

30-11-2015

# THE HINDU

## Commodity prices

Here are the prices of various commodities in Chennai.  
Price scale is given as Rs./kg

Commodity	Quantity	Now	Year ago
Rice	1 kg	30	32
Wheat	1 kg	34	32
Atta	1 kg	32	34
Gram Dal	1 kg	72	49
Tur Dal	1 kg	150	83
Urad Dal	1 kg	170	86
Moong Dal	1 kg	120	100
Masoor Dal	1 kg	98	80
Sugar	1 kg	32	34
Milk	1 ltr	37	37

<b>Commodity</b>	<b>Quantity</b>	<b>Now</b>	<b>Year ago</b>
Ground Nut Oil	1 ltr	126	104
Sun flower Oil	1 ltr	93	85
Gur (Jaggery)	1 kg	46	50
Tea	1 kg	220	220
Salt	1 kg	18	17
Lime	1 kg	60	60
Apple	1 kg	140	140
Papaya	1 kg	28	25
Pineapple	1 kg	40	40
Pomegranate	1 kg	150	140
Sapota	1 kg	40	40
Banana	1 kg	25	32
Bitter Gourd	1 kg	50	40
Brinjal	1 kg	70	40

Commodity	Quantity	Now	Year ago
Cabbage	1 kg	24	20
Cauli Flower	1 kg	40	32
Garlic	1 kg	180	110
Ginger	1 kg	90	120
Chilly	1 kg	28	24
Onion	1 kg	40	30
Potato	1 kg	40	36
Tomato	1 kg	50	20

### Workshop on roof gardening



Tamil Nadu Agricultural University Information and Training Centre is conducting a one-day training programme on roof gardening on December 3.

Training certificates and lunch will be provided to all participants. For details, call 044 - 2626 3484.

Venue: No.U-30, 10<sup>th</sup> Street, (Behind Jaigopal Garodia School), Anna Nagar

### **India for protection of poor farmers' interests at Nairobi WTO meet**

India, at the forthcoming Nairobi meeting of the World Trade Organisation (WTO), will put “all its energies” on pushing through a plan meant to protect the interests and livelihood of poor and vulnerable farmers, government officials who didn't want to be identified told *The Hindu*.

Roberto Azevedo, WTO Director General, recently said that the negotiations to firm up rules to liberalise global trade are currently “stuck” due to member countries finding it “difficult to reconcile their views” on a host of issues.

The Indian position echoed the one recently proposed by the G-33 on an effective Special Safeguard Mechanism (SSM). The G33 is a coalition of 48 nations including India, Indonesia and China, which took up the issue of developing countries getting considerable flexibility in limiting market opening of agriculture sector.

The SSM is a trade remedy that would allow developing countries to temporarily hike import duties on farm products to counter sudden import surges and price falls, thereby, protecting the interests of poor farmers. The same issue had led to the breakdown of a WTO ministerial meeting in July 2008.

It has been generally agreed that the developing countries could have an SSM, but developed countries including the US have opposed a proposal to enable developing countries to raise tariffs (using SSM) over and above the duty commitments made by them (developing countries) in the farm sector during the earlier Uruguay Round of WTO global trade pact negotiations.



The Uruguay Round took place before the current Doha Round talks that began in 2001. The new SSM proposal was to include provisions to empower developing countries to impose additional duties (temporarily) on agriculture products when their imports breach specified ceilings on price or volume

India wants this SSM proposal to be taken up on a “high priority-basis” during the WTO ministerial meeting at Nairobi (Kenya) slated to start on December 15, official sources said “There will not be any compromise on this (SSM) issue as it involves protection of poor farmers, which is of course a politically sensitive matter. It has to be given priority at the Kenya meet,” an official said.

However, the developed world, including the US, European Union, Australia, along with leading agriculture producer and exporter Brazil, has expressed their disagreement with the proposal. The negotiations are over the extent to which different categories of (developing) countries will be allowed to hike duties (using the SSM) beyond their 'bound tariff' -- or the duty ceiling as per their WTO commitments.

Official sources said the developing countries including India had, during recent discussions at the WTO, wanted an “effective” SSM for “addressing volatilities and instabilities causing import surges and price depressions.” The developing nations added that if these import surges and price depressions were “not immediately and effectively addressed as they occur, (they would) undermine poverty reduction efforts, livelihood and food security, and rural development in WTO Members.”

The volatility in global prices of agricultural items, the developing countries claim, is caused by many factors, including huge subsidies given to the farm sector in developed countries. Developing countries members, including India, said that therefore, an effective SSM was “very important” for them. The developed countries instead want discussions on SSM to be linked to the issue of greater market access in farm products, the sources said. Another item that India wants to be taken up on priority at the Nairobi meeting is that of arriving at a permanent solution to the issue of public food stockholding in developing countries for the purpose of food security.

### **Farmers celebrate National Milk Day**

Farmers celebrated National Milk Day at the National Dairy Development Board’s Southern Regional Training Centre at Chithode here by paying encomiums on the Father of White Revolution Verghese Kurien.

Former Member of Parliament S.K. Paramasivam (94) who led the celebration thanked the Central Government for considering the birth anniversary of Verghese as National Milk Day. He recalled how the late visionary leader had improved the economic well being of the farming community by institutionalising milk production and procurement on a large scale through establishing societies throughout the country.

T.K. Periyasamy, president of Erode District Milk Producers' Union, said the number of farmers generating income by rearing milch cows has risen in the district.

SRTC Principal Lester Neuns described how Dr. Kurien made the country self-reliant in milk production.

### **‘Extreme weather wreaking havoc on agriculture’**

*Rabi season sees crop damage on 18 m hectares due to unseasonal rain, hail*

Farmers in India are facing the impact of extreme weather conditions with 2015 being the third consecutive year in which standing crops across 15 States were damaged on 18.23 million hectares during the rabi (winter) harvesting season due to unseasonal rain and hailstorms.

