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# THE HINDU

## **Output growth may improve in FY17: RBI survey**

India's real economy, as measured by the Gross Value Added (GVA), is likely to expand by 7.6 per cent in 2016-17 due to an improvement in farm and industry sectors, according to an RBI-sponsored survey of professional forecasters.

“Output growth, measured using GVA at basic prices, is likely to improve gradually in 2016-17 and further in 2017-18.

“Quarterly growth projections for the next five quarters indicate that growth is likely to improve...,” according to the survey. In

The survey further said ‘agriculture and allied activities’ and services are expected to grow by 2.9 per cent and 8.8 per cent, respectively.

Industry growth forecast has been placed at 7.6 per cent. — PTI

## **Centre plans alternative to Bt cotton**



RCH-2 Bt Cotton being harvested at a farm near Salem in Tamil Nadu. Photo: Shaju John

*To develop genes that can be integrated into traditional varieties for larger outputs*

The Union government is working to develop a suite of Bt cotton genes that can be integrated into traditional varieties and be made available to farmers as a viable alternative to the current technology, which is largely sourced from Mahyco Monsanto Biotech India Ltd. (MMB).

The Indian Council of Agricultural Research has for many years unsuccessfully tried to develop Bt cotton, which contains insecticidal genes sourced from a soil bacterium and targeted at key cotton pests. However, officials told *The Hindu* that this project would be led by the Council of Scientific and Industrial Research (CSIR) and the Department of Biotechnology (DBT).

There were already several genes available in various labs and stages of development, but the aim was “that India not be dependent on foreign technology,” said a top official privy to the project but who did not want to be identified.

While Bt cotton has always been controversial, it is now in the throes of a new controversy with the Agriculture Ministry mooting a change in the way seed companies and seed-technology companies such as the MMB share royalty, technology and determine the price as which farmers buy cotton seed. Different arms of government are split over whether seed tech companies have the right or are obliged to license their technology to seed companies on request. More clarity is expected to emerge on this issue within the next few months.

### **Slew of technologies**

“So far, we’ve had only one brainstorming session,” the same official said, “but we are serious about this and hope to take it up in mission mode.” Institutes such the National Botanical Research Institute, the Centre for Cellular and Molecular Biology and the National Bureau of Plant Genetic Resources will be among the key agencies for identifying and developing new genes. “We have a slew of technologies — GM as well as non-GM — in our public institutions that we can use to work on cotton,” said K .Vijay Raghavan, Secretary, Department of Biotechnology. “There have been regulatory challenges but things are getting better.”

Cotton is the only genetically-modified seed that's legally allowed in India. Gm food crops such as brinjal and mustard, which are in advanced stages of regulatory clearances, are yet to become available to farmers due to stringent opposition by anti-GM activist groups.

Another government official, aware of the project and who didn't want to be identified, said that historically multinational companies' research budgets far outweighed that of Indian research agencies. "This project will have to address that because translating genes into commercial products is a huge challenge," he told *The Hindu*.

### **Tomato price shoots up**



Price of tomatoes is shooting up across Western Tamil Nadu.— Photo: S. Siva Saravanan

*Production has affected because of extreme heat conditions that prevailed in the State*

It's tomatoes, and not onions, that are bringing tears at households now. In the last few weeks, tomato prices have shot up multi-fold and purchases have dropped.

In Coimbatore, the wholesale price of 1 kg of tomatoes on Tuesday was Rs. 60 and the retail price went up to Rs. 80 a kg. In Tirupur and Salem, the retail price was about Rs. 70 a kg.

In Coimbatore, the arrivals are mainly from Nasik. Prices are changing almost every day. The wholesale rate was Rs. 1,400 for a 22 kg box two days ago and it is Rs. 1,500 a box on Tuesday.

It is the end of summer and farmers normally reduce agriculture activities now as they wait for the monsoon to set in, said M. Rajendran, president of Thyagi Kumaran Market Vegetable Merchants' Association.

Thally, Denkanikottai, Bettamugilalam, and Rayakottai are some of the major tomato cultivating areas. The price of tomatoes in Hosur market, which draws tomato growers from within a 40 km radius was Rs. 58 a kg on Tuesday.

There has been a fall in the production in these areas due to extreme heat this summer, say the farmers.

On an ordinary day, Hosur market receives 10,000 to 15,000 boxes of tomatoes of 25 kg each. On Tuesday, the supplies had fallen to as low as 4,000 boxes. Each box costs Rs. 1,450 kg.

A sack of cauliflower that has only 16 flowers is Rs. 800, says a farmer.

Thally and Denkanikottai that do not experience extreme summer conditions too experienced high temperature this year affecting the produce.

Mr. Rajendran says that Coimbatore used to get 20 loads of tomatoes a day and it has come down to six loads now.

The supply from nearby places has fallen sharply.

If the prices of other vegetables shoot up, consumers go for alternatives. But, they cannot replace tomatoes and chilli with something else.

Hence, retail buyers tend to reduce the quantity or frequency of purchase.

Even institutional buyers are reducing use of tomatoes, say sources.

In Tirupur, prices of almost all the vegetables, except brinjal, had seen an upward trend.

In Salem, even while the price of other vegetables remained stable in both, the Uzhavar Santhais and open markets, the price of tomato has soared in the last two days, thanks to the drop in arrivals. The price of tomato which remained at Rs. 45 a kg in the uzhavar santhais on Sunday, rose to Rs. 62 on Tuesday.

Market sources said that the local tomato season had come to an end.

The uzhavar santhais and the open markets were getting tomatoes from Rayakottai and other parts in Krishnagiri district, and also from the neighbouring Andhra Pradesh.

With the fall in the arrival from Andhra Pradesh, the markets have to totally depend on the tomatoes from Krishnagiri district for the last few days and the drop in arrivals is one of the reasons for the prices going up.

The price of beans continue to remain high at Rs. 76 to Rs. 86 a kg in uzhavar santhais and Rs. 100 in the open markets in Salem. This is mainly due to the drop in the arrival of vegetables from Bengaluru.

The price of brinjal remained at Rs. 10 in the uzhavar santhais and Rs. 20 in open markets on Tuesday, potato Rs. 26 in uzhavar santhais and Rs. 30 in open markets, small onion Rs. 45 in uzhavar santhais and Rs. 50 in open markets; chilli Rs. 45 to Rs. 50 in santhais and Rs. 60 in open markets.

The prices of almost all the vegetables are expected to drop in 10 days when the monsoon sets in, Mr. Rajendran said.

(With inputs from Syed Muthahar Saqaf in Salem; M. Soundariya Preetha in Coimbatore; P.V. Srividya in Krishnagiri; and R. Vimal Kumar in Tirupur)

## **WHOLESALE PRICE OF VEGETABLES IN COIMBATORE ON TUESDAY (in Rs. per kg)**

**Small onion - 40 | Big onion - 14 | Potato - 18 to 22 |  
Chilli - 40 | Yam - 40 | Drumstick - 50 |**

### **Farmers preparing fields in Vijayapura**



With a few good spells of rainfall, agriculture activities have intensified in Vijayapura district.— PHOTO: RAJENDRA SINGH HAJERI

Vijayapura district has been receiving good rainfall in the past week giving rise to expectations of a good crop this year after the drought for two years.

Farmers have been incurring loss owing to deficient rainfall and intense heat under which standing crop had withered.

However, the good spell of rainfall before the commencement of this kharif season is being seen as a cheerful beginning.

“Though it is too early to predict, the indications so far are encouraging. If this trend [in rainfall] continues, then we can hope to recover the loss that we incurred in the past, and also make some profit,” said Maruti Mathapati, a farmer from Basavanabagewadi taluk.

As several fields are filled with rainwater now, farming activities have intensified in the district.

Farmers said that rainfall has created enough moisture in the soil required for starting sowing operations and hoped of more such spells of rainfall within a week.

While farmers are preparing the fields, the Department of Agriculture is getting ready to supply required quantity of seeds and fertilizer to farmers for the kharif season.

The department, which is also happy with the early rain, has decided to procure and store adequate quantity of seeds and fertilizer to start distributing them among farmers as soon as demand increases.

“We have transported the required material to 18 Raita Samparka Kendras to meet the demand of farmers without any delay,” officials said.

The department has set a target of covering 4.30 lakh hectares of land for the kharif season.

It has procured 15,251 quintals of seeds while the demand is for 16,790 quintals, the officials said and added that the balance requirement will be met soon.

## Pre-monsoon rain brings the smiles back

*Farmers likely to take up sowing in a day or two in Kalaburagi district*



Pre-agriculture operations are going on in full swing in Kalaburagi district following widespread pre-monsoon showers.— PHOTO: ARUN KULKARNI

Widespread pre-monsoon showers in Kalaburagi district have brought the smiles back on the faces of farmers and revived hopes of a good kharif season. Farmers in the district have begun pre-sowing operations such as clearing fields and preparing them for taking up sowing of short duration cash crops and other kharif crops.

Farmers are likely to take up sowing operations to reap green and black grams, two short duration cash crops, and red gram in a day or two. Now, pre-sowing operations are in full swing throughout the district.

