

## **Kuruvai package: special control room set up for registration**

A special control room has been established in the district for providing details and registration of farmers under the kuruvai special package scheme, Collector S. Palanisamy has said.

Farmers can call 04365-253096 or 7373088066 to register themselves for the transplantation of nurseries or to obtain other details, he said.

Mr. Palanisamy, who inspected the works implemented under the package in Sembanarkovil union on Tuesday, said the Government had allocated Rs. 10.49 crore for the district.

Under the package, the Agricultural Engineering Department would carry out free transplantation of nurseries on 20,000 acres of land at a cost of about Rs. 5 crore. Besides, farmers would be given Rs. 315 an acre for purchase of micro nutrients and bio fertilizers for 72,000 acres in the district. This apart, gypsum would be provided to farmers to improve the soil health, based on soil test reports, on about 15,000 acres of land.

Farmers in Vennar division where kuruvai cultivation could not be taken up would be provided seeds for raising pulses and green fodder.

He said that distribution of Rs. 315 to farmers for purchase of micro nutrients and bio fertilizers was under way and urged farmers to

apply for the same immediately with the primary agricultural cooperative society.

Mr. Palanisamy inspected the transplantation works taken up by the Agricultural Engineering Department at Kidarankondan and distributed the free gypsum.

## **LDF stages walkout over price rise**

The Communist Party of India (Marxist)-led Opposition staged a walkout from the Assembly on Tuesday in protest against the Speaker's refusal to allow an adjournment motion seeking discussion on the rising price of essential commodities and the failure of the government to intervene in the market.

Giving notice for the discussion, Communist Party of India leader and former Agriculture Minister Mullakara Ratnakaran alleged that the United Democratic Front government had undermined the public distribution system in the State. In his reply, Civil Supplies Minister Anoop Jacob said the government had succeeded in keeping prices under control. The network of PDS outlets had been expanded and an amount of Rs.261 crore spent on subsidies for Supplyco last year. As many as 103 new Maveli stores, five super markets, 115 civil supplies units, and 15 mobile outlets had been opened.

Mr. Ratnakaran wondered why prices were headed north if the government's market intervention was effective.

“There is no point in claiming that a huge amount was spent on curbing price rise. The government has no control over market

forces dictating prices. The PDS network is collapsing, adding to the crisis in various sectors,” he said.

### **Subsidised food kit**

Mr. Ratnakaran urged the government to consider the idea of a subsidised food kit for workers in the traditional sectors. The Minister said 16-lakh metric tonnes of rice was sold through ration shops and festival fairs were effective in driving down the open market prices. He, however, said the prices of some essential commodities were rising because of external factors.

## **KRRS, Hasiru Sene seek scientific prices for agriculture produce**

Members of the district unit of the Karnataka Rajya Raitha Sangha and Hasiru Sene took out a procession and staged a dharna outside the Deputy Commissioner’s office here on Tuesday seeking fulfilment of their demands, including scientific price for agriculture produce.

Sangha general secretary Ichghatta Siddaveerappa said there had been reports of farmers’ suicides owing to the wrong policies of the government and its failure to fix scientific prices for agriculture produce. These policies had helped middlemen exploit farmers and sugar factory owners.

Instead of launching schemes keeping in view vote banks, the government should find out solutions to help farmers from the financial crisis and waive loans taken from banks and other financial institutions, he said.

The government should keep a tab on the price of agriculture produce and agriculture equipment. It should also depute officers to check the price and quality of equipment sold to farmers, Mr. Siddaveerappa added

## **Farmers seek DD Kisan channel**

Farmers in the district have called upon the district administration to prevail upon cable television operators to compulsorily relay the recently-launched DD Kisan, a channel dedicated to farmers.

According to official sources, there are 711 local cable operators in the district under the ambit of Tamil Nadu Arasu Cable Television Corporation. An instruction from the State Government is awaited for transmitting DD Kisan channel compulsory, the sources said.

The channel, launched last month by Prime Minister Narendra Modi, was envisaged as a platform for increasing food-grain productivity, and an engine for growth of rural economy.

Since agriculture is the mainstay of a majority of the population in Erode, the farmers have conveyed to the district administration their desire to derive the utility of the programmes telecast through the channel.

The DD Kisan channel was started to provide farmers vital information about weather patterns and global markets to enable them take right decisions.

Progressive farmers in the district are hopeful that the channel will help in broad-basing best practices in cultivation and animal

husbandry, besides apprising them about the latest policy initiatives in the sector.

The Prasar Bharti has already made known its plans for making available various programmes in regional languages as well.

Farmers say the content provided by DD Kisan Channel that has tie-up with Indian Meteorological Department, Agricultural universities and Krishi Vigyan Kendras was essential to keep themselves updated about new kinds of crop diseases, ways of protection, and increasing crop yield.

## **Sowing picks up pace in Ballari district**

Sowing for the kharif season has been gradually picking up in the rain-fed areas in Ballari district with the onset of monsoon and the district recording excess rainfall.

The district recorded an actual average rainfall of 91.8 mm against the normal of 65.3 mm in June. The highest rainfall of 173.1 mm was recorded in Sandur against the normal of 90.4 mm. The rainfall recorded in other taluks against the normal are, Kudligi 100.9 mm (62.7 mm), Hadagali 96.2 mm (66.9 mm), Hosapete 96 mm (62.7 mm), Hagari Bommanahalli 63.6 mm (58.6 mm), Sirguppa 62 mm (67.7 mm) and Ballari 50.5 mm (48.4 mm).

Sources in Agriculture Department told *The Hindu* that sowing had been completed on 21 per cent of the targeted area and 44,226 hectares (ha) had been covered. The district had set a target of cultivating paddy, jowar, bajra, maize and minor millets on 2.06 lakh ha; toor, horse gram, green gram, cowpea, among others, on

12,938 ha; groundnut and sunflower on 72.447 ha; and cotton and sugar cane on 73,365 ha.

Sowing would be taken up in Ballari and Sirguppa taluks, which come under the irrigated belt, only after the water from the Tungabhadra reservoir is let into the canals.

## **Sugarcane farmers call off agitation temporarily**

Farmers organisations, although half-heartedly, have temporarily called off their agitation on the issue of payment of sugarcane price dues after the State government, under pressure, on Tuesday agreed to clear the Rs. 930 crore dues for the crushing year 2013-14 by July 31 and also Rs. 100, out of Rs. 200, due to them by July 10. Yet, they set a deadline for the government to implement its commitment by July 31 failing which there would be a fresh agitation on August 1.

The government's decision was conveyed by Police Commissioner S. Ravi and Superintendent of Police Ravikanthe Gowda to the growers under arrest and housed in the Samudaya Bhavan of the Police Department here in the evening.

Inspector-General of Police (Northern Range) Umesh Kumar announced that the farmers were being released.

The farmers, majority of them from Belagavi district and north Karnataka region, under the joint leadership of the Karnataka Kabbu Belegarara Sangha and the Karnataka Rajya Raitha Sangha, launched the indefinite agitation on Monday to exert pressure on the government to "settle the sugarcane dues for the crushing years 2013-14 and 2014-15 within a week".

The agitation dramatically culminated in a rasta roko agitation on the busy Pune-Bengaluru National Highway No 4 near the Suvarana Soudha by Monday evening, after the government failed to respond positively to their demand by 2 p.m., the deadline set by the farmers. The growers, on Tuesday afternoon, set a fresh deadline of 7 p.m. for the government to take a positive decision on their long-pending demand.