In 2013, owing to the same erratic weather conditions, crops ready to be harvested on 0.35 million hectares across five States were damaged, while the damage was reported on 5.5 million hectares across six States in 2014 for the rabi crops, according to a report “Lived Anomaly”, released recently by the Centre for Science and Environment (CSE).

“Given the way the rabi season has progressed, rather regressed, in the past three years and also that large parts of the country have faced the fourth consecutive drought during the kharif (summer) season, it is possible that Indian agriculture now faces a point of destructive inflection,” said CSE deputy director general Chandra Bhushan, who led a team of experts, investigating the consequences faced by farmers of extreme weather events during the winter-spring crop season of 2015.

## **Excessive rainfall**

In 2015, the first few days of March witnessed heavy rainfall with major parts of the country seeing many times more rain than historically recorded. East Rajasthan saw an increase of 1,412 per cent over the normal, central Maharashtra a rise of 1,372 per cent and western Madhya Pradesh experienced an increase of 1,075 per cent.

“We are experiencing an increased severity and frequency of extreme weather events, and such intensely growing anomaly could simply not be left unrecorded. In February-April 2015, standing crops on 182.38 lakh hectares or 29.61 per cent of the entire rabi sown area were affected. Six-seven per cent of this was wheat crop,” said Mr. Bhushan.

The report says that owing to unseasonal rain and hail storm, the fall in the production of major foodgrain crops was about 86.3 lakh tonnes, which translated to a loss of Rs 15,777 crore. Besides, a fall in the production of oil seeds by 14.1 lakh tonnes meant an additional loss of Rs.4,676 crore. The total economic loss was about Rs.20,453 crore.

## **Tardy relief**

The team also investigated the effectiveness of crop damage assessment, estimation and delivery of relief, besides compensation mechanisms for affected farmers.

The report that suggests the need for urgent reforms in the agrarian sector, says: “Corruption in relief is pervasive across the States. Disbursement of relief to farmers is a tiresome process, adding to farmers’ distress and payments are chronically delayed. Unfortunately, in the system that exists today, to measure crop loss and calculate relief, the village patwari is the most critical cog. The information that patwaris provide becomes the basis for loss estimation and relief. But the patwari reports losses by ‘eye estimation’ ”.

The report also highlighted that in the existing crop insurance mechanism, there was no direct link between the insurance company and the farmer.

“Eighty-one per cent of Indian farmers are oblivious to the practice of crop insurance. Out of an estimated total of 9.02 crore agricultural households, only around 4.8 per cent had insurance for wheat and paddy and about 8.9 per cent for

gram during the two agricultural seasons between July 2012 and June 2013,” said the report.

### **“ Urgent need to protect waterbodies”**

*Recent scenes of apartments around Chennai floating in water have made people realise the power of nature to assert itself against assault. Madurai, which has successfully broken tank chains by usurping waterbodies for construction of buildings, cannot escape nature’s wrath, though it is located far away from the coast. Hence there is an urgent need to protect the existing waterbodies not only to preserve the groundwater table but also to safeguard future dwellers. Former Executive Engineer of Public Works Department S. Suthanthira Amalraj, who has rich experience in water management, comes up with some practical solutions to preserve waterbodies in a conversation with **S. Annamalai**.*

Recalling how the region got its water supply for irrigation and drinking prior to the construction of Periyar dam (1886-95), Mr. Amalraj says that the once perennial Vaigai was feeding all system tanks. “Even today, there are 374 system tanks up to Ramanathapuram. But most of the tanks in and around Madurai are in disuse.”

The practice then was to create a ‘korambu’ (barrier) across the river to raise its level and allow water to spill over to the nearby tank. When Periyar water was brought eastwards, tanks were added to the new Periyar system in Madurai and Melur. When urbanisation caught up with Madurai, the first victim was the Periyar ayacut – the double-crop area up to Kallandiri.

“The ayacut shrunk with development. When residential plots came up, the links to the tank network were lost. The field channels vanished.” According to him, Madurai experiencing a rainfall similar to the northern districts is remote because of its geographical location.

However, its fragile hydro system will not allow the city to withstand even half of what Cuddalore or Chennai received. Mr. Amalraj warns that the situation will worsen if the existing waterbodies are not protected.

All the channels in the city should be restored to their pre-1992 width.

The cross masonry in these channels, which affect the bed level and flow of water, should be altered to provide uniform gradient.

Though educating people on the need to preserve water sources is required, Mr. Amaraj favours more stringent action against encroachments and acts that kill waterbodies.

“Existing laws to protect waterbodies should be strictly enforced. A classic example is the 2002 eviction drive along the banks of the Vaigai. Eviction and subsequent construction of bund roads have ensured protection for the river. A street near Puttu Thoppu, with houses having power connections, was removed from the Vaigai bed during the eviction drive,” he says.

### **Central team assesses rain damage**



The breaches in Then Pennaiyar were examined on Sunday by a high-level Central team which is here for an assessment of damages due to recent heavy rains in Puducherry:

### **CM seeks permanent solution to fishermen issue**

*Writes to Prime Minister about latest arrest of eight fishermen by Sri Lankan Navy*  
Chief Minister Jayalalithaa on Sunday urged the Central government to bring an end to the repeated attempts of the Sri Lankan Navy to prevent Indian fishermen from exercising their traditional rights in the waters of the Palk Bay by apprehending, arresting and assaulting them.