Rain has helped loosen the soil enabling farmers to plough land before taking up sowing. Last year, farmers suffered heavy loss during both the kharif and rabi seasons due to the failure of rain. Production of foodgrains and pulses, in particular, had fallen to a new low. As per data available, Kalaburagi district received rainfall in excess of normal for the period from May 28 to June 7, after the onset of Rohini star (celestial constellation). As against a normal rainfall of 29.6 mm during this period, the district received 51.1 mm rainfall. Among the taluks, Aland received good rainfall and as against a normal rainfall of 31.7 mm during the period, the actual rainfall received was 67.4 mm.



The following are the details of rainfall in the other taluks (normal rainfall is mentioned in bracket): Afzalpur 54.5 mm (29.2 mm), Chincholi 61.6 mm (30.7 mm), Chitapur 39.9 mm (26.5 mm), Kalaburagi 57.9 mm (32.4 mm), Jewargi 36.3 mm (29.9 mm) and Sedam 38.6 mm (24.9 mm).

Anticipating a good monsoon this year, the Agriculture Department has set a target of covering 5.70 lakh hectares of land during the kharif season. The target fixed for foodgrains, cereals and pulses is 4.47 lakh hectares with a production target of 4.65 lakh tonnes.

The target fixed for red gram is 3.63 lakh hectares and the production target is 3.80 lakh tonnes.

The target for black gram is 25,000 lakh hectares with production likely to be 17,500 tonnes. The target fixed for green gram is 35,000 lakh hectares with production likely to be 21,000 tonnes.

### **Farmers begin sowing in Surpur, Shahapur taluks**

Yadgir district has received 32.5 mm rainfall from June 1 to 6 against an average of 117 mm for the month.

Yadgir taluk received 29.4 mm rainfall against an average of 122 mm followed by 37.9 mm (126 mm average) in Shahapur taluk and 30 mm in Surpur taluk against an average of 103 mm. After the rain, farmers are now engaged in preparing fields to take up sowing, particularly green gram.

### **Respite for residents**

On Tuesday too, it rained in the afternoon bringing some respite to the people from the heat wave, particularly in the city limits.

According to sources in the Agriculture Department, farmers, who have prepared land in Kakkera, Kembhavi and Kodekal in Surpur taluk and Doranalli Hobli in Shahapur taluk, have begun sowing green gram, a short-term cash crop.

## **205 hectares covered**

As much as 205 hectares of land has been covered so far in the district, Chetana Patil, Joint Director of Agriculture Department, told *The Hindu* over phone.

She added that the department has set a target of 33,000 hectares of land for the kharif season.

The district has 28,000 tonnes of fertilizer and 659 quintals of seeds in stock, Dr. Patil said.

## **Cotton farmers asked to go for alternative crops**

A workshop on alternative crops was organised for farmers at the Primary Agriculture Cooperative Society (PACS) office premises in Thallada mandal headquarters on Tuesday.

The awareness programme was organised by the Agriculture Department as part of a campaign to motivate farmers in the cotton-intensive areas of the district to switch over to alternative crops and adopt sustainable agriculture practices in kharif season (2016-17).

Khammam Joint Director of Agriculture Manimala and others addressed the workshop.

The speakers called upon the cotton farmers to go in for crop diversification and follow scientific water management techniques to get sustainable agricultural income.

They underlined the need for cultivating red gram, green gram and other pulses in the cotton growing belt.

The organisers distributed pamphlets highlighting the list of sustainable alternative crops and arrangements made for the sale of seeds of various kharif crops including soya bean on subsidy through the PACSs.

Thallada Agriculture Officer Chandrasekhar Reddy and others were present.

## **KVASU to join hands with dairy development board**

*To associate with mastitis-control programme at the national level*

Kerala Veterinary and Animal Sciences University (KVASU) will collaborate with the National Dairy Development Board (NDDB) to promote advisory call centres and the mastitis-control programme.

The KVASU will associate with the mastitis-control programme at the national level with focus on subclinical mastitis, antibiotic kits, antibiotic resistant bacteria mapping and Brucella control programmes.

The joint venture would also facilitate productivity-enhancement programmes with the use of appropriate inputs like mineral mixture, parasite control, fodder development and area-specific fertilizers, T.P. Sethumadhavan, Director of Entrepreneurship, KVASU, said.

As part of building collaboration, senior officials from the NDDB visited KVASU's Mannuthy campus on Monday and Tuesday.

“The broad areas of collaboration will include entrepreneurship and skill development programmes, internship for students, advisory call centres, technology transfer, and ration balancing,” said Dr. Sethumadhavan.

The KVASU is planning to launch ‘milkobike’ — a skill development programme with the support of the NDDB to meet the scarcity of milkers in the State.

Moreover the NDDB will collaborate with Agriculture Sector Skill Council programmes and capacity building ventures of the university.

The NDDB had also shown keen interest in entrepreneurship development programmes in the dairy sector, dairy business school, entrepreneurship centres, diploma programmes in entrepreneurship, and agreed to support formation producer companies, KVASU sources said.

### ***Joint venture***

- Productivity-enhancement programmes to be launched in dairy sector***
- Milkobike programme to address dearth of milkers***

## Finger on the pulse

*A case for traditional indigenous foods, starting with the nutritious dals: horse gram, moth bean and kabuli chana*



Fading Away: Pulses are cheap, nutritious, climate resilient and easy to store. But over the past few decades, people have forgotten how to use them.— File Photo: Thulasi Kakkat

Quick. Name 10 local pulses. Floundering? Okay, let's make this easier.

Name five? Are you turning to Google while you sip on a turmeric latte fresh off Pinterest? Stand in a corner with your finger on your lips. Actually, don't. We are all equally to blame for this gap in culinary memory.

In the span of two generations, urban India has forgotten how to grow, cook and eat a wealth of indigenous foods. With the UNFAO (Food and Agriculture Organization of the United Nations) declaring 2016 as the International Year of Pulses, this is as good a time as any to reflect on the challenge of reviving them.

But first, what exactly are pulses? These are a sub-group of legumes that produce edible seeds. The term is used for crops that are harvested for dry grains, such as lentils, beans and chickpeas.

As for the answer to my first question? Kulith (horse gram), tamarind seeds, chow-dhari (winged beans), matki (moth bean), sutari (rice bean), urad (split black gram), tuvar (pigeon peas), masoor (red lentils), kala vatana (black peas), chhole (kabuli chana).

If you did not recognise 50 per cent of those names, you are not alone.

I confess I got help: fortunately, the celebrity nutritionist and bestselling author, Rujuta Diwekar, who recently released a book on Indian super foods, is just a phone call away. She has spent the last couple of months working on a list of marginalised local pulses, along with her inspiring group of “senior interns”.

Diwekar’s focus over the past few years has been on recording and interpreting oral wisdom, which she says is our collective heritage. “In about 25 years, people who have this wisdom won’t be alive, and we will lose it all,” she says, explaining why she recently hired four senior interns, all aged above 65: mother, Rekha Diwekar (a professor of organic chemistry), Shaila Nimbkar (a doctor), Rekha Rohra (a school principal), and Sanjay Bhide (a farmer).

### **‘Miracle food’**

Pooling all their resources, the team started research on pulses. “Pulses are a miracle food. They’re cheap, nutritious, climate resilient and easy to store. But our farmers have been ignoring them, and switching to more profitable cash crops,” says Diwekar, adding that as a result, over the past few decades, people have forgotten how to use them.

The senior interns, in fact, needed guidance from their elders. Nimbkar, who is 67, went to her 94-year-old mother-in-law. Bhide took his questions to his village in Sangli, Maharashtra. Women there, in their 80s and 90s, told him about kulith, used for kollu rasam in the south, pithla in Maharashtra and khichadi in Himachal.

“You know a food belongs to a culture when you have diverse methods of using it,” says Diwekar.

Kulith became the star of this pulse campaign. It grows across the country, has an impressive nutrient profile and is packed with antioxidants. More importantly, it’s cheap. One serving of 25 grams, which contains 6.25 grams of

protein, costs Rs.1.50. Compare that to Rs.5 egg, with 6.6 grams of protein. “In the villages, they mix it with sugarcane juice and boil it for an easy, quick and nutritious snack for new mothers,” says Diwekar.

Traditionally, farmers would grow a grain, then follow it with pulses, which fixed nitrogen content into the soil. Then they would grow vegetables in that enriched soil. “It meant we had a good sustainable cycle in place for generations. But these crops stopped bringing in money. So farmers abandoned them. There’s been a systematic brainwashing: we have been taught to look at everything native to us as suspicious or fattening, and everything we can eat out of a box as healthy.”

There’s hope though.

With the Western world celebrating Indian super foods such as ghee, coconut oil and turmeric, Indians are finally appreciating their culinary inheritance.

Diwekar’s not overly impressed by the shift. “Instead of listening to our grandparents, we follow American food blogs,” she says, adding dryly, “It’s like learning to love my child only after a DNA test proves it’s mine.”

If we want to eat better, we must become demanding consumers. “Start asking for food that is grown responsibly. For food that is traditional, and nutritious. The market will respond.”

