produce. Thus, the supply chains fulfilling these retailers are evolving in terms of post harvest management, cold chain as well as packaging to meet the demands of the modern consumer. They have expanded the geography as well as season for many of the perishables, by bringing in the power of aggregation as well as technological intervention. The layout of modern stores have also helped in expanding the consumer offerings as it allows the consumer to make wider choice of assortment & experiment with newer cuisines. The phenomenal growth of kiwi, Thai Guava & Dragon Fruit, in recent times is a case in point. This is opening new avenues for farmers as well to focus on crops which hitherto were grown only on the ‘fringes’.

How have the retail chains benefited the farmers in getting better returns?
The retail chain help in aggregation of demand. Thus, it lends itself to the opportunity of ‘dis intermediation’. This brings its own price advantages for the farmers. Also, as most of these organized trade is through employees, they rely on established processes which hinge on transparency. The discretion in price fixing is reduced to the minimum possible. There is also larger transparency around weighing & payments.
Has the arrival of retails diminished the importance of APMCs in India? Do you think they are a viable model for Indian farmers today?

Not at all. The volume handled by the APMCs is still much larger as compared to the total modern retail put together. Thus, it still remains the most credible place for price discovery. The solution to my mind is to modernize & Professionalise the Mandis. They should be run as corporates rather than elected political institutions.

What role can private sector play in improving the marketing prospects of Indian agriculture?

Any credible difference can be made by a private sector, only if it has volumes on its side. Until & unless any organization has the wherewithal of selling a huge volume of any commodity, it cannot make any measurable difference. Hence, we cannot do away with the role of an honest market regulator in a market as fragmented as in India. At present, we see a clear lack of such regulator with muscle to intervene at the right time in the market to keep the prices within a band. The modern retail sector surely shall make the difference, but that may not be immediately large. However, further doing away with APMC laws which restrict competition may be a good idea.

What are the challenges involved in procurement of perishables from farmers?

The Quality standards need to be well defined and the farmers need to be trained to segregate the stocks accordingly. Lack of this, coupled with Price discovery mechanism is the biggest challenge. Then comes the lack of sorting & grading facilities. The packaging & transportation from the farm gate are the other big challenges we have.

How marketing can be structured to manage glut in the market?

Use of Information technology is the best bet to tide over the glut situations in the market & to prevent the same. Modern data connectivity should be used to capture the real time data on sowing as well as harvesting. This should throw more accurate forecast of harvest and market arrivals. Also this would help smoothen the geographical arbitrage & treat the entire nation as one ‘Mandi’.

What are the prospects of e marketing in agriculture?

E-marketing is the future. As the smart phone and data connectivity penetrates through the hinterland in India, we would see the farmer utilizing it more and more. There are enough and more possibilities for input marketing to the farmers, knowledge dissemination and as well as marketing its output. However, establishing standards for quality and packaging shall be the key.

How much importance do the private sector lay on GAP and certifications?

GAP and certifications shall create the next level of product differentiation and market segmentation. This shall be utilized by the leading businesses which have a consumer centric business to create value addition for the discerning consumers. However, ‘Safe food’ should be a must and not an exception, which only a few can afford. We need to move in a direction where all the perishable food sold in India is SAFE – whether residue free, organic, Gap, or any other definition.

What are the policy changes that you expect to see in the sector of agriculture marketing?

The government needs to focus on maintaining a healthy growth in prices year after year for the farmers. Our over concern on inflation is detrimental to the farmer’s interest. The zealous argument of productivity enhancement, which is also detrimental to the environment, may not hold. The solution is to strike a balance. ‘MIO – Market intervention operations’ are a good way to solve this as has been shown in case of Milk & Edible oils. It ensures a remunerative price for the farmer & ensures affordable prices for the consumers. We need committed transparent autonomous bodies to make this successful as against the current conventional wisdom of ‘privatization’.
‘NEED OF THE HOUR IS PROACTIVE AGRI MARKETING POLICIES INSTEAD OF REACTIVE RESPONSES’

A joint venture incorporated in January 1999 between Adani Group, the leaders in International trading & Private Infrastructure with businesses in key industry verticals - resources, logistics and energy, Adani Wilmar Limited (AWL) was incorporated with a vision to be a global admired leader in integrated agri-business. Living up to this vision, the group has the largest portfolio of brands in the Indian edible oil industry. Adani Wilmar has a range of premium edible oils, vanaspati, packed basmati rice, pulses, soya chunks and also the first national brand in besan. It also has a range of customized specialty fats for institutional customers. The product portfolio of Adani Wilmar spans under various brands such as - Fortune, King’s, Bullet, Raag, Avsar, Pilaf, Jubilee, A-Kote, Fryola, Alpha and Aadhaar. Recognized as one of Asia’s ‘Most Admired Brands & Business Leaders’ 2015-16, Adani Wilmar continues to excel in all its businesses. In an interview with Agriculture Today, Mr. Atul Chaturvedi, CEO AgriBiz, Adani Wilmar, discusses the scenario of agriculture marketing and his suggestions to improve the same.

How has Indian agricultural markets evolved over the past decade?
The development of Indian Agri markets in the last decade has been very lopsided. On one side, our dependence on Agri imports has sky rocketed and on the other we continue to produce wheat and rice in excess of our requirements thus choking our storage and logistics systems. MSP induced production as opposed to demand driven has skewed our Agri Markets. It is a pity that our country now imports more than 15 million tonnes of Edible oils and about 6 million tonnes of pulses. Lack of organised development of Agri marketing has resulted in highly erratic price behavior in case of mass consumed items like pulses, onions and potato. Couple of years back the prices of these commodities went through the roof and once farmers responded by higher production prices collapsed to such an extent that in many areas farmers took to streets. It is a pity that even when our country suffers from excess production of any commodity we are still saddled with ESSENTIAL Commodities Act which inhibits stocking by private trade. It would not be wrong to say that ECA has been one of the biggest culprits in choking orderly development of our Agri markets. Need of the hour is Proactive Agri Marketing policies instead of Reactive responses. It would be better if policies were framed taking help of domain experts. We can start by burying ECA so deep that it does not rear its ugly head again.

Is the presence of APMCs relevant in today’s India? Should it be revamped or replaced by another body?
APMC had a role to play in the past when our markets were very immature and flow of information was restricted. Stories of gullible farmers being cheated by unscrupulous traders were quite common. With communication revolution and spread of internet it is well-nigh impossible to dupe our peasants. In my view APMC in its present avatar has long crossed the
SELL BY date. Some progress has been made in the case of fruits and vegetables marketing in some States. Our Political masters would not like to easily give up the power which it gives them at the local Mandi level. My suggestion would be to give the option of using Mandi Yard, or not, to the farmers. If they feel it makes sense to sell through market yards they will do so or else they will sell directly to consumers. This will also ensure that either Mandis will shape up or will eventually shape out.

