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Life of temperate fruits in orchards extended, thanks to nanotech

Hexanal Technology (nano-technology), which was developed to extend life of temperate fruits in the orchards and in storage, has been extended to scale down post-harvest loss in horticulture crops.

The TNAU has also been planning to commercialise this technology with private participation to take it to all horticulturists, said K.S. Subramanian, Professor, Department of Nano Science and Technology, TNAU, Coimbatore.

Talking to mediapersons after taking part in a workshop on ‘Enhanced Preservation of Fruits using Nanotechnology Project’ held at the Horticultural College and Research Institute, Periyakulam near here on Monday, he said countries like Sri Lanka, Tanzania, Kenya and West Indies will benefit. Post-harvest loss in African countries was approximately 80 per cent, whereas it was 25 to 30 per cent in India, he said.

With the funds sanctioned by Canadian Department of Foreign Affairs, Trade and Development and International Development Research Centre, Canada, the TN Agricultural University, Coimbatore, involving scientists in University of Guelph, Canada, Industrial Technology Institute, Colombo, Sokoine University of Agriculture, Tanzania, University of Nairobi, University of West Indies, Trinidad and Tobago, have jointly developed Hexanal formulation, a nano-emulsion, to minimise post harvest loss and extend shelf life of mango.

Field trials have been carried out successfully in Dharmapuri and Krishnagiri on five varieties – Neelam, Bangalura, Banganapalle, Alphonso and Imam Pasand. Pre-harvest spray of Hexanal formulation retained fruits in the trees for three weeks and three more weeks in storage.

Extending life to six to eight weeks will benefit exporters immensely as they required at least six weeks to take fruits to European and the US market.

Existing technologies were sufficient to retain fruits up to four weeks only. Domestic growers too can delay harvest and tap market when in demand.

“On an average, farmers have to spend Rs.20 per tree. We have tried dipping method also. It has given the same effect. We have been developing nano-matrix to use it in mango package itself to improve shelf life,” he said.

Free run for the rent-seekers



“The understanding when the DDA was adopted was that the trade regime would prevent the occurrence of a situation where small farmers in developing countries are pitted against powerful commercial interests.”

With the U.S. showing a preference for plurilateral agreements over WTO multilateralism, developing nations must defend the global trading system against transnational corporations

The 10th Ministerial Conference of the World Trade Organisation (WTO), which also marked the completion of two decades of functioning of the most recent of the multilateral institutions, ended with an agreement among trade ministers of the member countries that may have pushed the organisation to the precipice. The WTO faces this existential threat for two reasons: the post-Nairobi work programme has very few substantive issues that can meaningfully engage its 162 members, and, more importantly, the Doha Development Agenda (DDA), that has been the lifeline of the WTO for nearly a decade and a half, now faces the imminent threat of closure.

The Doha agenda

When it was adopted in 2001, the DDA was seen as the collective articulation of the developing countries for working towards a just and equitable trading system, one which would provide the opportunities to laggards in the global trading system to benefit from engaging in trade. WTO members agreed that for realising this objective, the rules in each of the areas must be appropriately designed. Thus, it was agreed that agriculture must be stripped of all policy distortions, including the unacceptably high levels of subsidies that provide unfair advantage to the large conglomerates controlling global trade in commodities. At the same time, it was decided that the existing Agreement on Agriculture (AoA) would be amended to address smallholder agriculture and give developing countries new instruments to address concerns regarding food security, protection of rural livelihoods and rural development. The understanding therefore was that the trade regime would prevent the occurrence of a situation where small farmers in developing countries are pitted against the powerful commercial interests.

It was also agreed, in the same vein, that developing countries would be able to enjoy flexibility while reducing tariffs in both agriculture and industry, so as to ensure that these enterprises are prevented from facing competitive pressures before they are adequately prepared to do so. And, finally, in the area of services, most developing countries, including India, have been seeking ways to improve their presence in the global services markets, especially through cross-border trade in services and through movement of natural persons (the so-called Modes 1 and 4 respectively).

This approach towards the resetting of trade rules seems tailor-made for India at the present juncture, given the slew of initiatives that the government of the day has taken for preparing the domestic economy to face the multifarious challenges. Thus, the amendments sought in the AoA would have provided to the government the flexibility to adopt farmer-friendly policies as well as to operate a public distribution system for implementing the National Food Security Act. At the same time, calibrated reduction of

tariffs, which has been one of the key elements of the DDA, must be considered critical for the pursuit of the 'Make in India' programme.

The Nairobi distortion

How does the Nairobi Declaration affect the DDA and its key components mentioned above? The first and the most ominous sign for the DDA is that the WTO members did not unanimously support its continuance. The United States Trade Representative, Michael Froman, was more forthright in his comments on the future of the DDA. He said that "while opinions remain divided among the WTO Membership [on the continuance of DDA], it is clear that the road to a new era for the WTO began in Nairobi". As regards the activities of the WTO in the post-Nairobi phase, Mr. Froman stated that "as WTO members start work next year, they will be freed to consider new approaches to pressing unresolved issues and begin evaluating new issues for the organisation to consider". Thus, even while a vast majority of developing countries, back the continuance of the DDA, the U.S. has stated unambiguously that it is no longer inclined to discuss the DDA and its covered issues.

If the DDA is being abandoned, what would be the likely content of the future deliberations in the WTO? This answer appears in the Ministerial Declaration, through the following observation of the Ministers: "... we note that WTO Members have also successfully worked and reached agreements in plurilateral formats". This laudatory statement in favour of the "plurilateral formats" is tacit recognition of the conclusion of the Trans-Pacific Partnership (TPP), one of three mega-regional trade agreements (the others being the Transatlantic Trade and Investment Partnership and the Regional Comprehensive Economic Partnership). The TPP is a 12-member arrangement, led by the U.S., whose underpinnings are unbridled quest for markets, without any consideration being given to the ability of smaller countries in the grouping to be able to compete with the larger countries; in other words, countries of vastly unequal strengths would be treated equally. Yet another problem with the TPP is that it ignores the presence of large

policy distortions, for instance, the granting of high levels of farm subsidies by the U.S. while pushing for opening of markets.

But above all, the TPP allows the large rent-seekers in the international markets, the transnational corporations, to earn unacceptably high rents through the exercise of the extraordinary rights they have been promised for their intellectual property and their investments. These transnational corporations are already making several countries pay very high prices for the products based on their intellectual property, including those of life-saving drugs, something that has been viewed with concern even in their home countries. At the same time, an increasing number of these corporations have successfully brought cases against their host countries before international arbitration panels when the latter have tried to bring domestic regulations to check flagrant violation of norms.

With the WTO facing the imminent danger of being taken over by a grossly unjust and undemocratic governance structure that would be dominated by the powerful interests, India and other developing countries need to seriously consider the contours of their future engagement with this organisation. More specifically, they must find ways of bringing back centre stage in the WTO negotiations the issues that would help their farmers and the workers in the manufacturing and services sectors get decent jobs and to put their economies on the path of sustainable development.

(Biswajit Dhar is a professor at the Centre for Economic Studies and Planning, School of Social Sciences, JNU.)

Seed bank will be key to food security: experts

Representatives of six SAARC countries attending a regional consultation meeting which began here on Monday are discussing the establishment of a regional seed bank to ensure food security and address the shortages caused by natural calamities.

The meeting has been organised by the SAARC Agriculture Centre, Dhaka, to assess the common crop varieties and their demand and supply for the proposed seed bank.

Agricultural scientists and experts participating in the consultation underlined the relevance of the seed bank in achieving collective self reliance in food crop production in the face of the mounting challenge posed by natural calamities triggered by climate change.

Vice Chancellor of Kerala Agricultural University P. Rajendran, who inaugurated the meeting, mooted the creation of a network -of seed banks among SAARC countries and a common database on production and availability of seeds. “With the population of the South Asian region expected to touch 220 crore by the year 2050, the member States would need to step up the production and productivity of crops such as cereals, millets, pulses and oilseeds to ensure food and nutritional security. Production and distribution of quality seeds constitute key elements in this effort.” Dr. Rajendran said the seed bank was expected to provide a ready stock of common varieties to meet emergency situations caused by natural calamities. He called for steps to conserve genetic varieties of seeds and facilitate the exchange of seeds and planting materials between SAARC nations.

In his presidential address, Tayan Raj Gurung, senior program specialist, SAARC Agriculture Centre, said India could take the lead in establishing the regional seed bank.

It will ensure self reliance and address shortages caused by natural calamities

Mushrooming of hatcheries blamed for increase in poultries

Mushrooming of hatcheries across the country has led to increase in production of layer birds that led to increase in egg production. However, due to drop in wholesale price of eggs, most of the poultry owners face huge loss every year, R. Nallathambi, president, Tamil Nadu Egg Poultry Farmers Association said here on Sunday.

Addressing the annual general body meeting, he said that poultry farming could only be carried out in the Kongu region and not in other parts of the State. In the past two years, a farmer who has one lakh birds suffered a loss of Rs. 50 lakh every year. This was due to intense competition prevailing among hatcheries which produced more birds than the required one, he added.

Mr. Nallathambi also said that hatcheries refused to hear the problems of poultry farmers and continued to produce more birds.

He said that a company was fined Rs. 10 lakh for vaccinating birds with fake medicine. “Only because cooperation is prevailing among us, we are able to initiate action against the company,” he added.