Meanwhile, Mr. Ravi (Police Commissioner) told mediapersons that 393 farmers were arrested under Section 391 of Karnataka Police Act for the rasta roko.

## **‘Take steps to provide seeds’**

B.N. Chandrappa, MP, has asked officials to take steps to provide groundnut seeds to farmers in Molkalmuru, Challakere and other taluks in the district, who are facing shortage of seeds.

Attending a review meeting here on Monday, he said that action would be initiated against those who failed to ensure supply of seeds and fertilizer. “The officers should write to the government about the requirement in advance so that the farmers are not put to inconvenience,” Mr. Chandrappa said.

## **Rs. 2.5 cr. for organic farming in Wayanad**

While the government is planning to crackdown on the issues relating to high levels of pesticide residues in vegetables being brought from neighbouring States, the Agriculture department is gearing to attain self-sufficiency in pesticide free-vegetable production in the district.



The government has sanctioned Rs. 2.58 crore for the district to cultivate safe-to-eat vegetables on 1,971 hectares of land, including farmers' own cultivation, by following organic agriculture practices, K. Mohan, Principal Agriculture officer, Wayanad, told *The Hindu* .

The department is targeting to produce 21,000 tonnes of different species of vegetable this year under various schemes, as against 18,630 tonnes of vegetables during the corresponding period last year, he said.

As many as 1,75,500 vegetable seed kits, each kit consisting of 12 different vegetable seeds, would be disbursed to school students, NGOs and farmers under the 'Homestead Vegetable cultivation scheme'. The department has earmarked Rs.11.5 lakh and Rs.13 lakh respectively to expand vegetable cultivation on private as well as public institutional lands and in 200 schools.

As many as 50 new commercial vegetable producing farmer societies would be constituted this year and a sum of Rs.48.46 lakh would be disbursed to them to promote pesticide free vegetable cultivation.

A financial aid of Rs.65.9 lakh would be provided to 3 'A' grade societies selected 43 vegetable producing societies in the district. A sum of Rs.4.5 lakh has been allotted to promote growbag vegetable cultivation in urban areas.

A sum of Rs.50 lakh would be utilised to cultivate vegetables on 25 hectares of fallow land and Rs.15 lakh would be provided to empower vegetable producing societies. As many as 18 micro nutrient demonstration plots would be launched at a cost of Rs.3.76 lakh and Rs.22.5 lakh would be utilised to set up 75 micro-irrigation projects in the district.



As many as 80 rain shelter cultivation units would be started this season at a cost of Rs. 40 lakh. The department would organise 150 training programmes to sensitize the farming community on the significance of pesticide-free vegetable cultivation and reduce the application of harmful chemical pesticides, Mr. Mohan said.

## **State sets July 31 deadline to clear sugarcane dues**

Under pressure from agitating farmers and the Opposition, the State government on Tuesday announced July 31 as the deadline to clear dues of Rs. 923 crore to sugarcane farmers for 2013-14 in two instalments.

Sugar Minister H.S. Mahadeva Prasad told the Legislative Assembly that out of the dues of Rs. 200 per tonne, the government would pay Rs. 100 out of its coffers by July 10 and the remaining Rs. 100 by the end of the month after auctioning seized stocks from defaulting factories.

However, not content with the setting of yet another deadline, the JD(S) walked out while the BJP staged a dharna in both the Houses. Opposition leader in the Assembly Jagadish Shettar demanded that entire arrears, including Rs. 2,120 crore dues for 2014-15, be paid in one go.

Chief Minister Siddaramaiah argued that the sugar crisis, linked to international sugar market fluctuations, could not be resolved without the Centre's intervention. He said he would lead an all-party delegation after the ongoing legislature session to meet Prime Minister Narendra Modi and apprise him of the problems faced by sugar factories. The Centre, he said, should pay Rs. 400 per tonne to

farmers, since factories have not paid FRP fixed at Rs. 2,200 per tonne for 2014-15 because of the slump in sugar prices.

Mr. Siddaramaiah said the State government was not an “Akshaya Patra” and not in a position to pay pending dues of Rs. 2,120 crore for 2014-15. He said he had met Union Food and Civil Supplies Minister Ram Vilas Paswan several times and put forward demand for help, but the latter had failed to respond.

Earlier, explaining the genesis of the crisis, Mr. Prasad said sugar prices and demand had plummeted in five years, while growing area and production had gone up. Of the production of 49.81 lakh metric tonnes in 2014-15, 31 lakh tonnes were unsold, he said.

Despite this, he said the government had paid incentives to farmers under various heads to the extent of Rs. 1,173 crore.

He said Karnataka had put forward several demands, including taking steps to encourage exports, increase import duty and increase ethanol mix in petrol from the existing 5 per cent to 10 per cent.

## **Mission Kakatiya to be resumed after monsoon**

Irrigation Minister T. Harish Rao has said the Mission Kakatiya programme would be resumed after the monsoon and strongly objected to the criticism of the Opposition parties.

### **Denies misappropriation**

The Minister clarified that the programme was being executed in a transparent manner without any scope for misappropriation of

funds. “If there are any lapses we will definitely take action,” he said adding that some leaders were making unreasonable criticism on the noble mission initiated by the State government.

To help the cotton farmers, the government was contemplating to bring machinery to help remove wetness from cotton and earn good price. Mr Harish Rao said efforts were being made to prevent sale of spurious seeds.

Stringent action would be taken against those selling fake and spurious seeds.

The government was also planning to establish godowns at all mandal headquarters to help farmers store their stocks and sell when remunerative prices are high. The Minister was here on Tuesday to attend a court case. A case was filed against him by Konda Surekha during Assembly bylection in Parkal in 2012. The case was posted for final judgment on July 2.

Mr Harish Rao speaking to newsmen said integration of rivers would be opposed by the State government as it would be against the interests of people of Telangana.

The Minister visited local markets and later met TRS party leaders in Hanamkonda.

## **‘Direct Aavin to procure from cooperative societies’**

The Tamil Nadu Farmers Association affiliated to the All India Kisan Sangh has appealed to the Tamil Nadu government to direct the Vellore and Tiruvannamalai Districts’ Cooperative Milk Producers’ Union to procure the entire milk produced by the village

level cooperative milk producers' societies in the two districts and use it for producing value-added products.

The association stated that the government has to take this step in order to rescue the producers from the private dairies to whom they had to resort to distress sale of their milk owing to the refusal of the union to procure milk.

This situation has arisen on account of the excess production of milk by the members who have been benefited by the government's scheme of free supply of milch animals. If the government did not procure the milk, the government's intention in providing free milch animals to the farmers would be defeated, the association pointed out in a resolution passed at the Vellore district meeting of the association held at Vaniyambadi on Sunday.

M. Nandhi, district president of the association presided.

By another resolution, the association urged the government to root out the 'karuvelam' ( *Prosopis juliflora* ) trees in all the water bodies in the State in order to conserve the groundwater resources of these water bodies.

The resolution wanted the government to remove the 'karuvelam' trees as well as the fencing trees on the bunds of tanks and ponds in order to increase the water holding capacity of the water bodies during the forthcoming rainy season in order to save the farmers from the impact of the severe drought which they were facing.

By another resolution, the association urged the State government to follow the example of the Karnataka Chief Minister Siddaramaiah who has announced that his government would auction the accumulated sugar stocks in the private sugar mills and pay the arrears to the sugarcane growers who supplied cane to the mills.

The meeting urged the Vellore district administration to recommend to the government to declare Vellore as drought-hit, obtain drought relief funds and immediately implement drought-relief schemes in the district.