In the latest incident, eight fishermen who set out in two mechanised boats from Rameswaram in Ramanathapuram district and Jegathapattinam in Pudukkottai district were apprehended by the Sri Lankan Navy in the early hours of Sunday and taken to Kankesanthurai, Sri Lanka, she said in a letter to Prime Minister Narendra Modi. She said the arrests of Indian fishermen continued unabated.

She requested Mr. Modi to proactively initiate an appropriate set of actions that will bring about a permanent solution to this sensitive issue that plagued the livelihood of thousands of Tamil Nadu fishermen and were facing the daily threat of abduction at the hands of the Sri Lankan Navy.

Understanding the plight of the fishermen, her government was implementing various innovative schemes for deep sea fishing and infrastructure. One such scheme was to provide a subsidy of up to Rs.30 lakh for procuring new deep sea fishing boats, aimed at equipping fishermen to expand their deep sea fishing capabilities.

A total of 171 such boats are currently being built, which will directly benefit 581 fishermen families, Ms. Jayalalithaa said .

She pointed out that the Sri Lankan strategy of not releasing the apprehended boats and fishing gear even after releasing the fishermen had severely impaired the means of livelihood of several fishermen families.

She requested the Prime Minister to direct the Ministry of External Affairs to take up the matter with the Sri Lankan authorities in a concrete and decisive manner so as to secure the immediate release of 37 fishermen and 55 fishing boats, including the eight fishermen and two fishing boats apprehended on Sunday.

### **WWF to study Coimbatore ecology**

World Wildlife Fund-India will conduct a study to assess the impact of urbanisation on the district's ecology, said Kiran Rajashekariah, programme lead for the project. He was in Coimbatore on Saturday to participate in the discussion to begin the study.

The study would look at the impact of urbanisation by considering land use changes, demand and extraction of resources, pollution and a few more aspects. The objective of the study was to suggest implementable actions to propose policy interventions to promote urbanisation in line with the principles of green growth.



In conducting the study and recommending solutions, the organisation hoped to work with various stake holders including city administration, education institutions, think tanks and citizens' group. The reason the organisation had chosen Coimbatore was that it was one among the fast developing medium cities and it was close to the ecologically sensitive Western Ghats.

### **Training in use of plastic mulching in vegetables held**

In a bid to augment the market value of horticultural produce through effective weed management, training in the use of plastic mulching in vegetables and flowers was conducted by Krishi Vigyan Kendra, Pappalapatty, recently.

For a district that is predominantly known for the cultivation of flowers and vegetables, weed management is a constant battle for farmers. However, the cost of cultivation of vegetables and flowers is largely inflated by the cost incurred towards weed management. About 60 percent of the cost of cultivation in tuberose cultivation is incurred towards weed management.

According to KVK, quality and market value of the produce has largely been affected by poor weed management techniques. The training focused on integrated weed management in vegetables and flowers, as weed management at present witnessed a heavy dependency on the use of herbicides due to lack of awareness on other management tactics.

Besides, use of plastic mulching for weed management, the training also created awareness on other spill off advantages of plastic mulching, such as water saving, reduced incidence of soil borne diseases, improvement in the quality of the produce, etc.

The Kendra scientists also demonstrated the use of five in one plastic mulch spreader with its application for formation of raised bed, laying of drip laterals, application of basal dose of fertilizers, spreading of mulching sheet and earthing up of the soil. Farmers that had adopted this technology shared their experience on the benefits of plastic mulching.

### **Rs. 2,474 crore credit plan for UT**

The State Level Bankers' Committee which met here on Saturday finalised the Potential Linked Credit Plan for Puducherry. -Photo: Special Arrangement

The National Bank for Agriculture and Rural Development (NABARD) has pegged the credit potential for the Union Territory at Rs. 2474.73 crore, which represents a 26 per cent increase in growth projections for the current fiscal.

The Potential Linked Credit Plan for the FY 2016-17 prepared by NABARD was released at a meeting of the State Level Bankers' Committee (SLBC) here on Saturday.

The priority lending sectors are led by agriculture (44 per cent), MSME (20 per cent), housing (5 per cent) and export credit (4 per cent).

R Mihir Vardhan, Secretary, Agriculture and Tourism released the document by handing over the first copy to Sanjeev Singha, General Manager, Reserve Bank of India , R. Manimaran, General Manager, Indian Bank , S. Parthasarathy, Zonal Manager and convenor, SLBC.

Senior officials from Government Departments and Banks and representatives of banks were present in the meeting.

Commending the efforts taken by NABARD in the preparation of the document, Mr. Mihir Vardhan stressed on the need for increased credit flow aimed at capital formation both in agriculture and MSME sector.

### **Credit flow to dairy sector**

He requested the bankers to increase credit flow to dairy sector as the sector had tremendous scope. The Union Territory did not have sufficient supply of milk and hence the production had to be increased.

According to Sanjeev Singha, the RBI has recently modified the priority sector guidelines. The guidelines also prescribe sub-targets to banks for lending to Small and Marginal Farmers (7 per cent of the net bank credit for 2015-16 and 8 per cent thereafter) as well as Micro enterprises (7 per cent of net bank credit for 2015-16 and 7.5 per cent thereafter).

K Venkateswara Rao, Chief General Manager, NABARD informed that NABARD had already prepared the base plan for the period 2012-13 to 2016-17 co-terminus with the current Five year plan.

He indicated that RBI has issued the revised priority sector guidelines earlier this year and the plan document for 2016-17 has been prepared in lines with revised guidelines.



The plan document has been prepared in consultation with government departments, banks and other stakeholders.

Uma Gurumurthy, District Development Manager, NABARD pointed out that of the total plan outlay of Rs 2474.73 crore, 44 per cent is earmarked for agriculture sector consisting of Farm credit (42 per cent), Agriculture Infrastructure (1 per cent) and Ancillary activities (1 per cent).