**What role can private sector play to improve the marketing prospects of Indian agriculture?**

Private Sector can definitely play a very important role in improving marketing prospects of Indian Agricultural produce. However, to make private sector seriously interested in investing we have to do away with laws like ECA, Storage Control Orders etc. You cannot expect Private Sector to play a big role with their hands tied and Inspectors with unlimited powers breathing down their neck. In times of excess production only private sector can help in marketing by stocking the extra production. If we do not involve Private trade it would be well-nigh impossible for government to defend MSP. Ease of doing business without fear or favour of Inspectors is the need of the hour.

**What are the prospects of e marketing in agriculture?**

Honestly speaking I am not a great believer in E marketing of Agri Produce at this point in time. To me it is still work in progress and it would be years before we see serious action in E marketing. In Indian context where the average land holding is the size of a kitchen garden talking about E marketing to be a game changer seems a little premature. Unless we are able to consolidate our land holdings and bring in large scale farming the success of these initiatives would remain in doubt. One of the suggestions currently doing the rounds in policy making circles is land leasing concept. We welcome this as this will allow consolidation without the farmer loosing ownership of land. This will be politically acceptable as well.

**How can GAP and certifications improve the income prospects of Indian farmers? How relevant and practical is it in India?**

Certification is a desirable process as it helps bring in best practices. To start with it would be more relevant for export oriented commodities as international consumers are willing to pay premium. Indian consumer is also changing but at a much slower pace. Certification can get real recognition if it can help in product differentiation to the naked eye. Indian consumer is very smart and would be willing to pay more for quality product.

**How significant is value addition in increasing the income of farmers and avoiding instances of glut in the market?**

Increasing value addition would definitely go a long way in improving farmer’s income. However, to attract Food Processors we should have long term policies and refrain from knee jerk reactions. Value addition in our country is woefully low at around 7% and we have a long way to go. Developing a robust Cold Chain is the need of the hour. Suitably incentivizing Cold Chain development should be pursued. As part of ease of doing business government should ensure release of subsidies timely to ensure projects don’t go belly up.

**How are your thoughts on National agricultural market?**

National Agricultural Market is a good idea – more so after implementation of GST. However, this should wait till such time our much needed marketing reforms are not undertaken. With 19th century laws, like ECA, APMC etc. still in place, talking about National marketing looks a little premature. Our Policy makers should focus on bringing required changes in our Agri Marketing Policies to usher ease of doing business or else our Prime Minister’s dream of doubling farmer’s income by 2022 would just remain a dream.
After completing a successful fifteen years with the Indian Air force as air traffic controller, Raju Narsimhan’s stint with the petrochemical industry took him to the Middle East. In his capacity as a senior deputy manager for an oil and gas company he had to spend days at a stretch on an oil rig, cut off from any communication to the mainland. During one of those long stagnant days, the middle aged engineer from Tamil Nadu took a long hard look at his career and his family’s future. Shortly thereafter, he was in his homeland Tamil Nadu, planting alphonso mangoes in his 50 acre farm in Pudukkottai district about 300 km from Chennai.

The stretch of land where Renuka Farm today stands used to be largely a cashew nut plantation. After two years of landfilling, leveling, setting up 400 feet bore well and a drip irrigation system, he started off by planting alphonso mango trees on 42 acres. When asked why he chose mango as his first crop considering they take 8-10 years to yield, he said “but they’ll keep yielding long after I’m gone. A mango tree typically yields for sixty to seventy years. I’m not farming just for myself but for my children and grandchildren and their children too. Moreover mango yields good fortune with just about four months of toil.”

However, along with the mango trees he started growing inter-crops of watermelons and in about eighty days he reaped 20,000 kilograms of watermelon with sizes going up to 36 kilo for one fruit. In the remaining 8 acres he started planting bananas, murungas, vegetables and set up his own driers to prevent wastage. Presently he sells his produce in Bengaluru, Kochi and Trivandrum.

**Quality and fair practice are supreme**

Raju Narsimhan believes, in order for the Indian farmer to reach out to the global market, special attention needs to be paid to quality and fair agricultural practices. His global G.A.P certification ensures he maintains proper quality when it comes to his crops and proper safety and hygiene measures for his farm lands and gives him the option to sell his produce globally. Raju Narsimhan claims that during his stint in the middle-east he learnt quality is supreme. “One must maintain quality in order to ensure market for the produce.”

The largely automated and mechanized Renuka Farm requires only six local farm labours who are provided with all necessary farm tools like gloves and masks and are provided with proper financial benefits and bonus. Though he hasn’t started exporting any of his produce he assures us the quality of his produce is export class.

In his eagerness to spread awareness among local farmers about global G.A.P certification and quality control, he has been training local farmers and agriculture students on the various technical, official and operational aspects of the certification. Students from nearby institutes get a first-hand demonstration on farming techniques and farm machinery.

The fully mechanized drip irrigation system at Renuka farm ensures minimal water wastage even though his bore well goes down well below the water table to 400 feet. Besides, it is a fully organic farm devoid of chemical pesticides and genetically modified seeds. The wind barriers like mahogany, red sanders, Burma teaks, rosewood planted along the border of the farm have also attracted many birds to his farm. Narsimhan also believes in integrated farming as a sustainable model and rears a herd of sheep and cows in his farm. The cow dung and urine goes into his field as organic fertilizers. Going forward, he plans to set up ripening chambers and cold storage to minimize post-harvest wastage.

Raju Narsimhan believes, good economic returns in agriculture can be achieved by changing the labor-intensive industry into a mechanized one. He envisions training future farmers in the tricks of the trade and intends to lure the younger generation into the farming business. He was awarded the Progressive Farmers Award from Tamil Nadu by the All India Farmers Alliance in December 2017.
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Superfoods Peru

Peru is one of the most biodiverse countries on the planet. This has allowed it to become the land of the “Superfoods”, since many of these crops have their origins in Peru, while others have successfully adapted to local conditions, obtaining excellent levels of quality. “Superfoods Peru” is a campaign that seeks to position those Peruvian foods which have the characteristics of being 100% natural and have an extraordinary concentration of nutrients (vitamins, minerals, proteins and carbohydrates), boosting the physical and mental performance of those who consume them. Some superfoods have functional characteristics, thanks to the presence of phytochemicals and antioxidants. In this sense, apart from being nutritive, these have a beneficial effect on health, preventing the risk of chronic diseases. They also have nutraceutical properties (nutritional and pharmaceutical), with active biological properties that can be used in the pharmaceutical industry and be ingested as a food supplement.

“Superfoods Peru” are part of the food revolution as well as the evolution of dietary habits which go towards a worldwide quality therapeutic nutrition. Peru has a wide variety of foods promoted under the brand, “Superfoods Peru”. Some of them are: quinoa, maca, yacón, amaranth, amazon nuts, carob, sachainchi, giant corn from Cusco, purple corn, camucamu, custard apple, soursop, lucuma, mangoes, grapes, mandarins, anchovies, as well as, blueberries, avocado, pomegranate and chocolates, which also have the advantage to be produced under organic conditions.