## **“Buy tobacco from farmers”**

The Union Ministry of Commerce and Industry has taken a serious view of tobacco companies not procuring the assured quantity of the commodity from the farmers.

Union Minister Nirmala Sitharaman, who interacted with a delegation of farmers and traders in New Delhi on Tuesday directed the companies to buy tobacco from growers at the price assured to them. According to sources, the representatives of the industry tried to justify the low offtake of tobacco from the market claiming that farmers were not coming forth to sell the commodity.

## **Learn about nature at this park**

The Forest Department plans to open a unique tree park off Tannirbhavi beach to strengthen the bond between children and nature. It is slated to be open to the public from next month.

“Spend your leisure time here along with your family and learn about the nature,” Chief Conservator of Forests (Mangalore Circle) Sanjay Bijoor said. The park has been developed on about 60 acres of forest land near Yojaka Shipyard. “A walk along the pathway gives all the information about the biodiversity of this area and the region,” he said.

The entry fee per head is Rs. 10. “There is a tree like structure and sculptures of children around it at the entrance to symbolise the fact

that the future of environment protection is with the younger generation,” Mr. Bijoor said.

Visitors will then be moving along Casuarina trees that are in the area for several years. In addition, the department has planted trees such as ‘honne’ and almond. People can also find species of jackfruit, ‘hebbalasu’, ‘punarpuli’ and bamboo found in the Western Ghats. A medical garden has also been prepared where herbal plants and shrubs are found in strips. “Boards have been placed to give information about these trees,” Mr. Bijoor said.

They have also recreated a tribal settlement. An information centre has been built where signage boards are set up to provide information at a click of a button. It will also have information about the marine biology, biodiversity and facts related to the marine ecosystem. A small children’s park, canteen and volleyball play area too have been set up.

Additional Principal Chief Conservator of Forests K.S. Sugara said the park was part of a scheme meant to make the department people friendly. This park has been developed at a cost of Rs. 1.65 crore of which Rs. 70 lakh was spent on fencing the area, he said.

Minister for Environment and Forests B. Ramanath Rai inaugurated the renovated forest guest house on Saturday. The guest house built in 1990 had been in a dilapidated condition for several years and had been closed. It has been renovated at a cost of Rs. 61 lakh.

## The digging-holes myth

estimates for the same gram panchayats. Further, most of the completed structures were very well used, especially to grow vegetables and other high-value crops, but also to bathe, water domestic animals and even grow fish, among other possible uses. Looking just at the impact on agricultural productivity, the authors estimate (from a sub-sample of about 100 randomly selected wells) that MGNREGA wells have a financial rate of return of 6 per cent or so in real terms. This is a very respectable rate of return, on par with many industrial projects. And please note, this estimate focuses on plain financial returns, not social rates of return — the latter would be higher, if only because the social opportunity cost of a day's labour is typically lower than the MGNREGA wage. Despite considerable hassle at the construction stage, sometimes even leading them to sell some property, almost all well-owners were glad that they had built a well. The study also sheds some useful light on the reasons for non-completion of a significant minority of MGNREGA wells in Jharkhand. In some cases, technical problems (for example, stony ground) were to blame, but more often, the well had collapsed during the monsoon because of delays in the reimbursement of material expenses. From these and other lessons, there are possibilities of ensuring even more productive projects in the future. The findings cited are consistent with those of other recent studies in the same vein, notably by the Indian Institute of Science, the International Water Management Institute and the University of Allahabad. More evidence is certainly needed to form a clear view of the productive value of MGNREGA works in general, but as things stand, there is no reason for despondency. Finally, recent research suggests that the Central government has a misguided view of how MGNREGA



works can be made more productive. The basic assumption tends to be that the best way to enhance the productivity of MGNREGA works is to raise the material-labour ratio. In fact, there is no evidence that material-intensive works (for instance, building pucca structures) are generally more productive than labour-intensive works (for example, land-levelling or contour-bunding). Most states today have an average material-labour ratio below the stipulated maximum of 40:60, and there is no obvious reason why this upper limit should be raised. A more effective step would be to improve technical support and supervision for all MGNREGA works, irrespective of the material-labour ratio. This would also be a good opportunity to enhance the skill-building role of the MGNREGA. It is often said that the MGNREGA should be reoriented towards skill formation instead of casual labour. This overlooks the fact that the MGNREGA is already one of the largest skill-building programmes of the Central government. Lakhs of women and men are learning technical, administrative and social skills as gram rozgar sevaks, programme officers, worksite mates, barefoot engineers, data entry operators and social auditors under the programme. Since MGNREGA functionaries are mainly contractual workers, many of them eventually move on and make use of these skills in -

### **FinMin: Step up lending against warehouse receipts**

With the prospect of a bleak monsoon looming in the horizon, the finance ministry has instructed all banks and financial institutions to step up lending against negotiable warehouse receipts (NWRs) in a bid to curb distress sale by farmers.

The NWRs permit the transfer of ownership of an agri commodity deposited by farmers in registered warehouses without having to deliver it physically and are issued in negotiable form, thereby making them eligible as collateral for post-harvest loans. They are

seen as a key instrument in curbing distress sale by farmers at peak harvest season, when prices could be at the lowest. –

In a missive issued by the department of financial services, banks have been specifically asked to extend pledge finance to goods kept in the registered warehouses against the NWRs issued to farmers. Officials involved in the exercise said the banks and institutions have been asked to specifically ensure three things: set internal target for lending against warehouse receipts, ensure better terms for finance against the NWRs of registered warehouses, and introduce conditions for registration of warehouses for financing.

### **Prepare for the rainless day**

The Indian Meteorological Department (IMD) has predicted that India will get deficient rains in 2015, likely to be 88 per cent of the long period average (LPA) of 89 cm, which is the average seasonal rain (June-September) received by the country in the 50 years between 1951 and 2000. The probability of getting below normal or deficient rainfall is 93 per cent, which is in contrast to the first forecast by the IMD, which pegged a less than 70 per cent probability on below normal or deficient rains (at 93 per cent of the LPA)

But Skymet, a private sector forecaster, is still holding on to its first forecast of a normal monsoon, with rainfall likely to be 102 per cent of the LPA. It appears now that there is an open challenge and competition between Skymet and the IMD – and various stakeholders are keenly watching this contest. While one would wish that Skymet's forecast came true, so that farmers would not suffer another year of increased distress, the government cannot take any chances and remain passive. In any case, the government

will rely on its official agency, the IMD, rather than a private forecaster. Also, the IMD's June forecast is taken very seriously due to its proximity to the monsoon season. –

The international weather agencies, especially the National Oceanic and Atmospheric Administration (NOAA), the US federal agency monitoring El Niño developments in the Pacific Ocean, declared the onset of El Niño, with a 90 per cent chance of it continuing in the summer of 2015. This means that the Pacific Ocean waters are likely to continue heating and, thus, will be disrupting the Indian monsoons during the year. AccuWeather, another weather agency, says that “while there will be some rainfall in the region (India), the pattern could evolve into significant drought and negatively impact agriculture from central India to much of Pakistan”. But this agency also recognises the positive role of the Indian Ocean Dipole (IOD), the warming of the Indian Ocean that could counter the impact of El Niño, provided the IOD strengthens further, and India may even get normal rainfall. The IMD's Australian counterpart, the Bureau of Meteorology, is also predicting drier-than-normal weather conditions in the ensuing months.