Considering the thrust for increasing thrust for MSME sector, 20 per cent has been earmarked. A significant portion of the plan has been allocated for export credit (4 per cent), education (2 per cent) and housing (5 per cent).

R. Manimaran, general manager, Indian Bank, highlighted the successes in implementation of the Pradhan Mantri Jan Dhan Yojana, the Pradhan Mantri Mudra Yojana and other social security schemes.

### **Schoolchildren encouraged to develop nutritional gardens**

igyan Kendra has jointly taken up a project of encouraging school students to develop nutritional gardens on their school premises

Five schools have been identified, to start with, for the implementation of the project and adequate training is imparted to them to set up the gardens, said S. Santhi, Chief Educational Officer.

The programme is implemented in Sri Brahadambal Government Boys' Higher Secondary School in Pudukottai; Government Boys HSS, Alangudi and Keeramangalam; Government Girls HSS in Keeramangalam and Kothamangalam.

### **Fruit-bearing species**

R. Manimekalai, Programme Coordinator, Krishi Vigyan Kendra, Vamban, said that saplings of fruit-bearing species and horticultural crops are being cultivated by the students.

The objective of the programme is to expose the school pupils to the importance of food production and conservation of natural resources, she said.

Experts from the Krishi Vigyan Kendra would visit the schools and keep a follow-up on crop management techniques.

## State swings into action to improve red gram production

*Naidu holds review meeting with agriculture, marketing and civil supplies officials*



A file picture of a farm worker busy in a red gram field in Anantapur district. —

Concerned over rising prices of red gram in the State, the government is coming up with an action plan to improve the production and ensure supply of the commodity at competitive price.

Days after the price of red gram touched Rs.210 a kg, the government swung into action and started supplying it at a subsidized rate of Rs.120 a kg in wholesale and Rs.123 a kg in retail market. In order to prevent a similar situation next year, Chief Minister N. Chandrababu Naidu convened a meeting with officials from Agriculture, Marketing and Civil Supplies departments a few weeks ago to chalk out a plan to ensure supply of pulses at a reasonable rate.

Accordingly, authorities from three departments, after conducting meetings, have decided to increase acreage by encouraging farmers. Factors affecting the production of pulses would also be addressed on a priority basis by conducting meetings regularly.

The acreage in the State in 2010-11 was 6.38 lakh hectares while production was 2.65 lakh tonnes and yield 415 kg per hectare. It fell to 4.48 lakh hectares with a production of 2.43 lakh tonnes and yield of 542 kg per hectare in 2013-14. According to advance estimate in 2014-15, the acreage was 3.71 lakh hectares while production was 1.65 lakh tonnes and yield 445 kg per hectare, officials said. “If our plans fructify, we will implement the action plan from next rabi,” a senior official said, adding seeds would be distributed in sufficient quantity to help farmers grow pulses.

Another issue that officials are considering seriously is maintaining buffer stock in order to release it whenever there is crisis. Officials said while production was 60,000 tonnes in the State consumption was 2.50 lakh tonnes and this gap in the demand and supply was leading to rise in prices of pulses.

State Civil Supplies Corporation MD K. Ramgopal said a proposal was mooted to maintain enough stock of essential commodities. "If there is shortage in market, we can release them as and when required. It will help us in controlling the prices," he said.

According to dal millers, red gram stocks arrive from Tandur and Vikarabad in Ranga Reddy district, Sangareddy, Zaheerabad and Sadasivapet in Medak district, and Suryapet in Nalgonda. Fresh stocks from Krishna and Guntur districts enter the market between February and March and thereafter arrivals from Maharashtra, UP and Karnataka reach the market.

### **Water released from Kariyakovil Dam**

With the Kariyakovil Dam near Attur fast filling up , about 42 cusecs of water was released from the dam as a precautionary measure on Saturday.

The Kariyakovil Dam is situated at the foot of the Karumanthurai hills near Bethanayakkanpalayam. The water in the dam helped in irrigation activities in the surrounding areas.

Following heavy rain on the Karumanthurai hills, the dam has been receiving copious inflow of water for the past few days.

The water level in the dam stood at 51.50 feet against its full level of 52.5 feet.

As a precautionary the entire inflow of 42 cusecs was released from the dam, much to the delight of the farming community. The revenue officials, as a precautionary measure, were monitoring the river banks.

While welcoming the release of water from the dam, the farmers were of the view that this was not adequate enough to meet the demand for farm activities. They demanded the authorities to take steps for releasing water from the dam into River Vasishtanadhi on turn basis and this alone would provide water for agricultural activities in the entire area.

## **Moderate rain in Thanjavur**

There was moderate and widespread rainfall in various parts of Thanjavur district during the day and even the previous night. Areas such as Adirampattinam, Peravoorani, Neivasal Thenpathy, Lower Anicut, and Thanjavur town experienced good rainfall during the period even as regions including Kumbakonam, Thiruvaidaimarudur, Vallam, Manjalaru, Eachanviduthi, Budalur, Madukkur, and Kurungulam received moderate rainfall in the day. Elsewhere the sky remained cloudy and overcast with low hanging clouds threatening to rain any moment.

Mayildathurai in Nagapattinam district recorded 2.2 mm of rainfall during the 24-hour period ending at 8.30 a.m. on Sunday. Thalaignayiru recorded 10.2 mm, Sirkali 4 and Vedaranyam 3 mm during the same period.

## **Mechanised paddy planting system introduced**

d paddy planting system with the aim to help farmers overcome labour shortage. Subsidy

According to a release, the Agriculture Department here helped farmers go in for mechanised planting system by providing Rs. 3,000 a hectare in subsidy.

The mechanised planting system plants only a sapling resulting in better spacing among crops and increased yield.

The total cost the farmers will incur is Rs. 3,700 an acre.