Maca (Lepidiummeyenii) known as the “Peruvian ginseng”, is a hypocotyl from the Andes of Peru which grows in the hardest conditions at more than 4000 meter above sea level. It was domesticated since pre-Columbian times, and during the empire of the Incas it was already considered a superfood used to feed the soldiers granting them energy and vitality during long and strenuous military campaigns. There exist enough scientific evidence supporting its high nutritional content, whereby many beneficial properties to health are attributed. It is a powerful energizer that contributes to increase physical strength in athletes and bodybuilders, and because of its high content of iron and vitamin B complex (B1, B2 and B12), it is recommended for anemic patients and those who need to strengthen the immune system. Likewise, since it improves memory and concentration, it is helpful for students in reducing fatigue and stress. It is considered an adaptogen food. Thanks to its high content of sterols, it is effective in reducing cholesterol. The polysaccharides present in maca have antioxidant activity inhibiting free radicals, being a
food with anti-carcinogenic properties and cyto-protective. The red variety of maca presents activity against benign prostatic hyperplasia. It also has aphrodisiac properties increasing libido in both men and women and improving fertility. For women it is a regulator of menstrual and menopausal pains and its action against experimentally induced osteoporosis has been demonstrated. Maca flour can be consumed directly with beverages such as yogurt and smoothies, as well as in bakery industry, for cakes, cookies and breads. It can be also consumed by all ages in capsules as a vitamin supplement of the daily diet.

The Purple corn is one of the many varieties of corn found in Peru and is used as food since pre-Hispanic times. Its purple color is due to a phytochemical substance called anthocyanin which possess extraordinary pharmacological and therapeutic properties. These anthocyanins has anti-inflammatory effects and protective action of the cardiovascular system, stimulating the regeneration of the connective tissue and promoting the formation of collagen in the organism. Precisely this anti-inflammatory activity counteracts the development of obesity. Studies support that purple corn has anticancer and antitumor effect, mainly by reducing the risk of colon cancer. Also it has antioxidant polyphenols with effect in the inhibition of enzymes that produce free radicals, slowing cell aging. Consumption of purple corn juice, obtained by boiling purple corn with water and fruits such as pineapple, apple, cinnamon and clove, is recommended for persons with arterial hypertension since it decreases high blood pressure. Additionally, it is suggested that it can prevent the development of diabetic nephropathy. In addition to this, it improves visual acuity and night vision. Purple corn is useful in the food industry as an alternative to artificial colorants, and is used to make desserts and juices.

Sachalnchi (Plukenetia volubilis), commonly named “Inca peanut” is an oilseed native from the Amazon of Peru. From these seeds is extracted a natural oil with high content of unsaturated fatty acids (mainly omega 3, but also omega 6 and 9), even higher than olive oil. Its main contribution to health is through the increase of “good cholesterol (HDL)” which reduces the levels of “bad cholesterol (LDL)” and triglycerides of the bloodstream by transporting them to the liver for its metabolism, thus avoiding arterial saturation and reducing the risk of coronary heart diseases, metabolic syndrome and arteriosclerosis. It is exceptionally rich in vitamins A and E (alpha-tocopherol) beneficial for the skin and hair care and antioxidant activity with anti-aging effect. Sachalnchi seeds contain a high percentage of digestible proteins (33%) and are rich in essential amino acids, except leucine and lysine. It has polyphenols with antioxidant, vaso-relaxing, anti-inflammatory and anticancer activity. Sachalnchi oil has great potential for application in the food industry as well as cosmetics. Sachalnchi oil can be consumed in the kitchen instead of olive oil for salads. Alternatively, spoonful of Sachalnchi oil can be taken at fasting or 5 toasted seeds can be consumed every morning. Consumption in soft capsules is also possible.
Quinoa (Chenopodium quinoa) is a pseudocereal, named “the mother of all grains” because of its extraordinary nutritional profile. With a high protein content of around 17%, it has 16 amino acids, 8 of them are essential amino acids which organisms cannot synthesize and needs to be incorporated from food. Quinoa is the richest source of vegetable protein. It is an ideal food for athletes because of the large amount of minerals (calcium, iron, magnesium, etc.), vitamins (riboflavin and folic acid), complex carbohydrates and proteins previously mentioned. It is highly recommended for celiac patients since it is naturally gluten free and because its low glycemic index is ideal for people with diabetes. It also has omega 6 and omega 3 fatty acids contributing to improve the lipid profile. Being high in fiber, its consumption is ideal to lose weight and combat constipation. The high plateau of Peru is the center of origin of quinoa with more than 3000 ecotypes. Thanks to this great diversity and a work of genetic improvement, commercial varieties with special characteristics have been obtained. Being Peruvian, quinoa is recognized for its superior quality (greater size of the grain, true white color, low content of saponins and higher protein content), which is why it is considered a Premium product.

Hass avocado, is a variety characterized for its creamy texture and buttery taste. Contrary to popular belief, avocado is a fruit rich in healthy fats (monounsaturated and polyunsaturated) which are associated with positive effects on health, helping to reduce blood cholesterol by protecting the cardiovascular system. Avocados are rich in phytosterols which are structurally similar to the cholesterol molecule and its effect is reducing the absorption of cholesterol in the intestine and its movement towards the blood. It also contains high levels of potassium (more than bananas) which is important in the organism controlling blood pressure. Avocados are rich in Vitamin A and very high content of lutein which is an antioxidant carotenoid which helps to protect against eye diseases such as cataracts and macular degenerations that cause blindness in elderly people. They are also rich in folate which is very important during pregnancy as it contributes to the growth of the fetus and folic acid which reduces the risk of birth defects. In addition to this, they are rich in antioxidants such as alpha and beta carotene, protecting cells from aging. It is rich in fiber reducing hunger and promoting intestinal transit. Try "Hass avocado” with bread at breakfast and every day with salads at lunch time.
Inviting all the Govt., Semi Govt., PSUs and Private Sector Organisations/ Companies to hire/lease godowns for storage of food grains, fertilizers and other notified commodities.

Jawahar Prasad, MD

Introduction: - Bihar State Warehousing Corporation is an undertaking of Bihar Govt. and a sister concern of Central Warehousing Corporation. It has been established under the Warehousing Act – 1962.

Function: - BSWC constructs Warehouses/godowns based on modern scientific design and methods. BSWC provides the scientific storage of food grains, fertilizers and notified commodities at the authorised and approved Govt. rates. BSWC also deals with the transport and handling work as per the customer convenience by its own registered transport & handling agents who are appointed through e-tendering process on the basis of CVC guidelines.