**Dark lining to June clouds: ‘Prepare for dry July days’ -  
See more at:**

The unexpected spell of good rainfall in the last couple of weeks, which promised to ride over predictions of a bad monsoon this year, is over and the country is entering a dry phase now, weather scientists have said.

The good rainfall this month — more than 25 per cent above normal till June 25 — was triggered by what is known as Madden Julian Oscillation (MJO). The eastward moving rain-bearing wind

system along the tropics impacts monsoon systems around the world, including the southwest monsoon that brings rain over the Indian sub-continent. –

“The MJO was passing through the Indian Ocean. When this happens, it usually results in good rainfall over India. But the MJO has gone past now and it is out of phase. So we will see a reduction in rainfall. In fact, rainfall has already gone down in the last few days,” D Sivananda Pai of the Indian Meteorological Department said. Most regions in India have seen a sharp decline in rainfall after June 26, recording below normal rain.

Only eastern India, particularly Bihar and eastern Uttar Pradesh, and the northeastern region have been receiving good rainfall in the past few days. These areas had been relatively dry when the rest of the country was enjoying good rainfall.

Thanks to the MJO, the monsoon covered the entire country at least two weeks in advance. “We are entering a dry phase now. The Indian monsoon oscillates between wet and dry phases every few weeks. In a good monsoon year, there are more wet phases than dry phases, while in a drought year, the dry phases dominate over wet phases.

MJO is one of the factors that influences these phases,” said J Srinivasan of the Divecha Centre for Climate Change at the Indian Institute of Science, Bangalore. Forecast for the next few days shows that only northeastern India and some parts of eastern and central India, besides Kerala, are likely to receive widespread rains.

The rest of the country is expected to receive only scattered or isolated rainfall in the coming days. The good rainfall in the last

few weeks had raised hopes that monsoon might be much better than the forecasts had showed.

The IMD, in its long-range forecast last month, had predicted that the country as a whole was likely to get only 88 per cent of normal rainfall this monsoon season.

Pai said there was no need to revise the forecast after the unexpected rainfall. “We are likely to see a greater impact of El Nino as well in the coming few weeks.

El Nino has been gaining in strength and will affect the monsoon,” Pai said. El Nino refers to an abnormal warming of sea surface temperatures in the equatorial Pacific Ocean. There is a strong correlation between an El Nino event and a weak monsoon. In addition, there is evidence that MJO has an influence on El Nino. It can contribute to the speed of development of El Nino, and affect its overall intensity.

Pai said the impact of MJO on the monsoon rains could not be seen in earlier forecasts because long-range prediction of the system is not yet possible. “We can understand its behaviour four or five days in advance, but it is not possible to do so over a month,”

### **There is more to ‘tears’ than meets the eye**

It’s better to shed tears than having a ‘Dry Eye’. Literally, because, it’s actually a medical condition that occurs when eyes do not produce tears properly. It also makes working on a computer, reading for a longer stretch of time difficult.

It is therefore advisable to protect ourselves from this condition that causes burning sensation in the eye, watering, blurring of

vision, white discharge from the eyes, sticky eyes, red puffy eyes and sometimes agonizing pain in the eyes. Dr Suvarna Koppikar (MS Ophthalmology), a renowned eye-surgeon from Mumbai, Maharashtra, take us through the mysterious world of 'tears' and all about the Dry-Eye syndrome.

Tears are equated with grief, and sometimes with joy. Do tears play any other role? A big role, they are the pillars of our eye-health. Tears are essential for clear and comfortable vision. Any disturbance in the quality of tears or consistency of tears is termed as 'dry-eyes'. Tears are just salt water, aren't they? Far from it. Those tiny droplets are actually made of three layers – an oily layer, a watery layer and a mucus layer. The fabric of tears is vital. Each of these layers has their own purpose and when there is disturbance in formation of any one of these layers it is called as dry eyes. Tell us more about these 'layers of tears' The oily or lipid-layer (outermost) is produced by glands which are present in the eyelids. Its purpose is to keep the tear surface smooth and reduce or prevent evaporation of tears. The middle watery-layer makes up most of what we ordinarily think as tears. This layer is produced by the lacrimal glands in the eyelids to cleanse the eye and wash away foreign particles or irritants that try to enter our eyes as the surface of our eye remains exposed to the outer environment. The inner layer is made up of mucus which is produced by the white surface of the eye called conjunctiva. Mucus allows the watery layer to spread across evenly over the surface of the eye and helps the eye remain moist. Mucus layer is very important as without mucus tears would not stick to the eye. When we shed tears of grief or while cutting the onions, we are actually protecting our eyes, right? Not really. We produce basic tear at a slow and steady rate, these tears do not well up in our

eyes or flow out like when we cry. Basic tears constantly bathe our eyes. The eyes stay moist and comfortable because of basic tears. When we cry due to emotions or while cutting the onions, we shed what is called the reflex tears. Do you mean that we suffer from 'dry eyes' when we stop producing the basic tears? Dry eyes do not mean no tears or less tears but it is the disturbance of quantity or quality tears. People with dry eyes complain of "WATERING 'of eyes which disturbs them. What are the causes of 'dry-eyes'? Dry-eyes can be due to local, internal, environmental or life-style related factors. Local causes pertaining to the eye are long term use of contact lenses and eye-drops that contain preservatives. Internal problems especially auto immune diseases (when our immune cells attack our own body) like rheumatoid arthritis or diseases like diabetes and Herpes Zoster (RASH touching the eyes) lead to reduced tear secretion and thereby cause dry-eyes. Many common medications like painkillers, anti-anxiety medications, sleeping pills, anti-allergic, and certain blood pressure medicines can lead to dry-eyes as side effects. Environmental factors like allergies related to seasonal changes and air pollution are common in children and give rise to short term dry-eye symptoms. How about artificial tears? Do they also have preservatives? Any other reasons for 'dry-eyes'? Preservative free artificial tear eye drops are now available in the market as daily disposable units. Other common causes of dry eyes are the surrounding environment. Excessive dry or windy climate as well as air conditioning which evaporate tears gives rise to "evaporative dry eyes". Avoiding these irritants and using protective glasses can give relief to dry eye symptoms. Are 'dry-eyes' more common in men or women? Anyone can experience dry-eyes symptoms though it is more common in women especially after menopause and other hormone related conditions



like pregnancy and menstruation. What are the lifestyle factors that lead to 'red-eyes'? That's a good question. Normally we blink 18-20 times a minute but studies show that blink rate goes down by half or more while using computers and other digital screen devices either for work or for play. These days children are exposed to computer screens and other devices such as mobile phones etc and they use these devices to play for long hours. They develop eye strain and other dry eye symptoms of watering, gritty sensation, itching and photophobia (sensitivity to light). Extended reading, writing or other intensive "near-work" can temporarily cause eye strain and watering of eyes or blurring of vision. Computer related symptoms become worse by sleep deprivation. During sleep our eyes are replenished by nutrients and regain the focusing power for close distance activity. Contact lens induced dry-eyes are due to infrequent blinking, improper cleaning of lenses, sleeping with lenses on. Excessive smoking can also lead to dry eyes. What kind of treatment do you recommend? Though many a times dry-eyes cannot be cured completely there are a number of steps that can be taken to treat them. Use of artificial tear drops and ointments is the primary treatment for dry eyes. Preservative free eye drops are better for people with chronic dry eye and it is important to use the drops even when eyes feel fine to keep them lubricated. Lubricant eye ointments are also available for people with chronic dry eye symptoms. Disposable eye drops containing cyclosporine that helps eyes increase their own tear production with continued use are available and are a boon for chronic dry eye patients. There is growing evidence that increasing the oral intake of fish oil and omega 3 via diet or supplement is very helpful to those suffering with dry eye. Self-medication is strongly discouraged as the chemists may dispense eye drops containing variable amount of steroids which have side