Mr. Nallathambi urged the Central Government to come forward in supplying rice, wheat, corn that were lying waste in Food Corporation of India (FCI) godowns at concessional price to the poultry farmers.

Also, interest rate for the industry should be reduced and should be on a par with the interest rate as given for agriculture, he added.

Namakkal Revenue Divisional Officer M. Kannan was the special guest for the meeting.

Farmers worried over pest attack



Tirupur district stands second in the acreage under coconut in Tamil Nadu. However, farmers need to thwart many problems like insect attacks in their attempts to retain that position.

Though Tirupur district still holds the second largest acreage under coconut among all districts in the State, the coconut farmers here are facing many a hurdles to maintain that position.

One among the main predicaments that hangs like a Damocles sword over their farming profession is the attack of Red Palm Weevils, an insect which poses a threat to the life of the trees.

The Weevils lay eggs into the coconut trees where larvae grow and fully destroy the structure of the palms, tell the farmers.

Presently, coconut is cultivated on 56,823 hectares in the district.

To help the agrarian community combat the Weevils attack, the Department of Agriculture is all set to start distribution of insect traps at subsidised rates.

“We will be utilising Rs. 20 lakh from the corpus created under Rashtriya Krishi Vikas Yojana to subsidise the cost of the traps that are going to be distributed to the farmers in the insect prone area,” Joint Director of Agriculture A. Mahendran told *The Hindu* .

The traps, along with the baits to lure the insects to the gadgets, will be given away at the rate of five units per hectare to farmers in select blocks namely Pongalur, Dharapuram, Udumalpet, Kundadam, Kangayam, Madathukulam, Palladam and Gudimangalam, where the presence of Red Palm Weevils have been noticed. “Peculiarity of the Weevil attack is that the farmers mostly will come to know of the infestation only after the tree dies. So, putting pest traps in advance in the Weevils prone area can prevent the mortality of trees,” pointed out Mr. Mahendran.

The agriculture officials also recommend the application of 10 ml of monocrotophos diluted in equal quantity of water to the roots of the trees if already insect had taken position at the top.

“This ‘root feeding’ will kill any larvae present which can later suck out the tissues in the tree trunk,” said the official.

CM inaugurates three facilities

Two infrastructure facilities for farmers and a civic project in the district were inaugurated by Chief Minister Jayalalithaa through video conferencing on Monday.

A statement said that a agriculture centre had been set up on the premises of the regulated market complex in Tuticorin under National Agriculture Development Programme (NADP) scheme at a cost of Rs. 149.69 crore. Works were taken up in 2011-12. The centre would facilitate farmers to avail services of agriculture and horticulture departments such as seed certification, inspection and testing facilities under one roof. It would also serve as a training centre for farmers. The centre would benefit 5,723 farmers.

A seed processing unit had been established at Manakarai village in Karungulam block at a cost of Rs. 24.76 lakh. It could process around 250 tonnes of seeds every year and it would benefit 12,467 farmers.

An under ground drainage project had been completed in Tiruchendur at a cost of Rs. 14.48 crore. All these facilities were commissioned by the Chief Minister, the statement added.

“New technologies will enhance income of farmers”

“Bio safety test vital before implementing any nano-technology”



Deputy Director General of ICAR N.K. Krishnakumar addressing a seminar at the Horticulture College at Periyakulam in Theni district on Monday.—
PHOTO: G. KARTHIKEYAN.

Nano technology is an ideal tool to extend the shelf life and delay in ripening mango in trees, but proper bio-safety tests should be done before introducing it to farmers, according to Deputy Director General of ICAR N.K. Krishnakumar.

Inaugurating a workshop on Enhanced Preservation of Fruits using Nanotechnology Project held at the Horticultural College and Research Institute at Periyakulam near here on Monday, he said that bio safety test was very important before implementing any nano-technology. Proper adoption of new technologies would certainly enhance the income of farmers, he added.

“Diversification of crop and improving off-season crops will help mango growers to tap country market. Dasherri, Langra and Kesar varieties of mango are in great demand in Delhi, UP, MP and Bihar.”

Demand for organic fruits was very high in foreign countries, he said, adding that Japan and Germany were prepared to buy large quantum of organic pomegranate. Covering fruits in bags would ensure uniform colour and quality, he said.

He appealed to scale down use of chemical pesticides and fertilizers to improve quality and taste. He said dipping mango in water mixed with salt will suffice to control fungus.

Postgraduate and research students should take up a problem faced by farmers and find a solution to it by working in his farm. His thesis could be accepted for offering degree only after getting feedback from that farmer. Such measure would benefit college, students and farmers, Mr. Krishnakumar added.

The HC&RI Dean (in-charge) T.N. Balamohan said nano emulsion was effective in minimising post-harvest diseases such as Anthracnose. Fruit Growers Association of Tamil Nadu Secretary Arun R. Nagarajan said quality should be ensured for better price. Latest technologies and good agriculture practices would enhance yield and quality.

Tamil Nadu Banana Growers Federation President A.P. Karuppiah said field trials of nano-emulsion on banana was successful.

Leading mango grower M.C. Shantha Kumar said research should be done to grow mango in poly houses. Technologies should reach farmers easily and quickly.

Farmer Santhanam sought adequate publicity for mango and banana fruits by government.

‘Farming has to be remunerative’

“Farming has to be scientific and methodical to be remunerative and sustainable,” S.A. Patil, former Vice-Chancellor of University of Agriculture Sciences, Dharwad, and former chairman of Karnataka Agriculture Commission, said on Monday.

He was speaking at the Bharat India Jodo (BIJ) Sammelan in Kangati village.

He asked farmers to be “as calculative as a trader and as innovative as a scientist.”

He gave examples of farmers who had reaped rich harvests using out-of-the-box thinking, advanced technologies and taking calculated risks. He also spoke of farmers who process their produce on their farm before selling to get better prices, of farmers who remain connected to markets all over India using e-marketing facilities, and farmers who had diversified so much that they were harvesting a separate crop every month.

“Farmers in Vijayapura that gets less rainfall than Bidar are successfully cultivating horticulture crops like grapes, limes and pomegranate. If they can do it, why can’t farmers in Bidar who are blessed with an average rainfall of 900 mm,” he said.

P.M. Salimath, Vice-Chancellor, UAS, Raichur, said that young people were moving away from farming at an alarming rate.

“One study said that around 30,000 persons are leaving the villages to go the cities. Most of them are surely, leaving farming and taking up menial jobs in the cities. This should stop,” he said.

Farmers urged to be ‘as calculative as a trader and as innovative as a scientist’

Blazing an aesthetic trail in organic farming

A group of farmers in Choornikkara panchayat is blazing a new trail in vegetable marketing using the aesthetic appeal of crop design to woo customers to their farms and selling them fresh, hand-picked produce.

“There is a visual value to vegetable farms, especially when there is a design that augments their natural appeal”, says A. A. John Sherry, agricultural officer, who took the initiative in launching what has been named Green Market.

Crop designing involves changing the very look of the garden. In mixed crop farms, all types of vegetables and fruits are grown intermittently.

The farm in Choornikkara has large swathes under one crop for the single season between September and February.

“It is also easier to manage the garden when there is a large area under one crop,” said Mr. Sherry, explaining how the experiment resulted in the brisk sale of produce from the Pallikkerippadam, on the banks of Choorna rivulet

and about a kilometre from the Ernakulam-Aluva stretch of National Highway 47, turning west from Companypady.

“The scenic setting of the village also lured large number of buyers to Choornikkara,” added Mr. Sherry.

The 19 farmers in the five-hectare farm collective also face a serious challenge from water-borne pathogens since the low-lying fields are subjected to varying ground water levels. Sporadic rains this season, for instance, have resulted in water table coming up, delaying field preparations. As a result, cropping will be delayed during the ensuing season as farmers have just started sowing now.

Crop rotation has been adopted to overcome damping off or collar rot in the plants caused by soil-borne pathogens.

But the rainy season is a blessing as silt brought in by floodwaters turns into natural fertilizer for the plants.

The marketing model, meanwhile, is a lifeline for the farmers, who otherwise used to be at the mercy of vegetable-sellers in Aluva market who rely on their own supply arrangements and ignore seasonal supplies from neighbouring farms.

The low-lying field used to be under paddy a long while ago.

Later, the farmers switched to sugar cane and now to vegetables. Ridge gourd, melons, pumpkin, vegetable cowpea, okra, bottle gourd and brinjal are the key vegetables grown.

The Green Market does not rely on centralised sale. Individual farmers sell their produce at the market rate to visiting customers.

Declare rubber a farm produce: Kanam

P.C. George observes daylong fast raising 10 demands

Kerala Congress (Secular) leader P.C. George observed a day-long fast on Monday demanding steps to arrest the fall in price of natural rubber.

Inaugurating the fast, Communist Party of India State general secretary Kanam Rajendran said it was high time that natural rubber was declared an agriculture produce.

Since it is being used as the raw material for industrial products, rubber is categorised as a cash crop which helped the authorities exclude it from the agriculture produces list.

If it was considered an agriculture produce, the farmers would be able to seek market intervention by the government and benefit from various government projects aimed at agriculture price stabilisation, he said.

Mr. Rajendran said the Central government had taken a lenient view on the plight of cotton farmers in Maharashtra who were facing a similar situation. Once it was declared an agriculture produce, government could make successful intervention on behalf of the farmer, he said.