Opportunity: - BSWC operates in Bihar & Jharkhand both the states which headquarter is situated in Patna. BSWC running its operations in more than 49 locations which provide a large network through its own channel of employees, godowns and transport & handling agents.

Facilities: - BSWC provides all the related facilities for the scientific storage like – Moisture Meter, Fire Extinguisher, Weigh Bridge etc.

We also provide godowns to the customer on demand basis but at our own standard terms and conditions.

Contact: - For any Query Please Contact Divisional Manager (Business)
Mob: 9470945622
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Mr. Varun Khurana, CEO and Mr. Prashant Jain, COO while managing the supply chain at Grofers for procuring fruits and vegetables from the mandi and then distributing the same to dark stores, learned a great deal about Mandi and the farmers. The duo invested a significant amount of time by visiting farms across Punjab, UP, Uttarakhand and Haryana, and became familiarized with the challenges faced by the farmers. They even attended various agri-based conferences to gain deeper knowledge and understanding of the situations faced by the farmers.

According to Varun, what intrigued the duo was that “No one was selling the farmers’ produce. There is so much effort going into enticing farmers to buy better farm machinery, fertilizers, seeds etc. However, very few people were talking about how to help farmers sell their produce.”

After online grocery delivery startup Mygreenbox was acquired by Grofers, co-founders, Mr. Varun Khurana and Mr. Prashant Jain moved on to start their second venture Crofarm Agri-products after six months of rigorous on-ground research.

**Farm to business**

Crofarm’s business credo is F2B – from Farm to Business. The startup aims to build a technology-powered supply chain that supports farmers and provides businesses with the freshest produce in the most efficient manner. Crofarm is doing a wonderful job of connecting farmers directly with consumers in a transparent manner.

The co-founding team has a strong focus on technology, which gives them an edge to make the idea work.
Online purchasing can be done by the app which can be opened on any android smartphone.

They realized that in a country like India, where 20 percent of the population is undernourished, post-harvest losses is a substantial but avoidable waste. Farmer has to take his produce to the Mandi where his fate is ultimately decided by the middle men there. He has to accept whatever price he is given, and given the perishability of his produce, there is little scope for him to take it back and figure out where else he can sell the produce.

Intending to change the way food retailers procure their produce, Crofarm help farmers take their produce to the market faster, thereby minimizing wastage. Selling produce at right price-point is a huge challenge for farmers. “We often see how farmers are forced to sell their produce at cheap prices while intermediaries hoard it and make a killing when demand soars and supply plummets and Crofarm aspires to weed out the multiple layers existing between farmer and market,” says Varun.

**Assured returns and minimal hassles**

Crofarm procures fresh fruits and vegetables from the farmers and deliver to both online ecommerce retailers like BigBasket, Grofers, FoodWorks, Reliance Retail, Metro, Big Bazaar and to offline retailers (200 + small-medium neighborhood stores in Delhi-NCR). The app works as a two-way beneficiary to farmers as firstly it offers better pricing than Mandi - their pricing are transparent, and they make sure their farmers earn more with them when compared with the Mandi. Secondly, the company also guides their farmers on produce specifications that fetch more value in the market and thirdly their digital payment methods ensure that their farmers receive full value for their produce, on time and digitally through their tech enabled system. On the other hand, the retailers also get fresh and better quality produce harvested on-demand and can enjoy the convenience of ordering via mobile app without bothering about the supply logistics. The digital payment system also saves the buyers from the hassles of handling cash.

Crofarm generates revenue from the commission it receives through the sale of the produce. Leveraging the inefficiencies in the supply chain, it is able to sell farm produce at an average gross margin of 15% - 20%. The Company has fostered a deep relationship with 10,000+ farmers across the country specializing in different farm produce and is driving volumes of more than 500 tonnes every month. As a startup, Crofarm looks forward to amendments in the startup policy to include smaller startups with lower turnover.
Which technology shall make an impact in Agri-Sector in India in 2018?

Last couple of days, I have been asked this question by many and thought to provide an in-depth view, than just talking another Jargon.

Given the maturity and early adoption of AI (artificial intelligence) in various forms and facets today in India so far, Agriculture with its inherent complexities would require sophistication solutions - even for the basic questions like: When to and What to sow? And shall reap the benefit from implementing AI.

Today, many universities also do it by limited guess work and assumptions – that is non comprehensive. Even to answer a basic question of - When to Sow What to Sow? Requires a careful consideration of 30+ different Data Sets & Parameters, going by the simple approach usually taken by most of farming communities in India:

WHAT to SOW Depends on: Feasibility of Growing(1) a Healthy Crop(2) at the Farm Location(3) and climatological conditions(4) for this season (Rabi or Kharif)(5), the average yield last time from this farm(6), immediate preceding crop(7) taken at that farm, adjoining farm usages(8), nearest market(9) and likely price(10), storage facility(11) for active shelf life(12), expected income(13), soil condition(14), nutrition requirements(15) of crop(16), likely cost of inputs(17), where inputs available(18) and lead time to fetch(19), likely diseases(20) & pest attacks(21) and where to get the advisory for crop practices(22).

WHEN to SOW Depend on: The most conducive days of the season(23) that will help in – Highest Germination(24), Healthy saplings(25) and less mortality(26), rain / irrigation availability(27), climate(28) & weather(29) conditions, availability of labor(30), equipments(31) and other inputs(32). Likely market (9) and Price (10) at the Time of Harvesting (33) and selling price expected.

This requires sophisticated systems and connection to the internet, where both human and machine/things can provide an integrated view of these parameters together at the same time, thus enabling to take a right decision. In my view, if this basic question is answered in all seriousness, it will lead to a plethora of AI applications deployed across India and bringing in the required change for Agri-Economy and Doubling Farmer’s income.

As we embark in 2018, Agriculture sector is poised to take the center stage once again driving the economy with the potential it has for consumption and production BOTH!

Artificial Intelligence (AI), in simple terms is the technology mimicking human brain for providing the right decision or recommendation for the given business situation. As the complexities increase, AI leverage Machine Learning technologies for both analyzing the huge amount of data-sets and also to validate back the output / recommendation in scenarios where is it likely be implemented. Thus enabling to provide the decision making capabilities that were not humanly possible earlier for best results.

Agriculture, being inherently complex, with many variables and dimensions to think before converging to the right outcome and decision as in above example, is the ultimate beneficiary of AI.