effects. A formal consultation with an ophthalmologist is recommended to get the diagnosis established. What about crocodile tears Doc? Oh they are most dangerous. I recommend no one must shed them! If you are using contact lenses \* Limiting use of contact lenses and wearing glasses periodically. \* Practice correct method of cleaning your lenses. \* Wash your hands before handling lenses. \* Avoid touching lenses with water. \* Use fresh solution every time for storing and cleaning. \* Rub your contact lenses when you clean them. \* Clean your storage case daily and replace it every 2-3 months. \* Stop wearing lenses if you develop redness, irritation, watering, sensitivity to light, burning, eye swelling or discharge. Do not take these symptoms lightly. One must visit an eye doctor if you develop these symptoms. To reduce computer related eye strain and dry eyes: \* Sit about 25 inches from the computer screen and position the screen so that your eye gaze is slightly downward. \* Practice the rule of 20. Every 20 minutes shift your eyes to look at an object 20 feet away for at least 20 seconds. \* Use artificial tear eye drops to refresh your eyes when they feel dry. \* Blink often and practice conscious blinking i.e. remind yourselves to blink. \* Take regular breaks from computer work and try to get enough sleep at night. The author is a microbiologist and has worked for food and pharmaceutical companies in marketing as well as business development in countries like Germany, India and the United Arab Emirates. She has written articles on 'health & medicine' in a leading Marathi newspaper and was also a freelance health columnist for a leading English newspaper in the Gulf for several years.

## **Five exotic Mango recipes you must try this summer**

Rich in sweetness, flavour and succulent texture, we bring 5 exotic mango dishes for you.

### **#1 Sticky Rice with Fresh Mango**

By Masterchef Chef Kanchit Vong Vi Chai, Dao

#### **Ingredients**

- 1 1/2 cups uncooked short-grain white rice
- 2 cups water
- 1 1/2 cups coconut milk
- 1 cup white sugar
- 1/2 teaspoon salt
- 1 tablespoon tapioca starch
- 3 mangos, peeled and sliced
- 1 tablespoon toasted sesame seeds

#### **Method**

1. Combine the rice and water in a saucepan; bring to a boil; cover and reduce heat to low. Simmer until water is absorbed, 15 to 20 minutes.
2. While the rice cooks, mix together 1 1/2 cups coconut milk, 1 cup sugar, and 1/2 teaspoon salt in a saucepan over medium heat; bring to a boil; remove from heat and set aside. Stir the cooked rice into the coconut milk mixture; cover. Allow to cool for 1 hour.
3. Make a sauce by mixing together 1/2 cup coconut milk, 1 tablespoon sugar, 1/4 teaspoon salt, and the tapioca starch in a saucepan; bring to a boil.
4. Place the sticky rice on a serving dish. Arrange the mangos on top of the rice. Pour the sauce over the mangos and rice. Sprinkle with sesame seeds

### **#2 Pan Seared Chicken with Caramelized Mango**

By Sagar Anand, Sous Chef, Lodi – The Garden Restaurant

#### **Mango jalapeño salsa**

- 2/3 cup diced peeled ripe mango
- 2 tablespoons minced red onion
- 1 tablespoon minced seeded jalapeño pepper

1 1/2 teaspoons chopped fresh cilantro

1 1/2 teaspoons fresh lime juice

Salt & pepper to taste

### **Chicken**

2 skinless, boneless chicken breast

1 teaspoon raw mango purée

Salt & pepper to taste

### **Caramelised mango**

1 mango slice

1 teaspoon sugar

### **Method**

1. To prepare salsa, combine first 6 ingredients. Cover; refrigerate 30 minutes.
2. To prepare chicken, place each chicken breast marinate it with raw mango purée, salt & pepper.
3. Place chicken on a grill rack, grill 3 minutes on each side or until done.
4. Caramelize mango in a non stick pan with some sugar.
5. Serve chicken on the bed of cracked potato with caramelised mango. Pour mango jalapeño salsa over the chicken to the plate.

## **#3 Mango Cheese Cake**

By Anil Kumar, Executive Pastry Chef

Le Meridien Gurgaon



Mango Cheese cake

### **Ingredients**

Cream Cheese – 500 gm

Whole Egg – 3nos

Sugar – 140 gms

Sour Cream – 75 gms

Heavy Cream – 40 gms

Vanilla – 1 stick

Mango Puree – 200 gms

Fresh Mango – 175 gms

### **Method**

For the base

- 1) Crumble the cookie with a rolling pin
- 2) Add melted butter & honey in a bowl. Mix well to make a base.
3. Set aside.

### **For cheese cake base**

1. Beat the cream cheese and sugar and ensure it is folded in well.
2. Add the eggs into the mixture slowly in order to get a smooth

and fluffy mixture.

3. Add the vanilla, sour cream and heavy cream to the mixture.
4. Finally add Mango puree and Fresh mango that has been chopped into small pieces.
5. Pour the mixture into the prepared cake base.
6. Bake the mixture in the oven at 150 degree Celsius for a period of 1 hour.
7. Cool down once out of the oven
8. Decorate with more pieces of fresh mango and chocolates and serve slightly chilled.

## DECCAN Chronicle

'People' plans to intensify stir for farmers

KOTTAYAM: 'The PEOPLE', a collective of farmer's organizations from across the state plans to intensify agitations demanding fair treatment for farmers in the state.

The umbrella forum of 32 farmers organizations from across the state will be spearheading their future course of agitations on the basis of a rights draft prepared by them at a meet held in Kottayam recently. The association has already convened a convention of farmer's organizations on August 17 so as to discuss the future course of action.

"The forum has decided to raise the struggle demanding a fair deal for farmers in the state. All the constituent organisations have together resolved to fight against the anti-farmer policies of

the central and the state government,” said Adv VC Sebastian, co-ordinator of The PEOPLE.

The Indian Rubber Farmers Movement (INFARM), a constituent of PEOPLE, recently came down heavily on the government decision to appoint a committee to study the crisis the rubber farmers are facing in the state.

“The members of the newly appointed committee are either members of political parties or former employees of the rubber board. The new committee does not have any representatives from farmer’s organizations or real farmers. We suspect that this is intended to impose the vested interests of the government upon the farmers”, said Father Antony Kozhuvanal, general secretary of INFARM.

He added that the latest decision of the government to give form to a committee is in view of the coming local self-government elections. According to sources, the agitations by the forum will give a fillip to the struggle of the rights of farmers across the state.

The constituents of People consist of INFARM, the High Ranges Samrakshana Samithi(HRSS), Swathanthra Matsya Thozhilali Sanghom, Kuttanadu Vikasana Samithi, Paschima Ghatta Jana Samrakshana Samithi, Karshaka vedi among other organizations.



## Elephant tramples farm labourer to death in Bannerghatta National Park

Bengaluru: A farm labourer, who was walking inside the Bannerghatta National Park (BNP), was trampled to death by a wild elephant. The victim, Venkatesh (46), was working in a farm located near Kanive-Shivapura village.

The road to these two hamlets leads through the BNP forest, which has a sizeable population of wild elephants. During the night, tuskers are found grazing on the roadside inside the park.