Even as the farmers were calling for a ban on import, there were covert moves to reduce the import duty of latex, Mr. Rajendran alleged. He also wanted the authorities to take immediate action to reconstitute Rubber Board which had been lying headless for more than a year.

T.S. John, KC (S) chairman, delivered the presidential address. Left Democratic Front coalition leaders expressed solidarity with the protesting leader.

The party organised the fast raising a 10-point agenda which include ban on NR import, inclusion of latex in the procurement operations, declaration of

moratorium on loans availed of by rubber farmers, and reconstitution of the Rubber Board, among others.

Steps sought to reconstitute Rubber Board

Covert moves to reduce import duty of latex: Kanam

KVASU to launch staff college today

The Kerala Veterinary and Animal Sciences University (KVASU) will launch an Academic Staff College (ASC), under the Directorate of Entrepreneurship of Varsity, on its Mannuthy campus in Thrissur district on Tuesday.

The college has been set up with financial support of Rs.98 lakh from NABARD under its Rural Infrastructure Development Fund. The ASC is envisaged to organise specially designed orientation programmes in pedagogy, educational psychology and philosophy, and socio-economic and political concerns for all new entrants at the level of Assistant Professors, said Vice Chancellor B. Ashok. It will also conduct specially designed orientation programmes and refresher courses in IT for new entrants, and in-service teachers.

The college will give thrust to e-content development and Move on to Open online courses. The ASC will inculcate new entrants as well as in-service teachers with the use of software tools, e-content development, online courses and information communication technology-based teaching techniques irrespective of the subject and discipline they teach, said T.P.

Sethumadhavan, Director of Entrepreneurship, KVASU.

B. Sunil has been appointed as the Director of the ASC.

Dr. B. Ashok will inaugurate the college at 11.30 a.m. P. Rajendran, Vice Chancellor, Kerala Agricultural University, will deliver keynote address. A

workshop on Communication Management for postgraduates, doctoral students and faculty members will also be held at the College Auditorium.

The college has been set up with financial support of Rs.98 lakh from NABARD.

Interest in organic farming growing

It has an advantage over conventional farming, say Puducherry farmers

: Of the 11,000 hectares of agricultural land in Puducherry, around 22 hectares of certified organic farms might appear to be small in comparison. However, not only is the area under organic farming slowly growing, it also appears to be finding a new-found enthusiasm in the farmers' community which has begun to appreciate its advantages over conventional farming.

The National Bank for Agriculture and Rural Development (NABARD) in association with the Indian Bank Self Employment Training Institute (INDSETI) and NGO Ekoventure have been holding training programmes in organic farming since a few years in Puducherry villages. Since 2014, Ekoventure has helped facilitate organic certification under the Participatory Guarantee System (PGS) of the Union Ministry of Agriculture and Farmers Welfare.

Among those who have taken to organic farming is V. Subramanian, a staff member of the milk society in Sillukaripalayam village in Mannadipet commune. He had given up farming owing to mounting losses. His interaction with Ekoventure led him to take back his leased land and try organic farming with black gram two years ago. Now, in his two acre field, he grows traditional varieties of paddy like Seeraga Samba and Mappillai Samba, besides also trying out lady's finger and groundnut. "People were surprised to see me take up farming again. With each harvest, I have improved," says Mr. Subramanian. He promotes organic farming among others in his village, and his children have also taken to his interest, he says.

Organic and traditional varieties

In the village of Koonichempattu in Puducherry, two groups consisting of 12 farmers are practising organic farming in around three acres. One of the groups is now qualified to get their PGS certification. Traditional paddy varieties like Seeraga Samba, Mappillai Samba, Mysore Mallige and Kitchidi Samba, banana, black gram (Vamban 4 variety), foxtail millet and spinach are being grown here. S. Veerappan, who heads one of the farmer groups says, “We find that organic traditional paddy varieties are less vulnerable to attack by pests. The yield is also higher, bringing down our overall costs.” Under organic farming, one acre yields around 2 tonnes of rice, say the farmers. Thyagarajan, another farmer of the group adds, “For every usage of fertiliser worth Rs.3,300 in conventional farming, only Rs.1,500 is needed now. While one bag of urea is Rs.300, 5 kilograms of biofertiliser asos is only Rs.136.”

Horticulturist Sivalingam from Manalipet experimented with a small patch in his one acre of jasmine.

“I am seeing good results. Earlier, I used to spend Rs. 1,500 a month on spraying pesticide, while now I require only Rs.400 for organic pesticide. The flowers weigh more, stay fresher longer and smell more fragrant, says Mr. Sivalingam.

Replacing chemical fertilisers and pesticides are Effective Microorganisms, Cow Pat Pit compost, organic manure Amirtha karaisal, biopesticide Panchagavya, use of oil cake and molasses as fertiliser, and use of pepper and ginger-garlic extract as pesticide. Paddy farmers are also implementing the organic low-water methodology of System of Rice Intensification. In Puducherry, sugarcane, ragi, guava, maize, green gram are also being grown in organic farms. “Our success lies in farmers getting inspired and spreading the word, as well as sustaining the initiative themselves,” says R. Chandirapoorani, facilitator with Ekoventure, adding there has been a growing interest in the last five years.

Ensuring all processes are kept strictly organic is not without its challenges of course, but the farmers seemed determined to carry on. Mr. Subramanian reveals his other reason for working in the field.

“I have diabetes. The farming gives me adequate exercise to keep fit,” he says.

Bankers disburse 47 p.c. of crop loans for rabi season

The bankers in district have disbursed 47 per cent of crop loans as on December 24, against the Rs.789 crore target set for rabi season.

Speaking to *The Hindu* , District Lead Bank Manager N.C. Sridhar said that they have lent Rs.373 crore against the total rabi target of Rs.789 crore. He was confident of meeting the rest of the target in short time. He said that they have disbursed Rs.1,287 crore of kharif crop loans out of Rs. 1,400 crore target.

Stating that they were slightly behind the target of lending for kharif loans, he said that they would certainly achieve the targets by the end of the financial year. If both the kharif and rabi crop loan targets are put together, he said that they have disbursed Rs.1,681 crore against the total target of Rs.2,189 crore. The bankers could achieve 76 per cent of their annual crop loan lending in district.

Against the Rs.315 crore target of agriculture term loans, bankers disbursed Rs.224 crore, achieving 71 per cent of annual target. The bankers have achieved more than their annual target in lending to agriculture allied sectors. The bankers had disbursed Rs.80 crore against the annual target of Rs.70 crore, achieving 14 per cent more than the annual target. Against the annual credit plan outlay of Rs.4,874 crore, the banks lent Rs.3,503 crore, achieving 72 per cent of annual target.

Agri protection zones proposed

The authority proposed three agricultural protection zones and urban zone, including the existing urban area and proposed urbanised area. The infrastructure category comprises traffic and transportation, multi Model Integrated Logistic Hub and airport area. Another protection zone has been created to protect the water bodies, hills and forest.

The prime fertile agricultural land and existing plantations and aquaculture are zoned as Agricultural Protection Zone - 1. This zone provides the opportunity to protect the existing agricultural / rural land use activities to be intact, and will not facilitate urbanisation.

All agriculture land beyond the proposed Outer Ring Road and outside the urbanisable boundary of the regional centres is zoned for protection under Agricultural Protection Zone- 2. Land is primarily reserved for the city's expansion in the future. This zone acts as a green belt (the region's green lungs) and also restricts development beyond the ORR . Recreational developments that help preserve nature are allowed in this zone. Land is earmarked for the city's future expansion towards the west. All activities that are permissible in the Agricultural Protection Zones 1 and 2 are allowed. Activities permitted in the proposed urbanised zone are allowed.

A tumultuous year for tobacco sector in Prakasam



Growers saw tremendous turbulence since 2000.

The year that comes to an end soon saw the well-regulated tobacco sector witness turbulence to a level never been witnessed since the crop holiday was declared in 2000 to correct the demand-supply mismatch.

Tobacco growers in the drought-prone Prakasam district have not seen any crisis since then as the Tobacco Board fixed realistic crop size year after year after assessing the global market condition and the requirement of domestic cigarette manufacturers.

Alarmed by a spate of suicides by tobacco growers, Union Commerce Minister Nirmala Seetharaman visited remote villages in Prakasam to take corrective measures to liquidate the leftover stocks with the ryots in distress by offering a compensation of Rs. 20 per kg, with the Centre chipping in with Rs.15 per kg and the State government accounting for the rest. As a result, 27,950 among 45,923 growers received a compensation of Rs.22.40 crore (Rs.16.80 crore from the Centre and Rs.5.60 crore from the State) for 11.23 million kg of low-grade tobacco they had marketed.


In the last 15 years, Prakasam district has endured several dry spells, consuming the lives of scores of peasants. After a stormy 2015, farmers now hope for a better 2016 as the productions are likely to dip to 70 to 75 million kg in the Ongole region, according Indian Tobacco Association sources.

Forest Department tries out elephant repellent

However, farmers in Denkanikottai are not enthused by the little-known spray

A JUMBO PROBLEM

Elephants rampaging through farm fields claiming human lives and destroying crops remain an intractable issue in Hosur Forest Division

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| <p>Human casualty</p> <p>2014- 9</p> <p>2015- 5</p> | <p>Compensation for crop damage</p> <p>2014: Rs.66 lakh disbursed up to March</p> <p>2015: 1,129 applications for crop loss received</p> |  |
| | <p>Compensation for human loss</p> <p>2014: Rs.27 lakh</p> <p>2015: Rs.15 lakh</p> | |

Wild elephants that stray into human habitations at Denkanikottai are often driven back into the forest. - FILEPICTURE

Heaps of ragi and plantains have been placed in select spots along the forest boundary for sample testing of an “elephant-repellent” here in Denkanikottai.