## **Inspection**

Collector Archana Patnaik visited a paddy field in Ramanamudalipudur to inspect the mechanised planting system.

Coimbatore sees paddy cultivation on more than 2,500 hectare.

## **TNAU faculty asked to focus on publishable research**

Faculty of Tamil Nadu Agricultural University (TNAU) were urged to focus on publishable research that is at par with international standards.

Addressing the faculty at a workshop on “Empower your Research with Science Direct and using Scopus as a Research and Publishing Tool”, organised here on Saturday, Vice-Chancellor of the university K. Ramasamy said that publishing research work in the appropriate journals is also important as it not only gives an identity to the individual scientists but also recognition to the university they represent.

Earlier Director of Research M. Maheswaran said that funding organisations such as the UGG, DBD and DST are evaluating the potential of universities and its faculty only through their research publications.

***Publishing research work in appropriate journals is very important as it gives an identity***

### **Mettur level**

The water level rose to 91.36 feet on Sunday against its full level of 120 feet. The storage level of the dam stood at 54.219 tmc against its full capacity of 93.470 tmc. The dam was receiving an inflow of 5,629 cusecs.

About 500 cusecs is discharged from the dam for farm activities in Delta region and another 500 cusecs being released for the farm activities under the dam’s East-West canal system in Salem, Namakkal and Erode districts, the PWD sources said.

### **Convicts take up paddy cultivation on prison land**

Some of the convicts transplanting the paddy nursery on prison land in Tiruchi.

Expanding farming activity on its vast stretch of lands, the Tiruchi Central Prison authorities have gone for paddy cultivation.

Paddy nurseries were planted on two acres of jail lands by engaging convicts recently. Prison authorities said the ADT-39 variety had been planted and the harvest would be done in three months. Ahead of taking up this activity, the land chosen for paddy cultivation was applied with organic manure to enrich the soil.

The existing well in the farm land would be the water source for paddy cultivation, Superintendent of Prisons A. Murugesan said.

A team of 16 convicts had been assigned the job to monitor the crop and ensure periodic water supply to the land.

A good yield was expected from the paddy cultivation, he said and added that rice would be utilised for the prison bazaar run by a group of convicts dishing out a slew of food items.

The prison authorities had brought 65 acres of jail lands abutting the sprawling Central Prison premises into productive use by raising various crops.

Around 60 convicts were engaged in farming activities and wages being paid to them for embarking in the productive vocation, Mr. Murugesan said.

Coconut, banana, mango, jackfruit, sugarcane, and lemon besides a host of vegetables were raised on jail lands at present.

Mr. Murugesan said plans were afoot to go in for beekeeping and country chicken farming in the near future.

### **Corporation to seek administrative approval of modern fish market**

*A resolution adopted for additional allocation of Rs. 1.32 crore for it*

The Tiruchirapalli City Corporation will soon seek administrative and technical approvals from the Commissioner of Municipal Administration for building a modern fish market complex in the city.

The corporation, at its recent meeting, approved a resolution for making an additional allocation of Rs. 1.32 crore in its next year's budget for the construction of the market. The project would entail an investment of Rs. 3.32 crore.

The civic body, a few years ago, had proposed the construction of complex on a 2.5-acre site at Kasivilangi along the Kuzhamani Road in the city. The corporation had sought the expertise of the Kerala State Coastal Area Development Corporation Limited for the construction of the market complex. The Kerala agency had since submitted a project report.

The civic body had initially planned to get subsidy from the National Fisheries Development Corporation for the project and had hoped to get about 90 per cent of the project cost as subsidy.

However, the Fisheries Development Corporation had stated that it would extend only 40 per cent of the project cost or a maximum of Rs. 1 crore as subsidy.



Consequent to this, the civic body had planned to execute the project with State grants or from its own funds.

The corporation had allocated Rs. 1 crore for the project and has now resolved to make the additional allotment in its budget for 2015-16.

The state-of-the-art market complex was planned as the existing fish market, part of Puthur market, is currently functioning in the congested locality of Renganathapuram area.

In the absence of adequate space for parking heavy and light vehicles loading and unloading fish at the market, they were parked on a road abutting the southern side of the market, causing congestion. With the locality being a residential area surrounded by hospitals, residents were facing hardship.

The civic body proposes to shift the wholesale section of the fish market to the new facility to be built at Kasivilangi.

The new market would have shops for wholesale and retail traders, cold storage, fish processing area, and an effluent treatment plant.

### **Maize farmers expect bumper harvest**



After reeling under successive droughts for the last few years, particularly in the northern region of Tiruchi and neighbouring Ariyalur district, farmers are confident of a bumper harvest of maize following copious rain from northeast monsoon.

Unlike paddy raised in some parts of Tiruchi, which has promised irrigation from the Cauvery, maize cultivation mainly depends on seasonal rainfall.

Farmers in Pullampadi, Mannachanallur, Thuraiyur, Uppiliyapuram, Musiri and Thottiam have brought 15,500 hectares of land under maize cultivation.

Maize had been raised on more than 15,800 hectares in Ariyalur district.

Farmers feel that the rain has raised the hope of getting a bumper harvest this time. The crop, which is at flowering stage, looks healthy in most parts of these two districts. Farmers have now begun the process of applying fertilizer to stem the growth.

“We have received rain at the right time. The crop is healthy than last year. There is no symptom of disease to the crop so far,” says C. Pichai Pillai of Koulpalayam near Ariyalur.

He says the crop will come to harvest in the last week of December or the first week of January. There are chances of a few more rainy days in the next two or three weeks. If the present trend continues, chances are bright for a good harvest.

R. Chandrasekaran, Joint Director of Agriculture, Tiruchi, says as against the target of 12,000 hectares of land, maize has been raised on 15,500 acres. Field reports suggest that the farmers will get more than two tonnes per acre.

