

AMBASSADE DE FRANCE EN INDE

SERVICE ÉCONOMIQUE RÉGIONAL

Press Review

1st to 15th September 2019 (sorted by date)

n	dian Agriculture and Food Industry	3
	State food ministers meet	3
	Achieving 6 mn tonne sugar export target challenging amid subdued global prices: ICRA	4
	India's sugar stockpile threatens to drag down global prices	4
	Potato drives a price wedge between 2 major producers	5
	TERI to study impact of climate change on farm sector	6
	Health Minister stresses on right and healthy nutrition	7
	CPRI develops antioxidant rich potato variety	7
	ICAR meet to discuss Fall armyworm menace	8
	More sugar mills in Maharashtra may remain idle this year	9
	Climate change may hit banana cultivation in India	9
	Rains give kharif crop a lease of life in Marathwada	. 10
	Kochi to host India International Seafood Show after 12 years	. 11
	India's per capita water availability to decline further: ICAR	. 11
	Drop in buffalo meat exports affect the Indian dairy farmers	. 12
	Food business undergoing certification programme on hygiene and manufacturing practices und	
	Farmers' contribution will be significant in making India \$5-trillion economy: Agri Minister	. 14
	Kharif acreages as good as last year's	. 14
	FSSAI should tighten screws on adulterated coconut oil in Kerala	. 15
	Oilmeal exports plunge 73 per cent in August as local prices rule high	. 15
	Paddy cultivation picks up as rains recede in Bihar, Odisha & Karnataka	. 16
	PM Narendra Modi to lay foundation of Mega Food Park at Rohtak	. 16
	Mega Food Park inaugurated in Telangana	. 17
	Soyabean output set to rise to 14 mt	. 18
	Landscape management and public-private finance to improve 20 lakh hectares of land	. 19

	SBI to offer MUDRA loans to Kerala broiler farmers	20
	Over 1000 farmers attend the National Conference on Crop Residue Management	20
	9,300 oxytocin injections seized	21
	Top agricultural scientists body rejects zero budget natural farming	21
	Poll effect: Maharashtra govt handles sugar lobby with kid gloves	22
	Trustea tag gains acceptance	23
	Asia Pacific edible insect market size to reach \$270 million by 2024	24
	Cotton Association of India maintains cotton output at 312 lakh bales in August	24
	CAI reduces India's cotton import estimates to 29 lakh bales, down by 2 lakh bales	25
	With over 711.18 LMT food grain stocks till Aug, FCI faces massive losses	27
	India records 3% surplus rainfall	28
	Govt's ethanol push to help sugar mills, oil companies	29
	RBI panel pitches for federal body like GST Council in farm sector	30
	World Bank to sanction Rs 3,000 cr for food parks: Govt	31
	How wheat can help in fight against 'hidden hunger'	32
(Sovernment Policies and Initiatives	33
	To promote desi cows, govt orders semen from Brazil	33
	PM-Kisan: Uttar Pradesh to cover 29 million farmers	34
	Mizoram govt wants to tie up with global entrepreneurs in organic movement: C Lalrinsanga	35
	Indian Sugar Mills Association welcomes rise in ethanol prices for 2019-20	35
	Central Government to invest Rs 25,000 crore in 5 years to revamp fishery infrastructure	36
	States need to set up price stabilisation funds: Ram Vilas Paswan	36
	Farmers paid Rs 700 crore for damage of cotton by whitefly in Haryana	37
	FSSAI submits guidelines on plastic ban to NGT	37
	Cutting down on sugar: FSSAI eases soluble solid norms for fruit-based drinks	38
	MoHFW kicks off nutrition campaign, Eat Right India mass media campaign	38
	FSSAI to put forth regulation limiting trans-fats through FSSR amendment	39
	60% funding for cow dung, urine startups	40
	FSSAI shelves new labelling norms after stiff resistance from industry	41
	Centre to pump in Rs 8,000 crore in J&K to boost income of farmers and traders	42
	New FSSAI bamboo guidelines bring clarity on use in spoons, fork, cups	42
	PM Modi to launch National Animal Disease Control Programme	43
	PM Modi Calls On Startups To Address Challenges In India's Dairy, Animal Husbandry Sector	44
	Govt's ethanol push to help sugar mills, oil companies	44
	Centre asks Delhi government to sell onion via ration shops, civil supplies dept at Rs 23.90/kg	45
	Giriraj's formula for double farm income: Get egg free with meat and milk	46

Ir	iternational Trade	4/
	Rice exporters get 4-month breather from Saudi norms	47
	India must look at exporting Tilapia fish to US: Kevin M Fitzsimmons	. 48
	Delhi fights to protect current, future subsidies as WTO fisheries talks near conclusion	48
	Govt imposes \$850/tonne minimum export price on onion	. 49
	RCEP: Farmers', civil society groups, unions seek more talks	50
E	nterprises	50
	Spirit-maker Pernod Ricard eyes 'low double-digit growth	50
	Walmart India plans to source 25% of fruits and vegetables from local farmers	51
	Lignin from agro-waste helps make useful nanocomposites	52
	Mahindra Summit Agrisciences launches a new product range for organic agriculture	52
	Praj's propriety technology to be used in USA's first bagasse based ethanol bio refinery	53
	Biyani's FSC to create India Food Grid, a network of 38 integrated food distribution centres	53
	Tirth Agro Tech in JV with German firm to develop root crop machines	54
	Fortum, Haryana University to make textile fibre from paddy straw	54
	INI in pact with Munger Farms to grow blueberries	55
	Cargill is looking for partners to take its starches and sweeteners products across India	56
	Cargill inaugurates first corn silo in India with investment of Rs 70 cr.	. 57

Indian Agriculture and Food Industry

State food ministers meet

Fortified rice scheme, pulses and onions supply from Central buffer stocks are some of the issues on the agenda

Business Line, Sep 01, 2019

A newly-planned scheme of fortifying rice distributed through ration shops, the recently passed Consumer Protection Act 2019, and supply of pulses and onion from Centrally-maintained buffer stocks are among the topics to be discussed at a meeting of State ministers of food, civil supplies and consumer protection, which will take place on Tuesday.

According to an official release, the fifth national consultation meeting of the State ministers is being held at a time the new consumer protection Act is notified. A pilot scheme was launched recently in 15 districts in predominantly rice-eating States to improve nutrition security by distributing fortified rice through the public distribution system. Both these issues are expected to figure prominently at the meeting, the release said.

Incidentally, the meeting was initially scheduled for early last month, but had to be cancelled due to the unavailability of Consumer Affairs, Food and Public Distribution Minister Ram Vilas Paswan.

The Consumer Protection Act 2019 is a major step forward from the 1986 Act. It proposes to establish a Central Consumer Protection Authority to deal with unfair trade practices besides paving the way for digitalisation of Consumer Commissions, enabling e-filing of complaints, mediation, product liability law and simplified procedures.

For the fortified rice scheme, the government has approved a financial outlay of ₹147.61 crore over the next three years. "The idea of keeping the cost of fortification outside the purview of the price at which the PDS rice is sold at fair price shops is to ensure that poor people would not stay away from buying fortified rice," said an official source.

The cost of rice fortification is estimated to be 60 paise per kg and it will be shared between the Centre and the States at ratio of 90:10 for the North-Eastern, hilly and island States and at the ratio of 75:25 for the rest, the source said.

Among the districts where the pilot project will be launched soon are West Godavari district in Andhra Pradesh, Bongaigaon in Assam, Narmada in Gujarat, Ernakulam in Kerala, Yadgir or Raichur in Karnataka, Gadchiroli in Maharashtra and Trichy in Tamil Nadu. Malkangiri in Odisha and Chandauli district in Uttar Pradesh.

Also on the agenda is the offtake of pulses and onion by the States from buffer stocks maintained by the Centre. As on July 11, the available stocks of pulses in the price stabilisation fund buffer is around 14 lakh tonnes. As discussed in the earlier meetings, the States can purchase pulses from this stock to meet their requirement for various welfare schemes such as mid-day meal, anganwadi scheme, hospitals and hostels for underprivileged students.

The meeting is also expected to discuss the **measures taken by States to check unreasonable increase in prices** of some food items, particularly pulses, edible oils and sugar and prevent hoarding and black-marketing.

It would also review action taken on the decisions of the last meeting of the State Food Ministers and prepare a fresh action plan to ensure the prices of all essential food items are under control, digitise public distribution and Aadhaar seeding of ration cards.

Achieving 6 mn tonne sugar export target challenging amid subdued global prices: ICRA

India is facing a glut situation in sugar owing to record production during the current 2018-19 and the previous year.

The Economic Times, Sep 02, 2019

NEW DELHI: Rating agency ICRA on Monday said it will be challenging to achieve six million tonne of sugar exports in 2019-20 marketing year starting October. "The government announced Rs 6,268-crore sugar export subsidy scheme on August 28, 2019, which is expected to help the country achieve 6 million tonne of sugar exports.

"ICRA believes achieving this volume of exports will be challenging, given the subdued global sugar prices, but even a part achievement of this target is likely to relieve some pressure from the domestic stocks, support domestic sugar prices and facilitate timely cane payments to farmers," the agency said in a statement.

India is facing a **glut situation in sugar owing to record production** during the current 2018-19 and the previous year.

In the current year, sugar output is estimated at around 33 million tonne as against the 32.3 million tonne in 2017-18. The annual domestic consumption is estimated at 26 million tonne.

Industry estimates the opening stock of sugar as on October 1, 2019 at 14.2 million tonne

India's sugar stockpile threatens to drag down global prices

The short-term oversupply is hurting the prices the most.

Business Line, Sep 02, 2019

India is dumping its extra sugar on the world, threatening to further drag down prices that are already at the lowest in almost a year.

The Centre is spending ₹6,268 crore (\$873 million) to subsidise exports to cut the nation's record stockpiles. The move is drawing ire from rival growers in Brazil and Australia, who say the policy is depressing world prices and hurting their farmers. Meanwhile, hedge funds are betting declines for futures will continue.

The subsidies are just another blow to the market that's already suffering from oversupply. A weaker currency in Brazil, the world's top producer and exporter, has encouraged a flood of shipments. Meanwhile, demand growth is slowing in developing countries over health concerns, and threats to the global economy could further hurt consumption. Even though world inventories are forecast to drop, the excess hoard is still big enough to satisfy annual consumption in India and the European Union, the top consumers.

World inventories are still pretty high, and they have been for several years, said Darwei Kung, head of commodities and portfolio manager at DWS Investment Management Americas Inc., which oversees \$2 billion.

In the week ended Aug. 27, money managers increased their net-short position by 10 per cent to 171,606 futures and options contracts, data from the U.S. Commodity Futures Trading Commission showed Friday. The figure, which measures the difference between bets on a price increase and wagers on a decline, was the most bearish since May.

The short-only holdings climbed for a fourth straight week.

India isn't the only producer adding to world supplies. Thanks to the new trade agreement struck between the U.S. and Mexico, the Latin American country is likely to push even more supplies of the sweetener onto the market.

Under the new accord, the amount of sugar Mexico can ship to the U.S. has been reduced. That comes at a time when the first country is already holding big stockpiles, and warehouses are full, said Pablo Sherwell, head of food and agribusiness research for Rabobank International. As a result, Mexico will likely try to export as much as 500,000 metric tonne into the world market to clear some storage space before the next season begins on October 1, he said.

Still, there are reasons bulls shouldn't give up hope. In Brazil, more sugar cane is being used to produce ethanol, which could cut output of the sweetener. Adverse weather can hurt harvests in other regions, and analysts at Citigroup Inc. and Rabobank International predict the market will eventually shift into deficit.

People are looking at India and thinking the outlook is not particularly constructive, said John Stansfield, an analyst with Sopex Group in London. Gradually, it will become apparent that the Indian crop will not be as big, and that the crop is also being affected in Europe by poor weather. But getting through the short-term oversupply is another matter.

Potato drives a price wedge between 2 major producers

Farmers in West Bengal have also gained from this price rise.

The Economic Times, Sep 02, 2019

Kolkata: The two leading potato producers in the country — Uttar Pradesh and West Bengal — are witnessing two very different trends in prices. While potato retailing rates have appreciated by 5-6 per cent in West Bengal over the past fortnight, the tuber has become cheaper by 11 per cent in Uttar Pradesh in the same period.

UP, the largest producer of the tuber, is facing a production glut, while West Bengal, the second largest, has witnessed a shrinkage in crop size.

The eastern state is also getting trade queries from places such as Hassan, Belgaum and Chikkamagaluru in **Karnataka, where the new potato crop has been damaged due to heavy rains**. The potato trade in West Bengal had anticipated a crop of 110-115 lakh tonnes this year due to favourable weather conditions during

cultivation in January. But heavy rains in February had affected the crop, bringing down output to 95 lakh tonnes.

"During the June–July period, prices had fallen. But in the last fortnight, prices have started moving up and there has been good offloading from the cold storages," said Patit Paban De, former president of West Bengal Cold Storage Association.

"In the upcoming festive season, we expect prices to move up by another 10 per cent. Also, demand is coming in from potato producing areas in south India where the new crop has been affected due to heavy rains recently."

Farmers in West Bengal have also gained from this price rise. They are now getting Rs 480-500 per quintal for average quality crop. Better quality crop is fetching Rs 540-550 per quintal.

But the trade in Uttar Pradesh has not been as lucky as in West Bengal. Production glut still continues to be a major concern for traders and farmers alike. "With two months left for the new season of cultivation, we have huge crop left in the cold storages," said Arvind Agarwal, secretary of Cold Storage Associations of Uttar Pradesh.

"Only 30-35 per cent of the crop loaded in the cold storages during the beginning of the new season has been offloaded. The rest is still in cold storages. Prices have fallen 11 per cent in the past 7-10 days," Agarwal added.

Uttar Pradesh produced 155 lakh tonnes of potatoes this year. Of this, 115 lakh tonnes were loaded in the cold storages.

TERI to study impact of climate change on farm sector

Business Line, Sep 02, 2019

The Energy and Resources Institute (TERI) is looking at undertaking a study on the impact of climate change and sustainability on the agriculture sector in India and come out with probable solutions to address these.

According to Ajay Mathur, Director-General of TERI, there is a **need to take a re-look at the cropping pattern adopted by various States** keeping in mind the way climate change is impacting major crops and sowing pattern.

"We are aware of the issues confronting the agricultural sector that need to be addressed and I am hoping that we would work on those," Mathur told *BusinessLine* when asked if TERI would look at studying the impact of climate change and sustainability on agriculture and cropping pattern in the country.

Mathur was speaking on the sidelines of the environment and energy conclave organised by the Bengal Chamber of Commerce and Industry in the city recently.

Farmers in dry land areas should opt for cultivation of millets which can be grown in less water rather than going in for plants like wheat and paddy which are water-intensive. However, that does not happen because the minimum support price (MSP) offered by government on crops like paddy and wheat acts as an incentive to farmers to grow more of these crops.

If there has to be a change in the cropping pattern, there needs to be change in the MSP system. A slew of other changes need to be brought in to be able to make a noticeable difference in the cropping pattern adopted by different States.

"It is our belief and it is also empirical evidence now agreed to by most agricultural economists that paddy is grown in Punjab because of MSP. Without that it will be mainly the Basmati part and nothing else, which would

solve a large part of the problem. So the changes that will occur in the agricultural pattern are not that easy and will come about because of a variety of changes. MSP is one such change," he pointed out.

Water management

Nitin Desai, Chairman, TERI, said the impact of climate change on India's agricultural sector can be "quite deep" and there is a need to undertake a great deal of research to understand how the country can cope particularly when the rainfall has become unpredictable. There are long periods of drought followed by periods of unprecedented rains. High temperature levels also pose a challenge.

"We have some major issues in India of variations in North Indian rivers due to glacier melt that will arise and then we will get much more water in early spring and much less in summer. So there is a huge challenge before us as to how do we manage agriculture. **The key would be water management** – it is strategic thing if we get that right then we can get other things right," he said.

The Centre had, in March, rolled out the PM-KUSUM scheme to encourage farmers to generate solar power in their farms and use the clean energy to replace their diesel water pumps.

"Through this programme we have a chance of managing water, managing grid electricity and giving the farmer a new source of revenue," Mathur said.

Health Minister stresses on right and healthy nutrition

Dr Harsh Vardhan addresses 72nd Session of the WHO Regional Committee for South-East Asia NuFFooDS Spectrum, Sep 03, 2019

Dr Harsh Vardhan, Union Minister of Health and Family Welfare recently inaugurated the '72nd Session of the WHO Regional Committee for South-East Asia' in New Delhi.

Stressing on the need for right and healthy nutrition, Dr Harsh Vardhan stated that the government is observing the entire month of September as "Poshan Maah" (Nutrition Month) to sensitize the public towards healthy eating, address the twin issues of malnutrition/undernutrition and problem of obesity in some sections of the population, and intensifying the campaign towards a 'Malnutrition-Free India'.

Dr Harsh Vardhan further said that unsafe food and poor diet create a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and sick. "India is passing through an epidemiological shift from communicable to non-communicable diseases, and the burden of diet-related diseases such as diabetes, hypertension, and obesity is rising rapidly. I am happy to share with you that the **Food Safety and Standards Authority of India has adopted a "food systems approach" to ensure our citizens have access to safe and healthy food,**" he elaborated. He further said that this approach judiciously combines the regulatory and capacity building measures with consumer empowerment initiatives. Citizens are being sensitized through a people's movement called 'Eat Right India'. "It's tagline, Sahi Bhojan. Behtar Jeevan' — 'Right diet leads to better quality life' depicts India's commitment to preventive and promotive healthcare as an important pillar of our health policy, he mentioned.

"I must take this opportunity to thank our Youth Icon, the cricket superstar Virat Kohli, who has helped us to launch a massive campaign. "Eat Right, Stay Fit, Tabhi India Super Fit", Dr Harsh Vardhan said. He informed that three days ago, Hon'ble Prime Minister launched the 'Fit India' Movement' coinciding with the National Sports day celebrations. This campaign aims at encouraging people to include physical activity and sports as a routine in their everyday life. This, along with Eat Right India campaign, will help us to fight lifestyle diseases like hypertension, obesity and diabetes effectively, he said.

CPRI develops antioxidant rich potato variety

The tubers are easy to cook, free from after cooking discolouration and have mealy texture NuFFooDS Spectrum, Sep 03, 2019

ICAR- Central Potato Research Institute in Shimla has developed a new antioxidant rich potato variety.

Kufri Neelkanth is a new table purpose medium maturing specialty potato cultivar released for North Indian plains. It is rich in antioxidants (anthocyanins > $100\mu g/100g$ fresh wt. & carotenoids~200 $\mu g/100g$ fresh wt.) and the average yield of the hybrid is 35-38 t/ha.

The tubers of the hybrid are dark purple black, ovoid in shape with medium deep eyes, cream flesh, good storability, medium dry matter (18%) and medium dormancy with excellent flavour. The tubers are easy to cook, free from after cooking discolouration and have mealy texture.

Potatoes are often misconceived as carbohydrate rich junk food, inferior food therefore, enrichment of potatoes by bio-fortification with antioxidants as in this case shall certainly establish its nutritional significance and popularity among the consumers.

ICAR meet to discuss Fall armyworm menace

Business Line, Sep 04, 2019

With reports of Fall armyworm (FAW) infestation keeping farmers worried in different States, the Indian Council of Agricultural Research (ICAR) has asked States to improve capabilities of their agricultural departments to identify the problem and initiate mitigation measures.

Meet in Delhi

"We have convened a meeting with representatives of international agencies in Delhi that are already working on the issue in Africa. Taking their inputs, we have developed a strategy on how to tackle the issue," Trilochan Mohapatra, Secretary, Department of Agricultural Research and Education (Union Ministry of Agriculture), and Director-General of ICAR, has said.

"We have sent the States the details of the strategy and advisory on how to tackle this pest," he said. "Since it is a new pest, natural enemies such as Beauveria (fungus) have already started working in controlling FAW. We have also identified 6-7 chemical pesticides that can be used."