Herboliv, manufactured by a private manufacturer and marketed as a “wild animal repellent and crop promoter,” is being tried out by the Forest Department here in select spots in Denkanikottai.

“We are not familiar with the product by a private manufacturer. We invited them to sample testing in our area. The result was not fully satisfactory since it was just a sample area and remains to be time-tested on a larger area,” says E.Rajendran, District Forest Officer, Hosur Forest Division.

The ratio of the mixture is 1 litre of the organic compound to 9 litres of water.

The organic compound emits an odour that tends to repel wild animals, claims the product brochure. “We heard about the product tested and certified by the TNAU, Coimbatore. The product has been tried in isolated fields in Coimbatore.

“While it may have worked in Coimbatore fields that have been rampaged by one or two elephants, it is unclear as to how it would work on a migratory herd of 60 or more elephants,” says Mr.Rajendran.

However, farmers seem to be less enthused by a little-known spray to allow it to be tested on their fields. Also, since ragi fields - the preferred haunt for the migratory animals have largely been harvested, the department has purchased ragi and banana plantains in the market to test the product.

The department is equally concerned about bio-diversity conservation. The product brochure claims that the mixture when sprayed on crops weans away wild boars, deer, peacocks and rodents besides “improving shelf life” of the crop.

“We had concerns over the spray having an adverse effect on livestock or crops,” says the DFO. For now, the department has taken up the experiment in all earnestness albeit with a bucket-full of salt.

Signatories to the concept

The agreement to set up the SAARC Seed Bank was signed by Foreign Ministers of eight member States at the 17th SAARC summit at the Maldives in November 2011.

The agreement calls for maintaining a seed reserve consisting of quality seeds of rice, wheat, pulses, and oilseeds. It envisages seed multiplication programmes and seeks to encourage the use of certified quality seeds for crop production.

Member States have agreed to collaborate in the development of a list of common varieties of major crops while preserving indigenous varieties important for the development of climate resilient, high yielding crops.

A framework for material transfer has also been signed by the SAARC countries to facilitate easy movement of seeds and planting materials across the region.

‘Satellite forecasting has brought down deaths due to cyclones’

Indian Space Research Organisation (ISRO) chairman A.S. Kiran Kumar said satellite-based weather forecasting has helped reduce the deaths occurring every year due to cyclones from a few thousands to single-digit figures.

He was delivering the golden jubilee endowment lecture on ‘Space Technology and Societal Applications’ organised by the JSS Mahavidyapeetha here on Monday.

He said satellite-based weather forecasting has helped mitigate the impact of natural disasters. Using the wind pattern generated by Oceansat-2

scatterometer, data models have been developed for predicting the formation of a cyclone even before the depression turns into a cyclone. The meteorological satellites which measure weather parameters and provide images on cloud cover have become an integral part of weather forecasting, said Mr. Kumar. The development of flood early warning system has ensured a high degree of accuracy in flood forecasting as well, he added.

Satellite imageries and high spatial resolution data from the Indian Remote Sensing Satellites have found applications in areas including urban sprawl mapping and infrastructure planning and is a key ingredient in government programmes to ensure food and water security.

The remote sensing satellite data has found application in agricultural crop acreage and yield estimation, ground water targeting, forest survey, etc. The ISRO Chairman said space technology in agriculture over the years has led to pre-harvest production forecast for many crops .

Horticulture

Dwelling on the use of space technology for horticulture, Mr. Kumar said a site suitability analysis for horticulture was conducted across 180 districts in 11 States for seven crops: banana, mango, citrus fruits, potato, onion, tomato and chilli. S.K. Shivakumar, Prof. Vikram Sarabhai Distinguished Professor, spoke on the book *Daanasheelathe Agathyave* authored by Sudha Murthy. Shivaratri Deshikendra Swami of Suttur Mutt, students, and staff of various institutions were present.

Interest subvention should be phased out: central bank panel

Financial exclusion continue to persists in India's eastern, north-eastern, and central states

The government must do away with the interest subvention scheme and plough back the subsidy into a universal crop insurance scheme for small and marginal farmers, according to a recommendation from a panel constituted by the Reserve Bank of India (RBI).

The suggestions can transform the agriculture sector and promote financial inclusion

| | |
|---|--|
|  Deposit scheme for girl child — Sukanya Shiksha — as welfare measure | <ul style="list-style-type: none"> • Corporates should be encouraged to nurture SHGs as part of their Corporate Social Responsibility (CSR) initiatives • Digitisation of land records needed to increase formal credit supply to all agrarian segments |
|  Introduce universal crop insurance scheme for small, marginal ryots up to Rs. 2 lakh | <ul style="list-style-type: none"> • Phase out the agricultural interest subvention scheme • Government should replace the current agricultural input subsidies on fertilisers, power and irrigation by a direct income transfer scheme |
|  Aadhaar-linked credit account which can be shared with credit information bureau | <ul style="list-style-type: none"> • Encourage multiple guarantee agencies to provide credit guarantees in niche areas for micro and small enterprises (MSEs) • Introduction of unique identification for all MSME borrowers and sharing of such information with credit bureaus • Banks may be enabled to open specialised interest-free windows with simple products like demand deposits |

The move can transform the agriculture sector and promote financial inclusion, according to the panel headed by Deepak Mohanty, executive director, RBI, said digitisation of land records for clear titles and credit linkage are necessary to establish evidence of cultivation. The committee.

“A universal crop insurance scheme covering all crops should be introduced starting with small and marginal farmers with a monetary ceiling say of Rs 200,000. The insurance should be mandatory for all agricultural loans,” according to the report.

The panel cited the example of fertiliser subsidies, which increased from around Rs. 18,500 crore billion in 2005-06 to Rs. 73,000 crore in 2015-16. While fertiliser subsidy has succeeded in achieving its objective of increasing fertiliser consumption in agriculture, it has also led to some distortions and may not be financially sustainable in the long run, for example, rich households could benefit more from the subsidisation than their poorer counterparts.

Analysts differ

“Replacing the interest rate subvention scheme with a subsidy for insurance

may not be appropriate,” said Madan Sabnavis, chief economist, CARE Ratings.

“There is a specific purpose of subvention where farmers receive loans at a lower cost with the government paying the balance. By changing the same to insurance, the purpose is lot. Besides, an insurance works for the farmer when the crop fails, while subvention helps even under normal circumstance,” he said.

In order to ensure actual credit supply to the agricultural sector, the committee recommended introduction of Aadhaar-linked mechanism for Credit Eligibility Certificates. Women were being excluded from the scheme and banks should make special efforts for opening of accounts of women, according to the report.

“Given the government’s emphasis on the welfare of the girl child, the Committee suggests that the government can consider a welfare scheme — Sukanya Shiksha — that can be jointly funded by the central and state governments.” The scheme will link education with banking habits by crediting a nominal amount, in the name of each girl child belonging to the lower income group who enrolls in middle school and make it incumbent on the school and the lead bank and its designated branch to open a bank account for social cash transfer.

This scheme can also have the benefit of lowering school dropout rates and empower the girl child, according to the central bank panel.

While the committee recognised that substantial progress has been made in terms of access of financial products and services especially after the launch of the Jan Dhan Yojana, there were significant gaps in terms of usage, inadequate ‘last mile’ service delivery, and exclusion of women as well as small and marginal farmers and very low formal link for micro and small enterprises.

Mobile technology

The Mohanty panel also noted significant financial exclusion continue to persists in the north-eastern, eastern and central states to achieve near-universal access.

It has asked for a change in the banks' traditional business model through greater reliance on mobile technology for 'last mile' service delivery, given the challenges of topography and security issues in some areas.

The committee reviewed flow of credit to the micro, small and medium enterprises and suggested ways to bridge the information gaps that plague these entities. It recommended a system of unique identification for all MSME borrowers and the sharing of information with credit bureaus.

Multiple guarantee agencies, both public and private, that can provide credit guarantees in niche areas need to be encouraged and the role of counter guarantee and re-insurance companies should be explored in order to deepen the credit guarantee market.

“Giving guarantees and counter guarantees for loans to MSMEs are a good step that will improve the flow of funds, we should realize that to enable the same we already have a subsidy scheme for MSMEs to provide guidance to banks on creditworthiness of MSMEs. This has been rolled back sharply this year by the government. This should also be revived to improve flow of funds to MSMEs. While creating new products is welcome we should not disband old structures which have worked well,” said Mr. Sabnavis of CARE Ratings.

Govt. opacity leaves Rs. 8,000 cr expenditure unaccounted for

11 heads of spending with more than 50 per cent of the expenditure having no details

The government's finances exhibit opacity in the way some of the funds have been spent with more than Rs 8,000 crore of expenditure being entered into the books with no accompanying explanation of how and where the money was spent, according to an analysis by *The Hindu* of the Comptroller and Auditor General's audit of the finances.