Park Director Sunil Panwar announced a Rs 5 lakh compensation to the family of Venkatesh, who hailed from Kolar district.

Venkatesh was rushed to St John's Hospital, but he died on the way. The body was handed over to the family members after the postmortem on Monday.

This is the second such incident inside the Bannerghatta forest in the last one month. Two weeks ago, a woman labourer was killed by an elephant, while she was part of a team that was repairing the road inside the forest.

“People who work inside and stay around the forest are aware of the movement of elephants. But in both these cases, the victims were not from the area, and were not aware of the elephant movement. We are trying to educate the contractors who take up works inside the forest, to avoid such incidents in the future,” he said.

Over the last two months, BNP officials have raised barricades at the forest entry gates to stop people from taking illegal joy rides inside the park during night. “We have posted guards at Shivanahalli Gate and also put up barricades in the night to keep

stop illegal activities and unauthorised entry into the forest,” said an official from BNP.

### Zoo celebrates arrival of baby hippo

Bannerghatta Biological Park (BBP) officials celebrated the birth of a baby hippo to mother Cauvery on Monday. The mother hippo was separated from other hippos and was put in isolation two weeks ago to allow her to give birth.

The park officials are, however, keeping their fingers crossed as Cauvery has lost six of her litters in the past soon after their birth. With the newborn hippo, the number of these mammals at the zoo has reached a double figure, ten.

### **Andhra Pradesh suspends Krishna river water supply to Chennai**

**Chennai:** With a water crisis looming large over the city, Andhra Pradesh has suspended supply of Krishna water to Chennai from the Kandaleru reservoir due to low storage level in the reservoir.

A water resources department official said that the state has stopped receiving Krishna water from Andhra Pradesh since Sunday. The Krishna water supply was stopped at a time when the combined storage of Poondi, Red Hills, Chembarambakkam and Cholavaram reservoirs stands at 1.31 thousand million cubic (TMC) feet as against its total storage capacity of 11.057 tmc ft.

Due to last year's monsoon failure and poor storage in city reservoirs, Chennai Metrowater has been supplying drinking water on alternate day basis to overcome water shortage. Even to maintain the water supply on the alternate day basis at the rate of 580 to 600 million litres a day (MLD), the city requires at least one TMC feet of water a month.

The present storage of reservoir's water would be just enough to sustain supply till July end. The city's daily water requirement stands at 830 MLD. Already, the residents of Perambur, Kolathur and Peravalur areas are started complaining about the fall in quantum of supply of water. Many residents were also forced to buy tanker lorry water due to the fall in groundwater levels.

Sources in Metrowater said that out of the 600 MLD of water required for alternate day supply, 380 MLD of water is being sourced from two desalination plants and Veeranam tank and 70 MLD from agricultural borewells in Tiruvallur district. Metrowater has also started drawing 30 to 50 mld water from local sources in added areas.

“We are sourcing 100 to 120 MLD of water from the reservoirs,” the sources said. “To augment city's water supply, the Metrowater is working on a contingency plan. We will ensure continuation of supply of drinking water on alternate day basis,” sources said, adding that the water agency would soon start drawing water from borewells and mines in Neyveli to support the city's water supply.

Sources said that the situation would improve if the South–West monsoon brings rains in catchments areas to step up storage in four reservoirs.

# THE HINDU BusinessLine

A Tata Trusts grant has supported the Pashu Sakhi programme, a part of the rural livelihood mission

## **MUMBAI, JUNE 30:**

Attending to a sick cow in the middle of the night might not be everyone's cup of tea, but for Radhabai, from Nangli Megha village in Alwar, Rajasthan, the training in animal welfare and health practices came to her aid. Radhabai was part of a women's self-help group that received a six-day residential training as part of the Pashu Sakhi (animal friends) project in Rajasthan.

An initiative of the Mahila Kisan Sashaktikaran Pariyojana (MKSP), which is a consortium project of the Centre for Microfinance and six non-Government organisations (NGOs), the project aims at empowering women farmers, enhancing the household income in rural households by improving productivity in agriculture and livestock, and promoting sustainable livelihoods.

Pashu Sakhis have become lifesavers of livestock in the rural hinterland, says Malika Srivastava, Assistant Development Manager, Tata Trusts. Not only do they know most of the names of medicines to treat minor illnesses of livestock, these Pashu Sakhis tend to serve the community as animal doctors, earning a decent income in the bargain.

Many of the Pashu Sakhis have also become entrepreneurs by selling medicines for animals, cattle feed and nutrients. Most of them earn an extra Rs. 3,000 per month to add to their household incomes.

Srivastava said these women entrepreneurs were slowly being recognised as service providers since they generated awareness and

imparted knowledge about improved livestock rearing practices. Pashu Sakhis also tend to maintain vaccination records and monitor and report disease outbreaks. Most are linked to government veterinary hospitals and dispensaries in the area.

Noting that improved animal health and shelter, feed and fodder practices had brought about a reduction in animal mortality as well as savings on veterinary care costs, Srivastava added that better market rates were being realised on the sale of animals.

The Tata Trusts have co-funded the Pashu Sakhi Initiative under the MKSP through a grant of Rs. 36.5 lakh from May 2013 till April 2016. The total project cost is estimated to be around Rs. 1.32 crore. The MKSP project is a sub-component of the National Rural Livelihood Mission and is supported by the Ministry of Rural Development, the Tata Trusts, and US NGO Heifer International.

## **Not CSR**

Speaking to *BusinessLine*, Srivastava said the Pashu Sakhi initiative was not a corporate social responsibility activity of Tata Group companies. "The Tata Trust is one of the oldest philanthropic institutions in the country. It was set up in 1932 by the founder of the Tata Group. Tata Sons is the main holding company," she said.

Noting that Tata Trusts extend grants for welfare activities, she added that support to individuals as well as to projects that fall in line with the larger vision are encouraged. Rural livelihood is a basic focus area of the Trust, which caters to "select, remote and underserved tribal pockets, where the issues are slightly different."

Srivastava said the Trust invests heavily in building capacities for women in rural pockets. For these women entrepreneurs, the experience gained in treating livestock helps, since it is an important asset and supplementary source of livelihood.

"Currently, 1.21 lakh women are part of the SHGs, and most have savings and a credit link with banks," she said. The agency has tried to focus on the livelihood enhancement of these women. "Veterinary medicines are not available in remote pockets. Most farmers don't even have purchasing power, but goats are crucial for the landless in Rajasthan. Each goat is like an ATM. Whenever there is any distress, it can be sold locally," Srivastava said, adding, "It is not just about bringing a good breed of goat or sheep, one has to sustain it. We ensure a support system in terms of healthcare."

## **Ensuring entrepreneurs**

Stating that many women farmers have ended up becoming entrepreneurs, Srivastava said many SHGs have further formed into federations. "In Rajasthan, we work with 5-6 partners. Pashu Sakhi is part of an overall livelihood programme, where we improve the quality of life of rural households. We are keen to replicate this in other states," she said.

Even as there is huge scope to improve the per capita productivity of cattle in India, which is presently quite low as compared to other countries, ensuring more women entrepreneurs is also on the agenda.

Though the agency did train men to undertake the role of a Pashu Sakhi, they realised that there was a high turnover. "Rural areas have high migration. For more income, these men tend to move to cities. In the case of women though, we realised that whatever investment we made towards capacity building was not going to waste. It is also a source of additional income and women readily take to it," she said.