Keeping tabs

"We have decided **to go for large-scale monitoring and surveillance**. We have asked the States to monitor the situation closely as the pest can fly very fast to long distances and can cause extensive damage. Unless we know where it is and how it is spreading, it will be tough to keep tabs on it," he added.

Mohapatra was here in connection the Foundation Day celebrations of National Academy of Agricultural Research Management (NAARM), an ICAR organisation, on Sunday.

On HT Bt (herbicide tolerant) cotton, he warned the farmers not go for the untested seed. "It has not been given permission. It has not been tested. If they grow something that is not tested and later found to be unsuitable for them, they will be in trouble," he said.

Straw burning issue

Mohapatra claimed that efforts by the ICAR resulted in the reduction of at least 40-50 per cent in the amount of straw burned in Punjab, Uttar Pradesh and Haryana.

"Machinery is being used to shred the straw that can be ploughed back into the soil, enriching it," he said.

Pink bollworm

He said farmers in Gujarat had succeeded in controlling the pink bollworm using NPM (non-pesticide management) methods in the last season. "In Maharashtra, there were implementation problems last year. Otherwise, it was largely managed well," he said.

The ICAR DG launched a new edition of Agri Udaan, a food and agribusiness start-up accelerator. Launched in 2015 at the NAARM, the accelerator handholds agricultural start-ups.

Of the 20 start-ups selected for the maiden accelerator, three got funding to the tune of ₹3 crore. In the second edition started in 2017 with the support of Department of Science and Technology, Yes Bank and Marico, 40 start-ups were mentored.

Start-up funding

"Of them 10 were selected for a cohort and four start-ups got funding to the tune of ₹6.25 crore," a NAARM executive said. For the third edition, the institute roped in Nabard, Caspain, AgrInnovate and Omnivore to support the start-ups.

Mohapatra said the start-ups should focus on developing quality products and services.

More sugar mills in Maharashtra may remain idle this year

Business Line, Sep 04, 2019

Maharashtra may not procure sugarcane owing to shortage of cane this season. According to the Sugar Commissioner's office, 195 sugar mills crushed 952.60 lakh tonnes of sugarcane to produce 1,071 lakh quintals of sugar last season.

However, an equal number of sugar mills (195) remained idle last year. The number of non-operational mills might multiply this year, according to industry watchers. The number of non-operational sugar mills in 2017-18 was 188.

Reduced acreage

Drought in Marathwada and floods in the sugar belt of western Maharashtra have ruined sugarcane crops. Sugarcane tracts in Sangli and Kolhapur districts were submerged in recent flood waters. According to industry experts, sugarcane acreage in Maharashtra this year is 8.43 lakh hectares.

As of now, only eight sugar mills have approached the Sugar Commissioner's office seeking permission to operate and the Commissioner has extended the deadline for applications till this month-end. Many of the mills start crushing in October. However, still there are no signs of mills launching the season this year.

Sugarcane farming is the source of livelihood for nearly 2.5 crore people in rural Maharashtra. The sugarcane industry provides direct employment to about 1,65,000 workers, besides eight lakh workers engaged in harvesting and transport operations every year for six months. Industry experts fear that non-functioning of sugar factories would add to the woes of the ongoing economic slump. The sugar industry accounts for an annual revenue of over ₹2,000 crore to the government.

'Political crop'

Agriculture expert Nishikant Bhalerao said sugarcane is a "political crop" as the industry is lifeline of State politics. He said that ahead of State assembly polls, issue of non-operating sugar mills might be a cause for concern for politicians across party lines.

Meanwhile, Chief Minister Devendra Fadnavis recently hinted that the State has no plans to ban sugarcane cultivation. Recently, the Aurangabad Divisional Commissioner had recommended that sugarcane cultivation be discouraged in drought-hit areas. When asked about the recommendation, Fadnavis told reporters that he has not gone through the report, but the State wants farmers to use micro-irrigation to grow cane crop.

Climate change may hit banana cultivation in India

Largest producer India among countries likely to see a drop in banana production Business Line, Sep 04, 2019

Climate change may lead to a significant decline in banana production in India, the world's largest cultivator and consumer of the crop, according to a study.

Bananas are recognised as the most important fruit crop, providing food, nutrition and income for millions in both rural and urban areas across the globe.

Fewer studies

While many reports have looked at the impact of climate change on agricultural production, the effect of rising temperatures and changing rainfall pattern on crucial tropical crops such as the banana is less well-understood.

Researchers, led by Dan Bebber from the University of Exeter in the UK, studied both the recent and future impact of climate change on the world's leading banana producers and exporters.

Favourable change

The study shows that 27 countries – accounting for 86 per cent of the world's dessert banana production – have on average seen increased crop yield since 1961 due to the changing climate, resulting in more favourable growing conditions.

However, the study, published in the journal Nature Climate Change, also suggests that these gains could be significantly reduced, or disappear completely, by 2050 if climate change continues at its expected rate.

It suggests that 10 countries – including the world's largest producer and consumer of banana India and the fourth largest producer, Brazil – are predicted to see a significant decline in crop yields.

The study also highlights that some countries – including **Ecuador (the largest exporter) and Honduras, as well** as a number of African countries – may see an overall benefit in crop yields.

"We're very concerned about the impact of diseases like Fusarium Wilt on bananas, but the impacts of climate change have been largely ignored," said Bebber.

"There will be winners and losers in coming years, and our study may stimulate vulnerable countries to prepare through investment in technologies like irrigation," he said.

Grown throughout the tropics and subtropics, bananas are a key crop for millions of people across the world, researchers said.

Global trade

Such international trade can play a pivotal role to local and national economies in producing countries. For example, bananas and their derived products constitute the second largest agricultural export commodity of Ecuador and Costa Rica.

Given this importance, predicting the potential impacts of climate change on banana production systems is crucial to ensuring its long-term survival, according to researchers.

The team assessed the climate sensitivity of global dessert banana productivity or yield using sophisticated modelling techniques.

It showed that by 2050, any positive effects of climate change on average global banana yields, though likely to continue, will be significantly lessened.

Ten countries are predicted to show at least a negative trend, if not strong declines in yields. They include some of the largest producers such as India and Brazil, as well as Colombia, Costa Rica, Guatemala, Panama and the Philippines, all of which are major exporters.

Remedial measures

"It is imperative that we invest in preparing tropical agriculture for future climate change," said Bebber.

"An open exchange of ideas is going to be critical going forward," said Varun Varma, Research Fellow at the University of Exeter. "We believe practical solutions already exist, but these are scattered across banana producing countries."

Rains give kharif crop a lease of life in Marathwada

Business Line, Sep 04, 2019

The drought-hit Marathwada region of Maharashtra has received rains in the last couple of days. **The spell of** rain has given hope to farmers who largely depend on kharif crop. The region has received 430.7 mm rainfall since June against the normal rainfall of 526.4 mm, a deficit of 18 per cent.

Farmers say that **even a few drizzles will help the crop to survive** and some more showers in the coming days will ensure their survival. **Maize, soya, cotton, mosambi, pulses, and groundnuts** are some of the major crops in the region, along with **sugarcane**.

The rainfall deficit remains high in Beed district (35 per cent). Except Nanded and Aurangabad districts, rainfall deficit in other districts is more than 20 per cent. The total water storage in dams in Aurangabad division is 32 per cent, compared with 28 per cent in the same month last year. However, water storage in Manjara and Majalgaon dams remain zero per cent.

Last year, against a normal rainfall of 682.9mm, Marathwada received 534.6mm.

Kochi to host India International Seafood Show after 12 years

Business Line, Sep 05, 2019

The Marine Products Export Development Authority (MPEDA) in association with the Seafood Exporters Association of India (SEAI) is organizing the 22nd edition of India International Seafood Show (IISS) at Hotel Grand Hyatt, Kochi from February 7 to 9 next year.

This biennial show, re-visiting Kochi after a span of 12 years, will provide an Ideal platform for an interaction between Indian Exporters and overseas importers of Indian marine products, an opportunity for display and sale for manufacturers and suppliers of processing machinery, packaging systems, processing ingredient dealers and cold chain systems and also an opening for service providers like the logistics and certifying/testing segments.

IISS 2020 will highlight the technological advances and sustainable practices followed in seafood processing sector in India.

The 22nd edition will have technical sessions by national and international experts. IISS 2020 will have over 250 stalls spread over 7,000 square metres (sq m), showcasing a wide range of products based on automated and IT aided technology, and energy efficient systems for value addition.

The delegates would include seafood processors, buyers and stakeholders from other related sectors representing firms from India and aboard. It is also planned to have buyer delegations from countries focused on mutual tie-ups in the area of seafood processing and value addition.

India's per capita water availability to decline further: ICAR

If it declines around 1,000-1,100 cubic meter, the country can be declared as water stressed. Business Line, Sep 05, 2019

India's per capita water availability is estimated to further decline to 1,465 cubic meter by 2025, a top official of agri-research body ICAR said on Thursday as he stressed on the need to use technology and crop diversification to reduce water consumption.

ICAR also announced that it is **working on a mechanism to suggest crop planning** for India under which farmers would be recommended which crop is to be grown in how much area.

Briefing the media on water management in agri sector, Indian Council for Agriculture Research (ICAR) Director General T Mohapatra pointed out that the per capita annual water availability has **declined to 1,508 cubic meter in 2014 from 5,177 cubic meter in 1951.**

"The per capita availability of water is estimated to decline further to 1,465 cubic meter by 2025 and 1,235 cubic meter by 2050. If it declines further to around 1,000-1,100 cubic meter, then India could be declared as water-stressed country," he warned.

In such a scenario, Mohapatra feared that there could be a fight between different states over water and even within states.

Of the total 140 million hectare of net sown area, only 48.8 per cent is under irrigation and rest is rainfed, he added. Of the net irrigated area of 68.38 million hectare, about 60 per cent is irrigated through groundwater.

"There is a need to reduce the consumption of water in the agriculture sector. We can produce more even in less water. Prime Minister has given a call for per drop more crop," Mohapatra said.

He said a group of secretaries had asked ICAR to work on crop planning for the entire country.

This will help in recommending which crop is to be grown in how much area in a district, Mohapatra said, adding that it will take one year to come out with such crop planning.

ICAR's two bodies -- National Institute of Agricultural Economics and Policy Research and Indian Institute of Farming Systems Research at Modipuram, Meerut -- are working on this crop planning mechanism, he added.

The crop planning would be based on local climatic conditions, water availability and overall demand-supply situation and could help the government to plan its incentives in such ways that farmers will adopt those recommended crops, the DG said.

Terming likely water shortage a serious issue, Mohapatra said the ICAR has launched a campaign to educate farmers about right water usage in their fields from July 1 till October 15. He said already 10 lakh farmers have been reached through its Krishi Vigyan Kendras and plan is to reach another 5 lakh farmers.

He said there is a need to **double the area under micro-irrigation from the current level of 9 million hectares.** "For this to achieve, farmers will have to come forward".

Mohapatra said the flood irrigation results in wastage of water and energy as well as reduce the efficiency of fertilisers.

ICAR's DG also stressed on the need for scheduling of irrigation process and said technologies like moisture sensor and other software are available to achieve this.

He said the technologies are not costly and their applications would help in the reduction of input cost.

Mohapatra also spoke about constructive use of water especially groundwater, rainwater harvesting and use of waste water in irrigation.

Emphasising on crop diversification, he said: "There is a need for change in crops. If there is less water, those crops should be cultivated that take less water" and advocated the cultivation of oilseeds and coarse cereals and pulses that take less water.

ICAR's DG said production of wheat and rice is important for the country's food security, but this could be achieved by raising yield and not area.

Asked about metering of water, Mohapatra said this would act as a deterrent and reduce consumption but added that this is for the government to decide.

Drop in buffalo meat exports affect the Indian dairy farmers

Agro and Food Processing, Sep 06, 2019

The dairy farmers, particularly in north India, have a challenging time. Just when liquid milk prices were showing signs of stabilising after remaining subdued for the past few years, the dry buffalo rate, or the sale price of a buffalo that has stopped giving milk and is ready for slaughter, has dropped sharply.

Cattle suppliers have also reduced their purchases from dairy owners as they are incurring loss in their business. This has led to a **piling up of inventory of non-milching buffaloes in dairy farms** across the northern parts of the country.

According to trade sources, dry buffalo prices in North India are hovering at Rs. 140 a kg, down 20 per cent from Rs. 170-180 a kg a year ago. The size of a buffalo bought for slaughter ranges between 100 kg and 450 kg.

Buffalo milk accounts for over 50 per cent of India's total annual milk production estimated to be around 176 million tonnes as on 2017-18. Uttar Pradesh, along with Rajasthan, Punjab, Haryana and Andhra Pradesh are among the top five buffalo milk producing states in India and also have the highest number of buffaloes.

The drop in the sale price of buffaloes couldn't have come at a worse time, as after many years' milk procurement prices were showing signs of stabilizing.

The procurement price of milk having 65 per cent fat was around Rs. 42 a kilogram while last year the same was around Rs. 39-40 a kilogram.

Dairy owners said a big reason for the fall in dry buffalo prices is a **sharp fall in India's bovine meat exports**. Unlike the cow, buffalo meat does not have any religious connotations and its slaughter and export is permitted under the law.

Home to one of the largest buffalo population, India's exports of the animal's meat have grown steadily and the commodity is now the second largest item of India's total farm exports, after basmati rice.

But it has steadily been losing ground the past few years.

From a high of \$4.57 billion in 2014-15, buffalo meat exports in the 2018-19 financial year dropped to around \$3.31 billion, down almost 27.6 per cent in a spell of five years.

According to industry experts, Vietnam traditionally has been the largest market for Indian buffalo meat exports, accounting for over 50 per cent of the total shipments from India.

Much of this was purchased for sale to China, which officially does not allow buffalo meat exports from India due to its stringent food safety norms.

However, industry sources said ever since China prohibited the movement of buffalo meat from India through Vietnam, trade has virtually come to a standstill.

Data sourced from commerce ministry shows that between 2017-18 and 2018-19, **buffalo meat exports to Vietnam dropped by a staggering 28 per cent**. This was after an 11 per cent increase in meat exports to the same destination from 2016-17 to 2017-18.

If the Centre makes sincere efforts to convince China to allow direct buffalo meat exports without re-routing through Vietnam, there could be big boost to the trade as China is a huge market. Industry players have even approached the commerce ministry to find out ways through which it can convince China to start importing from India. At the same time, exporters have also started scouting for newer destinations to compensate for the loss, but the volume is still small.

Even raw material prices (dry buffalo rates for slaughter) will immediately pick up as soon as Vietnam starts importing in a big way from India for the Chinese market, as packaged meat being a highly perishable commodity, no exporter can store shipments for long.

Data shows that in the first five months of 2019-20 financial year, Egypt, which did not figure among the top 10 destinations for buffalo meat export has emerged as the second biggest destination for the same.

Food business undergoing certification programme on hygiene and manufacturing practices under FSSAI

Business Line, Sep 06, 2019

People who are into food business are undergoing training on good hygiene and manufacturing practices under the Food Safety Training and Certification (FoSTaC) programme. So the good news is good hygiene practices will be an integral part of food industry.

According to the Food Safety Department (FSD), the programme is being provided in a phased manner and is implemented in association with the district units of Kerala Hotel and Restaurant Association, Bakers Association Kerala and others.

According to FSD, the FoSTaC training programme is mandated by the Food Safety and Standard Authority of India (FSSAI). The main aim is to raise the bar of food safety. Under this, the food business operators will be made aware of Food Safety and Standards Act, Rules and Regulation.

It is mandatory for the food business operators to participate in the training programme and clear the exam. FSD officers said as the maximum intake capacity per class has been fixed at 40 to 45, it might take 15 to 16 classes to complete the FoSTaC training for bakery owners.

Alex K Isaac, Assistant Food Safety Commissioner Thiruvananthapuram, said FSSAI recommends that all licenced food businesses must have at least one trained and certified food safety supervisor on every food business premises. Based on this criteria the training programme is progressing well in various parts of the state, he said.

According to him, while the training manuals are based on general hygiene or manufacturing practices as detailed under schedule 4 of FSS Regulation, the attendees will also be trained in the use of edible oil, fat, health supplement, and others. The programme also lays special focus on eliminating transfat from food items.

Farmers' contribution will be significant in making India \$5-trillion economy: Agri Minister

Union Agriculture Minister Tomar asks farmers to explore agri-allied activities to double incomes Business Line, Sep 06, 2019

Farmers should focus on developing agri-allied activities such as animal husbandry, bee-keeping and horticulture to double their incomes by 2022, Union Agriculture Minister Narendra Singh Tomar said on Friday.

Addressing the 9th Agri-Asia Conference here, Tomar expressed optimism about agriculture sector's significant contribution to make India a 5-trillion-dollar economy.

"We believe that India's farmers have the capability to contribute significantly to achieve this target. Farmers must adopt scientific farming, increase the use of technology and mechanisation in agriculture to achieve this goal," he told the gathering of farmers, academicians and visitors.

Gujarat Chief Minister Vijar Rupani said, "Our farmers should focus on per drop, more crop. It is time our farmers adopt cooperative farming and drip irrigation to achieve more yields."

Rupani also stated that **Gujarat's farmers have exhibited their prowess in the horticulture with export-oriented cultivation of pomegranate in Banaskantha, dates in Kutch and cashew in tribal region of the State.** He also stated that after successfully taking Narmada waters to distant areas of Kutch, Saurashtra and North Gujarat, the prospects of agriculture in the State have improved.

The State government is also encouraging farmers to explore additional income avenues in line with their agricultural activities. Poonamchand Parmar, additional chief secretary, agriculture, government of Gujarat, said, "The farmers need to bring down the cost of farming, increase the yields and adopt advanced technologies such as drip irrigation and solar energy to increase their earnings."

Kharif acreages as good as last year's

Business Line, Sep 06, 2019

Despite a sluggish start, kharif acreages have largely been made up, with farmers across the country planting more area under crops such as cotton, maize and soyabean that fetched better returns last season. The sowing season is almost over and the latest figures from the Agriculture Ministry have placed total kharif

acreage at 1,029 lakh ha, marginally lower than corresponding previous year's 1,035 lakh hectares. Normal area for the kharif season is 1,063 lakh ha.

The surplus rainfall across the country during August has given a fillip to the kharif planting. Rainfall across the country is excess by one per cent till September 4, according to the IMD. Rainfall has been deficient in about 7 sub-divisions that account for 15 per cent of geographical area.

Acreages under rice, the main cereal crop for kharif season, is down by about 10 lakh hectares, mainly due to lower planting in West Bengal, Bihar, Jharkhand, TN and Karnataka. Telangana, MP and Odisha registered an increase in paddy acreages.

FSSAI should tighten screws on adulterated coconut oil in Kerala

Business Line, Sep 06, 2019

Expressing concern over the prevalence of "adulterated coconut oil" in the market, the Cochin Oil Merchants Association (COMA) has requested the food safety authorities to prevent manufacturers outside the State from using the name 'Kera' or 'Kerala' in such oils.

COMA alleged that these oils contain less than 25 per cent of coconut and is mainly used in the production of hair oil and body lotions. The consumers should be made aware of the fact that such oils could not be used for edible oil purpose, Thalath Mahmood, president, COMA, said.

The use of name 'Kera' or 'Kerala' in such oils should be banned and the authorities should carry out random checking of these products sold in the market, he said.

He added that the arrival of adulterated coconut oil from outside Kerala is on the rise and in many cases liquid paraffin and palm kernel oil are blended. Many of the brands and loose coconut oil coming from other States are not subjected to any scrutiny at the production centres.

The Association requested the Food Safety and Standard Authority of India (FSSAI) to take immediate steps to test and control the marketing and sale of adulterated coconut oil.

Oilmeal exports plunge 73 per cent in August as local prices rule high

Business Line, Sep 06, 2019

Outpriced in the international market, Indian oilmeal exports reported a sharp drop in August compared to shipments in the same month last year.

As per the data compiled by the Solvent Extractors' Association of India (SEA), **oilmeal exports in August provisionally stood at 98,871 tonnes, nearly 73 per cent down from 3,59,752 tonnes** in the same month last year.