OPACITY IN CENTRE'S SPENDING

| More than Rs 8,000 crore of expenditure has been entered into the books without explanation of how and where the money was spent | | |
|--|--|---|
| Major Head | Expenditure classified as 'Other expenditure' (Rs crore) | 'Other expenditure' as % of total expenditure |
| Other Social Services | 82.2 | 99.84 |
| Agriculture Financial Institutions | 6000.0 | 95.85 |
| Other Rural Development | 462.9 | 68.45 |
| North Eastern Areas | 184.6 | 91.45 |
| Flood Control and Drainage | 222.4 | 98.72 |
| Civil Aviation | 820.1 | 83.97 |
| Capital Outlay on Soil and Water Conservation | 0.2 | 100 |
| Capital Outlay on Coal and Lignite | 176.1 | 100 |
| 9 4853- Capital Outlay on Non-Ferrous Mining and Metallurgical Indus. | 32.5 | 100 |
| Capital Outlay on other Communication Services | 372.5 | 98.81 |
| Total | 8353.6 | 93.14 |

Source: Report of the Comptroller and Auditor General of India for 2014-15

“Scrutiny of Union Government Finance Accounts for the year 2014-15 disclosed that under 11 Major Heads of accounts (representing functions of the Government) expenditure of Rs.8,646.13 crore was classified under the Minor head ‘800-Other expenditure’ in the accounts, constituting more than 50 per cent of the total expenditure recorded under the respective Major Heads,” according to the CAG report. There were 11 heads of government spending where more than 50 per cent of the expenditure had no details of how and where the money had been spent.

Some of these heads are pretty significant, and should not be subject to such opacity. For example, the government spent around Rs. 6,260 crore on ‘Agriculture Financial Institutions’, the largest such head where opacity of a high degree exists. Of this, almost 96 per cent of the expenditure has been explained away as ‘Other Expenditure’.

Civil Aviation

Similarly, under the Civil Aviation major head of accounts, the government categorised 84 per cent, or Rs. 820 crore, as ‘Other Expenditure’. The report found that such opacity was prevalent across departments and ministries. “Some of the Major Heads where opaqueness in expenditure exists are Capital Outlays on Soil and Water Conservation (100 per cent of expenditure was booked under minor head ‘other expenditure’), Capital Outlays on Coal and Lignite (100 per cent), Capital Outlay on Non-Ferrous Mining and Metallurgical Industries (100 per cent), Other Social Services (99.84 per cent), Capital Outlay on Other Communication Services (98.81 per cent), Flood Control and Drainage (98.72 per cent), Agricultural Financial Institutions (95.85 per cent), etc,” the report shows.

It also found that the government, instead of having distinct heads of expenditure, had merged several types of expenditure — such as on interest subvention for short-term credit to farmers, subsidy operations of Haj charters, the below poverty line scheme, and others — and had simply classified them as ‘Other Expenditure’, further muddying the waters.

The CAG has been highlighting this opacity to the government every year since 2008, but almost nothing has so far been done to address the issue. As an interim measure, the Controller General of Accounts (CGA) began to insert footnotes in the accounts to demarcate when significant heads of expenditure had been merged under ‘Other Expenditure’.

This too fails to explain what exactly constitutes this ‘Other expenditure,’ and where the money has been spent. “The Controller General of Accounts replied (September 2015) that it had been sensitising all Ministries/Departments to meaningfully address this matter during the review of Statement of Central Transactions,” according to the report.

Governor to launch Neeru-Pragathi today

Governor E.S.L. Narasimhan would inaugurate the Neeru - Pragathi meeting scheduled to be held in Anantapur on Tuesday (December 29), Irrigation Minister Devineni Umamaheswara Rao said on Monday.

Addressing the media in the State guest house here, the Minister said that Chief Minister N. Chandrababu Naidu, along with 20,000 farmers and representatives of water users' associations from Anantapur, Kurnool, Kadapa and Chittoor districts would participate in the programme.

The meeting would deliberate on Polavaram, Handri Neeva Sujala Sravanthi and Galeru Nagari Sujala Sravanthi projects, he said.

Promising that the ongoing irrigation projects in Kurnool district would be completed within the next six months, Mr. Umamaheswara Rao said that water for irrigation and drinking purposes had been provided to Kurnool and Anantapur district by diverting 7 tmcft of water from Srisailem reservoir to Handri-Neeva project.

India's cotton purchases to plummet as Pakistan raises imports

The Indian government's purchases of cotton are set to plunge 89 per cent in the 2015-16 marketing year as local prices have jumped after crop failures forced neighbouring Pakistan to raise imports from the world's biggest producer of the fibre.

The increase in shipments to Pakistan, Bangladesh, and Vietnam will help India trim spending on cotton purchases by nearly Rs. 140 billion (\$2 billion) in the year that started on Oct. 1, although the rise in volumes on the international market will cap recent gains in global prices.

"Prices have moved above the MSP (minimum support price) level in most states and farmers are selling to private players," said B.K. Mishra, chairman and managing director of the state-run Cotton Corporation of India (CCI).

In a scheme to assist India's cotton farmers, the CCI buys raw cotton fibre from them at Rs. 4,100 per 100 kg, while in spot markets prices have risen to Rs. 4,300 to Rs. 4,800.

In the year to Sept. 30, India spent Rs. 160 billion to buy 8.7 million bales at the MSP as top consumer China started slashing imports.

In the current marketing year, the government purchases were again expected to rise to last year's level due to poor demand from China. But a sudden increase in demand from Pakistan and a decision by India's top producing state Gujarat to buy from farmers at levels higher than the MSP boosted prices and reduced the need for state support.

The government will likely spend just Rs. 20 billion for procurement of 1 million bales this year, Mr. Mishra said. "We have bought 700,000 bales so far, but henceforth we are expecting a slowdown in purchases due to rising prices."

Spot prices of ginned cotton in India have risen nearly 5 percent in a month to Rs. 33,200 per candy of 356 kg.

"Demand is healthy for Indian cotton from Pakistan and other Asian countries," said Dhiren Sheth, president of the Cotton Association of India, adding that prices could stabilize around the current level.

India has so far contracted 3.6 million bales for exports, including nearly 2 million bales to Pakistan, Mr. Sheth said.

Pakistan's overall cotton imports are seen climbing to at least 4 million bales in the year that started on Aug. 1, from 1.2 million bales in the previous year due to an estimated 25 percent drop in its own production.

India's cotton exports in the 2015-16 season are expected to rise 18 percent to 6.8 million bales.

A drop in India's production due to a pest attack and the first back-to-back drought in nearly three decades has also been supporting prices, said Pradeep Jain, a ginner based in Jalgaon in the western state of Maharashtra.

A government body has estimated a 4 percent drop in India's production in the current year. Traders are estimating a much steeper drop after floods hit cotton growing in the southern state of Tamil Nadu earlier this month.

MoEF team visits Yettinahole project site

A team of officials of the Ministry of Environment and Forests visited the Yettinahole project site in Sakleshpur on Monday, following the State government's plea for forest clearance for the project.

The team was headed by Amaranath Shetty, Additional Principal Chief Conservator of Forests (south zone). Officials of the Forest Department and Karnataka Neeravari Nigam Ltd., the project promoter, were part of the visit. They did not allow environmentalists and media persons to be a part of their visit.

Environmentalists from Hassan, Udipi and Dakshina Kannada districts had gathered to appeal to the team to deny forest clearance. Prakash Pinto, a resident of Sakleshpur, who has been opposing the project, said: "The officers were accompanied only by Forest Department and KNNL officials, who are taking up the project. There was none from the Revenue Department."

The environmentalists alleged that the team did not visit crucial areas where dams were coming up, damaging forest cover. "They visited places close to the national highway and ended their trip. Nobody can decide the fate of a project in half a day," said H.A. Kishor Kumar, president of Malenadu Janapara Horata Vedike. The Hassan district administration was in the dark about the visit.

Towards an indigenous satellite navigation system

The Indian Space Research Organisation has conceptualised a regional satellite navigation system called Indian Regional Navigation Satellite System (IRNSS) with a constellation of 7 satellites.

ISRO Chairman A.S. Kiran Kumar said here on Monday that the new system will provide better accuracy and will have applications in terrestrial, aerial and marine navigation. It will also aid in disaster management, vehicle tracking and fleet management.


To meet the requirements of the civil aviation sector, ISRO has realised a geo-positioning system aided Geo Augmented Navigation (GAGAN) system. Once operational, it will be highly beneficial to the aviation sector in terms of ensuring fuel efficiency, and improving reliability and safety. GAGAN services will also find applications in navigation and safety enhancement in railways, roadways, ships, scientific research for atmospheric studies, natural resource and land management, location based services, tourism, etc.

Mapping

The GAGAN-based geo-referencing for forest boundary mapping, forest cover and density mapping, annual forest loss alert system are other uses of ISRO space technology, he said.

The national urban information system was being created for 152 towns, under the Atal Mission for Rejuvenation and Urban Transformation.

Farmers rue delay in executing project

| THENPENNAI - PALAR LINK PROJECT | |
|--|---|
| The project envisages diverting of floodwaters from Krishnagiri dam to Palar river basin via Kallaru. | |
|  | <ul style="list-style-type: none"> Initiated in 2008-2009 Link canal of nearly 54-km long to bring floodwater diverted from Krishnagiri dam to Palar via Kallaru Benefits: Recharge groundwater in Palar river basin, stabilise command area of 11,870 hectares National Water Development Agency completes Detailed Project Report, sent for environment clearance |
| | The Palar had received good flow of water this year due to heavy rains. |
| According to farmers: | |
| <ul style="list-style-type: none"> With good rains this year, delay in implementation led to loss of copious water No water in upper Palar despite rains and flood | <ul style="list-style-type: none"> At least 10 tmc ft of water gone for waste into the sea If implemented, project will benefit farmers in at least six to seven taluks |

Had it been implemented the upper Palar would have received good water flow in the recent floods

The rains might have been bountiful for farmers this year, but many, especially those in the western part of the district, are not happy. They say delay in implementing the Thenpennai (Ponnaiyar) - Palar link project has led to huge wastage of water and lack of water flow in upper Palar.