*A good monsoon has helped the crop in a big way*

### **Women SHGs bring cheer to farmers**

Empowered by disciplined thrift activity for close to two decades now, a group of women members of SHGs is entering male dominated domain of marketing agriculture produce.





### Budding entrepreneurs



Animal husbandry is one crucial aspect providing additional income to the farmers in Mahabubnagar district

In production of groundnut, castor, jowar and bajra, the district tops in Telangana. Cotton, maize and red gram too are major crops. But, unfortunately some farmers are unable to reap any benefits and are forced to depend on middlemen to transport their produce to places outside the city for processing, packaging and marketing.

Even while welcoming the big industrialists to invest in a district having the advantage of a smooth transport link to the capital, the administration has begun to encourage Self-Help Groups (SHGs) to get into entrepreneurial mode. In fact, one group was nudged to use the accumulated money to invest in small red gram mill for processing.

“We do not have a single mill. Our SHGs with six lakh members have an accumulated fund of Rs.380 crore in the entire district. We are hoping to get the mill running before the next crop, of course we will be holding their hand till they start thinking business like,” says District Collector T.K. Sreedevi.

The SHG is investing Rs.1 lakh in setting up a small red gram mill which will not only fetch the members’ sizeable income but also help the farmers in the vicinity in saving transport costs and subsequent better income. A couple of entrepreneurs had also evinced interest in setting up Rs. 5 lakh mills too of higher capacity. Red gram is grown mostly in Kodangal mandal and the hope is that farmers need not take their produce or sell to the middlemen since the dependent mill now is in Tandur of Ranga Reddy district. Interestingly, it is sold as Tandoor red gram dal in the markets!

Animal husbandry is another crucial aspect providing additional income to the farmers. Apparently, the number of sheep and goat surpass the humans by four lakh – 49 lakh and 45 lakh, respectively. While the quality of meat is lauded, the district lacks a single slaughter house or an abattoir.

Similarly, 12 lakh milch animals produce 6.75 lakh litres of milk a day but the State owned Vijaya diary capacity is just 1.5 lakh litres with the rest going to private diaries. With good management practices the procurement can be increased by two lakh litres. “We have the paradox of malnourished children with no milk and sufficient milk being produced with no milk chilling units,” rues an official. With deficit monsoon this year and no sign of rains in the horizon, the administration is encouraging small duration crops like millets. To tide over the likely water shortage, the existing borewells are to be deepened further and arrangements are being made to transport water to 150 habitations.

“We are not going to go for new borewells, rather the effort would be to improve the existing ones and also take agriculture wells on lease. We have identified 170 such wells and formulated an action plan till the next monsoon,” explained Dr. Sreedevi. A total of Rs.16 crore is to be spent on the purpose. Plan is to be providing 1,420 habitations with protected drinking water from Jurala project and backwaters of Srisailam project within six months.

## Missing dissolved organic carbon in oceans riddle solved

### *Dissolved organic carbon gets destroyed in hydrothermal vents*

Scientists have finally solved the riddle of where the most ancient dissolved organic carbon in our deep oceans, which is not in high enough quantity, ends up after millennia in solution in seawater. The carbon is being destroyed by the high temperatures and pressures prevalent in ocean-bottom hydrothermal vents, suggests a new study published recently in *Nature Geoscience*.

This finding comes from field observations at various vent sites around the world and laboratory experiments which reproduced the environment (temperature, pressure) found in the deep sea vents. The low concentrations of the organic carbon in vent environments suggests that the carbon, which is present in the form of organic compounds, is lost from solution either through mineralisation or deposition during circulation through the vents where the fluid temperatures reach 212-401 degree C.

There are two types of dissolved organic carbon (DOC) — hydrophobic and hydrophilic. Hydrophobic DOC does not react with the seawater in which it is dissolved and is easily extracted in its solid form while the hydrophilic DOC is non-extractable.

In laboratory experiments, where samples were heated to 380 degrees C for four days, the results were similar indicating that thermal degradation alone can account for almost all loss of solid-phase extractable DOC in natural hydrothermal systems and its maximum lifetime is limited to about 40 million years — the time it takes for the entire global oceans' water to flow through hydrothermal vents.

“Almost all extractable dissolved organic carbon (SPE-DOC) is destroyed, that means that SPE-DOC cannot be older than the hydrothermal timescale,” Dr. Jeff Hawkes, the lead author from Uppsala University, Sweden said in an email to this Correspondent. However, he points out that there are uncertainties in deriving the value of the hydrothermal flux.

Another important finding of the study was that microbes present in the extreme environments of hydrothermal vents played a role in the removal of the solid phase extractable dissolved organic carbon. The microbes consumed the organic carbon compounds as they were labile — meaning that they could be easily metabolised by the microbes.

The dominant dissolved organic carbon production results from the reduction of inorganic carbon and leaching of previously buried organic carbon as particles in sediments.

In the lab, organic acids (formic acid, acetic acid) and amino acids (aspartic acid, glutamic acid) were all non-extractable, probably as a result of their having insufficient hydrophobic groups. But they are all labile and easily removed by microbes in the vents.

### **‘Climate change is changing landscape of Ladakh’**



*“The snowfall has come down significantly in the last couple of decades and the glacier is melting at a higher rate putting the lives of farmers at risk,” says ‘glacier man’ Chewang Norphel.*

Even as global nations continue negotiations to arrive at a consensus for a global agreement to tackle climate change ahead of the Conference of Parties (COP21) summit in Paris, nowhere are the effects more visible than the mountainous region of Ladakh in Jammu & Kashmir.