The overall export of oilmeals during **April-August** is reported at 1,016,682 tonnes compared to 1,326,626 tonnes in the same period last year, **a drop of 23 per cent**.

"This is mainly due to higher price of domestic soybean meal, thanks to higher MSP of soybean. This made the domestic oilmeal expensive in international market compared to other origins," the SEA said on Friday.

Speaking to *BusinessLine*, BV Mehta, Executive Director, SEA, said prices of oils have remained suppressed while oilseed prices have gone up due to higher MSP.

"We are losing our **competitiveness in the international market**. The **crushing should be supported by either oilmeal exports or by oil prices**. But oil prices are not supporting as they are lower and meal has outpriced. When seed prices are increased with MSP support, then oilmeal exports should also be supported with incentives," Mehta said

SEA data revealed that exports to all major destinations dropped, including Vietnam (-47.35%), Iran (-15.18%) and Thailand (12.60%).

Mehta added that export numbers are provisional only.

The prices in August for key oilmeals, including soybean meal, rapeseed meal and castor seed meal have increased compared to same month last year. Soybean meal quoted at \$433 per tonne FOB Indian port in August, which was \$406 last year. Rapeseed meal prices quoted higher at \$220 as against \$216, and castorseed prices quoted at \$108 as against \$97. Notably, the rupee depreciated from ₹69.63 against a US dollar in August 2018 to ₹71.19 in August 2019.

Paddy cultivation picks up as rains recede in Bihar, Odisha & Karnataka

Farmers in these areas planted short-duration varieties of paddy to compensate for crop damage due to the floods.

The Economic Times, Sep 06, 2019

NEW DELHI: Receding waters in flood affected regions of Bihar, Odisha and Karnataka have helped in recovering area under paddy cultivation, narrowing from last week's shortfall of 1.75 million hectare to just one million ha.

Farmers in these areas planted short-duration varieties of paddy to compensate for crop damage due to the floods. As sowing recovered after the flood, the acreage under kharif crops has almost touched last year's levels of around 103 million ha.

"The recovery is fast. We expect more areas to be covered next week. We don't see any drop in acreage. There is an overall deficit of 0.61 million ha as against last year, but when we compare with the average of the last few years, there is an increase of 0.69 million ha this year," said a senior agriculture department official.

Agriculture minister Narendra Singh Tomar said there would be no shortfall in production. "There is no threat to crops. We don't expect any shortfall in food grain production," he said.

The government expects to meet its food grain production target of 291.1 million tonnes for this year. In 2018-19, output was pegged at 284.95 million tonnes, according to its fourth advanced estimates.

According to the latest data on crop sowing, rice planting is down by 2.78% from last year, while overall sowing is lagging by less than 1%.

Planting of pulses is down less than 2%, while the acreage under oilseeds and coarse cereals, including jowar, bajra and maize, has touched last year's mark. The sowing of cotton, however, has risen 6.5%, raising hopes of a good harvest.

Cumulative rainfall this season as on Friday was on par with normal rainfall despite a relatively dry spell over the last few days.

Due to heavy rain in August, major reservoirs are brimming with water, at about 109% last year's levels, allaying fears of a shortage for irrigation and drinking.

"Due to late surge in rains, the moisture-content in soil looks healthy. While there doesn't seem to be any drop in kharif output, rabi production, too, looks promising with filled reservoirs," said PK Joshi, Fellow, National Academy of Agricultural Sciences.

PM Narendra Modi to lay foundation of Mega Food Park at Rohtak

A spokesman of HAFED said that Mega Food Park Project is an endeavor of Chief Minister, Mr Manohar Lal to give an impetus to the growth of Food Processing Sector in the State.

The Economic Times, Sep 06, 2019

CHANDIGARH: The Prime Minister, Narendra Modi will lay the foundation stone of **Mega Food Park to be setup by HAFED at Industrial Model Township (IMT), Rohtak** on September 8, 2019. The Ministry of Food Processing Industries, Government of India, has approved the Mega Food Park at Rohtak with the state-of-the-art infrastructure facilities.

While giving this information today, a spokesman of HAFED said that Mega Food Park Project is an endeavor of Chief Minister, Mr Manohar Lal to give an impetus to the growth of Food Processing Sector in the State. The primary objective of the Mega Food Park Scheme (MFPS) is to provide modern infrastructure facilities for the Food Processing along the value chain from the farm to the market, he added.

The spokesman said that this project is estimated to generate direct and indirect employment for 6,500 people and about 5,000 farmers are estimated to be benefitted. The total project would cost Rs 179.75 crore, out of which, Ministry of Food Processing Industries, Government of India, would provide grant-in-aid of Rs 50 crore.

This Mega Food Park is ideally located at IMT Rohtak on National Highway-10, linking Delhi with Rohtak, spreading on 50 acres and have 80 plots varying from 450 to 4,050 sq.mtrs in size. Units relating to multi crop processing line (Vegetables and Fruits), ready to eat food, spice processing and packaging, oil extraction, canning, bakery, integrated milk processing or tetra packaging unit, animal feed formulation units etc, could be set up by investors in this Mega Food Park, he added.

He said that the basic infrastructure like roads, electricity and sewerage, has already been developed at Mega Food Park, Rohtak and the process of commissioning the other facilities like Cold Storage, warehouse, Silos, Boiler and the likes, has been initiated by HAFED. As part of this project, three primary processing centers (PPCs) are also to be set up in District Yamunanagar, Sonipat and Sirsa.

Mega Food Park inaugurated in Telangana

The park would generate a turnover of Rs 14,000 crore and provide employment to 50,000 youth as well as benefit about one lakh farmers, Harsimrat Kaur Badal said.

The Economic Times, Sep 06, 2019

HYDERABAD: Union Minister for Food Processing Industries Harsimrat Kaur Badal on Friday **inaugurated the first mega food park in Telangana.**

The park was promoted by Smart Agro Food Park Private Ltd and located in **Nizamabad district of the state**, an official press release said.

Speaking on the occasion, Badal said the park would leverage an additional investment of about Rs 250 crore in 22 food processing units in the park.

The park would generate a turnover of Rs 14,000 crore and provide employment to 50,000 youth as well as benefit about one lakh farmers, she said.

Mega food parks shall facilitate doubling of farmers' income by 2022 which is a primary agenda of the state government in the field of agriculture, she said.

The mega food park scheme was being implemented to give a major impetus to the food processing sector by adding value and reducing food wastage at each stage of the supply chain with particular focus on perishables.

Under the scheme, the government of India provides financial assistance upto Rs 50 crore per mega food park project, she added.

Soyabean output set to rise to 14 mt

Indian Institute of Soyabean Research sees bigger crop on rise in area, good rains Business Line, Sep 06, 2019

India's soyabean output is seen rising this year, on increase in acreage and copious rains in the key growing

regions of **Madhya Pradesh and Rajasthan**, according to a government entity.

"Soyabean production will be higher this year and we expect it to be at least around 14 million tonnes," said VS Bhatia, Director, ICAR-Indian Institute of Soyabean Research, based in Indore. In 2018-19, soyabean output stood at 13.78 million tonnes, according to the fourth advance estimates of the Agriculture Ministry.

With prices remaining favourable for most part of the marketing season last year, farmers have planted more area under the oilseed this kharif. Soyabean acreage is two per cent higher than normal this year at 113 lakh hectares and about one per cent higher than last year. Farmers in MP and Rajasthan have planted more area while the area has shrunk in Maharashtra.

Year	Outpart	
2018-19	13.78*	
2017-18	10.98	To the same
2016-17	13.16	
2015-16	8.57	. William
2014-15	10.37	
2013-14	11.86	
2012-13	14.67	

4 Advance estimates Source: Agriculture Ministry

Excess rainfall

However, with most parts of Central India receiving excess rains, there have been concerns about water-logging in several areas hurting the crop. Madhya Pradesh, so far, has received 19 per cent excess rains in the ongoing monsoon season, while the surplus rainfall in Rajasthan stood at 33 per cent.

Bhatia said the crop is in good condition, mainly in Malwa region, the main growing area, where the rains have been good. "There have been some isolated cases of water-logging and also some instances of pest attacks and diseases. We have already issued an advisory to farmers to deal with the pests and diseases," Bhatia said.

Harvest schedule

The harvesting of the early maturing varieties will begin by September 20-25 and full-scale harvesting will be from October 15.

DN Pathak, Executive Director, Soyabean Processors Association of India (SOPA) said it was still raining in parts of Central India and premature to comment on the crop size at this point. SOPA will conduct a crop survey from September 26 till October 4. Last week, SOPA maintained that there was no widespread or excessive damage to the crop from excess rains.

Govindbhai Patel of GG Patel and Nikhil Research Company, while maintaining that the crop condition of soyabean was good, expects the cropsize to be marginally lower at around 10 mt, down from last year's estimates of 10.2 mt. "Though the area is higher by 1 lakh ha this year, delayed sowing is set to impact the yields," Patel said.

Last week, Skymet in its kharif crop projections had also projected a lower output of 11.99 mt due to lower yields on delayed planting. However, NCML had projected a marginal increase in output at 13.84 mt.

Landscape management and public-private finance to improve 20 lakh hectares of land

To directly benefit over 17 lakh people in Karnataka and Andhra Pradesh. Business Line, Sep 07, 2019

Up to 20 lakh hectares of land in India will be on a path to improvement through sustainable landscape management and public-private finance, states a report the Global Environment Facility on the financing of programmes and projects concerning desertification, land degradation and drought. The report has been released in the United Nations Convention to Combat Desertification (UNCCD) in New Delhi.

Of this, 1.5 lakh hectares will be restored and 18 lakh hectares of landscapes will be under improved management, and directly benefit over 17 lakh people in Karnataka and Andhra Pradesh. Funding of \$6.85 million pouring in from Global Environment Facility (GEF), \$4.47 million from Land Degradation Focal Area grant (LDFA) and \$70 million will be co-financed.

This will be achieved by promoting sustainable agricultural production, supply chains through public-private finance. In Andhra Pradesh and Karnataka, the project will enable institutional, fiscal, and strategic frameworks, at the national and state levels, promote sustainable agricultural landscapes and biodiversity conservation, scale-up of sustainable agriculture and landscape management, and inclusive economic growth among rural producers.

"Through zero-budget natural farming, the project will build commitment to sustainable farming by demonstrating a positive benefit-cost ratio for farmers, enabling their access to technical and financial services and generating a market commitment to source sustainably produced commodities," states the report.

Of another 70,000 hectares, 10,000 hectares of land will be aimed at for restoration and 60,000 hectares for improved management. "Here focus will be on the most vulnerable and least developed districts of the three broad landscapes - highlands of the North-East, drylands of the central region and coastal regions. The intervention is expected to directly create carbon benefits of 50,000 tonnes of CO2e," states the report.

A funding of \$4.90 million from GEF, \$0.85 million from LDFA and \$11 million will be co-financed, for this project.

For north-east and coastal regions

For the north-east, central and coastal regions in India, a multi-stakeholder National Steering Committee will met out community grants, aimed at enhancing the communities' skills, capacities, and resources required to enhance ecosystem services, improve the sustainability and productivity of agroecosystems, deploy efficient energy technologies, and manage waste in a way that realises multi-focal area benefits, the report further says.

The project aims to enable communities and organizations in the most vulnerable and least developed areas of India to take collective action through a participatory landscape planning and management approach aimed at enhancing socio-ecological resilience from innovative livelihoods producing local and global environmental benefits

"One landscape in each region will be selected for focused intervention, based on criteria that will include the existence of biodiversity of global importance, trends and patterns regarding threats and degrees of threat, appropriate policy frameworks at local and state levels, and other factors," it says.

With 14 projects, Asia has the second-largest portfolio for the reporting period, including projects in ten countries - Afghanistan, Cambodia, Fiji, India, Indonesia, Philippines, Solomon Islands, Sri Lanka, Thailand, and Vanuatu.

A total of 75 projects and programs were approved with funding from the LDFA and other related funding windows of the GEF trust fund. The total GEF grant for these projects and programs amounts to \$857.76 million, which leveraged \$5,673.87 million in co-financing, states the report.

SBI to offer MUDRA loans to Kerala broiler farmers

Kudumbashree members to get MUDRA loans

Business Line, Sep 07, 2019

The local head office of State Bank of India has entered into a tie-up with Kudumbashree Broiler Farmers Producers Company and Kudumbashree Mission for financing poultry farmers under the Kerala Chicken (Kudumbashree) project.

The Kudumbashree Mission refers to the State Poverty Eradication Mission that also doubles up as a campaign for women empowerment, under the Department of Local Self-Government, Kerala.

MUDRA loans

Under the tie-up, poultry farmers sponsored by the Kudumbashree Mission will be financed with MUDRA loans, sources said.

Kudumbashree members will involve themselves individually or jointly in the project and will be monitored and supported by the Kudumbashree State Mission, its district missions, or even at the local self-government level.

The demand for poultry meat in Kerala is estimated at 1 crore kg a week, harvested from 50 lakh chicks. As much as 50 per cent of the demand is being met by Tamil Nadu and Karnataka.

The State government had recently promoted the **Kerala Chicken project to make available quality broiler chicken at a reasonable price** under the brand name Kerala Chicken (Kudumbashree).

SBI aims to finance 757 broiler chicken farm units of 1,000 birds each and help with stocking of day-old chicks, equipment, feed, medicines, construction of she, and payment of required insurance. Loan shall be provided only in individual capacity to members of neighbourhood groups sponsored by the Kudumbashree Mission.

Over 1000 farmers attend the National Conference on Crop Residue Management Smart Agri Post, Sep 09, 2019

New Delhi: Thanking the farmers for bringing down the Stubble burning incidents, Shri Parshottam Rupala Union Minister of State for Agriculture & Farmers Welfare requested further support and ideas from the farmers to ensure zero burning in all the villages. Inaugurating the National Conference on Crop Residue Management for the farmers from the states of Punjab, Haryana, Uttar Pradesh & Delhi the Minister said that success stories from these States should be shared with all farmers.

The Minister expressed his immense pleasure after listening to the good experiences shared by farmers and requested them to sensitize other farmers about learning from the Conference. Several farmers shared experiences and suggestions during the Conference, more than 1000 farmers attended from the 4 states.

Earlier, to support the efforts of the Governments of Punjab, Haryana, Uttar Pradesh and NCT of Delhi to address air pollution and to subsidize machinery required for in-situ management of crop residue through agriculture mechanization, a Central Sector Scheme for the period 2018-19 to 2019-20 has been implemented by Ministry in these States with a total outgo of Central funds Rs.1151.80 crores.

During the year 2018-19, total funds of Rs. 584.33 crores were released to the State Governments of Punjab, Haryana, Uttar Pradesh and ICAR. All three State Governments have distributed 32,570 machines to the farmers on individual ownership basis and established 7,960 Custom Hiring Centres.

This conference was organized in collaboration with ICAR in order to address concerns of farmers and State Governments. The straw burning events in 2018 have reduced by 15% and 41% as compared to that in 2017 and 2016 respectively, as per the report of the High Power Committee Chaired by Dr. Nagesh Singh.

During the Conference, 20 farmers from Punjab, Haryana and Uttar Pradesh were honoured for their valuable contribution in management of crop residue by using identified agricultural machinery, as well motivating other farmers of their village for in-situ management of crop residue to stop the straw burning. The Minister

also launched a multilingual Mobile App "CHC Farm Machinery" for the farmers to avail the custom hiring services of CHCs located in the radius of 50 Kms. This app connects the farmers with Custom Hiring Service Centres in their area. This app can be downloaded on any android phone from Google Play Store.

9,300 oxytocin injections seized

The Tribune, Sep 10, 2019

The district police today seized 9,300 injections of oxytocin along with over 39,000 habit-forming tablets. The police believe that oxytocin was being misused by drug addicts.

Oxytocin is a hormone and a neurotransmitter that is involved in childbirth and breast-feeding. It is also used among animals (buffaloes and indigenous varieties of cows) to smoothen muscle cells of their mammary glands to induce milk let-down.

For the last over one year, this injection has restricted supply after the Union Health Ministry imposed a ban on the retail sale and private manufacturing of oxytocin. The retail sale of this injection was banned for the reason of its misuse on cattle to increase milk production.

The district police found 9,300 injections dumped along a link road here.

Raj Bachan Singh Sandhu, SSP, said the recovery of such huge quantity of the drug, which had restricted supply even in maternity home and government hospitals, had raised doubts about its potential use by drug addicts.

"Our discussions with doctors has found that this hormonal injection has physical and psychological effects, including influencing social behavior, emotion and anti-anxiety effect, so we need to study the role of this injection in addiction," said the SSP.

As taking drugs activates pathways in the brain that induce pleasurable effects, there are chances of addicts switching over this hormonal injection to get the experience as this injection can be procured at much lower prices, said a senior gynecologist at Guru Gobind Singh Medical College and Hospital, Faridkot, on the condition of anonymity.

Dr Gautam Parshad, Deputy Director, Animal Husbandry Department, said the use of oxytocin was banned in animals for the last over one year after its purported misuse and consequent threat to the health and well-being of milch cattle.

Top agricultural scientists body rejects zero budget natural farming

This comes even as Prime Minister Narendra Modi, addressing the 14th Conference of Parties to the UN Convention to Combat Desertification on Monday, mentioned that "we are focusing on ZBNF". Indian Express, Sep 10, 2019

India's premier academic body of agricultural scientists has hit out at Zero Budget Natural Farming (ZBNF), terming it as an "unproven" technology bringing no incremental value gain to either farmers or consumers.

"The government should not needlessly invest capital and human resources towards promoting ZBNF. We have given our recommendations in writing to the Prime Minister and it reflects the view held by the scientific community," said Panjab Singh, president of the National Academy of Agricultural Sciences (NAAS).

This comes even as Prime Minister Narendra Modi, addressing the 14th Conference of Parties to the UN Convention to Combat Desertification on Monday, mentioned that "we are focusing on ZBNF". The Finance Minister Nirmala Sitharaman's Union Budget speech, too, had talked of the need to "go back to basics" and "replicate this innovative model (that) can help in doubling our farmers' income".

The New Delhi-based NAAS – a farm scientists' think tank with over 650 fellows and 15 regional chapters across India – had organised a day-long "brainstorming session" on ZBNF last month. It was attended, among

others, by the Director-General of the Indian Council of Agricultural Research (ICAR) Trilochan Mohapatra and NITI Aayog member Ramesh Chand.

"In all, there were about 75 experts that included scientists, policymakers, progressive farmers, NGOs and fertiliser, seed and crop protection chemical industry representatives. We reviewed the protocols and claims of ZBNF and concluded that there is no verifiable data or authenticated results from any experiment for it to be considered a feasible technological option. We had invited Subhash Palekar (the man behind ZBNF) as well, but he did not come," claimed Singh, who is also a former ICAR Director-General.

ZBNF's basic concept is that over 98 per cent of the nutrients required by crops for photosynthesis – carbon dioxide, nitrogen, water and solar energy – are already supplied "free" from the air, rains and sun. Only the remaining 1.5-2 per cent nutrients need to be taken from the soil and converted from "non-available" to "available" form (for intake by the roots) through the action of microorganisms.

To enable the microorganisms do their jobs, farmers must apply 'Jiwamrita' (microbial culture) and 'Bijamrita' (seed treatment solution), besides 'Mulching' (covering plants with a layer of dried straw or fallen leaves) and 'Waaphasa' (giving water outside the plant's canopy) to maintain the right soil temperature-moisture-air balance. For insect and pest management, ZBNF recommends use of 'Agniastra', 'Brahmastra' and 'Neemastra', which, like 'Jiwamrita' and 'Bijamrita', are concoctions based mainly on urine and dung from desi cows. Since these also do not have to be purchased, it makes farming practically "zero-budget".

Critics, however, note that plant growth and crop yields require nitrogen, which is also a major component of amino acids that are the building blocks of proteins. "78 per cent of air is nitrogen, but it is not freely available to plants. Being non-reactive, atmospheric nitrogen has to be fixed into a plant-usable form such as ammonia or urea. He (Palekar) is further saying that ZBNF is effective only if dung and urine from black-coloured Kapila cows is used and farmers sow traditional varieties/landraces. It means that all the high-yielding varieties and hybrids developed by us, which have trebled India's rice production to 116 million tonnes (mt) and increased it more than eight times to 102 mt for wheat in the last 50 years, are useless," remarked a top ICAR scientist, who didn't wish to be identified.