In the meantime, go through your grandmother’s old recipe books. “Every day, our senior interns would bring in food, kadhis and khichadis their grandmothers had taught them.”

Then she adds delightedly, “Today’s our final day, and they gave each of us a bhajani pulse mix as a farewell gift. It has 19 types of pulses and grains, and can be rolled into a chapati.”

Admit it. There is nothing in a box that can beat that.

***Urban India has forgotten how to grow, cook and eat a wealth of indigenous foods***

## **Agricultural activities gain momentum in Mysuru district**

*Sowing has been completed in 50 per cent of the rain-fed areas*



Time for planting:About 3.68 lakh hectares of land has been brought under cultivation in Mysuru district of which 2 lakh hectares is rain-fed.— PHOTO: M.A. SRIRAM

Agricultural activities in the rain-fed areas of the district are in full swing following pre-monsoon showers and sowing has been completed in nearly 50 per cent of the area.

About 3.68 lakh hectares of land has been brought under cultivation in the district of which 2 lakh hectares is rain-fed. The remaining 1.68 lakh hectares has irrigation facilities and is not dependent on the monsoon.

Joint Director of Agriculture Mahanteshappa told *The Hindu* that pulses, maize, cotton and tobacco besides paddy have been brought under cultivation under the rain-fed conditions and almost 50 per cent of the area under cultivation has seen the completion of sowing.

“Agricultural activities under irrigation conditions will commence only after the onset of monsoon post June 10. While the fields will be prepared, the actual sowing will take place once the reservoir levels go up and is most likely to commence after July or early August,” Mr. Mahanteshappa said.

In view of signs of timely onset of monsoon this year, agricultural workers are back in the fields and labourers are in great demand.

In anticipation of the demand for fertilizers, the authorities have stacked up 32,000 tonnes and the total projected demand is around 1.32 lakh tonnes.

“The remaining quantity of fertilizers will be acquired in a phase-wise manner during the peak agricultural season from July,” he added.

Similarly, the authorities have geared up to meet the requirement for seeds and the situation is comfortable. As against a projected requirement of around 38,000 quintal of seeds, there was nearly 46,000 tonnes in stock for the kharif season.

With the cumulative rainfall for the period— June 1 to June 6— for Mysuru district being encouraging so far, the Department of Agriculture is confident of the timely onset of monsoon.

As per the rainfall data maintained by the Karnataka State Natural Disaster Monitoring Centre (KSNDMC), Mysuru district has received 22.7 mm of rainfall against the normal 20.2 mm for the period June 1 to June 6.

The rainfall has been widespread and uniform across different taluks of the district.

H.D.Kote has received 17.6 mm of rain as against the normal 18.7 mm; Hunsur has received 25.4 mm against the normal 9.6 mm; K.R. Nagar 35.7 mm against the normal 22.7 mm; Mysuru 17.6 mm against the normal 19 mm; Nanjangud 20.3 mm against the normal 15.1 mm; Periyapatana 36.7 mm against the normal 27.8 mm and T. Narsipura has received 10.9 mm against the normal 23.7 mm. The cumulative rainfall for the period May 28 to June 6 indicates rainfall in excess of normal.



## **Rains bring cheer to farmers**

Heavy rains since Monday evening brought much needed respite to the people of Karimnagar district.

Rains brought smiles to the farming community as well with the steady inflows into their fields and spurring them to take up the farm activities such as tilling for the kharif season.

On Tuesday, the district recorded an average of 15 mm rainfall.

The Bejjanki mandal recorded 41 mm rainfall, Malhar Rao and Manthani mandals 36.2 mm rainfall, Karimnagar and Pegadapalli 33 mm, Sultanabad mandal 32 mm , Mallial 29 mm, Koheda 27 mm, Chandurthi 24.6 mm, Ramagundam 24 mm, Dhamapuri 23 mm, Odela and Eligaid 20 mm, and all other mandals recorded good rainfall.

The weather reports available with the district administration said that from June 1 to 7, the district recorded 16.5 mm rainfall. Out of the total of 57 mandals, 37 mandals had so far received excess rainfall and 16 mandals received normal rainfall during the one week period.

The agricultural department authorities said that they were expecting good rainfall during this season and tapping every rain drop of water by constructing water harvesting structures and strengthening of minor irrigation tanks under the Mission Kakatiya programme in the district will be taken up in full swing.

## **Farm implements at nominal rent**

The Department of Agricultural Engineering would provide at nominal rent agricultural equipment in the district for farmers taking up kuruvai cultivation. The department would make available mechanical transplanters, plough, excavators and harvesters.

Those interested can contact the offices of the Assistant Executive Engineers of the Department at Tiruchi, Musiri and Lalgudi. For more details, dial 9443730914, an official release said.

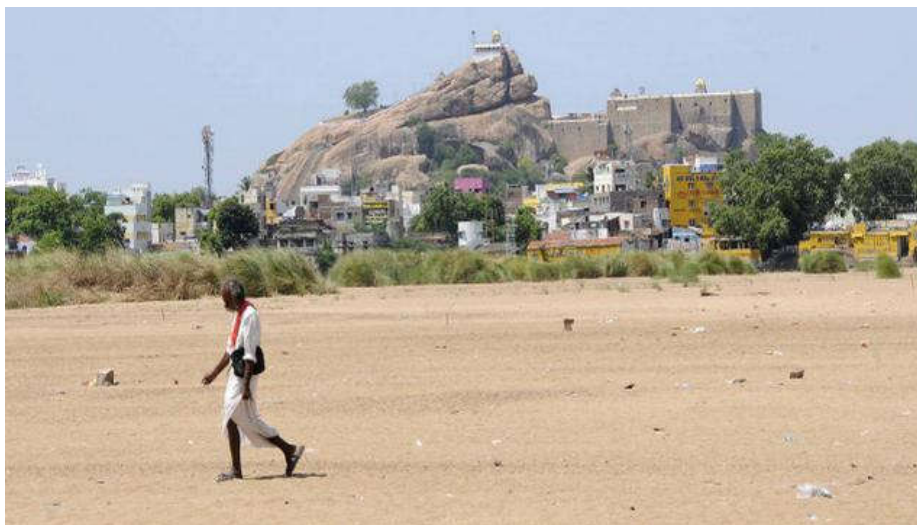
## **Water to be released from Aliyar dam today**

Chief Minister Jayalalithaa has ordered release of water from Aliyar dam in Coimbatore district from today (June 8).

Following representations from farmers, water would be released for irrigation and drinking water needs of Pollachi, Ms. Jayalalithaa said in a statement.

The water release would benefit over 6,400 acres in Old Ayacut area and the residents of Pollachi Municipal jurisdiction.

## **Delta farmers pin hopes on southwest monsoon**



Living in hope: The government has already ruled out opening of Mettur dam on the customary date of June 12 due to poor storage levels.— Photo: A. Muralitharan

*Ryots say robust rains crucial for kuruvai cultivation on three lakh acres*

Farmers in the Cauvery delta region of the State are pinning their hopes on a good southwest monsoon, which, the met office has forecast, will set in the next couple of days.

Though normally southwest monsoon does not bring huge rainfall directly to the delta, copious rains in Cauvery catchment areas could bring water down the river to fill Karnataka reservoirs and then the Mettur dam.

“The State government has already ruled out opening of Mettur dam on the customary date of June 12 due to poor storage levels.

At the same time, Chief Minister Jayalalithaa has laid out ambitious plans to raise kuruvai paddy on three lakh acres in the delta region, utilising sub-surface water for which she has also extended the special kuruvai package to farmers.

However, we need to understand that over exploitation of sub-surface water will only harm the fertility of the soil in the longer run.

So, most of us will prefer a good monsoon that has been forecast.

Only rains in the days to come and flow down the Cauvery in time could bring the best out of the kuruvai season,” the vice-president of Tamil Nadu Vivasaya Thozhilalar Sangam V. Jeevakumar said.

Overexploitation of sub-surface water has already taken a toll on the fertility of soil, especially in the eastern Cauvery delta region where incursion of sea water is also huge problem.

“Overexploitation of sub-surface water by those using borewells for farm operations is hurting our prospects.

The State government, which is reaching out to borewell farmers through its kuruvai package, could also think of better water management using rain water.

Long-term measures such as permanent water harnessing structures in the course of major irrigation sources is the need of the hour to protect the entire delta region,” observes secretary of the Tamil Nadu Vivasayigal Sangam Samy Natarajan.

Stressing that only a decent or beneficial southwest monsoon could help ensure a bountiful kuruvai paddy crop, Mr. Samy Natarajan says rainfall in the weeks ahead and continued flow down the river could help recharge the aquifers and raise the depleting ground water table in the delta.

***‘Given the overexploitation of sub-surface water, most of us prefer a good monsoon’***

## Higher prices brings cheer to plantain farmers



The rise in the price of plantain in the weekly wholesale auction market in Paramathivelur town has brought much cheer to the farming community.

Plantain is a major crop in the villages along the banks of River Cauvery that surrounds Paramthivelur town.