AI has been evolving since the day Computer was invented, it’s not something new, however the current form of Tools and Technology has been evolved to the right mix of Solutions makes it interesting that can be implemented for Commercial sustainable business now.
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‘SEED IS THE FOUNDATION OF AGRICULTURE’

Dr. Manjit Misra, a renowned academician and currently the Director of the Seed Science Center at Iowa State University, USA, the largest public seed laboratory in the world, has been leading the faculty, staff and graduate students through innovative academic courses. The Center administers the USDA National Seed Health System which is instrumental in the export of $1.2B of seed from USA each year. Dr. Misra’s true passion lies in mentoring future leaders of the seed industry for which he conceived and developed an innovative “Global Curriculum on Seed Science and Business Management” that combines science with business acumen. The curriculum is delivered online via distance technology has enrolled 104 graduate students from 21 states in USA and 11 other countries. He also developed a new graduate course on Seed Technology and Business titled “Seed Conditioning Management” and taught the course via distance education technology. Dr. Misra has relentlessly worked towards developing human capital for seeding a food-secure future. In an interaction with Agriculture Today, Dr. Misra discusses the seed sector scenario and the opportunities existing in the sector.

What is your perspective of the Indian agricultural sector?
Indian Agricultural sector has done a great job in productivity and increasing the production, certainly the science and technology. Indian scientists are of par excellence, very good scientific work is going on and India is leading in many of the technology developments. What needs to be done is, we should not only think about productivity but also about ways to improve the income of farmers. Agriculture is not just about science but also about business and we need to think about ideas to market the science. ‘Seed technology should go hand in hand with business management’. It’s not just having good seed but how we market seed. Many time crops are grown without knowing the market requirement. We have to identify market and then crops should be grown. ‘Know before you grow’.
In recent years there are so many changes which are taking place in agricultural sector and so many transformations are occurring in terms of technology and marketing of agricultural products. Is India progressing or lagging behind?

Yes, India is definitely progressing. In some parts of India, farmers are considering soil conditions and taking measurements before taking action. We need to realize that agriculture has become a global business and thus global issues have to be considered. On the technology side, India is doing really well. India can now collaborate with other countries that are lacking in technology advancement as is a two way process. Prof. MS Swaminathan and Dr Borlaug have set an example where they not only developed technology, but at the same time took the technology to the ground level to the farmers. Technology development is a need in the field of nutrients, not only for quantity of food but also quality of food.

How India can adopt and take advantage from other countries which are doing really great in the field of seed technology?

Seed is the foundation of agriculture and to have good agriculture we must have good seed. There are lots of new developments that are happening in seed technology. In many countries seed community is developing new seeds which are resistant to drought, flood, pest and pathogen, and these technologies are needed in India for seed quality improvement. Policies and regulations need consideration which will allow private companies to make best use of technology and simultaneously would have enough distribution of all kinds of good seeds either developed through any technology organic or biotech available to farmers, till the time seeds are healthy. The government needs to take a closer look at these policies and regulations if they are conducive for the distribution of seeds and for private sector. Major solution to all the problems is private and public partnership in which private companies do its part and public companies will do its share.

In recent times, India encountered crises for exporting its products to US and other countries where GM foods are labeled unlike India. Many of our consignments were returned on several occasions. How do you think Indian agriculture industry should react to the situation?

The need is to solve problems ahead of time rather than trying to solve at the port of entry. Some sort of decision making between the government and private sector of the two countries is required. Import and Export procedures should be considered where all the details are mentioned as to what should be the certifications, what should be there in the packets and what are the requirements to be fulfilled before the exporting and importing of products. Focus should be on the solution rather than problems and issues.

Where does US-India relation stands in respect to agriculture especially in seed and agriculture innovation. How can both countries benefit from each other?

US has the largest seed market both in consumption and distribution and India has good technology. There are many US companies working in India which shows good relation between the two countries. There is a need for socio-economic technology aspect to improve relation between two countries. Increased scientific exchange at academic level and collaboration at industrial levels will help both countries grow.

What are the new trends and innovation in seed technology?

Gene editing. This technology is where many things can be done with gene. Edit and delete any things in the gene with no new foreign gene introduced to the original genera. The acceptance of the technology may be different from GMO technology but it can also be used to combat drought, pest and pathogens. This technology is going to create exciting opportunities in new seed development. This technology is in the process to be commercialized and may prove to be a revolutionary technology.

How can India increase its export of improved and traditional seeds to international market?

Export of seeds from India to other countries is very low compared to other countries. To increase the export of seeds, all the policies and regulations should be fulfilled in accordance with the country which is importing the commodity. Collaboration is the key for export and import. India has tremendous opportunities to export its seeds to Africa because of similarity in soil conditions. The role of government in conserving diversity and enhancing relation and business in international market is crucial.

What are the legal challenges which the farmers and research institutions are facing for patenting new seeds?

Having some patent protection is important for innovation to happen. It is actually better to have good seeds rather than storing seeds from previous year’s crops, as its yield does not provide good quantity and quality. Legal and trade secret are ways to protect patent. There should be some incentive for innovation or else innovation will strive off.
The well-known Green Revolution (GR) technologies helped India to turn its North-western Indo-Gangetic Plains including Punjab and Haryana, into national grain bowl -- making the country not only self-sufficient but exporter of food grains. The country is proud of this accomplishment. However, over time, the GR technologies also contributed to serious ecological imbalances in the two states of Punjab and Haryana leading to decline in factor productivity; soil degradation; overexploitation of groundwater; and widespread water logging and salinity in canal irrigated areas – the two states have detailed information on affected areas by blocks and districts. Basically, farming in both the states is becoming increasingly unsustainable.

In particular, the ecological situation in Punjab and Haryana got exacerbated by excessive application of chemical fertilizers (especially urea), herbicides (Round Up) and pesticides leading to serious pollution of soils, air and water with nitrates and other harmful chemicals. The organic matter in much of the local soils has declined to a meagre 0.2 to 0.4 percent requiring heavy doses of chemical fertilizers to sustain crop productivity – with adverse impact on environment.

A range of incentives in terms of supply of low or no cost electricity (which in turn contributed to excessive use of ground water) and heavily subsidized seeds, chemical fertilizers and other inputs including farm machinery, coupled with government procurement of much of the grain produced at attractive MSPs led Punjab and Haryana give up traditional and ecologically friendly cropping system of Maize-Wheat to ecologically harmful cropping system of Rice-Wheat. In adopting rice-wheat technology, Punjab and Haryana, besides overexploiting soils and water resources, could not organize ecologically friendly disposal of millions of tonnes of rice straw that was generated annually and began burning them causing producing unacceptable levels of smog, suffocating millions of people in the two states and the nation’s capital, Delhi for extended periods during early winter. This seems to be the failure of public policy in that it did not support adequately, the development of necessary technological options and infrastructure that were necessary to process large quantities of rice straw into ecologically friendly, productive uses.