But according to Palekar, ZBNF is "seed-agnostic" and can be used for desi, hybrid or even genetically modified crops. "NAAS has no expertise to validate my method of farming. They have neither spoken to me nor the farmers who are practicing it. The academy should also have taken into consideration my schedule before calling me. Farmers organise workshops that I cannot cancel them just to attend this (NAAS) meeting," he added.

Meanwhile, the ICAR has appointed a committee under Praveen Rao Velchala, vice chancellor of the Professor Jayashankar Telangana State Agricultural University to study ZBNF's viability. "We are examining if there is any science behind it and its strengths and weaknesses, including vis-à-vis normal organic farming. Currently, experiments in growing crops using ZBNF are taking place in five research station locations and we are also going to the fields of farmers who have supposedly adopted this technique. All this can be confirmed through analysis of soil data and fertility status," Velchala told The Indian Express.

The committee, constituted in May, has had two meetings so far, while the five trial locations are Modipuram (Uttar Pradesh), Pantnagar (Uttarakhand), Kurukshetra (Haryana), Ludhiana (Punjab) and Palampur (Himachal Pradesh). At the Indian Institute of Farming Systems Research in Modipuram, ZBNF experiments have already been conducted for 2017-18 (wheat crop) and 2018-19 (paddy and wheat). "We are now doing our second season for paddy. Nothing conclusive has emerged, but meeting crop nutrient demand through this technique seems an issue," stated N. Ravisankar, principal scientist at the ICAR institute.

Notwithstanding the consecutive droughts and scanty rainfall, the **State government has decided not to take** any concrete steps to curb sugarcane crop or control excess use of water for cultivation in the Marathwada region of Maharashtra.

With State elections likely to be announced next month, the ruling party is unwilling to annoy the sugar lobby and cane cultivators.

Chief Minister Devendra Fadnavis recently told reporters that since 2007, suggestions have been made to reduce sugarcane cultivation to save water. He added that all sugarcane cultivation in drought-hit Marathwada should be brought under micro-irrigation and alternate crops should be taken up where drought has been perennial.

However, this is not for the first time that the Chief Minister has expressed concern over excessive use of water for sugarcane cultivation. In 2017, the State government made drip irrigation compulsory for sugarcane cultivation. The State announced loans of up to ₹85,400 per hectare at subsidised interest rates of 2 per cent to farmers.

However, the scheme remains on paper and farmers continue to use the traditional irrigation system to grow sugarcane. Twenty-six of the State's 36 districts faced water scarcity last season, but still the State produced 1,067.81 lakh quintals of sugar. Despite the severe drought, 47 mills in Marathwada crushed cane last season.

"Sugarcane farming is the source of livelihood for nearly 2.5 crore people living in rural Maharashtra. Also, there are lakhs of people who get direct and indirect employment during the sugarcane season. The State government will not take any step that will disturb this fabric," said a senior official.

Although the area under sugarcane forms about **10 per cent of the gross cultivated area of the State, it appropriates 71.4 per cent of all irrigation water**. There has been no policy change regarding sugarcane cultivation nor an effort to understand the water requirement and the ramifications of functioning sugar mills.

Political analysts say that sugar barons across party lines ensure that their interests in sugar economy are not disturbed. "Earlier, sugar was the domain of the NCP and Congress leaders. Now all party leaders are involved in it. In fact, sugarcane and sugar mills are the lifelines of many politicians in the State," said analyst Nishikant Bhalerao.

Trustea tag gains acceptance

Business Line, Sep 11, 2019

There has been a steady rise in demand among tea estates, small tea growers and bought leaf factories to go in for trustea certification to validate that the tea produced by them is done in a sustainable manner.

According to Rajesh Bhuyan, Director, trustea, close to 627 million kg (mkg) of tea produced in the country has been verified since the inception of the programme in 2014. This accounts for nearly 48 per cent of the country's total production, which stands roughly at around 1,300 mkg. In 2017, trustea verified close to 509 mkg of tea.

Certification process

Till date, the trustea programme has engaged 51,463 small-time tea growers and certified 622 estates, and bought-leaf factories across the country, he said.

The trustea sustainability code aims to address some of the key challenges in the industry, including working conditions, health and safety of tea workers, clean water, food safety, soil erosion and contamination among others. The code enables producers, buyers and others involved in Indian tea business to obtain tea that has been produced according to agreed, credible, transparent and measurable criteria.

"There is growing acceptance for the trustea code among estates, small-time tea growers and bought leaf factories. It helps them get better market access," Bhuyan said on Tuesday.

Implementation partners

Trustea has joined hands with Tea Research Association (TRA) and Action for Food Production (AFPRO) as an implementation partner for its sustainability code programme. "The demand has been so high and we have been finding it difficult to meet the demand. TRA and AFPRO will help ensure effective implementation of the programme," he said.

The trustea programme is jointly supported by IDH, The Sustainable Trade Initiative, Hindustan Unilever, Tata Global Beverages and Wagh Bakri Tea Group.

"We will like to ensure that the tea industry remains sustainable, economically robust and compliant with national and international standards," said Joydeep Phukan, Principal Officer and Secretary of TRA.

Asia Pacific edible insect market size to reach \$270 million by 2024

Food and Beverage News, Sep 11, 2019

The Asia Pacific edible insect market is estimated to exceed \$270 million by 2024. This was among the findings of Graphical Research's new growth forecast report, titled Asia Pacific Edible Insects Market Analysis based on Product, Application, Industry Analysis Report, Regional Outlook, Application Potential, Price Trends, Competitive Market Share and Forecast, 2018–2024.

Growing concern towards various health issues and a shift in the consumption pattern to a protein-rich diet may drive the Asia Pacific edible insect market size. The product offers various health benefits, including reducing obesity, and are healthy even for animals when offered as fodder, resulting in an increase in the product demand.

Asia Pacific edible insects market demand from caterpillars is likely to register over 44 per cent by 2024. They are easily garnered and are rich source of vitamins, minerals and proteins.

Mopane caterpillar advances in iron deficiency in diet and contains protein, which may foster the market demand. These bugs feed on tree leaves and their influence on forest ecosystem are the driving factors accelerating the industry demand.

The Asia Pacific edible insect market size from flour application may surpass \$85 million by 2024. Crickets and mealworms are primarily used in bakery products owing to its gluten-free property, which includes biscuits, muffins and desserts, thereby fuelling the product demand.

China edible insects market size may witness significant gains at over 44 per cent by the end of forecast timeframe. Bugs are mainly consumed in this region for eating and medical purposes. Honey bee drones are used as traditional medicine. Beetles have an anti-diuretic effect, and are considered as healthy. These drive the overall market.

The Thai bug market demand may surpass \$50 million by 2024. It has over 20,000 insect farming business, most of which are limited household operations, and over 200 species are consumed. Insect farming has emerged as a substantial economic activity in the region, owing to the strong and favourable market demand.

The Asia Pacific edible insect market share is fragmented. The **key players include HaoCheng Mealworms, Thailand Unique, Bugsolutely, Ecobars, and Entotech**. Companies are investing in R&D (research and development) to expand their product demand.

Cotton Association of India maintains cotton output at 312 lakh bales in August

The CAI has maintained its cotton crop estimate for the northern zone at the same level as in its previous month's estimate at 59 lakh bales.

The Economic Times, Sep 11, 2019

MUMBAI: The Cotton Association of India (CAI) has maintained its August estimate of the cotton crop production for 2018-19 season (October-September) at 312 lakh bales, the same as July, mainly due to poor rainfalls.

The CAI has maintained its cotton crop estimate for the northern zone at the same level as in its previous month's estimate at 59 lakh bales, a release said here.

However, there is a reduction of 10,000 bales in the cotton crop estimate for Punjab and an increase of 10,000 bales in the cotton crop estimate for Southern Rajasthan.

The cotton crop estimate for the central zone was maintained at the same level at 180.68 lakh bales although there is an increase of 50,000 bales in the crop estimate for Gujarat and a reduction of 25,000 bales each in Maharashtra and Madhya Pradesh.

There is no change in the cotton crop estimates of the remaining states, CAI added.

The total cotton supply estimated from October 2018 to August 2019 is 363.02 lakh bales, which consists of the arrivals of 307.02 lakh bales up to August 31, imports of 23 lakh bales up to August 31 and the opening stock estimated by the CAI at 33 lakh bales at the beginning of the season.

Further, the CAI has estimated cotton consumption from October 2018 to August 2019 at 288.75 lakh bales, while the exports (excluding cotton waste) is estimated at 43 lakh bales up to August.

Stock at the end of August 2019 is estimated at 31.27 lakh bales, including 17.55 lakh bales with textile mills and remaining 13.72 lakh bales with Cotton Corporation of India and others (MNCs, traders, ginners among others).

CAI reduces India's cotton import estimates to 29 lakh bales, down by 2 lakh bales

CAI has maintained its cotton crop estimate for the Northern Zone at the same level as in its previous month's estimate.

The Economic Times, Sep 11, 2019

Pune: Imports are lower at 29 lakh bales by 2 lakh bales compared to the estimate of 31 lakh bales made in the previous month and higher by 14 lakh bales compared to the previous year's estimate at 15 lakh bales. **CAI has lowered its import estimate for the season in view of actual shipments reaching Indian ports being lower than estimated previously**, said Cotton Association of India (CAI).

In its August estimate released today, CAI has retained its cotton crop estimate for 2018-19 at 312 lakh bales of 170 kgs each, which is at the same level as in the previous estimate.

The CAI has maintained its cotton crop estimate for the Northern Zone at the same level as in its previous month's estimate i.e. at 59 lakh bales. However, there is a reduction of 10,000 bales in the cotton crop estimate for Punjab and an increase of 10000 bales in the cotton crop estimate for Lower Rajasthan.

Similarly, CAI has maintained cotton crop estimate for the Central Zone at the same level as in its previous month estimate i.e. at 180.68 lakh bales although there is an increase of 50,000 bales in the cotton crop estimate for Gujarat State and a reduction of 25,000 bales each in the cotton crop estimate of Maharashtra and Madhya Pradesh.

There is no change in the cotton crop estimates of the remaining states. The total cotton supply estimated by the CAI during the period from October 2018 to August 2019 is 363.02 lakh bales of 170 kg each which consists of the arrivals of 307.02 lakh bales up to 31st August 2019, imports of 23 lakh bales up to 31st August 2019 and the opening stock estimated by the CAI at 33 lakh bales at the beginning of the season.

Further, the CAI has estimated cotton consumption during the months of October 2018 to August 2019 at 288.75 lakh bales of 170 kg each while the export shipment of cotton (excluding cotton waste) estimated by the CAI upto August 2019 is 43 lakh bales of 170 kg each. Stock at the end of August 2019 is estimated by the CAI at 31.27 lakh bales including 17.55 lakh bales with textile mills and remaining 13.72 lakh bales with CCI and others (MNCs, Traders, Ginners, etc.).

The yearly Balance Sheet projected by the CAI estimated total cotton supply till end of the cotton season i.e. up to 30th September 2019 at 374 lakh bales of 170 kgs. each which is lower by 2 lakh bales compared to the cotton supply estimated by the CAI in the previous month.

Cotton supply now estimated by the CAI upto 30th September 2019 consists of the Opening Stock of 33 lakh bales at the beginning of the cotton season and imports estimated by the CAI at 29 lakh bales.

Domestic consumption estimated by the CAI for the entire crop year i.e. upto 30th September 2019 is 315 lakh bales while the CAI has estimated exports of cotton (excluding cotton waste) for the season at 44 lakh bales, which are lower by 2 lakh bales compared to the export estimate of 46 lakh bales made during last month and which is lower by 25 lakh bales compared to the previous year's cotton exports estimate of 69 lakh bales. Export of cotton waste was inadvertently included in the export estimate of the CAI made during last month. This mistake has now been rectified and the export estimate has now been lowered by 2 lakh bales to arrive at the export estimate of only cotton (excluding cotton waste). The carryover stock estimated at the end of the season is 15 lakh bales.

Basmati paddy prices steady despite headwinds in global trade

The raw material prices are expected to be steady for the harvesting season ahead due to better quality of the crop and hope that the export will pick up in later part of current financial year. The Economic Times, Sep 12, 2019

Factors including low carry over stock and robust export in the last fiscal are buttressing price of basmati paddy as arrival of fresh harvest of Kharif season has begun in India, largest exporter of rice. The raw material prices are expected to be steady for the harvesting season ahead due to better quality of the crop and hope that the export will pickup in later part of current financial year.

The early maturing variety of basmati paddy is being priced at Rs 2600 per quintal in the prevailing market. The harvest of 1509 variety, consisting 35-40 per cent of basmati output, is likely to peak by next week in **Punjab** and Haryana, states that cultivate 75 per cent of the premium rice. "The current prices are comparable to last year when the low output and strong export had supplemented the demand," says Ashok Sethi, director, Punjab Rice Millers and Exporters Association.

This season the output of basmati is likely to increase in India as weather has been favorable in North for the crop and the acreage also has increased. Higher export in the last fiscal has left low carryover stock with traders and most are keen to replenish the cereal. It is likely to keep prices steady but the fact that global trade has recorded a negative growth of 9 per cent in the current financial year keeping traders cautious.

The price of basmati is a function of dynamics in global rice trade. The export market is facing headwinds in the current financial year but the buyers are taking a cue from robust export growth in volumes of 8.8 per cent

notched in the last financial year. The average realization has also been strong due to currency devaluation and better international pricing due to low stock of premium rice in India and Pakistan.

Basmati export from India stood at record 44.1 million tonnes in 2018-19 compared to 40.5 million tonnes in 2017-18. In the prevailing market, farmers in Punjab and Haryana that produce 70 per cent of the cereal, are bagging up to Rs 2600 per quintal for 1509 basmati variety. The prices are comparable to the last season when they were firm due to low output in India and Pakistan.

Exporters are wary that shipments to Iran are stuck up at ports and only a few traders are taking the risk of delay in payments as the Gulf nation is not able to sell its oil due to the US sanctions. Out of 600 odd registered exporters, less than 24 are still engaged in export to Iran, fretted with inordinate delay in payments due to the current turmoil.

"Indian government needs to tackle the hurdle in export to Iran and resolve impeding issues over Minimum Residue Levels with Europe, Saudi Arabia, Oman, Lebanon and the US," Vijay Sethia, president of the All India Rice Exporters Association said. Sethi said that the Indian government needs to impose regulation on manufacturers of pesticides and dealers to ensure judicious use of chemicals.

Indian traders feel that the procurement price of basmati will come down marginally as the crop arrival picks. "The basmati harvest extends till November and if negative sentiments emanates from export market farmers will feel the pinch of low prices," a Delhi based exporter said.

With over 711.18 LMT food grain stocks till Aug, FCI faces massive losses

Food and Beverage News, Sep 12, 2019

Food Corporation of India (FCI) has been under fire for the past few years because of its **mounting losses**. With over 711.18 Lakh Metric Tonne (LMT) of food grains stocked till August 2019, the corporation is again faced with massive losses.

The stocks rose steadily over last few months as FCI continuously procured through last four months wherein stocks were recorded at 742 LMT in July and around 741 LMT in June. In May, the FCI had stocks of 622LMT of food grains, rice and wheat.

In April this year, the stocks were recorded at 463LMT. The MSP for the year 2019-20 has been announced at Rs 1,815 and 1,835 for rice (common and grade A respectively) and Rs 1,840 for wheat per quintal. However, according to the FCI the economic cost for the food grains per quintal was estimated around Rs 2,505.67 and Rs 3,601.91 for wheat and rice per quintal respectively for the current fiscal.

According to the FCI's food grain stocking norms, stocks are divided into two parts, operational stock and strategic stock, together called buffer stocks and are divided in four quarters, and maintained according to the requirements. As on April 1, a total of 210 LMT should be maintained by the FCI, as on July 1, it should be 411.20 lakh metric tonne, as on October 1, the buffer stocks should be 307.70 LMT while as on January 1, 214.10 LMT reserves were needed.

Department of Food and Public Distribution informed Parliament that as on June 30, 2019, storage capacity available with FCI for Central Pool Stock was 407.31 Lakh MT (Owned – 153.35 LMT and Hired 253.96 LMT). In addition, 471.24 Lakh MT (Covered – 365.50 LMT and Cover & Plinth (CAP) – 105.74 LMT) is utilised by State governments for keeping Central Pool Stock while, as on July 1, 2019, a quantity of 742.52 Lakh MT Central Pool stock is stored in FCI godowns (both owned and hired).

In a reply to a question, MOS consumer affairs, food & public distribution, Danve Raosaheb Dadarao told that Department of Food & Public Distribution fully bears the cost to run the foodgrain procurement, storage and

distribution operations of FCI.

"The Department has provided Rs 1,40,098 crore as subsidy to Food Corporation of India for Financial Year 2018-19. This includes National Small Savings Fund (NSSF) loan of Rs 70,000 crore. The budget provision of food subsidy for FCI for FY 2019-20 is Rs 1,51,000.00 crore," he informed.

He added that in addition to this fund, the working capital requirement of FCI is financed through a mix of debt and equity.

"The debt comprises National Small Savings Fund (NSSF) loans and Ways and Means Advance, both provided by Government of India, Cash Credit Limit (CCL) facilities from consortium of banks backed by Government of India guarantee and long term Government guaranteed bonds. In addition, FCI is also availing unsecured Short Term Loans (STL) from scheduled banks to tide over cash flow mismatch," he told Parliament.

However, the FCI does sell some stocks through its open market sale scheme which most of the time does not fetch good amount as the pre-determined price or reserve price is often less than the procurement cost or the economic cost and it ends in making loss.

Last year, the reserve price for wheat under OMS for the 2nd, 3rd, 4th quarter for MP, Punjab, Haryana was announced at Rs 1,900, Rs 1,925, Rs 1,950 while the economic cost of wheat was Rs 2435.23 per quintal.

India records 3% surplus rainfall

More rainfall expected in the coming week

Business Line, Sep 12, 2019

Rainfall for the country as a whole continues to be in surplus and has clocked in at three per cent as of Thursday, with more rains expected in the coming week.

The monsoon withdrawal is running behind schedule.

A stubborn low-pressure area lords it over Central India, promising heavy to very heavy rainfall also for parts of East and East-Central India as well as North-East India.

Drawing out best

India Met Department (IMD) located the 'low' over North Madhya Pradesh and adjoining South-West Uttar Pradesh, practically unchanged from its location the previous day.

The slow pace in onward movement or near-stagnation often draws the best out of the system, generating heavy rainfall from out of the intense moisture flow from both the Bay of Bengal and the Arabian Sea.

Facilitating this is the monsoon trough that passed through Anupgarh, Alwar, the centre of the 'low' over North Madhya Pradesh, Sidhi, Chaibasa and Digha before dipping into the North-East Bay of Bengal.

Under the influence of the above systems, fairly widespread to widespread rainfall with heavy to very falls is likely to occur over Madhya Pradesh on Friday and Saturday, the IMD said.

A similar outlook is valid for Odisha, East Rajasthan, Gujarat, Assam, Meghalaya and Arunachal Pradesh on Friday. Centre's recording heavy rainfall (in cm) during the 24 hours ending on Thursday morning is as follows. Dwarka-20; Hoshangabad-16; Sagar and Jharsiguda-13 each; Tiruttani and Bulsar-11 each; Sundargarh and Jamshedpur-10 each; Porbandar and Diamond Harbour-9 each; Narsinghpur-8 and Kochi-7.

Deficit sub division

Meanwhile, the monsoon has lived up to its unpredictable pattern of spatial distribution, leaving parts of North-West India and adjoining East and North-East India (mostly along the hills) with varying deficit.

Among these are the Met subdivisions of Uttarakhand, Chandigarh, Delhi, Haryana, Uttar Pradesh, Bihar, Jharkhand, Bengal, Nagaland, Manipur, Mizoram and Tripura.