The bananas from this area are sent to Kerala, Karnataka, and Andhra Pradesh and also to Salem, Coimbatore, Erode, Karur, and Dindigul daily.

The auctions at the market on Mondays is a major attraction.

Farmers market their produce only through this weekly auction centre.

During last week auction, the 'poovan' variety fetched a maximum price of Rs. 250; 'rasthali' Rs. 250; 'pachai naadan' Rs. 200; 'karpooravalli' Rs. 200. Each 'monthai' variety was auctioned for Rs. 2.

On June 6 'poovan' fetched Rs. 350; 'rasthali,' 'pachai naadan,' and 'karpooravalli,' varieties fetched Rs. 300 each. Each 'monthai' banana was priced at Rs. 5.

This week is said to be auspicious in many ways, and many marriages and temple festivals have been scheduled in the next few days in western districts. Hence there is a huge demand for bananas leading to a rise in its price, say farmers.

## Rain brings down temperatures

*It is expected to be beneficial to farmers*



A resident of Tiruchi runs for cover as skies open up on Tuesday. —Photo: A. Muralitharan

: Tiruchi city and parts of Tiruchi district received sharp showers on Tuesday evening, bringing down the temperature.

The rain, lasting for over half-an-hour, came as a relief from the sweltering heat experienced during the day-time over the past few days.

The showers are also expected to be beneficial for farmers planning to take up kuruvai cultivation in the filter point areas of the district.

## Training programme

A free training programme on ‘Tomato and chilly cultivation techniques’ will be held at the Krishi Vigyan Kendra on Veterinary College and Research Institute premises on Mohanur Road on June 13.

A press release from N. Akila, Senior Scientist and Head, said that the programme would deal with types of seeds, cultivation methods, space management between crops, drip irrigation methods, weed management and providing supplement nutrients to the crops.

For registration, contact phone: 04286-266345 and 266650 by June 12.

### **e-tendering of coconut crop**

The Horticulture Department will auction coconut crop grown in its Maddadka horticultural farm, Belthangady and Hosagadde horticulture farm Sullia, for this financial year through e-tendering.

e-tendering would commence at 11 am on June 7 and would end on June 14. For details, contact senior assistant director (horticulture), Mangaluru, phone 2444298 or 2423628.

### **Farmers being encouraged to cultivate cashew in Shivamogga dist.**

*Arecanut yield is likely to decline by around 40 per cent in the district this year: Official*

In the wake of the drying up of arecanut plantations in the perennially drought-hit and arid regions of the district caused by the prolonged dry spell this year, the farmers here are being motivated to take up the cultivation of cashew nut, said M. Vishwanath, Deputy Director, Department of Horticulture. He was speaking at a meeting held to review the progress of implementation of development works of various departments in the city on Monday.

Mr. Vishwanath said that owing to the prolonged dry spell and decline in the ground water level, arecanut trees in 570 hectares of land have dried up in the district.

Owing to moisture stress, the inflorescence part of the flower in the tree is not opening up properly. This has adversely affected the pollination process. In addition to this, the dropping of arecanut flowers and immature nuts is also being witnessed.

The arecanut yield is likely to decline by around 40 per cent in the district this year, he said.

### **Better suited to climate**

As cashew crops require less water and are suited to the climate in the region, the farmers from arid and perennially drought-hit areas have been asked to take up cashew cultivation. They will be extended financial assistance under

Mahatma Gandhi National Rural Employment Guarantee Scheme for developing cashew plantations, he said.

### **More borewells needed**

Subash Chandra, district-in-charge Secretary, who chaired the meeting, directed the officials to dig public borewells to meet drinking water needs and under the GangaKalyana scheme after seeking suggestions from hydrogeological experts. CEO of Zilla Panchayat Rakesh Kumar was also present.



### **Indian economy likely to expand by 7.6 per cent in 2016-17, says RBI survey**

In the 40th round of survey, the forecasters expect real GVA to increase by 7.6 per cent in 2016-17.



The long-term real GVA growth expectations remained unchanged at 8.3 per cent in the current round compared to the previous round.

India's real economy, as measured by the Gross Value Added (GVA), is likely to expand by 7.6 per cent in 2016-17 due to improvement in farm and industry sectors, said an RBI-sponsored survey of professional forecasters.

“Output growth, measured using GVA at basic prices, is likely to improve gradually in 2016-17 and further in 2017-18. Quarterly growth projections for the next five quarters indicate that growth is likely to improve...,” RBI said while releasing the survey on macroeconomic indicators.

In the 40th round of survey, the forecasters expect real GVA to increase by 7.6 per cent in 2016-17. The survey further said ‘agriculture and allied activities’ and services are expected to grow by 2.9 per cent and 8.8 per cent, respectively. Industry growth forecast has been placed at 7.6 per cent.

Regarding 2017-18, the forecasters said real GVA is expected to increase by 7.8 per cent, led by growth in services by 9.2 per cent. Agriculture and allied activities and industry are expected to grow by 2.7 per cent and 8 per cent, respectively.

The long-term real GVA growth expectations remained unchanged at 8.3 per cent in the current round compared to the previous round. The medium-term growth forecast for the next five years increased to 8 per cent over 7.8 per cent in previous round.

Private final consumption expenditure at current prices is expected to increase by 10.7 per cent in 2016-17 and further by 11.9 per cent in 2017-18.

Forecasters expect gross saving rate at around 31.5 per cent of Gross National Disposable Income (GNDI) in 2016-17 and 32 per cent in 2017-18.

Further, merchandise exports is likely to grow 1 per cent in 2016-17 which constitutes a downward revision by 70 basis points (bps) from 1.7 per cent in the previous round. Growth of merchandise exports is expected to improve to 5.3 per cent in 2017-18.

Current Account Deficit is projected at 1.1 per cent and 1.5 per cent (of GDP) in 2016-17 and 2017-18, respectively. CPI inflation is expected to be at 5.2 per



cent in first quarter of 2016-17 and remain above 5 per cent till fourth quarter of this fiscal.

Centre's gross fiscal deficit (GFD) is projected at 3.5 per cent of GDP in 2016-17 and is expected to moderate to 3.1 per cent of GDP next fiscal.

The results of the survey represent the views of the respondent forecasters and in no way reflect the views or forecasts of the RBI, the central bank said.

A total of 23 professional forecasters participated in the survey conducted in May 2016.

# hindustantimes

## Monsoon forecasting: IMD to get high-tech makeover



Dark clouds and monsoon rains intensify over many places in Thiruvananthapuram Photo By Vivek R Nair / Hindustan Times (Hindustan Times)

India's forecasting of the monsoon - the crop-nourishing seasonal rains that are the lifeblood for farmers in the country of 1.3 billion people - is getting a high-tech makeover.

Jettisoning a statistical method introduced under British colonial rule in the 1920s, India's meteorology office is spending \$60 million on a new supercomputer to improve the accuracy of one of the world's most vital weather forecasts in time for next year's rains.

The new system, based on a U.S. model tweaked for India, requires immense computing power to generate three-dimensional models to help predict how the monsoon is likely to develop.

Experts say better forecasting could help India raise its farm output by nearly 15 percent, by helping farmers tweak the best time to sow, irrigate or apply fertilizer to crops and if rains fail plan state-wide measures. This would be a major boon for a country already either the world's biggest or second-biggest producer and consumer of rice, wheat, sugar and cotton.

"If everything goes well, by 2017 we'll make this dynamical model operational by replacing the statistical model," said M. Rajeevan, the top scientist in the ministry of earth sciences, which oversees the weather office on a 30-acre campus in the heart of New Delhi.

The June-September rains are relied on to replenish reservoirs, recharge aquifers and for half of all farmland that does not have irrigation.

Many areas receive more than 70 percent of their annual rains during the monsoon and plentiful rains means more money in rural communities, sustaining some 600 million people and boosting demand for an array of goods and services.

## **MELTING SNOW**

Rajeevan declined to name the companies the bureau was talking to obtain the new supercomputer, but said it would be 10 times faster than the existing one supplied by IBM.

The India Meteorological Department (IMD) issues forecasts for the country as a whole and five regions, though does not give separate ones for the country's 29 states.

“We didn't adopt the dynamical model earlier because it was not able to forecast monsoons.

Now, it can and with better results than the statistical model,” said Rajeevan.

The existing model uses historical relationships between rainfall and six to eight predictors such as sea-surface temperatures and southeasterly winds over the Indian ocean.

Because of India's size, one national forecast is of little help to farmers spread across diverse climatic zones.

“I'll cherish the day they'll come up with a forecast for my state. It's going to mitigate our risks and help us plan our crop better,” said Dharmendra Kumar, whose farm is in Uttar Pradesh, a state roughly the size of the United Kingdom and with a bigger population than Brazil.

The IMD, set up in 1875, produced its first monsoon forecast in 1886 after the famine of the 1870s.

Back then, it relied on melting snow in the Himalayas to predict rains. Early forecasters also observed plants and animals, consulted almanacs and invoked Lord Indra, the rain God of Hindus.