“Climate change is changing the landscape of Ladakh. The snowfall has come down significantly in the last couple of decades and the glacier is melting at a higher rate putting the lives of farmers here at risk,” said [Chewang Norphel](#) called



the glacier man for creating artificial glaciers in Ladakh to tide over the water shortage for irrigation told *The Hindu*.

The excessive glacier melt is resulting in floods putting the lives of 80 per cent of farmers in the region at risk as glaciers are the primary source of water, Mr. Norphel added. This has affected agriculture in Leh and effected crop patters. In fact that was the primary reason Mr. Norphel came up with the idea of artificial glaciers to tide over the water crisis for irrigation.

The effects of climate change are also very much evident on the Siachen glacier — the world’s highest battlefield. The snout of Siachen — the starting point of the glacier — at the Base Camp has receded by about a kilometre since 2005. A board stating this at the snout bears testimony to the accelerating pace of human induced climate change. Climate change has also altered weather patterns causing unseasonal rains and increasing the risk of avalanches.

However there is no scientific data to indicate the extent of climate change in this region. The Snow and Avalanche Study Establishment (SASE), an institute under the Defence Research and Development Organisation (DRDO) has recently initiated “Him-Parivarthan”, a project to assess the extent of the glacier melt.

Officials at SASE said that under this project four sites have been identified on the glacier based on the data of the last twenty years and will be monitored over the next two years to understand the climate change on the glacier.

# DECCAN Chronicle

## Health education to control dengue



**Chennai:** Stung by criticism of its handling of dengue and other vector-borne diseases, the Chennai corporation has responded by setting up a health education wing to create increased awareness among the public.

During last week's council meet, the corporation adopted a resolution and promoted a sanitary officer to head the wing. The post of health education officer was created following a Municipal Administration and Water Supply department Government Order dated November 5.

The officer, T.G. Srinivasan, will work from the Ripon Buildings and will report to the city health officer. Srinivasan holds a doctorate in social science and public health from the University of Madras.

“Earlier, the responsibility of educating and creating awareness was an additional burden on sanitary and zonal health officers,” a senior official noted. Resident welfare associations, schools and colleges can now look forward to working closely with the local body.

Officials said that the priority will be to start from areas which had the highest instances of communicable and vector-borne diseases. “The success of the project depends on public cooperation,” said a health officer.

Recalling how field workers faced problems when trying to sanitise areas inhabited by affluent communities, the official said that this sort of an outreach programme will sensitise home-owners on the seriousness of taking preventive steps.

On the academic material that the wing would utilise to educate students, officials said that a decision has not been made as the wing is yet to start functioning. “We will have different material to educate different categories of the society that we are trying to reach out to,” an official added.

### **Amaravathi, Periyar dams to open today**

**Chennai:** Chief Minister Jayalalithaa ordered the opening of Periyar and Amaravathi dams for irrigation use in Theni, Tirupur and Karur districts from tomorrow. In an official release here, she said she has ordered release of water from Periyar dam for irrigation of single crop lands under the P T R and Thanthai Periyar channels in Cumbum Valley in Theni District, benefitting 5,146 acres.



Similarly, she has ordered opening of Amaravathi dam which would irrigate 54,637 acres in Tirupur and Karur districts under the new and old ayacut areas.

### Research into monsoon riddle



**Chennai:** A crucial research project is underway in the upper Nilgiris region in the Western Ghats which may pave the way for better understanding of the dynamics of the North East Monsoon (NEM) and foresee extreme precipitation events.

The Union ministry of earth sciences and the UK-based natural environment research council (NERC) have undertaken a programme titled “Hydrologic and Carbon Services in Western Ghats” looking to quantify changes in the Indian

monsoons, especially the Northeast, in consultation with scientists from Indian Institute of Tropical Meteorology, Pune.

Speaking to DC, Dr Jagdish Krishnaswamy, convener and senior fellow at the Suri Sehgal centre for biodiversity and conservation, Ashoka trust for reserch in ecology and the environment (ATREE), said most of the studies on the monsoon have been on the Southwest monsoon and not enough is known about Northeast Monsoon.

“We have chosen Nilgiris for the strategic advantage. Some of the sites in upper Nilgiris basin receive rainfall from both southwest and north east monsoons. We are analysing historically which sites have been receiving how much rainfall from a particular monsoon and the occurrence of extreme rainfall events. We are also trying to find out if there is any spatial shift or pattern to it over a period of a few decades. This information will help the meteorologists forecast the monsoon better”.

He said one of the peculiar things that past studies have found is El Nino and Indian Ocean Dipole (IOD) have one kind of effect on Southeast monsoon and the opposite effect on the Northeast. “So, we should in future figure out how to predict Northeast monsoon better, taking information from Southeast monsoon. This is something meteorologists and climatologist should also be researching on. The fact that you have one depression after another this year causing havoc in TN, it is important is figure out whether such events are going to happen more frequently”.

Recent studies on climate change impacts on rainfall in India show that the Western Ghats have faced an increase in the number of extreme rainfall events in the past few decades, said ecologist Dr R.S. Bhalla, who is also part of the leading squad, said.



## Rains likely in Tamil Nadu, low pressure area in next 24 hours



Moderate to rather heavy rains are likely at many places over all districts of coastal Tamil Nadu and Puducherry tomorrow as a low pressure area would form over Southwest Bay and adjoining southeast Bay of Bengal .

"A low pressure area would form over Southwest bay and adjoining Southeast bay during the next 24 hours," Director, Area Cyclone Warning Centre, Regional Meteorological Department, S R Ramanan told PTI.

Yesterday's low trough at mean sea level over southwest bay and neighbourhood now lies over southwest bay and adjoining Sri Lanka coast, he said. Another low trough lies over Southeast bay and adjoining South Andaman seas and under the influence, a low pressure area would form during the next 24 hours, he said. Moderate to rather heavy rain is likely to occur at many places over all the districts of coastal Tamil Nadu and Puducherry tomorrow, he said.