Of these, Haryana-Delhi-Chandigarh topped the deficit chart with a cumulative 40 per cent, while West Uttar Pradesh and Jharkhand ran up a distant second rank with 29 per cent each.

There is not much scope for improvement in these figures before the season ends officially on September 30, although weather models have hinted at another wave of rainfall across parts of these regions next week.

It would also depend on the withdrawal schedule of the monsoon, which too can drop varying amounts of rainfall along an arc from North-West to Central to South-West across the landscape.

Already, the Climate Prediction Centre of the US National Weather Service has predicted 'road blocks' on the way of the withdrawing monsoon being put by prospective wet events along the East Coast.

The North Tamil Nadu and adjoining South Coastal Andhra Pradesh coast as well as the Odisha coast would in stages see these events rolling out in phases, according to the US model.

Govt's ethanol push to help sugar mills, oil companies

More ethanol capacities are likely to be added in next three years ending existing constraints; even at current oil price, ethanol blending is profitable for oil companies

Business Line, Sep 12, 2019

Year after year, despite drought conditions in many parts of the country, we produce more and more of sugarcane – a water-guzzling crop, and there is a **huge amount of excess sugar in supply in the market today**.

In fact, we are entering the **Sugar season 2019-20 (October- September) with a record opening stock of 142 lakh tonnes of sugar** — that can actually serve half the country's annual demand.

While scrapping FRP to dissuade farmers from growing cane is not in consideration by states, given the vote bank of cane growers, all focus is now in pushing mills to divert cane into making of ethanol — a biofuel that derived from sugarcane that when blended with petrol, limits carbon discharge.

This will reduce excess sugar supplies in the market, and boost sugar price, helping mills. It will also reduce oil imports, and save dollars for the country. That way, the Centre thinks it can kill two birds with one stone.

A great idea. But, is it doable?

While the Centre keeps rising its ethanol-blended petrol (EBP) target every year (from 5 per cent to 10 per cent and now 20 per cent by 2030), given that it is not mandatory for oil companies, will they oblige? As oil prices have fallen sharply, will it still be worthwhile? Also, do sugar mills have enough capacity to produce sufficient ethanol to reach the 20 per cent blending target?

To reach the Centre's ambitious target of 20 per cent in blending by 2030, a back of the envelope calculation with India's current fuel consumption shows that **there** is the requirement of around 700-800 crore litres of ethanol in a year. But India's current ethanol production capacity is only around 355 crore litres.

Increasing capacity

The lack of capacity in ethanol production is not likely to pose a hurdle in reaching the blending target. With the Centre's soft loan (interest subvention) provision for sugar mills to build capacity in ethanol in June last year, many companies have come forward to expand or add new capacities. So far, a total number of 245 projects have been approved by the Government under the scheme for financial assistance says ISMA.

Around 300 crore litres of capacity is expected to be added if all the approved projects come on stream in the next 2-3 years, taking the total ethanol production capacity to 600-700 crore litres annually.

This will help take EBP to the desired target.

In 2018-19 ethanol supply year, i.e., December – November, about 163 crore litres of ethanol have been lifted by oil companies (till September 10) from sugar mills. This brings the **blending rate for the year to 5.6 per cent**. In the next two-and-half months, the total lifting may reach about 200 crore litres, say market observers.

Why oil companies are interested

Though there is no written mandate, oil companies have begun to show interest in blending petrol with ethanol in last few years, due to the government's constant push and the high price of oil, that has made blending ethanol with petrol an attractive deal.

Note that the cost of ethanol is lower to petrol for oil companies, but when selling it at the retail pump, oil companies sell ethanol-blended petrol at the same price as petrol and make a profit.

While last year the price of petrol at the retail pump (in Delhi) was about ₹81, the cost of ethanol worked out to about ₹62, the difference per litre was ₹19 for the oil companies.

Now, with a lower price for petrol, due to falling in crude prices globally, and the higher cost of ethanol (after price increase by the government), the profit has come down to ₹5/litre but is still attractive.

RBI panel pitches for federal body like GST Council in farm sector

The Goods and Services Tax (GST) Council that consists of the finance ministers of Centre and all the states, decides on tax rates.

The Economic Times, Sep 13, 2019

Mumbai: An RBI panel on Friday suggested setting up of a federal body on the lines of the **GST Council to implement reforms and boost credit flow in the agriculture sector**, besides pitching for direct transfer of subsidy and no farm loan waivers. Among other recommendations, the panel said **banks should develop a management information system (MIS) to flag loans sanctioned against gold as collateral in core banking solution (CBS) platform for effective monitoring of end use of funds.**

In February this year, the RBI had set up the 'Internal Working Group' to understand the reasons for regional disparity and other agricultural credit related aspects and suggest workable solutions to address constraints in accessing institutional agricultural credit.

Recommending solutions to improve farm credit flow, the panel said, "Government of India (GoI) should set up a federal institution, on the lines of GST Council, having participation from both the Centre as well as the states to suggest and implement reforms in the field of agriculture."

The Goods and Services Tax (GST) Council that consists of the finance ministers of Centre and all the states, decides on tax rates.

The panel said farm loan waivers should be "avoided" and interest subvention or subsidy given on farm loans should be replaced with Direct Benefit Transfer (DBT), which is being implemented in host of government schemes like subsidy on LPG and fertiliser.

It also stressed that banks should increase credit for allied farm activities as well and give consumption loans to farmers up to a sanctioned limit of Rs 1 lakh.

The panel further said that the Centre should push state governments to complete the digitisation process and updation of land records in a time bound manner.

That apart, state governments should give access to banks to digitised land records in order to verify land title and create charge online. In such states, banks should not insist on submission of land title documents, it added.

The panel also said state governments having a highly restrictive legal framework should be encouraged to reform their legal framework on the basis of Model Land Leasing Act proposed by NITI Aayog/ Land Licensed Cultivators' Act, 2011 of Andhra Pradesh so that formal lending to tenant farmers can improve.

On farm loan waiver, the panel said it should be "avoided" and both the Centre and state governments should undertake a "holistic review" of the agricultural policies and their implementation, as well as evaluate the effectiveness of current subsidy policies.

Among other recommendations, the panel said the **interest subvention scheme should be replaced with DBT** to targeted beneficiaries with an overall limit of Rs 3 lakh per individual farmer.

To curb the misuse of interest subsidy, banks should provide crop loans, eligible for interest subvention, only through Kisan Credit Card (KCC) mode.

To address regional disparity in agri-credit flow, the panel said priority sector lending (PSL) guidelines should be revisited and the National Bank for Agriculture and Rural Development (NABARD) should gradually increase the allocation of Rural Infrastructure Development Fund (RIDF) in central, eastern and north eastern states over a period of time.

Also, the corpus of RIDF should be increased and state governments should be sensitised to allocate a larger portion of their borrowing from RIDF for the purpose of absorbing funds for rural infrastructure development in their state.

To increase credit flow to allied farm activities, the panel suggested that the Centre should set separate targets for working capital and term loan towards allied activities under ground-level credit flow (GLC).

The panel also suggested easier norms for making available credit for allied activities of up to Rs 2 lakh.

Besides, banks should be allowed to give consumption loans to farmers up to a sanctioned limit of Rs 1 lakh under PSL provided banks are able to obtain collateral security and are satisfied with their repayment capacity based on the cash flows of the borrowers. However, such loans will not classify for PSL-Agri.

Stating that there is no guarantee scheme available to banks to cover the default risk of the borrowers, the panel said that the Centre in partnership with state governments should set up a credit guarantee fund for the agriculture sector on the lines of credit guarantee schemes implemented in the MSME sector.

It also stressed on the need to develop a centralised database of the Indian agriculture sector which will help in planning policy formulation.

To improve ease of credit, the limit of Rs 3 lakh for waiving collateral security by the banks in case of tie-up arrangements should be revised to Rs 5 lakh under the existing KCC guidelines subject to the condition that the tie-up arrangements are between the producers and processing units without any intermediaries.

World Bank to sanction Rs 3,000 cr for food parks: Govt

The government is trying its best to double the income of farmers and is laying lot of focus on mega and mini food parks so that processing of grains produced by farmers is done optimally.

The Economic Times, Sep 03, 2019

NEW DELHI: The World Bank will provide Rs 3,000 crore funds to finance mini and mega food parks across the country, particularly in Northeast, and help boost farmers' income, Union Minister Rameswar Teli said on Friday. Minor formalities remain to be completed on this front before the first disbursement of the sanctioned amount is released, the Minister of State for Food Processing Industries said.

He made the remarks while addressing 15th Indo-US Economic Summit organised by the Indo-American Chamber of Commerce- North India Council (IACC- NIC) here.

"The World Bank has agreed to sanction Rs 3,000 crore for the Ministry of Food Processing to enable it finance mini and mega food parks across the country," Teli was quoted as saying at the event.

The minister, in a statement issued by IACC-NIC, urged India Inc to come forward and take advantage of the policies of the government to set up food processing units in the country in which the element of subsidies go to an extent of 75 per cent.

The government is trying its best to double the income of farmers and is laying lot of focus on mega and mini food parks so that processing of grains produced by farmers is done optimally and ultimately farmers gain with such policy decisions, he said.

"In fact, efforts are being put in to sanction food parks and mini food parks within 10 acres of land ceiling since huge landscapes are not available in every state," Teli added.

The minister also said the budget allocation for food processing ministry should be raised to Rs 3,000 crore a year from the current level of Rs 1,400 crore in order to boost the sector.

Yes BankSenior President (Global Head Food and Agri Strategic Advisory and Research) Nitin Puri, Frick India Managing Director Jagmohan Singh as well as US Embassy official Mark Wallace were present at the event.

How wheat can help in fight against 'hidden hunger'

Fortified with zinc, iron the staple cereal can tackle issue of food lacking in nutrients, which causes stunting, wasting among children across India.

The Economic Times, Sep 15, 2019

India has made impressive gains in overcoming hunger, but the fight against "hidden hunger" remains a huge challenge. Nearly three out of five children below age 5 and more than half (54%) of all pregnant women in the country are anaemic. Close to two out of five kids in the same age group are stunted and more than one in every five is wasted, which means they are too thin for their height.

The WHO describes hidden hunger as a lack of vitamins and minerals that occurs when the quality of food people eat does not meet their nutrient requirements. It's a silent epidemic that cuts across gender and age divides in much of India's heartland and beyond. The problem calls for persistent action on several fronts, but here is the good news. Researchers now say a potent weapon in this fight could be the humble wheat, a staple consumed across classes in the region.

It's a potential game changer that the Modi government, which launched the Kuposhan Mukt Bharat (Malnutrition-free India) campaign last year, has begun to take note of.

Breakthroughs in breeding have produced **new varieties of the cereal, called biofortified wheat, containing significantly higher amounts of zinc and moderately raised levels of iron** — two micronutrients WHO identifies as the most lacking in diets globally.

"We scanned our seed bank looking for traditional wheat varieties (called landraces) from around the world that had high zinc content. Through breeding techniques such as backcrossing, we succeeded in transferring

the high zinc trait to elite wheat varieties that are also high-yielding and disease resistant," says Velu Govindan, the main breeder of the programme at Cimmyt.

Over the past few years, Govindan's team in Mexico has released a number of varieties that have 20-30% higher zinc content than other wheat, along with elevated iron levels. The success of the programme has now led to a more ambitious plan to transfer the high zinc and iron traits into all elite wheat varieties developed by Cimmyt. The project is key because Cimmyt, through its partner agencies, is a major source of new wheat

varieties around the world, particularly India.

HarvestPlus ranks India at **No. 3 out of 128 countries suitable for investing in zinc wheat**. That's not just because the country has the highest hidden hunger numbers but also since it is **whole wheat grain that is consumed in India**, mostly as chapattis, making it ideally suited to gain from zinc wheat as a good proportion of the nutrients lie in the outer layer of the grain — the bran — which is discarded in many countries.

Trials have been encouraging. A study among 6,005 women and children (aged 4 to 6) in Delhi, published in Nutrition Journal last year, said kids fed high-zinc wheat spent 17% fewer days with pneumonia and 39% fewer days vomiting compared to peers who were given conventional wheat. Women who took high-zinc wheat spent 9% fewer days with fever.

Eleven varieties of zinc wheat, adapted from Cimmyt's

strains by centres such as Punjab Agriculture University, Banaras Hindu University and private players, have been **released in India so far**. "The varieties are doing well. These have biofortified elements, the yields are high and the plants are disease-resistant. **For this rabi season, the government has planned 300 to 400 frontline demonstrations for farmers, particularly for zinc wheat varieties," says GK Singh, director of the government-run ICAR-Indian Institute of Wheat and Barley Research, Karnal.**

Singh says the **Centre aims to include zinc wheat in the mid-meal programmes**. But before that, a market segregation mechanism needs to be developed. "We have to **segregate these varieties for their premium quality and for better prices to incentivise farmers**. The government is trying to implement a plan at the mandi-level. Discussions have started on how to roll it out," Singh added.

Government Policies and Initiatives

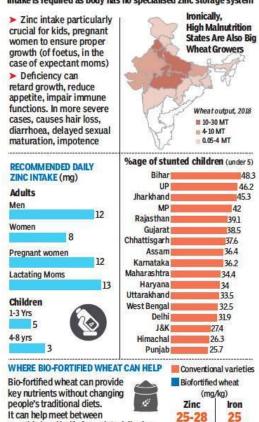
To promote desi cows, govt orders semen from Brazil

In 2017, the government tried to import the frozen semen from Brazil, but postponed the decision due to objection from cattle breeders.

The Economic Times, Sep 03, 2019

WHY ZINC IS IMPORTANT

t is an essential micronutrient needed for synthesis of proteins, healing of wounds, etc. Plays a role in immune function. Daily intake is required as body has no specialised zinc storage system



37-40

31-32

one-third and half of people's daily zinc

requirements and also provide iron

NEW DELHI: The Narendra Modi led government, which has been keen to promote domestic cow breeds over the Jersey ones currently popular in various parts of the country, has entered into an agreement with Brazil to get one lakh doses of semen of the Gir variety of bulls for artificial insemination.

"Within one-and-a-half months, the agreed doses of semen of our indigenous Gir bulls will be available in the country," Sanjeev Balyan, minister of state for animal husbandry told ET. "This will be distributed across the state to promote breeding of indigenous cows within the country."

In 2017, the government tried to import the frozen semen from Brazil, but postponed the decision due to objection from cattle breeders.

Gir or Gyr is one of the principal Zebu breeds that originated in India. It was gifted by the Maharaja of Bhavnagar to Brazil in 18th century and Brazil has preserved the original breed of Gir cows. Over the years, Gir has become a high milk-producing breed and is quite popular in South American countries due to its ability to survive extreme weather.

On the other hand, **India saw a constant decline** in the number of indigenous varieties as farmers preferred breeds like Jersey, which yield more milk than the local variety.

According to the **2012 livestock census, there were 151.17 million indigenous cattle.** The livestock census for 2019 will be released soon and the government expects a significant decline in indigenous cattle numbers.

The animal husbandry ministry is also rapidly working to tag all cattle in the country.

"We have, as of now, tagged 2.28 crore cattle across the country," Balyan told ET.

"Around **27,000** cows and buffaloes are getting tagged every day. Once this is complete, we will also start tagging other livestock such as lamb and goats." The tags will provide a unique identity to cattle and the data will have details such as breed, productivity and approximate age.

PM-Kisan: Uttar Pradesh to cover 29 million farmers

The BJP-ruled state has revised its target after covering almost all of the 23.22 million farmers under the 6,000-a-year scheme as per the count of farmers in the 2011 Census.

The Economic Times, Sep 04, 2019

New Delhi: The Uttar Pradesh government plans to cover 29 million farmers under the PM Kisan Samman Nidhi minimum income support scheme by the end of September. The BJP-ruled state has revised its target after covering almost all of the 23.22 million farmers under the 6,000-a-year scheme as per the count of farmers in the 2011 Census.

In a letter sent to all district magistrates in the state on Monday, the UP government said records of 23.18 million farmers in the state had been fed into an online portal by district authorities for the PM Kisan Samman Nidhi scheme. The number represents more than 99 per cent of the initial target of 23.22 million farmers as per the census. However, given that more farmers exist in the country's most populous state at present, many districts achieved more than 100 per cent of their target as per the census, including 120-130 per cent in districts such as Hathras, Etawah, Saharanpur and Agra, hence necessitating a "table-top exercise" to ascertain the actual number of farmers in the state.

In the letter, the UP government said that as per its estimates almost 29 million farmers in the state are eligible for the PM Kisan Samman Nidhi scheme. "It is expected from you that by the end of September, the data of all farmers must be fed on to the online portal so that all farmers in the state can benefit from the scheme," said the letter.

UP has been the biggest beneficiary under the scheme so far, with nearly 16 million farmers getting the first instalment of Rs 2,000 into their bank accounts and 11 million getting the second instalment as well. The state proceeded with great speed after June following chief minister Yogi Adityanath's intervention to fix a deadline for the data of all 23 million farmers as per the 2011 Census to be uploaded on the central portal as soon as possible.

Mizoram govt wants to tie up with global entrepreneurs in organic movement: C Lalrinsanga

We have also established Organic Markets to help farmers sell their produce at fair prices and become economically profitable, says C. Lalrinsanga.

The Economic Times, Sep 03, 2019

C. Lalrinsanga, Minister of Agriculture, Govt. of Mizoram said government is looking forward to tie up with global entrepreneurs in the organic movement. We have also established Organic Markets to help farmers sell their produce at fair prices and become economically profitable. We also provide incentives and financial assistance to deserving and needy farmers.

International Competence Centre for Organic Agriculture (ICCOA) and Tefla's had organised Organic Food India Conclave – OFIC 2019 over the weekend in Mumbai.

C. Lalrinsanga, said, "Our Government is focused on Organic farming since 1990s and The Mizoram Organic Farming Bill-2004 was unanimously passed by the Mizoram Legislative Assembly in July 2004, and since then I have supported only organic farming techniques like vermiculture, composting, use of crop residue, animal manures, green manures, off-farm organic wastes to supply organic manures like Neem cake, Celrich, etc. to the needy farmers to supplement their plant nutrient requirement, crop rotation incorporating legumes and use of Bio-Fertilizers, Organic manures, biological pest control to maintain soil productivity. I personally ensure regular training to the farmers as well as regular audits by certifying agencies. Mission Organic Value Chain Development for Northeast East Region (MOVCD-NER) is implemented in the region and is focusing on the cultivation of tea, turmeric, ginger and also Mizo Chili which has received the Geographical Indication (GI) tag."

It was stressed that **companies need to build trust that their products are organic**. "The consumer is sometimes confused about the authenticity of the product being organic or not and to overcome this challenge we must ensure that the organic product pricing is same or less than that of the non-organic products. Presently the companies have to build trust that their products are organic and back it up by certification from recognised agencies," said Vijay Sardana, SEBI, Public Interest Director – MSE.

"ICCOA is currently managing over 65000 hectares and working with 110,000 farmers in Organic Projects across sixteen states in India. The organic revolution is an opportunity for rural enterprises to cater to the market needs and grow multifold in coming years," said Manoj Kumar Menon, Executive Director, ICCOA.

Indian Sugar Mills Association welcomes rise in ethanol prices for 2019-20

Indian Sugar Mills Association said that the industry is investing in ethanol capacities The Economic Times, Sep 03, 2019

PUNE: Industry body Indian Sugar Mills Association (ISMA) has welcomed central government's decision today to increase ethanol prices for 2019-20.

Avinash Verma, director general, Indian Sugar Mills Association (ISMA) said, "Government's decision to increase ethanol price once again, with special emphasis and a higher increase for ethanol made from B-heavy molasses, confirms the Government's commitment towards **encouraging more diversion of the surplus sugarcane/sugar into ethanol.** The second very important decision of allowing a single premium price for the ethanol made from partial or 100% sugarcane juice is another big and positive step in this direction. These decisions will help in further increasing the ethanol blend levels from the current 6% average levels across the country."