Now, about 5,000 IMD employees gather data, obtained from radar, observatories, ships, sensors and satellites, for the weather office, where staff peer at computer screens flickering with charts, graphs and multi-coloured maps of India.

In 2015, the IMD accurately forecast a second straight drought year, in contrast to predictions of bountiful rains by Skymet, India's only private forecaster.

But the weather office failed to foresee the worst drought in nearly four decades in 2009 and, as this year's monsoon starts, farmers hope its forecast of above-average rains will be right.

"In the last one decade we've gained a greater degree of precision in forecasting rains, but monsoon still remains a very complex weather system which only God has the ability to understand fully," Rajeevan said.

### **Patna college to reward top academic performers with manure**



GJ College, Rambag in Bihta, under Magadh University, recently set up a vermicompost plant in its campus capable of producing 33 quintals of manure a month.

Scholarships and awards for the best students are passé, a college in Bihta, 30km from Bihar's capital Patna, will now reward academic performance with manure.

GJ College, Rambag in Bihta, under Magadh University, recently set up a vermicompost plant in its campus capable of producing 33 quintals of manure a month.

The top academic performers at the college will be given a packet of manure to use on their farms.

“Awarding manure to poor students is a project under the college’s community extension programme and it will also help them improve agricultural produce,” said principal Kumar Rajiv Ranjan.

The college has students from over two dozen neighbouring villages, and a majority of them belong to poor families that rely on agriculture to make ends meet.

Students of non-farming backgrounds will also get manure packs, but will be tasked to help with planting and maintaining trees on roadsides.

The college will keep track of their work with a record of photos of the trees planted and their location.

The vermicompost unit, likely to be inaugurated by June-end, will also serve as a disposal pit for leaves and other organic products of over 400 trees on the 18-acre campus.

The college is also considering providing manure to needy farmers whose wards do not study there, in addition to offering technical help in setting up similar units in their villages.

The enterprising college, which today has just 10 teachers for over 4,000 students, has decided to introduce hi-tech classrooms for the five subjects that have no teachers.

“It will run both chalk-and-duster type and touch-screen smart classes based on UGC-recommended learning software,” said Ranjan.

**Monsoon enters adjacent seas of Kerala; onset by tomorrow**



The onset along the Kerala coast is likely to materialise by tomorrow (June 9), two days after the mean of June 7 indicated in the onset forecast issued earlier

The South-West monsoon has reached the South Arabian Sea, which is ‘within shouting distance of Kerala,’ as a feeble off-shore trough developed along the Kerala-Karnataka coast.

The rains have also entered the Maldives and the Comorin region apart from parts of South-West Bay of Bengal on Tuesday, the India Met Department said in its update.

**Enabling feature**

The off-shore trough, an important enabling feature, is a receptacle of the monsoon flows headed towards the coast where the moisture mopped up from the sea gets accumulated.

Monsoon winds pump up this moisture against the heights of the Western Ghats where it cools to pour down in heavy torrents in a spectacular onset phase.

For this to happen, the currently 'feeble' off-shore trough has to deepen, which is expected would happen over the next couple of days.

The Met said that the onset along the Kerala coast is likely to materialise by tomorrow (June 9), two days after the mean of June 7 indicated in the onset forecast issued earlier but falling well within the four-day window extended to either side.

### **Logical conclusion**

Cross-equatorial flows (winds turning in from around the East African coast) are picking up in strength as a result of which the westerlies over the South Arabian Sea too have accelerated.

One thing leads to another in the onset sequence of things, and development of the off-shore trough on Tuesday was only a logical conclusion.

Deepening of the trough in a day or two will precipitate the onset over the Kerala coast, as mentioned earlier. The Met projects the monsoon flows ratcheting up in strength during the first week after onset.

This will make for a copybook-style onset phase with heavy to very heavy rain along the Kerala and Karnataka coasts to start with and would be replicated over Goa, Konkan and Mumbai in phases.

### **Equal distribution**

Global models are of the view that the monsoon flows would rally around the cyclonic circulations situated over East-central Arabian Sea (off Karnataka) and West-central Bay of Bengal off North Andhra Pradesh and South Odisha coasts to drive rains respectively along the West and East coasts.

This is expected to ensure equal distribution of rainfall over most of the southern peninsula even as it would tend to be heavy to very heavy along the West Coast.

As for the East Coast, the expectation is that the existing cyclonic circulation in the Bay would set up a minor storm, which would move along the coast towards Gangetic West Bengal and adjoining Bangladesh.

### **TN to begin copra buying; Kerala still undecided**

Close on the heels of Tamil Nadu declaring copra procurement from June 16, a similar demand has come up in Kerala to start the initiative at the earliest.

The the Kerala government is yet to move in this regard though the Centre had given its approval in February by declaring the minimum support price for copra for 2016 season.

The Centre had fixed the MSP at 59.50 a kg for milling copra and 62.40 for ball copra and entrusted Nafed for the venture.

One of the election promises of Jayalalithaa's AIADMK was the opening of direct procurement centres for copra in the next six months.

Besides opening of DPC's in 20 districts, where there is substantial production, the government had also announced waiver of the one per cent Market Committee cess and the five per cent VAT for farmers selling copra.

Funding arrangements were also made by providing 10 crore as working capital for this procurement process.

However, in Kerala, uncertainty surrounded the government's plans as the authorities had convened only one meeting, on March 22, and had forwarded its minutes to Nafed only as a request and that too not in the prescribed format.



According to sources in the coconut trade, before starting the procurement, several formalities have to be completed, including the appointment of designated State-level agencies for the purpose.

It may be recalled that Farmer Producer Organisations (FPOs) in Kerala were directly involved in the 2012 procurement season for collecting copra from farmers.

Thalath Mahmood, President, Cochin Oil Merchants Association, urged the government to start procurement at the earliest to benefit farmers, as copra prices in Kerala have dropped below the MSP.

Meanwhile, the coconut oil market in Kerala and Tamil Nadu is holding steady, with prices at 7,800 and 7,500 a quintal respectively.

Copra prices are ruling at 5,350 in Kerala and 5,200 in Tamil Nadu without any further recoveries.

With the onset of the monsoon, the market expects supplies to get tight in the coming days as rains would hamper plucking of raw nuts.

However, the Coconut Development Board hopes the monsoon will lead to a pick-up in prices as supplies from major production centres drop.

### **Monsoon delay, pest attack scare seen shrinking cotton acreage**

Bullish trend in pulses poses challenge to the fibre crop and soyabean

Delayed arrival of monsoon coupled with scare of pest attacks such as whitefly and pink bollworm, which caused major losses to farmers last year and the attempts by some State governments to wean away farmers from cotton could shrink the acreage of the fibre crop this kharif season.

Both the Union government and the trade expect cotton acreage to shrink by about 5-7 per cent over last year's 118 lakh hectares (lh) due to these reasons.

In North India, where the kharif planting of cotton has already been complete, the acreages are down by about a third to around 10 lh against the normal of 15 lh, according to early estimates.



A farmer walks in his cotton field which has been severely hit with whitefly attack and producing a very marginal yield on the outskirts of Bathinda in Punjab

In Punjab, where the whitefly menace caused significant losses to growers last year, the acreage has been halved to around 2.5 lh, whereas Rajasthan has also seen a significant drop this year.

### **Farm advisory by States**

“We are expecting the cotton acreages to be about 110 lakh hectares this year,” said KR Kranthi, Director, Central Institute for Cotton Research (CICR) in Nagpur. This is on account of a shortfall in plantings in North India and the delay in arrival of monsoon.

Also, the advisory provided by governments in the key growing States of Telangana and Andhra Pradesh to farmers to move away from cotton could impact the sowing pattern this year.

“We are expecting a 5 to 7 per cent dip in acreages this year,” said Dhiren N.Sheth, President, Cotton Association of India (CAI), the apex trade body for the fibre crop.

However, the yields could improve this year on projections of better than normal rains, Sheth added.

### **Sowing pattern**

“Cotton has not done well last year and the discouragement by States such as Telangana and Andhra could influence the sowings,” he added.

The arrival of monsoon has been delayed by about nine days this year.

This delayed arrival could impact the cotton acreage in the key growing regions of Central and South India.

“The sentiment is not good for cotton,” said M.Ramasami, Chairman of Rasi Seeds, a major Bt cottonseed player.

Besides the delay in spread of monsoon, other factors such as the rise in incidence of pink bollworm last year could weigh against cotton, with farmers preferring to play safe with other alternatives such as pulses and corn.

“Though there are enquiries for Bt cottonseeds, farmers are waiting for the monsoon to arrive to commence planting. But the fact that delayed planting in the last two years that impacted the yields, could weigh against cotton,” Ramasami added.

### **Output target, MSP**

The Centre has set up a production target of 36 million bales (of 170 kg each) for cotton this year.

The minimum support price has been hiked by 60 for both the medium and long staple variety to 3,860 and 4,160 per quintal.

### **Soyabean too hit**

The bullish trend in prices of pulses such as arhar (tur) and black gram (urad) could also pose a challenge to other crops such as soyabean.

The soyabean industry is apprehending a loss of acreage to pulses this year.