The success of the pilot started in Alwar, Rajasthan in 2009, was mainstreamed by May 2013. Srivastava said the US NGO Heifer International, that works in Bihar and Odisha and focusses on

livestock, also got into preventive care, and helped with artificial insemination, "which was still a foreign entity to most villagers."

Srivastava noted that the Tata Trusts are encouraged when some of their successful initiatives are adopted by mainstream development agencies for wider replication. Buoyed by the success of the Pashu Sakhi model, the Animal Husbandry Department in most districts of Rajasthan, Madhya Pradesh and Uttar Pradesh have launched their own Pashu Sakhi schemes, generating more women entrepreneurs.

### **Water management needs better coordination**

Planet Earth is covered with 71 per cent of water. Over 68 per cent of the fresh water on Earth is found in icecaps and glaciers and about 30 per cent in ground water. Only about 0.3 per cent of our fresh water is found in surface water of lakes, rivers and swamps. While India is home to 18 per cent of the world's population, it has only 4 per cent of the global renewable water resources and 2.4 per cent of the world's area. Until now, the freshwater resource had been addressing the needs of Indian population and ideally, it should be sufficient to cater to the needs in future. However, there is high temporal and spatial variability in availability of fresh water in India and, the same variability is happening in the demographic concentration. Current data on indicators of fresh water reserves such as underground water table combined with demographic indicators suggest that in near future India will face severe water crisis. Current situation

In the past 50 years, India's population has almost tripled to over 1.2 billion people. Population growth combined with rapid trend of urbanisation, the gradual shift towards industrialisation and irrigation for farmlands to feed the burgeoning populace, together have necessitated water management on a large scale.

As per estimates, 84 per cent of the water is consumed by agriculture while industrial and domestic usage accounts for 9 per



cent and 7 per cent respectively. Several factors are in play that creates new challenges for securing sustainable water supply. On the supply side, usable water resources are limited and gradually diminishing. Increase in demand of water coupled with unchecked extraction of groundwater and higher pollution levels is further aggravating the situation. The scenario is further complicated due to climate change which has led to rising sea levels and subsequent salinisation of groundwater and surface water.

Being an important input for farm products and industrial goods, water has significant interlinks with establishing food security and trade prospects in a nation. Hitherto, water management employed the top-down approach through state control and coordination to apportion the valuable commodity among the often competing stakeholders – farm, domestic and industrial. But inefficiencies in water services and lack of accountability of stakeholders require an implementable, participative policy framework to alleviate potential roadblocks to India's socio-economic development.

### **Steps for better management**

There can be a concerted approach with various stakeholders to improve water utilisation and make the existing system more responsive to the local environment. For irrigation, traditional and localised methods for watering farms can be considered as a substitute for large projects in suitable geographies. The 'phad' system in Maharashtra and the 'kuhl' system of Himachal Pradesh are some of the relevant examples.

### **Chennai shows the way**

At the urban level, Chennai Corporation has promoted rainwater harvesting to augment supply. The initiative has been lauded for citizen involvement in water resource planning and can serve as a template for other towns and cities. The next level of intervention is through partnerships to implement new ideas or processes for more efficient water management. In rural areas, Ralegan Siddhi village is

a prime example of grassroots level development that started with water conservation. Initiated by Anna Hazare, it transformed a semi-arid poverty stricken village into a global success story of sustainable development.

Given the significance of water in urban governance, local bodies are gradually warming up to the idea that private sector must be involved to ensure quality and availability. Tirupur municipality in Tamil Nadu was the first to successfully implement PPP for water services in India. Another example is the Nabadiganta Industrial Township in West Bengal which has delegated the management of entire water services to a JUSCO-led consortium.

Similarly, urban local bodies lose 30-35 per cent of the water through leakages in their distribution networks. Installation of latest technology equipment such as sensors in industrial as well as residential units will help prevent wastage. New methods can be introduced and government can set up partnership with private sector for the implementation of technology.

On a larger scale, the planning of interconnecting rivers will help in connecting arid regions or west with over flooding regions of north and east. Gujarat is an apt example as it has ensured supply of the Narmada waters to drought prone areas through an interlinking network of canals.

### **Onus on the government**

Ultimately, the government has to institute policy reforms to improve water management. Improving irrigation efficiencies require concerted involvement of independent experts from diverse fields like economics, agriculture, engineering etc. Collaborative planning at state level along with urban local bodies would result in faster implementation of water projects.

The constraints with natural endowments can pose a serious challenge to our ability to respond to the demand-supply situation

for water. A joint effort drawing on synergy between policy makers, infrastructure and service providers and the civil society can help find a sustainable blueprint for the future.

It is of high importance for the government to address the issue, which will become critical in future. A comprehensive reform in water management with technology implementation and coordination with stakeholders will help secure the future.

(The writer is Senior President and Senior Managing Director of YES Bank)

### **Public-private tie-ups are key to boosting agri infra**

In the last one year, the new Government has injected different perspectives to many conventional models in which India operated. One of those has been the formation of a high-level committee for redefining the roles and functions of Food Corporation of India (FCI). The whole idea leads us to a very important subject on investment in agriculture value chain. Investment in agriculture value chain is extremely important to strengthen the link between the agriculture and the food processing sector.

Scope of investment in agriculture value chain covers investment in farms and in agriculture infrastructure that is competitive marketing platforms and modernised storages, and food processing centres. The immediate advantage of investment in agriculture infrastructure is reduction in losses and marketing costs, two crucial factors for ensuring higher remuneration for those dependent on agriculture for their livelihood.

### **Supply side strengths**

The key challenges faced on the production side are shrinking land base, inadequate water resources, vagaries of nature, shortage of labour and increasing cost. As per census data 2011, small and marginal farmers account for 44.3 per cent of the total operational agricultural land holding.

The average land holding of individuals in the small and marginal farmer category is 1.42 hectares and 0.38 hectare respectively. Other challenges are low levels of farm mechanisation and average farm power availability.

Despite the challenges, there are few interesting advantages enjoyed by the supply side of Indian agriculture. As per the World Bank estimate, India has 60 per cent cultivable land, against the world average of 38 per cent. India enjoys the diversity of 20 agro climate zones, availability of 46 out of 60 soil types and round-the-year cultivation.

Consequently, it is the largest producer of cereals and milk, second largest producer of food and vegetable and figures among the top five producers of groundnut, tea, coffee, spices sugar and oil seeds. In addition, it is also the world's largest producer of tractors. The constraints in Indian agriculture make it imperative to develop a production base that is characterised by high level of farm mechanisation to enhance productivity and strong contract farming infrastructure to aggregate fragmented resources.

Equally imperative is to protect the supply side output value with well developed agriculture infrastructure. Protection in the value of farm output is direct value enhancer for the farmer, especially the one with fragmented land holdings.

### **Infrastructure, story so far**

Large part of the agriculture supply chain infrastructure was historically managed by the Government. The Government provides for minimum support prices for various commodities to insulate the farmer from price fluctuations. The Central Warehousing Corporation along with the State Governments was instrumental in creating warehousing and cold storage capacity in the nation.

Through the Agricultural Produce Market Committee (APMC) promoted “Mandis”, the Government has facilitated the farmers to sell their produce and get an appropriate price.

Under this system, the farmers cannot sell outside the APMC mechanism.

The existing supply chain is limited by the “Mandi” coverage, large number of intermediaries, skewed information flow and above all inadequate storage infrastructure. Further, there is very low level of modernisation in storage and cluster-based food processing.

Recently, the Government took an initiative to delist fruits and vegetables from the APMC list. This means that the farmers can access the markets outside of APMC. Such pro-competitive market moves are a welcome policy change and can maximise economic value in a well developed agriculture infrastructure.