ISMA said that **the industry is investing in ethanol capacities**. "The industry is responding very positively by hugely investing in new or expansion of ethanol production capacities, which will ensure that **we will achieve the Government's 10% ethanol blend targets almost certainly by 2022**. Overall another excellent and very positive policy decision by the Government to **encourage more production of the green bio-fuel and at the same time reducing some of the surplus sugar as also helping in more timely payment to our cane farmers.**"

Pramod Chaudhari, executive chairman, Praj Industries India said, "The decision to increase ethanol price is an encouraging development for the farming community as well as industry. Higher price for ethanol will not only help in dealing the **problem of heavy sugar stock but also result in reduction crude oil imports due to improved ethanol blending rate**."

Central Government to invest Rs 25,000 crore in 5 years to revamp fishery infrastructure

To increase inland fisheries' production to six million tonnes from three million tonnes in the next three to four years

Business Line, Sep 03, 2019

With the objective of achieving the real goals of the ambitious Blue Revolution project, the Union Government has lined up Rs 25,000 crore investments in different sectors of fisheries in the next three to five years.

"We are looking at three types of support by way of infrastructure development in harbours; extending subsidies to joint venture projects to set up hatcheries/nurseries/quarantine facilities as well as viability gap funding to establish processing plants, cold chain facilities at harvest or landing sites, said Rajni Sikhri Sibal, Secretary, Department of Fisheries.

As inland fisheries contribute only 50 per cent of the total fish production, the Government intends to outspread its potential by covering reservoirs, wetlands, rivers and streams in different parts of the country. "We are planning to promote cold water fisheries in the entire Himalayan region to rear high value fishes. We will soon sign an MoU with Iceland and Denmark to breed trout fish, a high value variety. We have already signed an MoU with Norway in this regard," she said.

Considering the low contribution of **inland water fisheries**, the Government looks to **increase its production to six million tonnes from three million tonnes in the next three to four years**. To achieve the target, she said **quality seed**, **quality feed**, **aquatic animal health laboratories**, **quarantine facilities** are a major requirement.

The Fisheries Secretary was interacting with BusinessLine on the sidelines of Aqua Aquaria India 2019 at Hyderabad.

States need to set up price stabilisation funds: Ram Vilas Paswan

Paswan said the Centre has also sought suggestions from states on changes in the Essential Commodities Act.

The Economic Times, Sep 04, 2019

NEW DELHI: The Centre has asked states to set up separate price stabilisation funds, similar to the one established by the Centre, to help regulate price volatility in important agri-horticultural commodities such as onion, potatoes and pulses.

On Tuesday, minister for food, public distribution and consumer affairs Ram Vilas Paswan also asked states facing shortage of onions and pulses to source them from the Centre's buffer stock, which has 1.4 million tonnes of pulses and 56,000 tonnes of onions.

"West Bengal, Odisha, Andhra Pradesh and Telangana have their own PSF. More states should join the league. States facing shortage of onions and pulses may ask us for supply," Paswan said at the fifth national

consultation meeting with ministers of states who have gathered to deliberate on consumer issues. "We will ensure that prices of these commodities don't rise."

Paswan said the Centre has also sought suggestions from states on changes in the Essential Commodities Act.

Farmers paid Rs 700 crore for damage of cotton by whitefly in Haryana

The government has also implemented the Mukhyamantri Parivar Samridhi Yojana, under which poor people would be provided financial benefits of upto Rs 6,000 annually.

The Economic Times, Sep 06, 2019

CHANDIGARH: Harayana Chief Minister Manohar Lal Khattar said that the government has given compensation of Rs 700 crore to farmers for crop damage caused by whitefly. He further said that the present State Government has ensured sufficient supply of electricity in villages.

"Present State Government has given compensation of Rs 700 crore in Sirsa district alone on account of damage to Narma crop due to attack of white fly," Khattar said. "Steps have been taken for the welfare of all sections of the society including farmers, traders, sports person and senior citizen," he added.

Recently, the state government waived off interest and penalty on crop loans of farmers taken from cooperative banks. This will benefit 10 lakh farmers to the tune of Rs 4,750 crore. The government has also implemented the Mukhyamantri Parivar Samridhi Yojana, under which poor people would be provided financial benefits of upto Rs 6,000 annually.

Khattar said that people are satisfied with the working of the present Government. "Government jobs are being given on merit basis and this has given a positive message among the people," he said. "Besides the development works, the present State Government has also worked towards improving the living standard of people."

He also appreciated the people of Sirsa for cooperating the electricity department be it the work of installation of electricity meters or replacement of wires. He said that now the people have also started paying electricity bills.

Earlier, MP Sirsa Mrs Sunita Duggal welcomed the Chief Minister on the arrival of Jan Ashirwad Yatra in Sirsa.

FSSAI submits guidelines on plastic ban to NGT

Various ministries are now actively working towards successful achievement of this goal NuFFooDs Spectrum, Sep 06, 2019

Food Safety and Standard Authority of India (FSSAI) will soon be coming out with a report on draft guidelines to achieve plastic ban in India that they have already submitted to NGT (National Green Tribunal).

Various ministries are now actively working towards successful achievement of this goal. The Union Minister of Consumer Affairs Food and Public Distribution, Ram Vilas Paswan recently announced a blanket ban on all types of single use plastic products in the Ministry of Consumer Affairs, Food and Public Distribution and all its PSUs including Food Corporation of India (FCI).

The decision on this was taken in a high level meeting with Secretaries of both the Departments i.e. Consumer Affairs and Food, CMD FCI, DG Bureau of India Standards, MD of CWC, Director Legal Metrology along with other senior officials of the Ministry. It was decided that all single use plastic products will be completely banned in Ministry and its PSUs from 15th September.

Union Minister Ram Vilas Paswan asked the officials to make alternate arrangements to ensure that the ban is effective.

Cutting down on sugar: FSSAI eases soluble solid norms for fruit-based drinks

Move will amplify Eat Right India initiative

Business Line, Sep 06, 2019

In a move that will **enable companies to launch fruit-based beverages with lower sugar content**, the Food Safety and Standards Authority of India (FSSAI) has decided to **remove the mandatory requirement of minimum percentage of total soluble solids (TSS) in fruit nectars, fruit drinks and carbonated fruit beverages.**

TSS norms

TSS is a parameter that measures the sugar content in fruits and beverages.

This is one of the regulatory steps that FSSAI is taking to amplify its Eat Right India initiative.

Pawan Agarwal, CEO, FSSAI, said that this will enable companies to reformulate their existing products. "It will also encourage development of products with lower amount of TSS, allowing them to restrict addition of sugar to these products," he added.

Beverage industry executives said that so far "legacy" TSS norms for fruit-based beverages were posing to be an impediment to come out with lower sugar products. In a bid to meet the TSS requirement, companies had to add sugar to fruit drinks, nectars and fruit-based carbonated beverages beyond naturally occurring sugars, a senior industry executive pointed out.

Almost all the key beverage companies such as Coca-Cola, PepsiCo and Dabur are working on reducing sugar levels in their existing products and looking to launch new products with lower sugar levels.

Labelling & packaging

Agarwal also said that FSSAI is reviewing the labelling provisions to promote judicious use of sweeteners in food products and facilitating availability of such products for consumers.

Over the last one year, the food safety authority has been taking various regulatory measures in line with its Eat Right India movement, which is aligned with the government's public outreach programmes such as Poshan Abhiyaan, Anemia Mukt Bharat, Ayushman Bharat Yojana and Swachh Bharat Mission. The FSSAI is in the process of finalising front-of-the-pack nutrition labelling for packaged food products and school food regulations. Food fortification standards for staples and regulations to check on misleading claims by packaged food companies have already been notified.

Norms for reducing trans-fatty acids in edible oils, vanaspathi and industrial margarine to less than 2 per cent by 2022 have also been notified.

In addition, the authority is **looking at introducing regulations that will make menu-labelling mandatory for large restaurant players.**

Speaking at an event to launch a mass media campaign for the initiative, Union Health Minister Harsh Vardhan said that given the rise in non-communicable diseases, there is a need to amplify the key message of Eat Right India movement.

MoHFW kicks off nutrition campaign, Eat Right India mass media campaign Food and Beverage News, Sep 07, 2019

The Ministry of Health and Family Welfare (MoFHW) kickstarted its nutrition campaign yesterday with a year-long social and mass media campaign on the Eat Right India movement.

Led by Dr Harsh Vardhan, ministry of health and family welfare, at an event in New Delhi organised by the FSSAI on Eat Right Campaign, the ministry also launched the new Eat Right India logo that represents a healthy plate, an online Eat Right Quiz, the Eat Right Online Course for frontline health workers and the Eat Right India Store featuring merchandize to nudge right eating habits.

The Eat Right India movement is being helmed by FSSAI as a crucial preventive healthcare measure to trigger social and behavioural change through a judicious mix of regulatory measures, combined with soft interventions for ensuring awareness and capacity building of food businesses and citizens alike, informed FSSAI CEO Pawan Agarwal while delivering keynote address on the occasion.

He told that this movement is aligned with the Government's flagship public health programmes such as POSHAN Abhiyaan, Anaemia Mukt Bharat, Ayushman Bharat Yojana and Swachh Bharat Mission.

He said, "The groundwork for escalating the Eat Right India Movement to the level of a Jan Andolan has been underway during the past few months. FSSAI has put in place robust regulatory measures under three major pillars: Eat Safe, Eat Health and Eat Sustainably. FSSAI has prescribed a limit for Total Polar Compounds (TPC) at 25% in cooking oil to avoid the harmful effects of reused cooking oil. Standards for five fortified staples - wheat flour, rice, oil, milk and salt to reduce large-scale deficiencies of vitamins and minerals have been notified, in addition to standards for health supplements, nutraceuticals, pre-biotics and probiotics products."

He added that to trigger informed consumer choices regulations on Advertising and Claims and mandatory menu labelling has been notified. In addition, labelling provisions have been made for appropriate use of sweeteners for children and pregnant women. To reach the target of Trans-fat Free India by 2022, regulations to reduce trans-fats to less than two per cent in all oils, fats and food products are in place. Also, promoting sustainability, FSSAI has removed the restriction on the use of returnable bottles and is promoting the use of bamboo instead of plastics.

He informed that preparatory work for creating awareness around mindful eating is also in place, with pilots/prototypes for clusterisation schemes such as Clean Street Food Hubs, Clean and Fresh Fruit and Vegetable markets and Eat Right Campus for schools, colleges, workplaces and other campuses being successfully tested on a pan-India basis. Food businesses have participated in large-scale training and capacity building programs on ensuring food safety through the Food Safety Training and Certification (FoSTaC) initiative, under which over 1.7 lakh Food Safety Supervisors have been trained and certified. Robust material in the form of Pink Book, Yellow Book, DART Book, informative videos etc are in place, and can be accessed through a video library on FSSAI's website.

Present on the occasion was Dr Poonam Khetrapal Singh, regional director, World Health Organization (WHO), FSSAI chairperson Rita Teaotia and MoHFW secretary Preeti Sudan.

FSSAI to put forth regulation limiting trans-fats through FSSR amendment

Food and Beverage News, Sep 09, 2019

The Food Safety and Standards Authority of India, in order to strengthen its fight against trans-fats and limiting its percentage in food products, has decided to put forth a regulation through an amendment in the Food Safety and Standards (Prohibition and Restriction on Sales) Regulations, 2019.

FSSAI had issued a draft notification saying that from January 1, 2022, the limit of trans-fats in the food products shall not be more than two per cent.

Earlier, it was a voluntary provision, but through this regulation, FSSAI is making it mandatory for the food

businesses.

The draft stated, "Food products in which edible oils and fats are used as an ingredient shall not contain trans fatty acids more than two per cent by weight of the total oils/fats present in the product, on and from January 1, 2022."

"To reach the target of Trans-fat Free India by 2022, regulations to reduce trans-fats to less than two per cent in all oils, fats and food products are in place," said Pawan Kumar Agarwal, chief executive officer, FSSAI.

Recently, the regulator also launched the trans-fat-free logo. It will help the FBOs make claims about the same, while helping consumers make informed choices.

According to the experts, trans-fats are considered to be the worst type of fats. A diet laden with trans-fats increases the risk of heart diseases and decreases good cholesterol in the human body.

The manufactured form of trans-fat, known as partially hydrogenated oil, is found in a variety of food products, including baked goods, snacks, fried foods, creamers, and margarine.

For the last two years, FSSAI has been engaged in intense campaigning to reduce the trans-fats from the food products, particularly against industrially-produced trans-fats.

The FSSAI's plan is inspired by the WHO's (World Health Organization) programme called Replace. According to the FSSAI, the industry has recognised the threat trans-fat poses for a healthy diet system, and therefore, agrees with the plan.

Agarwal also pointed out that industry whole heartily agreed to eliminate the trans-fat and they would look for alternatives for the products' manufacturing.

According to Ashwin Bhadri, chief executive officer, Equinox Labs Mumbai, the FBOs have a daunting task ahead of them to research on availability of substitutes and then develop products which can be taxing.

"However, the regulation will be effective from January 1, 2022, and FBOs have a good time on their hands. A good amount of efforts and time shall be needed by FBOs for product development with said standards by FSSAI. Moreover, India will see the face of a new market in a couple of years," he said.

Bhadri added that foods that did not contain trans-fats were not necessarily good for health. However, food manufacturers have to substitute these fats with good ones.

Ingredients such as olive, peanut and canola oils — is a healthier option than saturated fat. Nuts, fish and other foods containing unsaturated omega-3 fatty acids are other good choices of foods with healthy fats.

"India has become aware of health issues pertaining to trans-fats. More and more food companies are now considering lower limits of trans-fats. Also, with strict regulation by FSSAI, the FBOs have been encouraged to deploy new healthier options. Food companies will have to substitute these unsaturated fats to create space for a healthier market," Bhadri opined.

60% funding for cow dung, urine startups

Newsrain, Sep 09, 2019

AHMEDABAD: Startups focused on "commercializing" cow by-products like dung and urine, in addition to dairy, could receive up to 60% of their initial investment as government funding, the chairman of the newly-established Rashtriya Kamdhenu Aayog has said.

"We will encourage youths to go for cow-based entrepreneurship and earn not only from products like milk and ghee, but also by-products like urine and dung that can be used for medicinal and agricultural purposes," Vallabh Kathiria, chairman of the cow board, told TOI.

Kathiria has been meeting academicians and interacting with students of the Gandhinagar-based Entrepreneurship Development Institute of India to chalk out strategies to attract youths aspiring to be entrepreneurs towards "cow-based business models".

The kamdhenu aayog, set up by the Narendra Modi government in February with an initial corpus of 500 crore, aims to be the growth engine for these new businesses. Kathiria said "commercialization of cow urine and dung" would encourage people not to discard cows that have stopped giving milk.

"We will also encourage research on the medicinal value of cow by-products. **The board will provide a** platform to scholars and researchers to project their research on these by-products. We will also hold training programmes and skill development camps for people already running gaushalas," he added.

The board chairman had earlier announced plans to promote a cow tourism circuit.

"The route will wind through areas where indigenous cow breeds are reared. We have identified states like Haryana, Uttar Pradesh, Rajasthan, Gujarat, Maharashtra, Karnataka, Kerala and Goa for this circuit," Kathiria said.

FSSAI shelves new labelling norms after stiff resistance from industry

Food and Beverage News, Sep 10, 2019

The new labelling norms that were under consideration of FSSAI have been shelved as they met with stiff resistance from the industry.

According to a senior functionary with the country's apex food regulator, the matter has now again been **referred to the scientific committee** looking into the subject of labelling and efforts will be for making it more considerate.

A reassessment on the implementablity of the labelling norms in the FSSAI led the apex regulator to consider a gradual approach on the subject.

Sources stated that the regulator has started considering threshold limits for individual ingredients (salt, sugar and fat) which has been a bone of contention between the industry and the regulator for quite some time.

They added that it will conduct a study into the subject of consumption pattern, and a target will be set in consultation with the industry. It will try and convince the industry to lower the amount of sugar, salt and fat in the food products later.

This approach is in line with the one adopted by the FSSAI in limiting the trans-fats in the food products, first setting a target and then bringing all the stakeholders on board.

The industry sources stated that the stakeholders needed to ensure that there were no scientific shortcomings in the regulations and they could be implementable.

According the FSSAI, its new labelling and display regulations were ready for draft notification in June earlier this year, and were meant to supersede the Food Safety and Standards (Packaging and Labelling) Regulations, 2011.

These regulations proposed to make it mandatory to display red colour-coding on front-of-the-pack labels on

packaged food products that have high-fat, high-sugar and high-salt content levels, and this requirement would be implemented in a phased manner for a period of three years. This provision was strictly challenged by the industry.

Centre to pump in Rs 8,000 crore in J&K to boost income of farmers and traders Decision taken in wake of terrorists threatening growers against selling their produce in market Economic Times, Sep 11, 2019

NEW DELHI: The Centre will pump in Rs 8,000 crore to help apple and dry fruit traders in J&K and revive business sentiment in the Valley, including Rs 2,000 crore towards procuring apples directly from growers this season, officials said.

State-run National Agricultural Cooperative Marketing Federation of India (Nafed) will procure 60% apples produced in the state this season in the wake of terrorists threatening apple growers not to sell their produce in the market, officials told ET.

Nafed would procure A, B and C grade apples under a special Market Intervention Price Scheme (MISP) and payments will be made directly to the growers' bank accounts through the direct benefit transfer (DBT) mode within 48 hours, they said.

"Quality control-cum-grading committees will be constituted for each mandi for validation-cum-certification of the apple to be procured at the mandis," an official said.

The government would set up a state-level price fixation committee to determine procurement price based on the variety and grade of apples, and other incidental charges like packaging, transportation, storage and related expenditure.

Nafed would procure apples from farmers through the directorate of horticulture, planning and marketing. According to official data, Kashmir accounts for production of 91% walnuts, 90% of almonds, cherry and saffron, and 70% apples in the country, worth a total of Rs 7,000 crore annually.

But the shutdown following abrogation of the special status given to J&K under Article 370 and bifurcation of the state into two Union Territories early last month has hit apple trade in the Valley, with fruit truck movement significantly reduced.

To add to farmers' woes, militants have warned them against selling their produce in the market. Recently, militants attacked a businessman at Sopore — which houses one of the biggest fruit mandis in the valley — injuring four persons including a 4-year-old girl, after he tried to defy the separatists' shutdown call.

J&K chief secretary BVR Subrahmanyam on Monday asked the state authorities to assess the number of trucks required for transportation of apple crop and formulate a movement plan for trucks to take fruits out of the state. As per J&K administration, it would require 1,100-1,200 trucks per day to transport apples during the peak season starting September 15.

New FSSAI bamboo guidelines bring clarity on use in spoons, fork, cups

Food and Beverage News, Sep 11, 2019

The apex food regulator, FSSAI, has issued guidelines for using bamboo as food contact material, these need to be followed in manufacturing, handling and using of bamboo items such as spoons, fork, knife, straw,

stirrer and cups.

The advisory issued by FSSAI says that the Scientific Committee on Food Additive, Processing Aids and Material in Contact with Foods, and Scientific Panel on Biological Hazards have examined the safety aspects of the food contact material manufactured from bamboo and observed that there is no reported literature available regarding contamination of food from use of such utensils made from bamboo.

The advisory states, "Their use as food contact materials if manufactured and maintained under hygienic conditions are safe."

The guidelines say that the final products manufactured from bamboo shall comply with the minimum requirement such as the tools should have a smooth surface free from dirt, off odour and colouration, free from chemical contaminants and microbial pathogens. They must be durable and reusable having good shelf life.

The advisory also adds that the advertisement of such tools shall not mislead the consumers and shall be consistent with the actual composition of the products.

FSSAI has further directed the manufacturers of bamboo food contact items that such material shall be manufactured and handled under hygienic conditions so as to prevent any physical, chemical and microbial contamination. And it should only be made from edible bamboo varieties and shall not contain any material in combination with bamboo while it should be disinfected in salt, neem and boiling water.

The advisory says that good hygiene practices shall be followed at each and every step of manufacturing, handling and storage of these food contact materials.