“We apprehend loss of soyabean acreage of about 5 to 15 per cent, depending on various locations, to pulses this year,” said Davish Jain, Chairman of Soyabean Processors Association of India (SOPA).

### **Pulses lucrative**

The prices of pulses are more than double that of soyabean and are seen a better proposition for the farmers.

Soyabean planting has already begun for the kharif season.

“Farmers have begun planting soyabean in places such as Sangli in Maharashtra,” Jain said.

### **Centre procures 1.11 lakh t of pulses, 15,635 t onions so far**

To build a buffer stock in a bid to keep a check on prices and availability, government agencies have so far procured 51,000 tonnes of kharif and 60,000 tonnes of rabi pulses so far.

As part of market intervention efforts, the agencies have also procured 15,635 tonnes of onions.

Also, about 13,000 tonnes of imported pulses have arrived and delivery of about 6,000 tonnes is in the pipeline, an official release said here on Tuesday.

“The arrived quantity includes 11,000 tonnes of tur and 2,000 tonnes of urad,” said a statement, issued after the inter-Ministerial committee meeting held here to review the prices of essential commodities on Tuesday.

During the meeting, State governments were urged to seek allocation of pulses from the buffer stock to sell at reasonable prices, at not be more than 120 per kg.

So far, Tamil Nadu, Andhra, Maharashtra, Rajasthan and Telangana have been allocated some quantity of pulses after the Centre received their requests.

In Delhi, Kendriya Bhandar and Safal outlets have been allocated and have so far sold 635.31 quintals of tur and 245 quintals of urad at 120/kg.

The committee was also informed that Food Corporation of India, at present, has about 32 million tonnes (mt) of wheat in its stock, against the public distribution system’s requirement of about 24 mt.

“The government has already sanctioned about 6.25 mt of wheat for open market sale operations during the current financial year,” the release added.

### **Coonoor tea turnover up 1.63%**

The cumulative turnover at the auctions of Coonoor Tea Trade Association (CTTA) in the five months of current calendar has risen by 1.63 per cent over the same months of 2015. This has happened despite the volume sold falling by 45 lakh kg because of a sharp price increase of 21/kg. In all, 21 auctions had been held till May-end when the average price rose to 97.42 a kg from 76.07 last year. Because of the sharp increase in price, the volume sold dropped to 1.73 crore kg from 2.18 crore kg. Nevertheless, the high price helped the overall realisation to rise to 168.54 crore from 165.83 crore. This increase of 2.71 crore marked a growth of 1.63 per cent.

## Supply woes heat up groundnut oil

Groundnut oil prices continued to move up on the back of short supply of nuts for crushing, though demand declined at the higher level.

Groundnut oil loose was up 25 to 1,220-25 per 10 kg, Jamnagar line *teliya* tin by 55 to 1,877-78 per 15 kg.

Washed cotton oil gained 5 to 645-648 per 10 kg. Cotton oil new tin was up 5 to 1,105-25 per 15 kg.

## Cooking oils in bear grip

Edible oils market ruled weak tracking slack demand amid bearish futures.

The volume was thin as stockists stayed away from fresh bulk buys.

Indigenous edible oils gained on bullish reports from producing centres, said sources.

Liberty was quoting palmolein for 590, super palmolein ex JNPT 600, soyabean refined oil 640. Ruchi's rates: palmolein 586, soyabean refined oil 635 and sunflower refined oil 730.

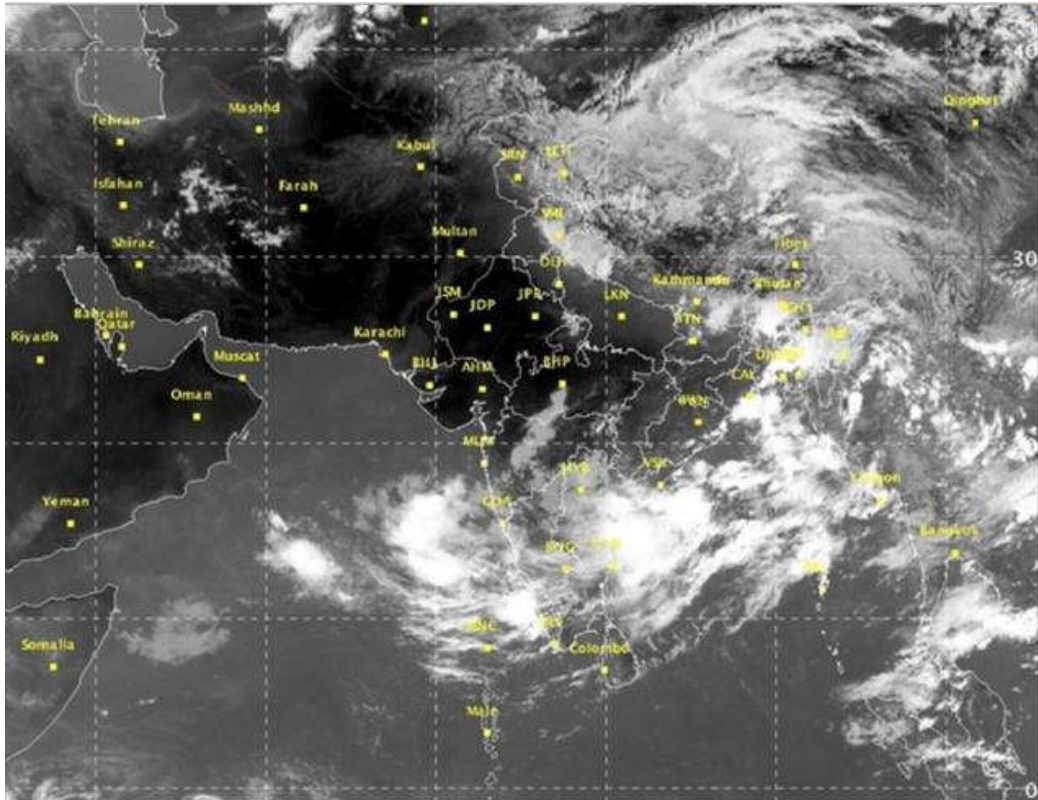
At Rajkot, groundnut oil *telia* tin jumped to 1,890 (1,860) and loose (10 kg) increased to 1,225 (1,200). BCE spot rates ( /10 kg): groundnut oil 1,210 (1,190), soya ref. 635 (633), sunflower exp. ref. 655 (655), sunflower ref. 730 (730), rapeseed ref. 870 (860), rapeseed exp. ref. 840 (830), cottonseed ref. 655 (652) and palmolein 578 (578).

## Met says monsoon may set in by Thursday

India Met Department has assessed that the South-West monsoon may make an onset along the Kerala coast by Thursday.

In its earlier forecast, it had said that the onset might happen on June 7, which is today, with a model error of four days.

The Met said this morning that the monsoon has advanced into some parts of South Arabian Sea, the Maldives, the Comorin area as well as more parts of South-West Bay of Bengal.



"In view of strengthening of cross equatorial flows and deepening of westerlies over South Arabian Sea and development of a feeble offshore trough along Karnataka-Kerala coast, the onset of monsoon over Kerala is very likely by June 9 (Thursday)," the Met said.

Meanwhile, an upper air cyclonic circulation over East-Central Arabian Sea off Karnataka coast persists.

A counterpart circulation over West-central Bay of Bengal off North Andhra Pradesh and South Odisha coasts too persists.

These circulations are expected to play a key role in facilitating the onset and advance of rains over the Kerala coast and East Coast and North-Eastern States in the days to come.

## Export demand, monsoon hold the key to turmeric prices



Overseas shipments up 10.5% in first four months of 2016

After touching a five-year high in January 2016, turmeric prices slipped about 20 per cent in the same month and are yet to recover due to abundant supplies.

In January, turmeric futures traded on the National Commodities and Derivative Exchange (NCDEX) fell from the monthly high of 10,166 per quintal to 8,200 levels.

Turmeric prices have been under pressure since the start of 2016 due to the arrival of the new crop. Despite the weather disturbances and reports of lower production, prices followed the seasonal trend.

During the growing season until December 2015, prices remained high in anticipation of low production due to the dryness during the sowing season and excessive rains prior to harvesting in Tamil Nadu and Andhra Pradesh. Then, prices started to fall in January in anticipation of better arrivals but reversed direction in February on good demand for quality turmeric from industrial buyers and stockists.



During March-May, which is the peak arrival season, prices tend to consolidate or rise depending on export and upcountry demand and continue to move up post May as arrivals start to decline.

Turmeric is widely grown in the peninsula. Andhra Pradesh, Telangana, Tamil Nadu and Karnataka are the major turmeric producing States contributing nearly 70 per cent of the total production, followed by Maharashtra, Odisha, West Bengal and Kerala.

### **Higher arrival**

According to the Agmarknet data, the quantity of turmeric arrivals during February-May in key states was higher by 71 per cent compared to the last season.

Higher arrivals in 2015-16 were thanks to the good prices and higher production, according to trade sources. For this season, production of the yellow spice is forecast to increase to 8 lakh tonnes (lt) from 7.50 lt last year.