Several farmers from in and around Vaniyambadi are disappointed that the link project that was initiated in 2008-2009 is yet to take form. If the project was implemented, upper Palar would have received good water flow in the recent floods, they said.

Diversion of flood waters

The project envisages diverting flood water from the Krishnagiri dam from Nedungal to Palar river basin via Kallaru, a tributary of Palar, through a link canal of nearly 54 km long by gravity.

This water is proposed to be utilised for recharging the ground water potential of Palar basin, and stabilise the existing command area of about 11,870 hectares being irrigated through wells and borewells now, according to National Water Development Agency (NWDA) website.

“According to officials, on an average at least 6.5 tmc ft of water flows from Krishnagiri dam to Sathanur and goes into the sea in a year. The link project envisages diverting 3.5 tmc ft of water to Palar, and 3 tmc ft to Cheyyar,” A.C. Venkatesan, president of Tamil Nadu Pasumai Paadhukaapu Makkal Iyakkam said.

He said with heavy rains and floods in the recent weeks, at least 10 tmc ft of water from Krishnagiri Dam had gone for waste.

Surplus water

The surplus water had flown to Sathanur Dam that had filled up after several years, and the excess water had flown into the sea.

“This year, there was good rainfall. Thenpennai river had abundant water flow. If the project was implemented, upper Palar would have received water,” he said.

Farmers rue that upper Palar did not receive even a drop of water. It was only after Ambur that the river witnessed water from Agaram eri.

As this was an intra-State link project, the Central government said it should be implemented by the State government using its own fund. State government announced in the Assembly that it will take up the project with its funds, he pointed out.

R. Janarthanan, a farmer in Vadakarai, Minnur said there is no water in Palar in villages such as Alasandapuram, Thimmampettai, Thumberi, Ramanaickenpettai, Vadukupattu, Thekkupattu and Ambalur.

“We have been submitting petitions seeking quick implementation of the project over the years but nothing has happened so far. If Thenpennai is linked to Palar, it will benefit farmers in six taluks including Natrampalli, Vaniyambadi, Ambur, Gudiyatham, Pernambut and Anaicut,” he said.

PWD officials said that the NWDA had taken up detailed study of the project.

“It has prepared the Detailed Project Report. This has been submitted for environment clearance to the Central government. The report has been simultaneously submitted to the State-level Environmental Impact Assessment Authority. Further action will be taken after clearance is given,” an official said.

The link project envisages diverting 3.5 tmc ft of water to Palar, and 3 tmc ft to Cheyyar

Rain returns to Tirunelveli; flood in Manimuthar Falls



Farm labourers at work despite an incessant drizzle near Ramaiyanpatti in Tirunelveli on Monday.— Photo: A. SHAIKMOHIDEEN

Revives bumper harvest hopes of farmers across the district

At a time when farmers were of the belief that the northeast monsoon had retreated, incessant drizzle returned to the district since the early hours of Monday to revive their hopes.

As active monsoon blessed every part of Tirunelveli for the second successive year, all 11 reservoirs in the district reached the maximum capacity even as more than 90 per cent of the systemised and rain-fed tanks brimmed with water. Barring a few incidents of breaches in irrigation tanks, almost all ponds, with comfortable storage, assure hopes of a bumper harvest this year.

The start of cold wave that begins by December-end used to indicate the end of northeast monsoon. However, this belief was belied when incessant drizzle started in the early hours of Monday. Though it was expected that the drizzle would continue throughout the day as the sky remained overcast, it stopped by 10 a.m.

Since the rain sparked a sudden flood in Manimuthar Falls, tourists were not allowed to take bath in the swelling waterfalls where a youth from Chennai was washed away into the pool on Sunday.

When his relative, an IT professional tried to save him, he also got drowned. Rainfall in the district (in mm): Papanasam dam 23, Cheranmahadevi 10, Manimuthar and Ramanadhi dams 9 each, Ambasamudram 8.80, Kodumudiyar and Servalar dams 7 each, Palayamkottai 6, Radhapuram 5, Nanguneri 4, Aayikudi 3.20, Tenkasi, Nambiyar and Karuppanadhi dams 2 each and Tirunelveli 1.



Microsoft CEO Satya Nadella meets Andhra CM Chandrababu Naidu; signs MoU for Cloud adoption

Microsoft to apply Microsoft Azure Machine Learning and Advanced Visualization in the fields of education, agriculture and eCitizen services.



Microsoft CEO Satya Nadella today met Andhra Pradesh CM in Hyderabad. Microsoft India has signed an MoU with the state government as well.

Andhra Pradesh Chief Minister N Chandrababu Naidu today hosted a breakfast meeting at his residence for Microsoft CEO Satya Nadella. The meeting lasted for 80 minutes, during which Nadella assured the CM of total

cooperation with the state government in utilizing cloud data for improving citizen services.

Deepening their partnership to improve access, deployment and use of Information and Communications Technology (ICT) to offer better citizen services and drive digital inclusion, the Andhra Pradesh government on Monday signed a Memorandum of Understanding (MoU) with Microsoft India. Nadella has also agreed to set up a Centre for Excellence in Visakhapatnam.

According to the MoU, the state government will use technical knowledge provided by Microsoft India. Microsoft India will support building of up to three proof-of-concept (POC) solutions to apply Microsoft Azure Machine Learning and Advanced Visualization in the fields of education, agriculture and eCitizen services. These POC solutions will be built and deployed to address specific problems within each of the fields to achieve better outcomes for the state. It will use lab method for data gathering, analysis, predictive analysis and policy planning. As part of its commitment to support the government's initiatives for Cloud adoption, Microsoft India will also train the state government's key IT executives on Microsoft technologies such as Cloud, Mobility and appropriate Microsoft Technology Stack. The company will also deliver an exclusive workshop to the government's key administrative officers on improving productivity by using Microsoft technologies.

Onion lessons

Time to review utility of MEPs, and also other restrictions on movement, storage and marketing of agricultural produce.



Lasalgaon, Asia's largest onion market, has seen a steady fall in the prices. (Express Photo)

The Centre's decision to remove minimum export price (MEP) restrictions on onions is welcome, though the corrective comes late for a step that should not have been taken in the first place. Since early-November, with the new kharif/ late-kharif crop's arrival, prices of the bulb have more than halved to Rs 950-1,000 per quintal in the wholesale mandis of Maharashtra. The Centre waited as long as December 11 to slash the MEP from \$ 700 to \$ 400 per tonne and, then, to zero on December 23. For farmers, who have already sold their onions, this is hardly any relief. Their plight is quite similar to what potato growers experienced in 2014-15. In potatoes, too, the MEP of \$ 450 per tonne clamped on June 26, 2014, was removed only on February 19, 2015, when prices in mandis from Jalandhar to Farukhabad had already crashed to Rs 300-400 per quintal. They haven't really recovered since; even today, when the main rabi crop is still to be harvested, prices are ruling at Rs 500-600 per quintal.

The Centre is always quick in imposing or hiking MEPs at the slightest indication of domestic prices firming up. That alacrity, however, is rarely seen when it comes to removal or reduction, which obviously works against growers: The latest decision on onions probably wouldn't have happened but for farmers in Maharashtra's Nashik region staging rasta rokos and not allowing auctions in market yards. But it also raises questions about the very effectiveness of export curbs. High prices — these scaled the Rs 5,500 per quintal level in the third week of August — induced farmers to expand onion acreage this time. The resultant bumper crop would, in the natural course, have brought down prices. What the ban on exports — an MEP of \$ 700 per tonne or Rs 4,500 per quintal practically amounts to that — has done is to reduce realisations to the point where farmers are discouraged to plant onions. This could well impact prices in the coming year. The MEPs, if anything, have only caused collateral damage through the loss of valuable export markets.

The time has come to review the utility of not just MEPs, but also other restrictions on movement, storage and marketing of agricultural produce. The last one year or more has unfortunately seen the Essential Commodities Act being invoked, especially in pulses and onions, to the extent of equating even normal trading and stocking operations with "hoarding". Such

measures are counterproductive, not least because they inhibit the supply response from farmers. That, ultimately, isn't good for consumers, who are better served by producers than governments.

THE HINDU BusinessLine

Delayed planting, lower area may hit wheat output



Rabi acreage of the cereal down 7%

BENGALURU, DECEMBER 28:

Reduction in acreages and delayed planting, due to poor soil moisture, dipping water levels and delayed onset of winter, is seen impacting the prospects of wheat crop this Rabi season.

Dip in acreage

Wheat, so far, has been planted on 259.37 lakh hectares (lh), about seven per cent lower than corresponding last year's 279.60 lh.

The biggest wheat producing State, Uttar Pradesh, has seen an acreage shortfall of 11.81 lh, followed by Madhya Pradesh at 2.73 lh, Gujarat at 2.65 lh and Maharashtra at 2.59 lh.