The current limitation of the existing agriculture infrastructure prompts a crying need for additional and faster development in the agriculture infrastructure space; one of the ways to achieve the same is increasing private sector participation.

### **PPP – trending growth**

Although private participation in agriculture infrastructure has shown growth, public sector still accounts for around 72 per cent of the agriculture warehousing capacity. Clearly, one requirement that stands out is need for more storage and near absence of modern storage. There is negligible private participation in “Mandis” and there are only four mega food parks in a country with a diverse agro map.

The recent announcements for developing steel silos in six locations, development of 17 Mega Food Parks (MFP) and 30 integrated cold chains have given a much need push for significant private participation. Major part of the investment is to be driven from the private partner.

In the last financial year, Madhya Pradesh Government has successfully awarded 10 projects for building modernised wheat storage silos. These projects received bidding interest from the major private players evidencing increasing interest in projects with longer payback period given the fixed revenue structure.

Government focus and private sector interest also opens opportunity for developing innovative long term (14 – 15 years) financing solutions for these projects.

### **Advantage of capacity building**

The primary goal in development of agriculture infrastructure is to provide facilities along the value chain from the farm to table. It provides the much needed alternative platform to the farmers in the catchment areas to sell their produce. Such an infrastructure may also promote organised contract farming in the catchment areas.

Other important tangible benefits include well developed post harvest and processing infrastructure thereby reduction of wastages, market driven price realization for the farmers, capacity building for food processing and direct and indirect employment creation opportunities. With the well directed effort by current Government on partnership with private firms for developments, the food processing map of India may significantly improve ultimately benefiting the entire value chain in the agriculture space.

Foodgrains wastage due to inadequate systems and storage mechanisms is a perennial subject of debate across sections of the agriculture value chain and otherwise. Post harvest losses are estimated at 8 to 18 per cent of total fruits and vegetables produced.

The participation of the private sector in building the nation's dry warehousing, modern steel silos and cold storage capacities will have a direct economic impact to the farmer and society by reduction in losses of agriculture produce.

### **Catalyst for development**



The government has played a vital role of aggregating private investment with announcements of various policy level decisions and projects. The government is also redefining existing private partnership models to increase private interest. In addition to the existing capacity building projects, newer concepts such as mini food parks, development of private “Mandis” and providing electronic trading platforms at existing government “Mandis” are few models which can act as significant value enhancers.

Given the supply side strengths, development projects in agriculture infrastructure will certainly strengthen the prospects for India to transform into a food processing power hub. The overall development will in turn create larger livelihood opportunities and benefit the ultimate bottom of the pyramid in the agriculture value chain.

## **Business Standard**

Prices of agricultural commodities have declined by up to 12 per cent so far this month, on prospects of a good output this kharif season, after better than expected [monsoon](#) rain and more sowing.

[Soybean](#) prices are down 10 per cent to Rs 3,591 a quintal at the Indore mandi. [Chana](#) is down 12 per cent to Rs 4,205 a qtl in Delhi. Jeera prices in Unjha (Gujarat) have slipped 11 per cent to Rs 16,475 a qtl. Other commodities have behaved similarly.

According to Union [agriculture](#) ministry data, the total area sown till last Friday was 16.56 million hectares, up 23 per cent from the same time last year. This had picked up after the spread of rain. Pulses' sowing moved up by 80 per cent and that of cereals and

oilseeds by 15 per cent and 427 per cent, respectively.

After the deficient monsoon rain forecast by India Meteorological Department, first at 93 per cent of the long period average (LPA) in April, prices had begun moving up. More so after a downward revision in the forecast to 88 per cent of the LPA.

“Commodities markets had rallied too much in anticipation of deficient monsoon rain. They're correcting now, as monsoon rainfall has remained favourable, which revived sowing of the kharif crop and the battered prospects of agri production,” said Ajay Kedia, managing director of Kedia Commodity, a city-based commodity trading firm.

Private weather forecasting agency Skymet has reported 88 per cent of the cultivable area had normal or excess rain in June. From June 1 to June 25, central India was surplus by 55 per cent and the northwest by 27 per cent. In peninsular India, it was surplus by 30 per cent, it said.

<b>LOOKING FRESH</b>			
<b>Agri Commodities NCDEX prices in ₹/qtl</b>	<b>Jun 1, 2015</b>	<b>Jun 29 2015</b>	<b>% chg</b>
Chana (Delhi)	4,774	4,205	-11.92
Soybean (Indore)	3,997	3,591	-10.16
Coriander (Kota)	13,044	11,960	-8.31
Jeera (Unjha)	17,950	16,475	-8.22
Guarseed (Jodhpur)	4,986	4,604	-7.66
Turmeric (Nizamabad)	7,648	7,090	-7.30
Chilli (Teja)	9,520	8,856	-6.97
Refined soya oil (Indore)	6,220	5,870	-5.63
Cotton 29MM (Rajkot)#	16,380	15,800	-3.54

# ₹ / Bales  
Source: NCDEX

Prices of near month future  
Compiled by BS Research Bureau

“Our scenario analysis suggests bajra, jowar and rice are highly impacted with the rain, as they are mainly sown in rainfed areas.



Edible oilseeds, pulses, sugar and cotton can be sown in irrigated land and are less impacted by a lesser monsoon. We believe pulses acreage could remain higher amid better prices. Lower prices last year for cotton and sugar might discourage the farmer from sowing. In case of (an adverse weather disruption) coarse cereals production could fall by five to 10 per cent but in case of a normal monsoon, could jump by eight to 15 per cent. In the same way, oilseed production could fall 10 per cent or jump 14–20 per cent,” said Jagdeep Grewal, Director, Kunvarji Commodities.

### **Agri-insurance coverage needs to expand, says FSR report**

Agricultural insurance needs to expand, says the [Financial Stability Report](#) of the Reserve Bank of India.

Coverage remains low, it notes. [Crop insurance](#) is inherently riskier and costlier than other segments, as incidence of failure is not randomly or independently distributed. Weather-related events affect an entire area and population at the same time.

The report says only four per cent of farmers reported having crop insurance and only 19 per cent ever used any. “Coverage in terms of value of agri output is also small. With limited coverage and a relatively high premium, insurance schemes, unless carefully designed, are prone to become unviable,” it said.

The [Insurance Regulatory and Development Authority of India](#) is allowing [micro insurance agents](#) to work with [Agriculture Insurance Company](#) of India, formed by the four government-owned general insurance companies) for distribution of schemes. And, has imposed obligations on insurers for cover to the rural

and poorer sections of society.

It has also been decided to use the agency network of the four government-owned general insurance companies to sell crop insurance. In this regard, IRDAI has given its approval for the co-insurance agreement between Agriculture Insurance Company (AIC) and the four public general insurers which will cover only non-loanee farmers under Weather Based Crop Insurance Scheme (WBCIS) and Modified National Agricultural Insurance Scheme (MNAIS).

The report said that since the threshold yield of the area (block) in the past three or five years is used as the basis for assessing the extent of crop loss for individual farmers, farmers are further discouraged from buying such an insurance product. It also said that compulsory linking crop insurance with bank credit availed by a farmer makes the insurance product a 'compulsory' add-on cost for a farmer.

According to an Assocham-Skymet study, 32 million farmers have been enrolled in various crop insurance schemes across India. However, issues in design, particularly related to delays in claims settlement, have led to farmers not being covered, despite significant government subsidy.