Alternatives to Rice Straw Burning
Rice straw that is currently burnt can be potentially used to increase soil fertility, as cattle feed (with some treatment), and for making industrial products such as pulp for paper, fiberboards, biodegradable utility products for households, canteens and hospitals, energy generation, and conversion to edible products such as sugar syrup and yeast production. Currently only about 10% of total rice straw is used for some of these purposes and the rest is burnt. Clearly, more research is needed on technical, financial and economic feasibility of these options, with reference to the straw of local rice varieties, and to develop suitable technologies that can be used by farmers, farmer organizations and private sector entrepreneurs, with due regard to the costs involved in collection and transportation of straw and incentives provided by the state governments. For example, the potential for mega bio-digestors at village or community levels(such as those used in Mexico) to convert appropriately treated rice straw into bio-gas and manures needs to be explored for use in India.

That said, the most desirable option for Punjab and Haryana will be to gradually do away with rice-wheat cropping system, reduce the area planted with rice and, in turn, the quantity of rice straw generated and burnt annually, involving avoidable use of scarce water resources and expensive chemical fertilizers which have an environmental foot print.

Ongoing Efforts to Cope with the Crisis
The Punjab and Haryana state governments have since initiated modest efforts to gradually move
away from green revolution technologies, especially the rice-wheat cropping system, and promote crop diversification with emphasis on horticulture and livestock to an extent.

However, this effort needs to be accelerated multifold by deploying a well-articulated strategy using a “project approach” that will systematically reverse the prevailing ecological imbalances and restructure and revitalize agriculture using principles of Conservation Agriculture (CA) to increase factor productivity; improve soil quality; promote balanced use of land, water and fertilizers; reduce pollution; and increase farmer incomes. During transition from the use of high input green revolution technologies to Conservation agriculture with a focus on diversification, there may be a need to subsidize farmers for potential loss in existing net farm incomes.

Much research has already been done by national and international institutions like ICAR and its institutes and KVKs, Punjab and Haryana Agricultural Universities, TAAS, CYMMIT/BISA, IRRI and RWC on CA technologies for large scale adoption, which need to be mainstreamed on a priority basis. This will involve massive extension efforts by the two state governments to encourage farmers adopt CA technologies. These technologies include: Laser land levelling, No-till farming including direct seeding of rice and zero till wheat with full residues; Use of Turbo seeders that eliminates residue burning; use of relay planting and so on.

Yes, there still are some constraints to widespread adoption of Conservation Agriculture, such as non-availability of suitable farm machinery including planters, seeders and harvesters especially for use by small and marginal farmers. However, ways must be found to resolve these constraints by providing necessary incentives to private sector machinery manufacturers to develop such machines.

It may take some time before small scale machines for CA-based farming become available to farmers. Meanwhile, currently available high capacity machines could be deployed for Custom Service, to enable small and marginal farmers undertake CA-based technologies without necessarily buying these expensive machines. The vicious circle of farmers not adopting CA technologies because of non-availability of smaller machines or custom service must be broken.

**Recent GOI Initiatives**

Some of the recently launched GOI initiatives including issue of Soil Health Cards to farmers along with recommendations for improved soil management, introduction of Neem Urea, and emphasis on Paramparagat Krishi Vikas Yojana may encourage farmers to diversify and reduce area under rice but this will not happen aggressively if the ongoing, regressive, incentive framework of polluting green revolution technologies continues. This involves major changes in existing subsidy schemes such that available funds are redirected from supporting polluting GR technologies to CA technologies.

**Project Approach to Address Crisis**

A “project approach” should be implemented on an area basis, covering one or more villages going up to Tehsil and eventually covering the two states in their entirety. These projects will be designed to bring about a paradigm shift in Punjab and Haryana’s cropping systems using diverse CA technologies that have potential for sustainable, climate smart development. Typically, a series of area-based projects will include the following components: (a) Community Awareness & Capacity Building; (b) Implementation of CA-based, climate-smart, technology packages on individual or groups of farms; (c) Policy, Program and Institutional Reforms; (d) Organization & Management that will implement the project efficiently and (e) Monitoring & Evaluation to ensure that intended project objectives and results are indeed accomplished.

The paradigm shift in terms of restructuring and rehabilitation of Punjab and Haryana agriculture on a sustainable, climate-smart basis, cannot be accomplished without building awareness and capacity of local communities to adopt CA-based technologies. This should be done through village level meetings, focus groups and forums established in conjunction with local gram-panchayats and community representatives besides using other media such as TV shows and messaging using cell phones.

On the investment side, the proposed project approach could finance a range of location-specific investments using participatory resource mapping concepts and technical plans accepted by local agricultural communities. This involves identifying and addressing major constraints to production and productivity improvement using CA technologies, while ensuring natural resource conservation and continuing use of climate change adaptation and mitigation measures.

Constraints to productive agriculture are diverse including soil erosion, low soil fertility and organic matter content; faulty or inefficient land tillage practices; uncertain, erratic and unevenly distributed rainfall; lack of access to supplementary ground or surface...
water; lack of water use planning; use of inefficient or traditional crop varieties and cultivation; imbalance fertilizer application; use of inefficient machines; the lack of proper harvesting techniques and inefficient storage practices.

The implementation of the proposed “project approach” to restructuring and rehabilitation of agriculture in Punjab and Haryana will need deep commitment of, and coordination and convergence among various GOI and state government agencies; participation of both national and international financial institutions; and last but not the least, of farmers and farmer organizations.

Among the national agencies, NABARD with its affiliate banking system will need to play an important role in area-based project preparation, funding, and implementation, while international agencies such as the World Bank/IDA, ADB and Shanghai-based New Development Bank (BRICS) and some bilateral donors such as Canada, Australia and Japan will need to be invited to provide much needed longer-term finance at concessional rates.

The proposed project approach will focus on addressing policy, program and institutional aspects of mainstreaming Conservation Agriculture (CA) in the following key areas: Farming systems; Soil and nutrient management including zero/minimum tillage and land leveling; Balanced use of fertilizers and crop protection (including use of bio-fertilizers and bio-pesticides); Water/moisture management; Farm mechanization, especially introduction of machines needed for ZT/MT and laser land leveling; Value addition, credit, marketing, and institutional policies, products and service delivery to farmers; District level planning and budgeting; and Research & Extension.

Additionally, the proposed “project approach” to be successful, will require policy reforms in areas of MSP setting and administration; procurement, storage and distribution of grains and other agricultural commodities; and development of market infrastructure that is owned and managed, on a fee basis, by farmers to prevent or reduce farmer exploitation by traders and commission agents as we see in APMC-managed markets.

**What can be done?**

Focus should be on rationalization and greater decentralization of MSP-based procurement of grains across all states of India and using MSPs primarily as a measure of price stabilization so that market prices remain remunerative to farmers and affordable to consumers, while ensuring that the MSP regime does not promote unsustainable cropping systems. Of course, there is a need to provide appropriate social safety nets to farmers affected by crop failures and other natural disasters taking account of risks covered by prevailing crop insurance programs.

Any indiscriminate use of MSPs, as national and international experience suggests, not only distorts but destroys the market -- leading to off-market transactions that exacerbate both producers and consumers, with adverse impact on food security including nutrition. Using MSP as a universal price guarantee for all commodities and for all farmers across the country, and not as a price stabilization tool, is generally an unsustainable proposition that no fiscally-responsible government would ever undertake!