PM Modi to launch National Animal Disease Control Programme

- -The project will cost ₹12,652 crores for a period of five years till 2024
- -The programme, to be launched in Mathura, aims to control the livestock diseases by 2025 and eradicate these by 2030

Live Mint, Sep 11, 2019

New Delhi: Taking a step closer towards realising the electoral promise of doubling farm income by 2022, Prime Minister Narendra Modi is scheduled to **launch the National Animal Disease Control Programme (NADCP) for eradicating the foot and mouth disease and brucellosis in livestock** on Wednesday.

The project, which will cost ₹12,652 crores for a period of five years till 2024, will be funded entirely by the government. The programme, to be launched in Mathura, aims to control the livestock diseases by 2025 and eradicate these by 2030.

"The programme aims at vaccinating over 500 million livestock including cattle, buffalo, sheep, goats and pigs against the FMD. The programme also aims at vaccinating 36 million female bovine calves annually in its fight against the brucellosis disease," tweeted PMO India, office of the Prime Minister of India.

The choice of Mathura for the launch of the programme is interesting because the support of Uttar Pradesh was instrumental in bringing back Prime Minister Narendra Modi to power for a consecutive term. Apart from its political significance, Mathura is also a holy city and many farmers in the region have traditionally been dependent on livestock.

"Prime Minister shall also be **launching the National Artificial Insemination Programme**. **Also expected is the simultaneous launch of the nationwide workshops in KrishiVigyanKendras in all the 687 Districts of the country on the topic of vaccination, disease management, artificial insemination and productivity,**" tweeted PMO.

During his visit to Mathura, Modi will also take part in the Swachhta Hi Seva programme.

PM Modi Calls On Startups To Address Challenges In India's Dairy, Animal Husbandry Sector

- -PM Modi opened the challenge in Mathura today
- -Applications are open for problems affecting the dairy and animal husbandry sector
- -Interested startups can apply on the Startup India website till Oct 13

Inc42, Sep 12, 2019

Startup India and the Department of Animal Husbandry have partnered to launch Animal Husbandry Startup Grand Challenge. The challenge was launched today by Prime Minister Narendra Modi at a national animal disease control programme held at Mathura.

Addressing the gathering, PM Modi called for applicants for the challenge and said various startups can be launched on the themes of the challenge. "The solution for India's problem will come from Indian soil itself that is my trust," he said.

The applications are open for six problem statements that are affecting the dairy and animal husbandry sector, this includes:

- **Single use plastic alternatives**: using environment-friendly alternatives for replacing single-use polythene in dairy sector
- Eliminating milk adulteration: tackling milk adulteration
- **Breed improvement and animal nutrition**: use of innovative technologies for quick genetic gain among Indian breeds of cattle and buffalos. new varieties of green fodder and enriched animal feed
- Value added products: introduce value added dairy products viz. cheese, smoothies, flavored milk, custard, yoghurt and other ethnic indian products using innovative techniques for smaller domestic as well as export markets
- **Ecommerce solutions**: encouraging innovations to provide modern digital infrastructure and advisory services across the country
- Product traceability: using technologies to track the journey of dairy products from farm to fork

The applications are open to all DPIIT-registered startups across industries. Interested startups can apply till October 13.

The challenge comes at a time when PM Modi hinted towards a mass movement for eradicating plastic, along the lines of Swachh Bharat Abhiyaan, and is expected to announce strict measures on October 2 to curb plastic use

The government's call to ban single-use plastic is expected to include a ban on the use of plastic bags, cups, plates, small bottles, straws and certain types of sachets. This is further expected to clip 5% to 10% from India's annual consumption of about 14 Mn tonnes of plastic.

Reports have suggested that the government will also ask ecommerce companies to cut down on plastic packaging that makes up nearly 40% of India's annual plastic consumption. The authorities are also reportedly thinking of ways to make ecommerce companies recycle the waste that they generate.

Govt's ethanol push to help sugar mills, oil companies

More ethanol capacities are likely to be added in next three years ending existing constraints; even at current oil price, ethanol blending is profitable for oil companies

Business Line, Sep 12, 2019

Year after year, despite drought conditions in many parts of the country, we produce more and more of sugarcane – a water-guzzling crop, and there is a huge amount of excess sugar in supply in the market today.

In fact, we are entering the Sugar season 2019-20 (October- September) with a record opening stock of 142 lakh tonnes of sugar — that can actually serve half the country's annual demand.

While scrapping FRP to dissuade farmers from growing cane is not in consideration by states, given the vote bank of cane growers, all focus is now in pushing mills to divert cane into making of ethanol — a biofuel that derived from sugarcane that when blended with petrol, limits carbon discharge.

This will reduce excess sugar supplies in the market, and boost sugar price, helping mills. It will also reduce oil imports, and save dollars for the country. That way, the Centre thinks it can kill two birds with one stone.

A great idea. But, is it doable?

While the Centre keeps rising its ethanol-blended petrol (EBP) target every year (from 5 per cent to 10 per cent and now 20 per cent by 2030), given that it is not mandatory for oil companies, will they oblige? As oil prices have fallen sharply, will it still be worthwhile? Also, do sugar mills have enough capacity to produce sufficient ethanol to reach the 20 per cent blending target?

To reach the Centre's ambitious target of 20 per cent in blending by 2030, a back of the envelope calculation with India's current fuel consumption shows that there is the requirement of around 700-800 crore litres of ethanol in a year. But India's current ethanol production capacity is only around 355 crore litres.

Increasing capacity

The lack of capacity in ethanol production is not likely to pose a hurdle in reaching the blending target. With the Centre's soft loan (interest subvention) provision for sugar mills to build capacity in ethanol in June last year, many companies have come forward to expand or add new capacities. So far, a total number of 245 projects have been approved by the Government under the scheme for financial assistance says ISMA.

Around 300 crore litres of capacity is expected to be added if all the approved projects come on stream in the next 2-3 years, taking the total ethanol production capacity to 600-700 crore litres annually.

This will help take EBP to the desired target.

In 2018-19 ethanol supply year, i.e., December – November, about 163 crore litres of ethanol have been lifted by oil companies (till September 10) from sugar mills. **This brings the blending rate for the year to 5.6 per cent.** In the next two-and-half months, the total lifting may reach about 200 crore litres, say market observers.

Why oil companies are interested

Though there is no written mandate, oil companies have begun to show interest in blending petrol with ethanol in last few years, due to the government's constant push and the high price of oil, that has made blending ethanol with petrol an attractive deal.

Note that the cost of ethanol is lower to petrol for oil companies, but when selling it at the retail pump, oil companies sell ethanol-blended petrol at the same price as petrol and make a profit.

While last year the price of petrol at the retail pump (in Delhi) was about ₹81, the cost of ethanol worked out to about ₹62, the difference per litre was ₹19 for the oil companies.

Now, with a lower price for petrol, due to falling in crude prices globally, and the higher cost of ethanol (after price increase by the government), the profit has come down to ₹5/litre but is still attractive.

Centre asks Delhi government to sell onion via ration shops, civil supplies dept at Rs 23.90/kg

While the central government data showed onion prices ruling at around Rs 39-40 per kg in the national capital, retailers in some parts of the city are selling as high as Rs 50 per kg depending on the quality and locality.

The Economic Times, Sep 12, 2019

NEW DELHI: With onion prices still ruling high in the national capital, the Centre has asked the Delhi government to take the key kitchen staple from its buffer stock and sell at a maximum retail price of Rs 23.90

per kg through its civil supplies department and ration shops.

While the central government data showed onion prices ruling at around Rs 39-40 per kg in the national capital, retailers in some parts of the city are selling as high as Rs 50 per kg depending on the quality and locality.

On the central government's direction, National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) and National Cooperative Consumers' Federation of India (NCCF) as well as Mother Dairy are offloading onion from the central buffer stock in the national capital.

Mother Dairy is selling at Rs 23.90 per kg through its Safal outlets.

"We have requested the Delhi government to further boost supply by selling the central buffer stock of onion through its civil supplies department and ration shops," a senior Consumer Affairs Ministry official told PTI.

The state has been offered to sell onion at a maximum rate of Rs 23.90 per kg and take stock at a price of Rs 15-16 per kg from the Centre, the official said.

The centre has created a **buffer stock of 56,000 tonnes of onion this year, of which 10,000-12,000 tonnes has been offloaded by NAFED, NCCF and Mother Dairy so far.**

Delhi is a price sensitive market, besides a rise in prices of this key kitchen stable have led to the ouster of several governments in indian elections in the past.

Onion prices are under pressure due to likely fall in kharif (summer) production owing to 10 per cent decline in sowing area in key growing states especially Maharasthra.

Girirai's formula for double farm income: Get egg free with meat and milk

The animal husbandry and fisheries minister said that his department is started integrating animal husbandry with agriculture to double farmers' income.

The Economic Times, Sep 13, 2019

NEW DELHI: After the announcement of zero budget farming – the low-cost natural alternative to fertilizer-based agriculture – the government is now planning to introduce **zero cost poultry for production of no-cost protein-rich egg and meat**.

Animal husbandry and fisheries minister Giriraj Singh told ET that he is working on a novel idea of integrating animal husbandry and poultry where country fowl and cows or goats are bred in common area feeding on each other's organic refuse and yield rich eggs and rich meat.

"In 2010, when I was animal husbandry minister of Bihar, I had done this experiment successfully in my own backyard where I reared around 300 goats and 200 hens simultaneously," said Singh. "Hen fed on the organic refuse of goats and their leftover feed. Surviving on goats' feed and organic refuse, each hen would lay 150 eggs a year and gained two kg weight - perfect to be a boiler for meat. That way we were able to get a no-cost egg with chicken meat as bonus."

The minister said the government has commissioned the Indian Council of Agricultural Research's two research institutes at Bengaluru and Izzatnagar (Uttar Pradesh) to study and analyse this innovative model, which can bring revolution to more than Rs 1 lakh crore poultry industry.

"We will implement this model after getting certification from these institutes. This model will help farmers increase their income levels several times without incurring any extra cost," said Singh.

The animal husbandry and fisheries minister said that his department has started integrating animal husbandry with agriculture to double farmers' income. He said a pilot project has been started in a small village in Anand district of Gujarat where biogas plant has been installed at 463 milk farmers, 70% of whom also own around one acre of land each.

"The average income of the village is Rs 66 lakh per year by selling milk. We can increase the income to Rs 1.63 crore by integrating milk production with agriculture," said Singh. "Besides the gas used as energy source, every biogas plant releases dung-slurry as a by-product, which we buy from farmers at Rs 2 a kg and sell them back at the same price by adding more nutrients. The treated dung (manure) increases the productivity of the soil. Farmers will get at least 2 kg more produce than what they have been getting by using chemical fertilisers."

The minister said the definitive **result** of this pilot project would come **after October.** "If we get the desired result, we will implement this model in one village of each district of Gujarat and then subsequently across the country," he said.

International Trade

Rice exporters get 4-month breather from Saudi norms

Saudi Food and Drug Authority has sought test reports on minimum residue levels.

The Economic Times, Sep 02, 2019

New Delhi: Indian rice exporters can heave a sigh of relief, for now.

They have got a breather till December 31 from stricter rules on shipment of basmati rice to Saudi Arabia. The Saudi Food and Drug Authority had earlier sought test reports on minimum residue levels (MRL), along with Certificate of Conformity from Indian exporters. This was to be effective September 1. That has now been deferred.

Saudi's food authority had also sought DNA testing to prove the authenticity of the basmati rice variety, and asked Indian rice exporters to source rice from good agriculture practices (GAP)-certified farms, approved by it.

"All consignments of Basmati rice shipped from India and arriving in Saudi Arabia by December 31, 2019 shall be exempt from the new requirement proposed by SFDA," said Vijay Setia, president of the All India Rice Exporters Association.

Setia said that exporters would brand the different blends of basmati rice according to quality, to bring in more transparency.

"We have assured the SFDA that if a consignment has 93 per cent or 85 per cent Basmati rice, we will label it accordingly," he said.

Saudi Arabia is a major export market for Indian basmati rice and accounts for 20 per cent of the country's annual exports of 4-4.5 million tonnes.

Indian authorities have proposed that rice mills having BIS certification, ISO 22000 and BRC standards should also be able to export basmati rice, Setia said.

However, hazard analysis and critical control points (HACCP) is the major criterion that Saudi Arabia will take into account to source rice from Indian establishments, he said. The deferment in the stringent rules comes

after a government and trade delegation led by AK Gupta, director, Agricultural & Processed Food Products Export Development Authority (APEDA) held discussions with the Saudi food body on August 29.

Setia said discussions on MRL will take place in the coming months.

Indian rice exports have been hurt by various non-tariff barriers, mainly over MRLs in the past few years. Indian companies have been working with farmers to reduce the use of pesticides.

India must look at exporting Tilapia fish to US: Kevin M Fitzsimmons

With Chinese exports to the US dwindling, India can step in to fill the gap Business Line, Sep 06, 2019

India could emerge as the next big exporter of Tilapia fish to the US because of the imposition of 30 per cent tariff on the Chinese species by the Trump administration.

The **US** imports around six lakh tonnes of Tilapia a year and the tariff on frozen Tilapia fillets from China has forced the US to look to other markets, including India and Latin America, to meet the demand, said Kevin M Fitzsimmons, Director, International Initiatives, College of Agriculture and Life Sciences of the University of Arizona.

Lagging production

India, he said, could fill this vacuum if there is an increase in production, which currently stands at 20,000 tonnes. The global aquaculture Tilapia sales stands at \$13 billion in 2019, which is expected to reach \$25 billion in 2029.

China continues to be the world's largest producer of Tilapia with 1.6 million tonnes. But, of late, the production there has been stagnant due to rising input costs, he told *BusinessLine* on the sidelines of Aqua Aquaria 2019 organised by Marine Products Export Development Authority in Hyderabad.

Tilapia, with its rich nutritional contents such as Omega 3 fatty acids and high protein, takes the fourth place in seafood imports into the US after shrimp, salmon and pollock.

With a relatively stable price in the global market due to consistent supplies, Tilapia fetches \$6.5 per kg, Fitzsimmons, who is heading the Myanmar Sustainable Aquaculture Programme (Mysap), said. However, he pointed out that India is lagging behind in Tilapia production and has the potential to double the figure to 40,000 tonnes in the next 2 to 3 years, especially with its Genetically Improved Farmed Tilapia (GIFT) varieties.

Cage farms, reservoirs, ponds, irrigation canals all have the potential to grow this fish along with other species such as shrimps, carps, scampi etc. The existing aquaculture industry can also play a major role for the rapid development of Tilapia farming.

Before catering to the export markets, he said, the species should be popularised in the domestic market first through the support of government agencies, seafood wholesalers, fishermen communities etc.

The world Tilapia production stands at six million tonnes and of this, China's contribution is 1.6 million tonnes, followed by Indonesia (1 million tonnes), Egypt (9,50,000 tonnes) and Bangladesh (3,50,000 tonnes).

Bangladesh has integrated Tilapia farming with other species in big farms, group farming, cages and this can be practised in India to popularise the fish, he said, adding that Pakistan has also started growing it in Multan lake, eyeing the growing West Asian markets.

India's production is growing, but compared with South East Asian nations, the figure is minuscule, he added.

Delhi fights to protect current, future subsidies as WTO fisheries talks near conclusion Differences between members over flexibilities prove to be stumbling block Business Line, Sep 11, 2019

India is continuing its **fight to protect the present as well as future subsidies** for its small and artisanal fishers in the form of boat, gear, fuel and other input subsidies as World Trade Organisation (WTO) members are meeting in Geneva this week to try and give a final shape to the **agreement to prune sops** which lead to over-fishing.

The US, however, is adamant about ending special and differential treatment (S&DT) for developing countries and whatever flexibilities India gets may have to be in the form of carve-outs, an official told *BusinessLine*.

"India has already pointed out that the existing mandate on fisheries state that there should be appropriate and effective special & differential treatment for developing countries. These should not be replaced or derailed by new proposals with inbuilt flexibilities for all," the official said.

A decision taken at the 11th WTO Ministerial Conference (MC11) in Buenos Aires was to try and conclude the negotiations on bringing down fisheries subsides by the end of 2019 or by the next MC which is now scheduled in June 2020.

Fast-track mode

While WTO members are now trying to fast-track the fisheries negotiations so that a conclusion can be reached by the year-end, flexibilities for members, both developed and developing, are proving to be the biggest hurdle.

In an earlier meeting India pointed out that any solution which rewards members, who are major subsidisers and are largely responsible for the current state of affairs, would be unacceptable.

Any approach for disciplining harmful subsidies should measure up on this criterion and take into account the development status of members, it added.

"The attempts by members this week at the WTO will be to try and narrow down differences on the subsidies to be pruned and the flexibilities to be offered," the official said.

There will be three meetings on fisheries subsidies at the WTO — on Tuesday, Thursday and Friday.

US objections

The US has argued that 14 of the top 25 marine catch producers in the world were developing countries and one least-developed country. Therefore, flexibilities should not be linked to the development status of a country but the subsidies given.

As per India's calculations, its subsidies per fisherman **amounted to less than \$0.10 per day** and it reasoned that **such small sops need not be disciplined**.

According to the Food and Agriculture Organisation, 33 per cent of the world's fish populations are overfished, 60 per cent are being fished to their sustainable limit, and there is a margin for growth in catches of only 7 per cent of the entire world's fish populations.

Govt imposes \$850/tonne minimum export price on onion

Onion prices have risen to about ₹40-50 per kg in the national capital

Business Line, Sep 13, 2019

The government has fixed a minimum export price of \$850 per tonne on onions in order to check exports and bring down spiraling prices in the local market.

"Export of all varieties of onions, as described above, will be allowed only on Letter of Credit subject to the MEP of \$850 FOB per tonne till further orders," according to a notification issued by the Directorate General of Foreign Trade (DGFT) on Friday.

The average wholesale onion price at the Lasalgaon Agriculture Produce Market Committee (APMC) in Maharashtra, which is the country's largest wholesale market for the bulb, touched a high of ₹2,500 per quintal

this week. A fall in supply of onions from Madhya Pradesh and Karnataka is one of the reasons for the price rise. Rains in parts of the country, including Maharashtra, also hamper the movement of onions to markets.

In Delhi, retail prices of onions have touched ₹50 per kg prompting the Centre to write to the Delhi government asking it to sell the kitchen staple from its buffer stock at lower prices through its civil supplies department and ration shops.

RCEP: Farmers', civil society groups, unions seek more talks

Write to Commerce Minister demanding negotiations be put on hold till they are consulted Business Line, Sep 15, 2019

A number of farmer organisations, trade unions, livestock and fisheries groups and civil society bodies have written an open letter to Commerce Minister Piyush Goyal stating that most of them had not been consulted on the on-going negotiations for the proposed Regional Comprehensive Economic Partnership (RCEP) pact and expressed concerns that their concerns may not have been taken on board.

The representatives of various organisations and individuals from across the country, who signed the letter, demanded that the on-going negotiations be put on hold till consultations are conducted with those left out including small farmers, fishing communities, dairy keepers, fruit and vegetable growers, tribal populations, trade unions and other marginalised sections of society.

They also asked for the key representations made in the consultations that the government has had with industry be made public.

The RCEP is a mega trade agreement being negotiated between 16 countries including the 10-member ASEAN, India, China, Japan, South Korea, Australia and New Zealand. Once implemented it would lead to zero-duty imports on most products between the participating countries.

Referring to media reports on the Department of Commerce's assertion that it held over 100 consultations across the country over the last six years to gather reactions to the proposed RCEP, the letter said that it was misleading on two accounts.

"On one hand, internal briefings and inter-ministerial consultations form a significant part of these so called stakeholder consultations, and on the other hand, the only stakeholder that has been consulted is the industry," it said.

The complainants further said that despite there being evidence to show that the lives of people at large can end up getting traded away through free trade pacts such as the RCEP, their participation during the negotiation process has not been elicited.

While the Indian industry is most apprehensive about increased competition from China once import duties are eliminated or reduced, Indian farmers and dairy producers are additionally concerned about cheap imports from New Zealand and Australia that they fear could destroy their livelihoods.