### **Fall in exports**

In FY 2015-16, turmeric exports were lower by 5.9 per cent at 85,426 tonnes compared to 90,738 tonnes last year, according to data from the Department of Commerce. However, due to quality supplies and a continuous drop in local prices, exports in the first four months of 2016 were up 10.5 per cent to 29,807 tonnes against previous year's 26,974 tonnes.

### **Outlook**

Turmeric demand from traders and stockists will pick up in coming months as exports gather pace during June-July.

Thus, we expect a steady rise in turmeric prices in the coming months and can touch 8,500 per quintal (CMP: 8,000) thanks to higher export demand coupled with forecast of excess rainfall in turmeric growing regions in the peninsula.

A clear picture of the actual progress of the monsoon and sowing will drive turmeric prices.

*The writer is Associate Director – Commodities & Currencies Business, Equity Research & Advisory, Angel Broking. Views are personal.*

## **Business Standard**

### **Largest jeera market Unjha APMC not to be part of NAM's phase-1**

Cites lack of capabilities to maintain the flow of commodity arrivals to put them online



Even as the Government of India strongly pushes National Agriculture Market (NAM) across the country, Asia's biggest jeera (cumin seed) trading market at Unjha Agricultural Produce Market Committee (APMC) in Gujarat has refused to join the online platform for now, citing lack of capabilities to maintain the flow of commodity arrivals to put them online.

According to APMC officials, during the season period, on an average over 100,000 bags of jeera arrive daily. Sampling, lab testing and grading of such a quantity was not feasible for the APMC. Apart from jeera, other commodities such as fennel seed, coriander and isabgular arrive in big quantities at Unjha.

"Over 5,000 farmers from Gujarat, Rajasthan and Madhya Pradesh come to Unjha APMC for sale of commodities, most of which is jeera. At the time of peak season daily arrival of jeera reaches to 100,000-150,000 bags. Sampling, lab testing and grading are not possible on such a huge quantity for us at this time. Hence, we have refused to go online under NAM," said Gaurang Patel, chairman of Unjha APMC.

It needs to be mentioned here that Gujarat government had earlier planned to start first online market in the country from Unjha. However, Unjha APMC officials have already intimated Gujarat government in a report about the market's inability to join the online platform.

Unjha is globally renowned as a jeera trading hub. Currently, about 20,000 bags of jeera arrive per day at the mandi (market). Other commodities such as fennel seed, coriander and isabgul arrive in big quantities at Unjha APMC which handles over 300,000 tonnes of yearly arrival of different agricultural commodities every year.

However, if and when the APMC witnesses consolidation of its infrastructure to handle large quantities online, the mandi intends to join NAM in near future. "We will join NAM in near future when infrastructure will be strong enough to enable us connect with the online platform, which could be in second phase of NAM. If we connect without preparation, it will not fulfill the aim of NAM right now," said Patel.

Seconding Patel is Mona Khandhar, secretary - agriculture and co-operation department, Government of Gujarat who believes Unjha APMC should be part of the second phase of NAM given the difficulty in handling huge supply online.

"APMCs such as Unjha which handle large arrivals need some extra infrastructure support for NAM. We will add Unjha in second phase with required facility for online platform," Khandhar said.

As on date three APMCs including Patan, Botad and Himmatnagar have joined the online platform from Gujarat and 10 more APMCs will be under NAM by end of this month.

Meanwhile, the other reason for Unjha APMC's decision to not join NAM is fear among traders that they would end up losing their commission. An official of Unjha APMC said, "While we talked about online platform at Unjha under NAM, traders were not in favour of it due fear of losing commission."

Earlier in 2008, Gujarat government had tried to start online spot exchange at Unjha.



### **Farmers rejoice water release from Aliyar Dam**

News of water being released by the Aliyar Dam spread cheer among farmers of Pollachi and Thirumoorthy Hills. The water is critical for irrigation of paddy wetlands, coconut groves and nurseries too.

The release of the water was delayed by more than two weeks due to the model code of conduct being in place for the election.

Chief minister J Jayalithaa's announcement to release water from the Aliyar Dam from Wednesday afternoon to the five old anaicuts spread cheer to a large number of farmers who cultivate in the area. The water will be released regularly from June 8 for the next 10 months.

"It usually irrigates around 6,400 acres of agricultural land, of which paddy dominates because it turns into a wetland," said a senior public works department engineer.

The five anicuts that will receive water is the Pallivilangal Anicut, Ariyapuram Anicut, Karaipatti Anicut, Periyana Anicut and Vadakkalur Anicut.

The dam's water level stood at 84.65 ft against its storage capacity of 120 ft. The river bed however goes as low as 930ft. Called the Parambikulam Aliyar project, it harnesses the waters from Bharathapuzha, Chalakudi and Periyar basis for power production and irrigation in both Kerala and Tamil Nadu.

The release of water also benefits the many drought prone areas in Coimbatore and Erode in Tamil Nadu and Palghat in Kerala.

The farmers cultivate mainly paddy, coconut and fruits like mango, sapota, Vegetables, nuts and pulses. Cotton is also cultivated in this belt.

"The water release is definitely a relief this year because the summer was harsh and south west monsoon is yet to set in," said president of the Tamil Nadu Farmers Association, A Kandasamy.

"The release has already been delayed by two weeks. It is released on May 16 every year," he said.

### **Agri dept uses smartphone as a tool to debug crops**

Farmers now have a 'whatsapp cover' for their crops. To make them aware of the provisions, agriculture department has taken to wall-writing in villages.

UP loses at least 20% agriculture production to pests and insects every year. whatsapp and SMS can help save the crop and bring down annual loss by ensuring quick treatment.

Department of agriculture has launched Participatory Crop Surveillance and Response System, a direct interface between farmers in the state and directorate of agriculture through mobile phones.

Farmers, agriculture experts and even aware citizens can drop information about crops affected with pests and insects on two mobile numbers 9452247111 and 9452257111 which the department has kept specifically for receiving complaints related to infected crops.

Those who own a smart phone can lodge complaints and queries using Whatsapp while others may simply send SMS mentioning details like farmer's name, variety of crop, village and district where field is located and, if easily decipherable, the type of infection crop has caught.

As soon as details reach department numbers the same would be uploaded on directorate's portal, though manually.

"We wish to upgrade it so that in future complaints may be uploaded automatically on portal," said principal secretary, Agriculture, Amit Mohan Prasad.

The district plant protection officer has to solve the grievance uploaded on the portal in 24hours. The progress will be monitored by the high-ups in the directorate.

## THE ECONOMIC TIMES

### **India's colonial-era monsoon forecasting to get high-tech makeover**



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The new system, based on a U.S. model tweaked for India, requires immense computing power to generate three-dimensional models to help predict how the monsoon is likely to develop.

Experts say better forecasting could help India raise its farm output by nearly 15 percent, by helping farmers tweak the best time to sow, irrigate or apply fertilizer to crops and if rains fail plan state-wide measures.

This would be a major boon for a country already either the world's biggest or second-biggest producer and consumer of rice, wheat , sugar and cotton .

"If everything goes well, by 2017 we'll make this dynamical model operational by replacing the statistical model," said M. Rajeevan, the top scientist in the ministry of earth sciences, which oversees the weather office on a 30-acre campus in the heart of New Delhi.

The June-September rains are relied on to replenish reservoirs, recharge aquifers and for half of all farmland that does not have irrigation.

Many areas receive more than 70 percent of their annual rains during the monsoon and plentiful rains means more money in rural communities, sustaining some 600 million people and boosting demand for an array of goods and services.

**MELTING SNOW** Rajeevan declined to name the companies the bureau was talking to obtain the new supercomputer, but said it would be 10 times faster than the existing one supplied by IBM.

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The existing model uses historical relationships between rainfall and six to eight predictors such as sea-surface temperatures and southeasterly winds over the Indian ocean.

Because of India's size, one national forecast is of little help to farmers spread across diverse climatic zones.

"I'll cherish the day they'll come up with a forecast for my state. It's going to mitigate our risks and help us plan our crop better," said Dharmendra Kumar, whose farm is in Uttar Pradesh, a state roughly the size of the United Kingdom and with a bigger population than Brazil.

The IMD, set up in 1875, produced its first monsoon forecast in 1886 after the famine of the 1870s.

Back then, it relied on melting snow in the Himalayas to predict rains. Early forecasters also observed plants and animals, consulted almanacs and invoked Lord Indra, the rain God of Hindus.

Now, about 5,000 IMD employees gather data, obtained from radar, observatories, ships, sensors and satellites, for the weather office, where staff peer at computer screens flickering with charts, graphs and multi-coloured maps of India.

In 2015, the IMD accurately forecast a second straight drought year, in contrast to predictions of bountiful rains by Skymet, India's only private forecaster.

But the weather office failed to foresee the worst drought in nearly four decades in 2009 and, as this year's monsoon starts, farmers hope its forecast of above-average rains will be right.



"In the last one decade we've gained a greater degree of precision in forecasting rains, but monsoon still remains a very complex weather system which only God has the ability to understand fully," Rajeevan said.