**Proposed Follow Up**

To address agricultural and environment crises in Punjab and Haryana, the following agenda can be pursued:

- Collaborate with GOI Ministries, NITI Aayog, state governments of Punjab and Haryana and their agencies, national agencies like ICAR, RBI, NABARD and its affiliate banking system, FCI, ICFA and a range of technical institutes dealing with agriculture, agricultural waste utilization technologies and environment to facilitate development of appropriate mix of strategies, policies, technologies, projects and programs for transforming agriculture and addressing agricultural pollution issues in the two states;
- Interact with international agencies like the World Bank, ADB, and NDB to explore how their lending and TA programs in India could increasingly focus on addressing agricultural/environmental crises in Punjab and Haryana and introducing Conservation Agriculture across the country, as an approach to restructuring and revitalization of local agriculture, containing agricultural pollution and promoting diverse uses for millions of tonnes rice straw that is burnt annually in the two states, and with UN agencies, as to how they can help address serious health issues faced by the people in Punjab and Haryana;
- Working with NABARD on:
  (a) Deepening of agricultural strategy/sector analysis in NABARD’s annual state-level credit plans; (b) Expanding Term Finance/Project Finance for Conservation Agriculture, Value Chain Development and Climate Change Adaptation and Mitigation; (c) Review and Reform of Risk Management in Agriculture and Rural Finance; and (d) Using RIDF to support Conservation Agriculture, especially in Punjab and Haryana.
- In conjunction with NABARD and state governments of Punjab and Haryana, develop pilot projects to demonstrate the potential for restructuring of rice-wheat cropping system by a CA-based, diversified cropping system and promoting diverse use of rice straw instead of burning and create appropriate models for mainstreaming the project approach.

**Ramesh Deshpande**

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Of late there have been innumerable expressions and very articulate views on Pollution, Health and Soils. Seemingly unconnected aspects, nevertheless all are segments of a single, whole and larger picture. They are intertwined inextricably and when so seen could make the individual sit up and take notice of what may or may not be ones’ contribution in complementing the issue positively or negatively. That we are complicit and yet at the same time have potential to become change agents is a fact.

What could the possible role of farmers be in this, is of immense ramifications, as individually they can do and also undo the complex paradigm thus far created. Am certain that all of them would see and come to accept that goals of industrial food processing are quite different and not usually about human health, sustainability or anything close to that, but almost all the time about profits!

The question that goes begging will be / is that, should the farmers farm differently to lessen aspects of pollution, increase that for human health, treat soils as a national asset? In that scenario, how well would they be compensated by the consumers? Hence many and most, if not all, must veer around to look differently at the imperceptibly ever changing scenario and from which none can for long stay isolated, but be at risk of being written down in History as an age when scant regard was paid to future generations.

Carbon sequestration basics suggest that if one were to dehydrate plant biomass, one would find that, on an average 50 percent of the weight is carbon. This extrapolated by further findings implies that agricultural carbon sequestration involves removing the excess carbon from the atmosphere and storing it in the soil organic matter and in above ground biomass of long lived trees and plants (perennials). This natural cycle is a powerful tool for climate mitigation.

Plants convert atmospheric carbon dioxide, water and sunlight into carbohydrates through photosynthesis. Carbohydrates are molecules made up exclusively of carbon, hydrogen and oxygen. Also included are starches, sugars and cellulose. Polysaccharides are
molecules of a long chain of sugars, and collectively account for 70 percent or more of all living and dead organic matter on the planet....all products of photosynthesis!

Over time, some or all of the above ground and carbon rich bio mass falls to ground. About one third of this becomes long lived soil organic matter and this together with root exudates assist the soils in feeding the soil life and helps with nutrient cycling, fertility, water holding capacity, erosion mitigation, suppression of pests and diseases and other benefits...which translates into increased yields! This transfer of soil carbon through root exudates is mentioned as “liquid carbon pathway”.

Simply stated, a lot of photosynthesized carbon ends up in the soil. Such has been happening through history and the fact is that “fossil fuels” such as petroleum, coal etc., are products of those carbon reserves over ages. They are being mined and released at a rate faster than sequestration and is a leading cause of the pollution levels seen now. Each tonne of soil organic carbon is equivalent to 3.67 tonnes of atmospheric carbon.

Now the role of the agriculturist is to be able to learn that farming practices sequester carbon, some much more than the others. The practice of stubble burning, widely reported in recent times as being the main source of pollution for cities in North India, are practices contrary to this suggest.

Also agricultural practices profoundly affect the mean residence time of carbon in the soil. Those practices which have a helpful effect on this kind of sequestration are perennial crops, mulching, non flooded rice, reduced tillage, managed grazing, crop and livestock integration, and continuous ground cover. In contrast, bare soils and tillage quickly release soil carbon back into the atmosphere.

Carbon farming practices retain and keep in soils the carbon sequestered for countless years. All fossil fuels in current use are a consequence of that, hence non renewable, and land use as of now is doing little to align itself to the cascading effects arising thereof.

Our use of land for living, farming and other activities make all this effectively difficult and, more so, when as individuals one is looking at policies by various Institutions and State to address them with no appeal or help asked for from individuals to do their bit too. Hence the farmers may be educated to see their contribution to general well being of the soils and equally the populace at large be made to view their contributions and to attempt alignment somewhere down the line, sooner than later.

Scary when you see that every ppm of carbon dioxide in soil is equivalent to how many tonnes of carbon!

And as findings suggest that soils in India are lowered to a carbon percentage of .40 to .50 and which spells disaster as soils weaken. 1 percent of soil organic matter is roughly 21 tonnes of carbon sequestered over a hectare. The lesson here is that you cannot sequester soil carbon with practices that degrade land! Also health problems increase as the subtle energy that comes into us through plants is reduced by weakening soils.

There is certainly a concern but which is dis-jointed in efforts to promote measures as outlined to enable things to fall in place for all round betterment. A task for all together.

Ashok Trivedi
Tea Farmer
World Book Fair 2018

The recently concluded World Book Fair 2018 was developed around an ‘environment and climate change theme’ and the theme pavilion offered 600 books both fiction as well as non-fiction addressing the various aspects of environment, pollution, climate change, global warming and so on. The fair was inaugurated by author and environmental activist Dr. Sunita Narain, European Union ambassador to India Tomasz Kozlowski, National Book Trust chairman Baldev Bhai Sharma and Madhu Ranjan Kumar, Joint Secretary, Ministry of Human Resource Development. The nine days event comprised several panel discussions, book reading and book launch sessions. Conflicts of Interest – My journey through India’s Green Movement by Dr Sunita Narain was launched on 10th January. The book charts her various experiences as an environment activist. Apart from English books in several regional languages like Hindi, Tamil, Bengali, Oriya, Telugu were presented at the fair. The Annual State of India’s Environment (SOE) 2017, published by the Centre for Science and Environment was also presented at the fair.