Though acreages have been maintained in Punjab and Haryana at 34.75 lh and 24.91 lh respectively, the delayed planting in several areas of these States could trigger productivity concerns, an expert said.

Productivity concerns

“Going by the current trend, there could be a significant reduction in wheat acreage this year. Though planting goes on till January 10, mainly in the marginal areas of Uttar Pradesh, productivity would be a concern,” said Indu Sharma, Director of the Karnal-based Indian Institute of Wheat and Barley Research told Business Line.

The normal rabi area for wheat is around 300 lh and so far the cereal has been planted on 259.37 lh.

In other major producing states, wheat acreages have been impacted by poor soil moisture levels – a result of weak monsoon this year and also by the higher temperature levels due to delayed onset of winter.

“As a result of reduced acreages and delayed planting, wheat productivity could take a hit. A clearer picture of the impact on the crop would emerge by mid-January,” Sharma added.

Wheat production last year stood at 88.94 million tonnes(mt), according to the fourth advance estimates issued in mid-September.

For the current 2015-16 rabi season, the union government was targeting a wheat output of 94.75 mt.

Price outlook

A potential reduction in output is unlikely to have any major impact on the prices as the stocks with Food Corporation of India and other agencies stood at 26.87 mt as on December 1, almost twice the buffer and strategic reserve norm.

Trade sources said prices of wheat were likely to remain range-bound in the weeks ahead on lack of demand. “I don’t see any big demand for wheat products post-Christmas that would keep the prices subdued. Also, adequate supplies from FCI are keeping prices under control,” said MK Dattaraj,

Managing Director of the Bengaluru-based Krishna Flour Mills. Meanwhile, except for gram or chana, the acreages of other major rabi crop rapeseed-mustard has witnessed a decline over last year's levels.

Total area sown to all rabi crops was down at 520.07 lh compared with 540.17 lh in the same period last season.

Dipping storage levels

A reduced water storage level in reservoirs across the country due to poor rains has impacted the planting of other rabi crops too and the overall acreages for the season were down by 3.72 per cent so far.

The country, except Southern peninsula and Kashmir, has witnessed deficient rains in the post-monsoon season for the period from October 1, 2015 till date.

(This article was published on December 28, 2015)

Slack upcountry demand grinds turmeric



ERODE, DECEMBER 28:

Spot prices of turmeric at Erode markets were down by ₹ 200 to ₹ 9,800 a quintal.

“Only 2,700 bags arrived but the prices decreased due to the non-receipt of upcountry demand. Only 1,490 bags were sold,” said RKV Ravishankar, President, Erode Turmeric Merchants Association.

He said the buyers were keen on buying only the quality turmeric and the stockists also purchased more than 350 bags. The price of the finger turmeric was down ₹ 200 a quintal and that of the root variety by ₹ 150.

At the Erode Turmeric Merchants Association, the finger turmeric traded at ₹ 6,896-9,869 a quintal; the root variety ₹ 6,400-9,369.

(This article was published on December 28, 2015)

Renewed demand sweetens sugar



MUMBAI, DECEMBER 28:

Sugar prices at all levels gained on renewed physical demand. On the Vashi market, prices went up by ₹ 30-45 a quintal *Naka* prices rose by ₹ 80-100 for S-grade and by ₹ 40-60 for M-grade. Mill tender rates were up ₹ 40-50 as mills stayed away from selling at lower prices. Arrivals to the Vashi market increased to 64-65 truck loads and local dispatches were at 63-64 loads. On Saturday evening, hardly 9-10 mills sold about 28,000-30,000 bags at ₹ 2,850-2,930 (2,800-2,880) for S-grade and ₹ 2,930-2,990 (2,880-2,950) for M-grade. The Bombay Sugar Merchants Association's spot rates: S-grade ₹ 2,942-3,000 (2,900-2,971) and M-grade ₹ 2,982-3,112 (2,942-3,072). *Naka* delivery rates: S-grade ₹ 2,940-3,020 (2,860-2,920) and M-grade ₹ 2,980-3,080 (2,930-3,020).

(This article was published on December 28, 2015)

Edible oils slip on weak cues



MUMBAI, DECEMBER 28:

Edible oils market ruled weak on Monday tracking slack physical demand amid bearish futures. On the BCE, palmolein declined by ₹ 4, cotton refined oil by ₹ 3, sunflower oil by ₹ 5 and rapeseed oil dropped by ₹ 10 per 10 kg each. Liberty was quoting palmolein at ₹ 472, super palmolein ₹ 497 and soyabean refined oil ₹ 628. Ruchi's rates: palmolein ₹ 465, soyabean refined oil ₹ 621 and sunflower refined oil ₹ 740. Allana traded palmolein at ₹ 471, soya refined ₹ 625 and sunflower oil ₹ 740.

In Saurashtra-Rajkot, groundnut oil *telia* tin was flat at ₹ 1,530 and loose (10 kg) at ₹ 975.

BCE spot rates (₹ /10 kg): groundnut oil 970 (970), soya ref. 621 (621), sunflower exp. ref. 675 (675), sunflower ref. 740 (745), rapeseed ref. oil 920 (930), rapeseed exp. ref. 890 (900), cottonseed ref. oil 582 (585) and palmolein 456 (460).

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Hong Kong lifts ban on Indian poultry products

CHENNAI, DECEMBER 28:

Two months after Kuwait lifted its ban on Indian poultry products, Hong Kong has now re-opened its market for egg and other poultry products from India. The ban had been in place ever since an outbreak of avian influenza hit India in 2012.



Usually, the ban is lifted only three months after the OIE (World Organisation for Animal Health) declares a country free from bird flu.

HongKong's industry

The Directorate of Food of Hong Kong has allowed import of eggs, egg powder, liquid and egg yolk from India, but with strict quality conditions in place, according to the website of Agricultural and Processed Food Products Export Development Authority (Apeda).

With the lifting of the ban, the ₹ 80,000-crore domestic poultry industry expects to get a pie in the HongKong's \$2-billion market. Corporates with risk mitigation facilities can make use of this opportunity, said industry sources.

Miniscule trade

But, a section of trade seems unaffected by this lifting of the ban. OP Singh, core committee member of the advisory body Poultry India, told *BusinessLine* that the lifting of the ban by HongKong does not make a big difference as the exports to the country are very negligible. "West Asian nations are our bigger consumers, while the HK market is dominated by its neighbouring Thai and Chinese suppliers."

According to Apeda's provisional estimates, the exports of poultry products stood at ₹ 460 crore during April-October 2015-16, a growth of 26.36 per cent over corresponding period last year's ₹ 364 crore.

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Palm oil futures to move higher

December 28, 2015:

Malaysian palm oil futures on the Bursa Malaysia Derivatives ended lower on Monday, retreated from a one-year high, after hitting their highest in 18 months in the last session, as weaker export demand and concerns over the year-end monsoon season dampened market sentiment. Palm oil export data from cargo surveyors Intertek Testing Services and Societe Generale de Surveillance showed a 15-16 per cent drop in shipments from December 1-25 compared with the same time period a month ago.

CPO active month March futures are higher in line with our expectations. As mentioned earlier, close above important resistance at MYR 2,460/tonne, in needed to take prices towards the psychological resistance zone between 2,500-2,510 levels or even higher and prices having found support at lower levels could gradually edge higher and test the psychological level at 2,500 or even higher.

Prices came close to testing the psychological resistance and then corrected sharply lower from there. The correction could extend lower towards 2,405-10 levels or even lower. Support is now seen at 2,400-05 followed by 2,385 levels.

Our favoured view expects support levels could still hold and prices could once again attempt to rise higher, as the underlying trend remains strong. Only an unexpected decline below 2,350-60 could hint that the expected rise to 2,500-10 might not materialise.

Such a decline could open the downside again targeting 2,300-20 levels or even lower. Favoured view expects a corrective decline to supports mentioned above then prices to rise higher again.

We will now reassess the wave counts, as prices have crossed over above 2,370-2400 . A possible new impulse looks to have started again.

One of our targets at 1,850 was met. The rally from there looks very impressive. The current move could push higher towards 2,645 initially and then it could correct lower in a corrective pattern towards 2,310 or even lower to 2,250, and then subsequently rise towards a medium to long-term

target at 2,900, which could bring this current impulse to an end. But, this is clearly a medium to long-term expectation and not to be mistaken for a short-term view. Any dips could prove to be opportunity to participate in the upcoming uptrend.

RSI is in the neutral zone now indicating that it is neither overbought nor oversold. As mentioned in the earlier update, the averages in MACD are above the zero line of the indicator hinting a bullish trend to be intact. Only a crossover again below the zero line could hint at a reversal in trend to bearish.

Therefore, look for palm oil futures to correct lower initially and then move higher again.

Supports are at MYR 2,410, 2,375 and 2,345. Resistances are at MYR 2,475, 2,510 and 2,575.

The writer is the Director of Commtrendz Research. There is risk of loss in trading.

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Business Standard

RBI panel for direct transfer of cash, abolishing farm subsidy

Committee set up after Prime Minister told the central bank that a road map should be built to include 90% of India's unbanked population into the financial fold



A Reserve Bank of India (RBI) committee on financial inclusion has suggested that the government should transfer cash directly to persons instead of giving subsidies, and should replace interest subvention on agriculture loans with affordable universal crop insurance scheme.