### **Ban on farming along Yamuna to continue**



The green panel said that Yamuna's water was "highly" polluted as it contained "acidic, heavy metals and other high pollutants" which were very injurious to human health. The green panel said that Yamuna's water was "highly" polluted as it contained "acidic, heavy metals and other high pollutants" which were very injurious to human health.

NEW DELHI: The National Green Tribunal has refused to entertain a farmers' body plea seeking modification of its earlier order prohibiting cultivation of edible crops and vegetables on the floodplains of Yamuna here.

The green panel said that Yamuna's water was "highly" polluted as it contained "acidic, heavy metals and other high pollutants" which were very injurious to human health and it cannot be treated as source of irrigation for agricultural purposes.

"If it (cultivation) is permitted, it will become part of food chain which will reach human beings causing various diseases. Yamuna carries not only quantity of sewage but also that of industrial waste. There are electro-plating industries,

textile dying industries and other polluting industry located in the various of parts of Delhi.

"We have already permitted cultural activity and no other activities can be permitted in that area till the time the river Yamuna is restored and made pollution free and such tolerable limits which will prevent environmental and human hazards," a bench headed by NGT Chairperson Swatanter Kumar said.

The tribunal, in January last year, had prohibited farming on Yamuna banks saying, "it is an established fact that presently, vegetables, fodder grown and allied projects at the flood plain of river Yamuna are highly contaminated. Besides containing ingredients of high pollutants, such produce is even found to contain metallic pollutants."

The direction came during the hearing of a plea by Delhi Peasants Multipurpose Society and others who had moved the tribunal last year with a prayer that they be permitted to carry on agricultural and farming activities on Yamuna banks.

The farmers' body had contended that they do not use polluted water from Yamuna for cultivation of crops and instead use fresh water extracted out of borewells for irrigation purposes.

It had also averred that there was no specific report submitted before the Tribunal that any particular pollutant was found in the samples collected from crops cultivated by the members of the society.

### **Tea Board to come up with guidelines for tea processors for small tea growers**

More than 200 STG representatives demanded concrete supportive measures from the government to set up their own manufacturing units.

Tea Board will come up with guidelines for mini and micro tea processing factories for small tea growers within a month's time. This was indicated by Santosh Kumar Sarangi , chairman, Tea Board in Kolkata on Tuesday.

"Tea Board will allocate more funds for small tea growers. More subsidies will be given for maintaining their water sheds and transportation", Tea Board chairman said.



"Small tea growers will have to grow up the value chain, become producers and participate in auction on their own.

Tea Board will give them training in quality control and make sure the tea produced is of good quality.

Considering the global warming and erratic rains, more and more tea growers will have to be encouraged into organic farming ", he emphasized.

Tea Board chairman was addressing "PPS Assembly Celebration of Innovation" - organised by Centre for Education and Communication (CEC), for celebrating the initiatives of primary producer societies and encouraging them for better sustainability.

Small tea growers from Assam, Arunachal Pradesh, Tripura, Mizoram and West Bengal took part in the event. More than 200 STG representatives who participated in the event, demanded concrete supportive measures from the government to set up their own manufacturing units. Many of these societies are formed by tribal communities and women from these regions.

During the assembly Mr. Prafulla Debbarma of Panchamnagar Tea Producer Company, Tripura said, "CEC has helped us so far. But we are determined to set up our own manufacturing unit to produce organic orthodox and green tea. We seek active support from the Tea Board of India and Ministry of Commerce to build small grower tea brand".

These Small Tea Growers grow tea on small patches of land, but are dependent on the Bought Leaf Factories (BLF) as they have no processing facilities. The BLF in turn buy the green leaf and sell it to the big companies in the organized industry after processing the tea.

Earlier in year 2015, Tea Board amended the Tea Control Order making it mandatory for BLF units to sell not less than 70 per cent of the processed tea bought from STG, through public auction. It was felt that this would help the monitoring of the price of end-produce. But due to the lack of transparency the growers are suffering and have not got fairer share in the tea value chain. Most of these growers have no access to institutional finance.

Bijoy Gopal Chakraborty, President of Confederation of Indian Small Tea Growers' Association (CISTA) said, "We appreciate the Price sharing formula (PSF). But STGs are still unable to get fair price for their green leaf. Growers experience great fluctuations in the price that they receive from the Bought Leaf Factories (BLF), for per kg of green leaf, ranging from Rs 22 to Rs 4 in West Bengal and Tamil Nadu; and Rs 22 to Rs 7 in Assam (2015 season).

No such variations were reported in the Auction price during the year. Moreover, there is lack of transparency in the actual price realised since, among other things, under The Tea Marketing Control Order (TMCO) only 50 per cent of tea goes to auction."

Pronoy Basumatari, Bodoland, Assam said, "We are 'innovators' and 'startups' in the most back ward rural areas in India

Small tea growers are providing employment to thousands of people and are agents of development. We urge government to remove road blocks in starting

manufacturing units in the rural areas. We are meeting Minister of Commerce to discuss the issue."

### **Government procures 1.11 lakh tonne of pulses to cool retail prices**



The Centre also asked state governments to seek allocation of pulses from the buffer stock and sell at reasonable prices not exceeding Rs 120 per kg.

NEW DELHI: The government has procured 1.11 lakh tonnes of pulses so far from farmers for creating buffer stock and also contracted to import 38,500 tonnes as part of its effort to control the retail prices.

The Centre also asked state governments to seek allocation of pulses from the buffer stock and sell at reasonable prices not exceeding Rs 120 per kg.

An inter-ministerial committee meeting, chaired by Consumer Affairs Secretary Hem Pande, was held today to review prices of essential commodities.

In the meeting, it was informed that about 13,000 tonnes have already arrived in the country and 6,000 tonnes are in pipeline out of 38,500 tonnes of contracted pulses.

The government had in December last decided to create a buffer stock of pulses by procuring 1.5 lakh tonnes of lentils for making market intervention when prices firm up in retail markets . It is also importing pulses to boost domestic supply.

"About 13,000 tonnes imported pulses have reached the country and delivery of about 6,000 tonnes pulses is in pipeline. Arrived quantity includes 11,000 tonnes tur and 2,000 tonnes urad," an official statement said today.

"Besides contracted import of 38,500 tonnes pulses, the government agencies have procured 51,000 tonnes Kharif and 60,000 tonnes Rabi pulses so far," it added.

Tamil Nadu , Andhra Pradesh, Maharashtra, Rajasthan and Telangana have been allocated some quantity from buffer stock on request. Tamil Nadu, Andhra and Telangana are reportedly further subsidising the prices for the benefit of consumers, the statement said.

In Delhi, Kendriya Bhandar and Safal have been allocated to sell pulses through their outlets. So far, 635.31 quintals tur and 245 quintals of urad have been sold by these agencies at Rs 120/kg.

India is the world's largest producer of pulses, but its domestic demand outstrips production. The shortfall is met from imports. India imported more than 5.5 million tonnes of pulses last fiscal, largely through private traders.

Pulses output is estimated at 17.06 million tonnes in the 2015-16 crop year (July-June).

Tur and urad dals are selling at as high as Rs 165 per kg and Rs 185 per kg, respectively, in the retail markets.

The committee was informed that the FCI has about 32 million tonnes of wheat in stock against the PDS requirement of about 24 million tonnes. The government has sanctioned about 6.25 million tonnes of wheat for open market sale operations during this fiscal.

Regarding onions, as market intervention efforts, NAFED and SFAC have procured 15,635 tonnes of onions so far.

### **India, ADB sign \$120 million loan pact for irrigation in Odisha**



The soft loan is the second tranche of a \$ 157.5 million financing facility under the Orissa Integrated Irrigated Agriculture and Water Management Investment Program.

NEW DELHI: India and the Asian Development Bank (ADB) today signed a \$ 120 million loan pact to improve irrigation and water management infrastructure in Odisha.

The soft loan is the second tranche of a \$ 157.5 million financing facility under the Orissa Integrated Irrigated Agriculture and Water Management Investment Program.

"The financing will be used for modernising seven irrigation subprojects resulting in improved irrigation in over 1,00,000 hectares and strengthening of Water User Associations (WUAs) and the institutional capacity of Odisha's Department of Water Resources," the Finance Ministry said in a statement.

The selected areas for the investment program are the Baitarani, Brahmani, Budhabalanga and Subernarekha river basins and part of Mahanadi Delta .

Raj Kumar, Joint Secretary in Department of Economic Affairs and M Teresa Kho, Country Director, ADB's India Resident Mission signed the loan agreement.

The second tranche loan from ADB's ordinary capital resources has a 20-year term.

Odisha, acting through its Department of Water Resources, is responsible for implementing the second tranche activities and overall program, which are both due for completion by September 2018.

Speaking on the occasion, Kho said the investment program has "already demonstrated" the value of participatory irrigation management and will continue to support the WUAs to manage the planning, construction, and operation and maintenance of irrigation systems as an equal partner.

Raj said the project aims to improve existing irrigation infrastructure, operation and maintenance and water use efficiency that will lead to higher agricultural productivity.