Dhanuka Innovative Agriculture Awards 2018

Dhanuka Agritech Limited launched the Dhanuka Innovative Agriculture Awards 2018. The company will be giving out 30 awards to individuals and institutions for bringing in innovations in farming, water harvesting, agricultural technology and extensions services. Nominations for the prizes, which include a National Farmer of the Year Award, are invited till February 28 and would be given away on March 22. The jury panel for choosing the awardees include Dr R.B. Singh, Chancellor, Central Agricultural University, Imphal.

AIFA Progressive Farmers Award

The All India Farmers Alliance & the Indian Council for Food and Agriculture awarded sixteen progressive farmers from fourteen states at an award ceremony and panel discussion held over two days at the Constitution Club of India. The event was graced by Hon’ble Minister Sri Gajendra Singh Shekhawat who stressed on the benefits of integrated farming and on the need to connect the farmer with the market and on the crucial role that technology will play to bring that concept to fruition. The event was attended by over two hundred farmers from across the country.

Mail Today Food Summit 2018

The Mail Today Food Summit organized by the Mail Today group was inaugurated by Hon’ble Minister Mrs. Harsimrat Kaur Badal, Union Minister of Food Processing Industry. Mrs. Badal stressed on the role of the food processing industry in curbing the huge amounts of wastage of food crops India sees post-harvest every season. She also promised setting up of mega food parks and cold chains across all states. Union Minister of Agriculture Sri Radha Mohan Singh, Union Minister of Consumer Affairs Sri Ram Vilas Paswan and Minister of Agriculture Uttarakhand Sri Subodh Uniyal also graced the event. Panelists from the several sessions included hoteliers and restaurateurs, celebrity gourmet chefs and bureaucrats. The summit offered interesting tips to food connoisseurs through live cooking and cocktail making sessions.
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From humble beginnings to a worker of Jan Sangh to being the Union Minister, Devaragunda Venkappa Sadananda Gowda, has come a long way. A public prosecutor turned politician, Sadananda Gowda with years of experience has emerged as a seasoned politician with a penchant towards crisis management. Content as a party worker, political aspirations never crossed his mind. Popularly known as DVS, Gowda had maintained a clean image truthful to his conscience.
Devaragunda Venkappa Sadananda Gowda, currently the Minister of Statistics and Programme Implementation in the Government of India, is a member of the 16th Lok Sabha representing the Bangalore North constituency. DVS, as he is popularly known in the political circles was also the 20th Chief Minister of Karnataka.

Born in 1953 to Venkappa Gowda and Kamala of Mandekolu Village in Sulya taluk, Karnataka, Sadananda Gowda graduated in Science from the St. Philomena College, Puttur and then went on to obtain his degree in law at Udupi Vaikunta Baliga College of Law. His student years marked the beginning of his political career. He was elected as the General Secretary of the Students Union of the Law College and subsequently became the District General Secretary of the ABVP. Although he started practising law at and served as a public prosecutor for a brief period, he resigned his job to concentrate on his political career.

During the initial years of his political career, he was associated with Jan Sangh and he was the President of the party’s Sulya Assembly segment. Following the split in the Janata Party, he became a member of the BJP. He served BJP state unit in different capacities such as Dakshina Kannada BJP Yuva Morcha President, Dakshina Kannada BJP Vice-President, State BJP Yuva Morcha Secretary (1983–88) and State BJP Secretory (2003–04). In 2004, he was elevated to the National Secretary of the party.

Sadananda Gowda was elected to the Karnataka Legislative Assembly in 1994 and 1999 from the Puttur Assembly seat in Dakshina Kannada. He became Deputy Leader of the Opposition in his second term as MLA. He has served in various committees of the Karanataka State legislature including the Cell for preparing Draft Bill on prohibiting Atrocities on Women, Karnataka, the Committee of Energy, Fuel and Power, and the Committee for Public Undertaking. He was nominated as the President of the Public Accounts Committee in 2003.

He was elected to the 14th Lok Sabha in 2004 from the Mangalore Lok Sabha seat, defeating Veerappa Moily of the Indian National Congress by a margin of 32,314 votes. He was on the Committee on Science & Technology, Environment & Forests. In the 14th Lok Sabha, he was a member of the Committee on Commerce. Government of India had appointed him as Director of Coffee Board during January 2005. In 2006, Sadananda Gowda was appointed as President of Karnataka State BJP. He earned National prominence being the President when BJP won an assembly election for the first time in South India in May 2008. He was elected to the 15th Lok Sabha from Udupi Chikmagalur Constituency before he became the Chief Minister of Karnataka. Sadananda Gowda has served in the Co-operative Movement in Karnataka in various capacities.

As Chief Minister, he introduced various schemes such as Sakaala, aimed at providing time bound services at government offices. In July 2012, he was asked to resign following party directions. On 26 May 2014, Sadananda Gowda was sworn in as a cabinet minister in Prime Minister Narendra Modi’s newly elected government. He was put in charge of the Ministry of Railways before becoming the Minister of Statistics and Programme Implementation.

In his new capacity, Sadananda Gowda is at the helm of implementing schemes. He believes in the importance of local level statistics for understanding the socio-economic reality and thereby appropriate policy formulation. In such a scenario, interaction between the Central and State Governments in a federal set up becomes very important. Policy formulation is crucial to all sectors, especially agriculture. Soil Health Card Schemes, Paramparagat Krishi VikasYojana, Pradhan Mantri Krishi Sinchai Yojana etc have all been formulated to provide solutions to the agriculture sector.

A man of impeccable record, this leader from coastal Karnataka had earned every position that he occupied. His hard work, clean image and his charming demeanor had made him an affable politician and lately minister.
“It is the responsibility of the country, of the state governments, the Union government, my responsibility that the problems faced by our farmers are understood and resolved. Some of our attempts and measures in the past have instilled confidence, especially Pradhan Mantri Fasal Bima Yojana”

NARENDRA MODI
Prime Minister

“On the front of foodgrains production, our farmers have done a commendable job, now we have to focus on increasing their income from farming. Now farmers have to look beyond conventional patterns of farming by adopting technologies like crop rotation, integrated farming, organic farming, double/triple cropping system to increase their income”

RADHA MOHAN SINGH
Union Agriculture Minister

“Oh underlining the importance of diversification of jute industry, emphasis will be given to diversification by incentivising use of jute geotextiles and promoting jute as eco-friendly fibre both in domestic and global markets”

SMRITI IRANI
Union Textiles Minister

“In rural and agriculture projects, we need government budget, but also private and public investment”

NITIN GADKARI
Union Minister for Road Transport, Highways, Shipping and Water Resources