The committee on medium-term path on financial inclusion, headed by RBI executive director Deepak Mohanty, also recommended linking credit accounts with unique identification number, or Aadhaar number, and share information with credit information companies to enhance stability of the credit system and improve access.

The committee was set up in mid-July after Prime Minister Narendra Modi told RBI in its 80th anniversary that a road map should be built to include 90 per cent of India's unbanked population in the financial fold.

The group opined that the most efficient way for an effective financial inclusion is direct cash transfer.

Presently, the government gives interest rate subvention of two per cent for short-term crop loans of up to Rs 3 lakh. Another three per cent subvention for prompt repayment lowers the effective cost further. Payments towards such subvention have increased rapidly over time, the report said. From less than Rs 2,500 crore in subvention in 2006, government's subvention in 2016 is projected to be above Rs 12,500 crore.

Besides, actual cultivators are not always the landowners and hence such subventions do not even reach them. The land owners, being the recipients of the subventions, turn into money lenders. The panel said that agricultural credit must flow to the actual cultivator for which tamper-proof digitisation of land records was a must.

“The scheme is for short-term crop loans, and as a result it discriminates against long-term loans and thereby, does not incentivise long-term capital formation in agriculture, which is essential to boost productivity,” the panel said, adding any subsidised credit increases the chance of misuse.

India mainly subsidises fertiliser, irrigation, power and credit, but the subsidy leads to vast leakages. For example, the fertiliser subsidy, which increased from Rs 18,500 crore in 2005-06 to an estimated Rs 73,000 crore

in 2015-16 is not financially sustainable in the long run.

“Subsidising farmers by reducing the price of inputs could ultimately be regressive, i.e., rich households could benefit more from the subsidisation than their poorer counterparts,” and panel said and hence, recommended that the government should simply transfer cash to farmers equivalent to the fertiliser subsidy. Similarly, cash transfer can be tried to address problems in the irrigation sector and instead of charging “abnormally low electricity tariffs” for agricultural use, equivalent cash can be transferred into beneficiaries’ accounts.

According to the Agriculture Census (2010-11), 85 per cent of India’s 138 million farming holdings are small and marginal farmers who hold less than five hectares of lands. These groups are heavily dependent on private money lenders, even as those with 10 hectares of land holding have banking facility to tap.

The committee recommended that a mandatory crop insurance scheme covering all crops should be introduced starting with small and marginal farmers with a monetary ceiling of Rs 2 lakh. Farmers will have to pay a nominal premium to get this insurance and the balance could come from government subsidy.

“The government can phase out the agricultural loan interest subvention scheme and plough back that allocation into the crop insurance subsidy,” the panel said.

Heavy use of technology, like satellite images for crop mapping and assess damage, could make the insurance scheme more efficient. Satellite imagery can be used for ‘crop mapping’ and to assess damage.

Among other major recommendations, the panel suggested stepping up efforts to include more women in the financial inclusion fold. The All-India Debt and Investment Survey (AIDIS) suggested that interest rates paid by female household head are, on average, higher than those paid by male household heads. Still, in India, the financial gender disparity is as high as 20 percentage points.

To include more women, and with the government’s emphasis on the welfare of girl child, the panel recommended that a new welfare scheme,

called Sukanya Shiksha that can be jointly funded by the central and state governments, be formed. The government has a small savings scheme called Sukanya Samridhi for girl child.

The proposed [Sukanya Shiksha scheme](#) “will link education with banking habits by crediting a nominal amount, in the name of each girl child belonging to the lower income group who enrolls in middle school. This would make it incumbent on the school and the lead bank and its designated branch to open a bank account for social cash transfer. This scheme can also have the benefit of lowering school dropout rates and empower the girl child,” the panel recommended.

Similarly, multiple guarantee agencies can be floated to provide credit guarantees in niche areas for micro and small enterprises (MSEs) and a system could be introduced for unique identification for all MSME borrowers and sharing of such information with credit bureaus.

According to the Mohanty report, mobile phones are the way forward for inclusion. Public sector banks account for only 14 per cent of the total mobile banking transactions worth Rs 270 billion, suggesting there is significant room for market players to grow. Even as mobile connectivity might not be commercially viable to start with, telecom service providers could fund the penetration as part of their to use their corporate social responsibility, the report said.

An eco-system should be developed where full-service banks, regional banks, non-banking finance companies, semi-formal financial institutions, as well as the newly-licensed payments banks and small finance banks, could work together for effective inclusion, the panel said.

Rabi sowing continues to be weak as a result of low moisture

Sowing of [rabi crops](#) continued to be lower than the previous year with [wheat](#) and [mustard](#) recording the highest shortfall because of [low moisture](#) in the soil, raising concerns on output.



With temperatures remaining higher than normal during the day in parts of the country, there could be a further impact on sowing unless winter sets in.

According to data furnished by department of agriculture, till last week, wheat was sown in around 25.93 million hectares (ha), almost 7.23 per cent less than the previous year.

Total area sown for all rabi crops was down at 52.07 million ha as on December 23 as compared with 54.01 million ha in the previous year.

Oilseeds have also seen a drop in area sown at 6.96 million ha, compared with 7.43 million ha in the year-ago period. Rice has been sown in around 1.21 million ha against 1.36 million ha in the year-ago period.

However, sowing of pulses and coarse cereals was better than the year-ago period.

Pulses area was slightly up at 12.59 million hectare from 12.47 million hectares, while that of coarse cereals increased to 5.29 million ha.

Eighth National Steering Committee on Climate Change Approves Four Projects

The eighth National Steering Committee on Climate Change (NSCCC) approved four projects from Tamil Nadu, Kerala and Punjab and also considered one project submitted by Government of Madhya Pradesh, at a

meeting held here today. The agenda of the meeting was to consider the Detailed Project Reports (DPRs) submitted by Government of Tamil Nadu and Government of Kerala for funding under the National Adaptation Fund on Climate Change (NAFCC) and demonstration projects submitted by Government of Madhya Pradesh, Government of Punjab and Government of Tamil Nadu under Climate Change Action Programme (CCAP).

The project, titled "Management and Rehabilitation of Coastal Habitats and Biodiversity for Climate Change Adaptation and Sustainable Livelihood in Gulf of Mannar, Tamil Nadu", has been submitted by Government of Tamil Nadu. The total cost of the project will be Rs. 24.74 crore and will cover 23 coastal villages of Tuticorin district. The 4-year project has five broad objectives: conduct baseline vulnerability studies, coral rehabilitation, sea grass rehabilitation, deployment of 6,000 Artificial Reef (AR) modules, and eco-development activities in the project villages. The project will help in developing the much needed Comprehensive Plan or Scheme for Coral and Sea Grass Restoration". It will augment the database on coral ecosystem, species diversity, fish catch/effort, anthropogenic pressure, and migration & survival rate. The project activities will lead to economic empowerment of 15 SHGs per village and benefit about 6,900 women. The project will create a platform for knowledge development through regular meeting amongst departments like fisheries, forest, TNSCCC, GOMBRT, IIT, Chennai, Anna University and facilitate planning of roadmap for future conservation efforts. It is estimated that the cumulative potential for revenue generation per annum is about Rs. 1.84 crore for fisherman community and Rs. 1.03 crore for the Women Self Help Groups (SHGs). The Department of Environment and State Steering Committee of Tamil Nadu will be responsible for

facilitating overall project implementation.

Another project titled Promotion of Integrated Farming System of Kaipad and Pokkali in Coastal Wetlands of Kerala has been submitted by Government of Kerala. The total cost of the project Rs. 33.73 crore envisions integrated farming methods, as climate smart practices to enhance resilience of aquaculture communities to climate change especially sea-level rise that results in severe intrusion of salinity. The proposed area for the 4-year project is 600 hectares (300 hectares in Kannur District and 300 hectares in Ernakulam, Thrissur and Alappuzha districts) has as its broad objectives - providing the main infrastructure facility of strong outer bunds with sufficient height; use of tall varieties of salt tolerant paddy; integrating fishery to enhance paddy cultivation and maximize the inland fish production through sustainable aquaculture. The Agency for Development of Aquaculture (ADAK), Department of Fisheries, Government of Kerala, will be the Executing Entity for the project. The project will help simultaneous cultivation of rice and shrimp / fish in low-lying wetlands where there were no cultivation earlier. It will also improve the quality of life for local farmers through higher disposable incomes. It will improve access to fresh water, as peripheral bunds will prevent seepage of sea water to fresh water sources, capacity building of farmers and will reduce displacement of labourers from nearby areas and provide employment to women. It will also check carbon emission, as wetlands have good potential to act as carbon sink. It is estimated that the cumulative potential for total annual revenue is about Rs. 23.25 crore under this project.

Under Climate Change Action Programme, the Committee considered three

projects on Building Resilience through Integrated Farming Systems for Enhancing Livelihood Security" submitted by Government of Madhya Pradesh, Technological adaptation for gainful utilisation of paddy straw (presently burnt on-site) as fuel to replace fossil fuels" submitted by Government of Punjab and Coastal habitat rehabilitation for climate change adaptation in Gulf of Mannar, South-Eastern India: Improving ecosystem services and Fisherman livelihood" by Government of Tamil Nadu. The committee approved the projects from Government of Punjab and Government of Tamil Nadu at an estimated cost of Rs. 3.54 crore and Rs. 67 lakh respectively. The meeting was held under the Chairmanship of Shri Ashok Lavasa, Secretary Ministry of Environment, Forest and Climate Change (MoEF&CC).