While Goyal recently said that **national interest and domestic industry would be protected, the petitioners** want to know exactly how. They have demanded that the government should **make the negotiating positions, including in vital sectors like food, farm and pharmaceuticals, known to the people of India and also share the status of the talks as of date, particularly after the recent ministerial meeting in Bangkok.**

Most RCEP members want the negotiations to be concluded by the year-end and there is immense pressure on India to play along.

Enterprises

Spirit-maker Pernod Ricard eyes 'low double-digit growth Business Line, Sep 01, 2019

Pernod Ricard, the world's second biggest spirit-maker, is looking at **low double digit growth in India**, its **third strategic market globally. White spirits – vodka and gin –** are amongst the **fastest growing segments** here.

The French spirit-maker reported a **20 per cent growth in sales** in India.

Growth drivers

Growth here is expected to be fueled by **changing customer demographics**, **rapid urbanization and a demand for premium offerings**.

"In India, part of the performance was also boosted by a weak base the previous fiscal year. For a low double-digit value growth, India is a great place to be, especially when you're a market leader," Alexandre Ricard, Chairman, CEO and Member of the Executive Board of Pernod Ricard SA, said during an analyst concall.

Premium brands that the company sell in India include 'Absolut' in vodka, 'Jacob's Creek' in wines, 'Beefeater' in gin, 'Ballantines' in malted whiskey, 'Jameson' in Irish whiskey, among others. Other super premium segment offerings include 'Chivas Regal' in scotch, 'Royal Salute' in whiskey and 'Monkey 47' in the gin category.

Mass to mass-premium categories include brands such as 'Seagram's Royal Stag', 'Seagram's Blender's Pride', 'Seagram's Imperial Blue', 'Seagram's 100 Pipers', among others.

According to Ricard, a low double-digit growth is "long-term sustainable." "In any case, it doesn't change the fact that underlying performance of Pernod Ricard in India is very strong," he said.

"Acceleration of Seagram's Indian whiskies; leadership maintained with a little bit less than half of the market (45 per cent value market share); and acceleration of our strategic international brands portfolio with strong growth across the whole range are our targets for India. Also, it's interesting to note the very strong growth of our strategic wines with Jacob's Creek, which is market leader in India," Ricard added.

A&P spends

According to Kartik Mohindra, Chief Marketing Officer, Pernod Ricard India, marketing budgets are set for a 10-12 per cent growth as the spirit maker looks to push its premium offerings.

For instance, the company has recently unveiled its India-led global campaign, called "Colourless", for the vodka brand Absolut.

"Marketing budget is expected to witness a 10 per cent growth over previous years. White spirits, we feel, will grow faster," he told *BusinessLine*.

India, he said, continues to be strong whiskey market with brands like 'Chivas Regal' having strong off-take.

Walmart India plans to source 25% of fruits and vegetables from local farmers Agro and Food Processing, Sep 02, 2019

Universal retailer Walmart's philanthropy arm Walmart Foundation announced that the company is planning to source 25 percent of fruits and vegetables from local farmers.

Addressing media, Kathleen Mclaughlin, president, said, "This market is incredibly important for us. We are trying to work through our business differently and also corporate social responsibility (CSR) & philanthropy. So, in terms of the business, we have been focused for quite some time on strengthening the suppliers that we source from."

Mclaughlin further said, "The 25 percent that we have committed to source locally within each trade area for cash and carry is for each store. So, the idea is source for the needs of the customers – the Kiranas, the restaurants, hotels in that immediate area from the immediate farmers so that we create a kind of a local market. This decision is really important and obviously a great incentive for companies to do that. We think companies should do both, CSR and investments through philanthropy, and consider the business as an opportunity to help society."

Lignin from agro-waste helps make useful nanocomposites

Lignin is a complex organic polymer rich in polyphenols with antimicrobial qualities. Business Line, Sep 02, 2019

Agricultural waste can find many useful applications. Researchers at the Mohali-based Centre of Innovative and Applied Bioprocessing (CIAB) have developed a lignin-based nanocomposite which could potentially have commercial value. Microbial test results indicate that, in the long run, the lignin-based nanomaterial can act as an additive in coating and packaging materials.

Lignin is a complex organic polymer rich in polyphenols with antimicrobial qualities. It is found in almost all dry plants including crop residues and the woody bark of trees. Abundant quantities of lignin are generated as post-harvest agro-biomass and in paper and pulp industries every year, which often go waste.

Burning of post-harvest biomass like straw is a common practice among our farmers, which leads to severe environmental pollution. We took up the challenge of converting agro-waste into value-added nanomaterials with antimicrobial properties, thereby not only reducing the pollution but trying to add to farmers' income," said Dr Jayeeta Bhaumik, lead researcher of the study, while talking to India Science Wire.

The team zeroed—in on gold-silver bimetallic nanoparticles to utilise their novel physicochemical properties, and used kraft lignin as the matrix material. Instead of using harsh chemicals and high temperatures to synthesise nanocomposite, researchers applied 'green' and reproducible techniques, to derive nanomaterials. The process involved a single-step method utilising lignin as the sole source for reducing, capping and stabilising the nano-agents.

After establishing structural stability and morphology of the nanocomposite, the material was subjected to different microbial assays to evaluate its antimicrobial quality. The results indicated that the lignin-nanocomposite retained antimicrobial and antioxidant qualities of lignin.

"The lignin-bimetallic nano complexes were found to exhibit excellent targeting of microbes by the mechanism of reactive oxygen species production and membrane disruption of microbial cells, revealing that nano-complexes were internalised in microbial cells," explained Dr Bhaumik.

The new material could contribute to complete valorisation of lignin, and large scale production costs and scalability have to be worked out, she added.

Besides Jayeeta Bhaumik, the team included Sanjam Chandna, Neeraj Singh Thakur, Yeddula Nikhileshwar Reddy, and Ravneet Kaur. The research results have been published in the journal ACS Biomaterials Science & Engineering.

Mahindra Summit Agrisciences launches a new product range for organic agriculture

The company will offer commercially viable, biological and organic products that promote sustainable agriculture.

The Economic Times, Sep 03, 2019

PUNE: Mahindra Summit Agriscience Ltd, a joint venture between Mahindra Agri Solutions Ltd. (MASL) and Sumitomo Corporation Group, Japan, today launched a new product range for sustainable & organic agriculture under the "PRAKRTI by Mahindra" brand name.

The company will offer commercially viable, biological and organic products that promote sustainable agriculture. To begin with, Prakrti will offer high quality microbial products in the plant nutrient, insect & disease management categories. These products ensure residue free fruits and food grains, which in turn will boost Agri exports from India.

Speaking about the new product range, Ashok Sharma, Managing Director and CEO, Mahindra Agri Solutions Limited said, "We are delighted to launch Prakrti by Mahindra, our new range of sustainable agriculture products. These products will be highly effective in improving the depleting health of our soil and enhancing yield, thereby meeting the increasing demands of a growing population in our country."

Sharma further added, "At Mahindra Summit Agriscience we want to stay true to our promise of providing world class crop and soil care solutions, which will significantly reduce crop damage. This will be a step toward our vision of Farming 3.0, a new age in farming, one that elevates the entire Agri ecosystem. Going forward we will keep enabling Indian farmers and accelerate their access to innovative solutions in terms of technology and products which would increase their income."

'Prakrti by Mahindra' is a result of the expertise of both companies - Mahindra's strong understanding of the Indian farming community and Sumitomo's unique know-how and Japanese technology. Through this new initiative, the company will enable access to the latest global technology for minimising crop and soil damage and increasing yields.

Today, India loses nearly 40% of its total crop production in terms of value to pest attacks and diseases. Since per capita land availability in India will only decline over time, farmers will have to raise their agricultural production by improving productivity. Hence crop and soil protection products are an important input for facilitating pre & post-harvest land management.

Praj's propriety technology to be used in USA's first bagasse based ethanol bio refinery

Earlier this year US based domain specialists had visited Praj's 2G integrated bio-refinery demonstration plant and Praj Matrix, the R&D center in Pune to study 'enfinity' technology The Economic Times, Sep 03, 2019

PUNE: Subsequent to the successful demonstration of performance and due diligence of its 2G ethanol technology by a US-based Oil & Gas behemoth, Praj Industries announced that its 'enfinity' technology will be used by USA's first bagasse-based bio-refinery.

"'Enfinity', Praj's proprietary technology, will be deployed to produce ethanol and other co-products using sugarcane bagasse in what would be USA's first bagasse-based bio-refinery. The bio-refinery is being jointly promoted by Florida based Omega Energy USA, a developer of renewable energy projects, while Louisiana based Lasuca Sugar, a producer of cane sugar, will supply bagasse feedstock," a release form Praj stated.

It mentioned further: "The promoters have issued a formal letter confirming their interest to engage Praj for developing the design and project program for a cellulosic ethanol bio-refinery in USA. The proposed project in the cane-sugar belt of the country will have the capacity to produce 10-15 million gallons per year (MGPY) of cellulosic ethanol."

Earlier this year US based domain specialists had visited Praj's 2G integrated bio-refinery demonstration plant and Praj Matrix, the R&D center in Pune to study 'enfinity' technology. They acknowledged the facility, plant performance and scope for proliferation.

Speaking about the project, Pramod Chaudhari, Executive Chairman, Praj Industries said, "This development comes on the back of a successful 60-day robust operation of our 2G demo plant that was monitored and evaluated on various parameters by experts from the Oil and Gas major. In addition to the Louisiana prospect, Praj is already executing four integrated bio-refineries for oil companies in India. We are delighted that 'enfinity', an Indian technology, is gaining global recognition and acceptance from developed markets like the USA. This reinforces Praj's position as a global leader in the advanced bio-economy."

Biyani's FSC to create India Food Grid, a network of 38 integrated food distribution centres

Business Line, Sep 04, 2019

Future Supply Chain Solutions (FSC), which is promoted by Kishore Biyani's Future Enterprise Ltd, is bringing out a capital expenditure of Rs 1,000 crore to increase its capacity to improve its third-party logistics services to existing and new clients.

With this investment, FSC, India's leading organised third-party supply chain and logistics service provider, plans to create India Food Grid (IFG), a network of 38 integrated food distribution centres providing pan India reach.

The corpus **will be invested in the IFG initiative over a period of three-four years**. The company envisages procuring a major share of the fund from internal accruals, with the remainder to be financed through a mix of equity and debt. Future Supply Chain presently has a light, strong balance sheet with low debt, which allows the company the leeway to go in for more debt.

The novel concept of India Food Grid by FSC, which is a network of 38 integrated food and fast moving consumer goods (FMCG) distribution centres has already created waves in the market. The IFG will require an investment of Rs. 1,000 crore in the next few years to build one of the strongest and expansive network for food and FMCG products distribution in India.

FSC is expanding its warehousing capacity, on an asset-light model, to cater to the increasing demand to add velocity to its customers' aspirations. In the previous year, FSC raised Rs 199 crore from a non-convertible debenture issuance, the proceeds of which will be used to fund part of its planned warehouse capacity expansion.

According to industry reports, India's retail market size is pegged at around \$822 billion, of which the organised segment (excluding e-commerce) accounts for about 11 per cent. This share is expected to increase to around 16 per cent over the next five-six years, with the organised retail market growing at a compound annual growth rate of around 20 per cent.

Tirth Agro Tech in JV with German firm to develop root crop machines

Aims to develop design and develop full-line solutions for potato, turmeric, onion crops Business Line, Sep 06, 2019

Agriculture implements manufacturer Tirth Agro Technology Pvt Ltd, which owns the Shaktiman brand, and German farm machinery and technology provider Grimme on Friday announced a joint venture to develop and market root crop machines in India.

The 50:50 joint venture will use the German technology from Grimme and state-of-the-art manufacturing capabilities of Shaktiman to design and develop full-line solutions for potato and other root crops, including turmeric and garlic.

The joint venture looks to capitalise on the Indian market, the world's second largest potato producer. It will enable both the partners to optimise their current and future capabilities in the sub-75 HP category.

Dinesh Vashishtha, Chief Sales & Marketing officer, Tirth Agro Technology, said, "The JV will be able to bridge the big gaps in farm mechanisation for potato cultivation in India with availability of technically advance, indigenized and affordable machines. The JV aims to provide a complete farm machinery solution **starting from seed bed preparation to post harvest solutions** for root crops such as potato, onion, garlic and turmeric. ."

"We aim to sell 1,000 machines every year in three to five years," said Vashishtha.

Fortum, Haryana University to make textile fibre from paddy straw

Some farmers burn crop residues and destroy them, causing environmental pollution.

The Economic Times, Sep 06, 2019

NEW DELHI: Finnish firm Fortum India signed an agreement with Chaudhary Charan Singh Haryana Agricultural University, Hisar to make textile fibre from paddy straw that is otherwise burnt by the farmers causing pollution in northern states.

The memorandum of understanding aims to protect the environment and to provide simple and economical options for the farmers to manage paddy straw, an official statement said.

Chaudhary Charan Singh Haryana Agricultural University has been working towards the management of paddy straw and, Fortum's partnership with HAU will include to deepen understanding of the theoretical and practical knowledge and expertise in the areas of studying the properties of rice straw and other agri-biomass, its availability, socio economic impact, probable supply chain and other possible area of support, in the State of Haryana, an official statement said.

Prof K.P. Singh, Vice Chancellor, HAU, while expressing his thoughts over the MoU, said, "This will give more thrust to the university's crop residue management program. The university is striving not only for the proper management of crop residues but also for the fair value of everything coming out of the farm."

The statement said it is noteworthy that there is a serious problem of managing paddy straw in the states of Haryana, Punjab and Uttar Pradesh. Some farmers burn crop residues and destroy them, causing environmental pollution.

Sanjay Aggarwal, Managing Director of Fortum India Private Limited said, "Burning of crop residues on a large scale in the fields emits greenhouse gas which has huge side effects on the environment. In three states in the Delhi region, 50 million tonnes of agrobiomass is burned every year. We intend to convert this agricultural waste into valuable products, provide solutions to reduce pollution, which will help local communities to become self-sufficient and raise their standard of living."

"We will work with the university to make textile fiber from paddy straw, as well as other valuable chemicals which are used in many industries, to make bioplastics and to establish bio refinery in the future.", he further added.

INI in pact with Munger Farms to grow blueberries

Business Line, Sep 06, 2019

Horticulture company INI Farms and US-based Munger Farms plan to form a **Joint Venture to cultivate blueberries in India and export pomegranates**. The two companies have shortlisted **Marathwada**, **Ahmednagar**, **Pune and Western Maharashtra** to grow the fruit.

Blueberries are currently available at ₹4,000 a kilogram in the retail market. The venture capitalist-backed INI Farms, which is currently into Pomegranate, Banana and Coconut farming, plans to introduce the product in the retail market in the next 2-3 years.

Speaking about the joint venture, Pankaj Khandelwal, Chairman of INI Farms said: "Our relationships with Indian farmers, and their expertise in cultivating blueberries will be a great opportunity for us. **The Mungers will invest in research in India, and we will focus on the distribution**."

David Munger, Owner, and Director, Munger Farms said that currently, they have been successful in cultivating and marketing blueberries across the world. According to Munger, India is a difficult market to ship fresh blueberries to while maintaining quality upon arrival. "That is why we need to be closer to the market," he added.

From the perspective of the joint venture, the two companies are looking at starting with the research first to determine what varieties will fit best here.

"Within 2-3 years, we will be able to be thorough with the research and be in a position to expand to the retail market," said Munger. Gradually the company wants to have a full berry portfolio in India, moving to strawberry next.

Indian weather conditions are tropical and erratic. Some regions face widespread drought while others are reel under excess rain.

Munger said his firm had developed a way to grow the fruit in California which, too, has tropical weather. "Picking the right variety, right region, technology, and the right growing conditions is what we are looking at," he said.

Tech-driven cultivation

He added that the company will test a lot of new technologies, varieties, techniques, field structures and technology. "We are also **going to use technology to recycle water from the leftovers of the plants** as well to work around the drought situation. We will also pick the berries at the set time to avoid wastage," he explained.

The two companies will also get into **exporting pomegranates to the US**. Currently, according to Munger, there are only a few companies importing the fruit.

Cargill is looking for partners to take its starches and sweeteners products across

Agro and Food Processing, Sep 10, 2019

The US-headquartered food giant Cargill is looking for a partnership to take its starches and sweeteners products across the country.

Global food and agricultural products maker — which has already invested \$110 million in building a cornmilling plant at Davangere in Karnataka — is now keen on collaborations to expand in the north and west.

Corn is the basic raw material used in starch and sweetener products. While the starch and sweeteners sector is **growing at 5-6 per cent year-on-year**, the company's portfolio is growing slightly higher than that.

Simon George, president of Cargill India, stated that they are in the process of looking at manufacturers in the north and west over the next three years, to **become a national player**. It needs almost five years to put up a plant, but the idea is to grow faster and for this collaboration.

Under this, Cargill looks at bringing in its expertise and access to customers on the table, whereas the partner shall be responsible for running the plant and managing operations.

Cargill, which forayed into the starch and sweeteners segment around three years ago, majorly focusses on edible oil, chocolates and cocoa. The company has an employee base of over 3,500 people in India, with a turnover of \$1.2 billion.

The company's **Davangere facility manufactures liquid glucose and maltodextrin. These corn derivatives are used in confectioneries, bakery products, baby food and animal nutrition products, among others.**

Cargill is also setting up a state-of-the-art corn storage solution adjacent to our plant, which shall ensure access to quality corn for the products that is manufactured there.

On the impact of the slowdown on the segment, the Cargill India head said that in a business like starches and sweeteners, what tends to happen is when a commodity price is not globally competitive, one tends to lose the export market.

"However, as we approach October and with the weather conditions looking pretty favourable, we may anticipate the situation to be better.

Cargill inaugurates first corn silo in India with investment of Rs 70 cr

Food and Beverage News, Sep 14, 2019

Cargill recently **opened its first corn silo in India in Davangere**, making inroads into bulk agricultural storage in India. Built with an **investment of \$10 million (Rs 70 crore) and a storage capacity of 60,000 tonne**, the silo is situated next to the company's corn milling plant in the Karnataka city.

This allows Indian and global food companies access to high-quality, raw material stored at right temperature, translating to superior product quality for their food products. The silo will also provide local farmers increased market access as Cargill expands its procurement of corn locally.

It was inaugurated by chief guest G M Siddheshwara, Member of Parliament, Davangere; guest of honour S Ramappa, Member of Legislative Assembly, Harihara, Karnataka, and Simon George, president, Cargill India.

Siddheshwara said, "The major population of the local Davangere community is engaged in corn farming. With this initiative, I am happy that local farmers will get more opportunities to sell their produce, making them more profitable in the long run."

Ramappa also inaugurated a local community initiative where Cargill has constructed a washroom in a school in Bhanuvalli village.

"Helping local communities is the joint responsibility of the industry as well as the government. It is very encouraging to see Cargill coming forward with public utility initiatives for the development of Davangere," he added.

"As we continue to collaborate with Indian manufacturers to expand our footprint in the starches and sweetener business, this silo is an important step towards ensuring supply of top quality corn to the plant," said George.

"We will continue to innovate for Indian and international customers and help Indian farmers align better with the market. This silo expands Cargill's supply chain capabilities in India and the stringent food safety standards followed here will prevent contamination of corn during storage. We are grateful to the Karnataka government for their support in setting up this storage solution here," he added.

Commitment to local communities

Together with TechnoServe, the non-governmental organisation (NGO) partner Cargill has been working on a local economic development programme in Davangere, that has directly impacted over 25,000 people across 27 villages.

Project Saathi is helping 5,000 small-holder farming households adopt sustainable agri-practices besides training 2,500-plus women on health, nutrition and financial literacy.

Youth in the local community participated in Cargill Agri Fellows Programme, where they were trained on skills and enterprise-based livelihood opportunities.

This programme also helped local farmers create a farmer producer company called Bhadra, with over 1,000 members to connect farmers to customers. Today they are trading in 11 input and output product categories. The project has successfully completed four years and is being continued.