A MET bulletin said Dharmapuri recorded the lowest minimum temperature of 19 degree Celsius in the plains of Tamil Nadu. Also, there were scattered rains in the state.

Bhoothapandy (Kanyakumari District) and Papanasam (Tirunelveli District) recorded four cm and three cm of rain respectively. Parts of Kancheepuram, and Tiruvallur districts received between one to two cm.

## Tamil Nadu CM orders opening of dams for irrigation



Tamil Nadu Chief Minister Jayalalithaa today ordered opening of Periyar and Amaravathi dams for irrigation use in Theni, Tirupur and Karur districts from tomorrow.

In an official release here, she said she has ordered release of water from Periyar dam for irrigation of single crop lands under the P T R and Thanthai Periyar channels in Cumbum Valley in Theni District, benefitting 5,146 acres.

Similarly, she has ordered opening of Amaravathi dam which would irrigate 54,637 acres in Tirupur and Karur districts under the new and old ayacut areas.

### **Sugar-free drinks are equally bad for teeth, warn dentists**

The cocktail of chemicals and acids in sugar-free food and drinks can have the same impact, wearing away at the teeth, researchers found.



A majority of soft drinks and sports drinks cause softening of the dental enamel by 30-50%. (Source: Thinkstock Images)

If you have switched to sugar-free drinks to avoid tooth decay, don't think that you've got rid of the problem. Even sugar-free drinks and foods may kick-off tooth decay, dentists have warned.

Researchers from University of Melbourne tested 23 different types of drinks, including soft drinks and sports drinks, and found drinks that contain acidic

additives and those with low pH levels cause measurable damage to dental enamel, even if the drink is sugar-free, Daily Mail reported.

The cocktail of chemicals and acids in sugar-free food and drinks can have the same impact, wearing away at the teeth, researchers from University of Melbourne said. “Many people are not aware that while reducing your sugar intake doesn’t reduce your risk of dental decay. The chemical mix of acids in some foods and drinks can cause the equally damaging condition of dental erosion,” lead researcher Eric Reynolds was quoted as saying.

Dental erosion occurs when acid dissolves the hard tissues of the tooth. In its early stages, erosion strips away the surface layers of tooth enamel. Researchers measured dental enamel softening and tooth surface loss following exposure to a range of drinks. They found that the majority of soft drinks and sports drinks caused softening of dental enamel by 30 per cent to 50 per cent.

Both sugar-containing and sugar-free soft drinks (including flavoured mineral waters) produced measurable loss of the tooth surface, with no significant difference between the two groups of drinks, the study found. “We have even found sugar-free confectionery products that are labelled ‘tooth-friendly’ and which when tested were found to be erosive,” Reynolds said.

## Now, treat diabetes complications with these food items



These food items are known for their antioxidant and anti-inflammatory effects and can provide protection from cardiovascular diseases and high blood pressure. (Source: Thinkstock)

Cocoa and green tea contain substances that may help prevent and treat kidney complications and retinal lesions caused by diabetes, according to scientists at Brazil's Campinas State University.

The findings are from a study supported by the Sao Paulo State Research Support Foundation.

Jose Butori Lopes de Faria, coordinator of the study, said the project “proved, in a rigorous way”, that cacao and green tea reduce the death of podocytes, the cells that restrict the transfer of proteins to urine.

“The transfer of albumin to urine is the main renal disorder in a patient with diabetes,” the scientist said.



The beneficial effects of cocoa and green tea were attributed to the presence of polyphenols, although, in the case of cocoa, researchers found that it contains other substances that might help treat the effects of diabetes.

One of them is theobromine, an alkaloid that activates the nervous system.

(Also read: [Quick tips: Here's what you need to eat to cut down your diabetes risk](#))

Theobromine's possible benefits in the treatment of diabetes "had never been described before in specialized literature," ophthalmologist Jacqueline Mendonca Lopes de Faria said.

The study was conducted on rodents with induced diabetes and on cells from rodent and human tissues exposed to high concentrations of glucose to simulate diabetes.

Green tea and cocoa are known for their antioxidant and anti-inflammatory effects and, while tea might provide protection from cardiovascular diseases, cocoa lowers systolic blood pressure.

# hindustantimes

**Beat the cold: Eat right to boost immunity this winter**



If there is one thing you can count on this winter is to bump into someone who is coughing, sneezing, and wheezing unpleasantly with sore red eyes. Unless you plan to lock yourself in your house, there is no way you can avoid contact with them. But if you are thinking that there is no way out for you from this, think again. Avoid getting sick by eating right and boosting your immune system.

### **Nuts**

There is always a difference of temperature outside the house and inside it, and if the internal temperature of the body is not warm enough, you are always prone to getting a fever. Nuts like almonds, walnuts and pistachios provide immunity against fever by keeping your internal body temperature warm and regulated.

### **Artichoke**



74

**The recommended way to have artichokes is to cut off all the chokes before cooking. (Shutterstock)**

Vitamin D is very important for the body. It is important to maintain your bone density, which plays an important role in boosting the immune system. Artichoke is the ideal source for Vitamin D. The recommended way to have artichokes is to cut off all of the chokes before cooking. Opt for artichokes which are tightly closed. Steamed artichokes topped with butter and lemon tastes great.

### **Cauliflower**



**Like nuts, cauliflowers too guard your system against flu and cold during winters. (Shutterstock)**

If you want a strong immune system to fight off the flu and the cold during winters, then include cauliflower in your diet. It's anti-inflammatory in nature and rich in antioxidants. The key ingredient to fight the flu and cold is Vitamin C, which cauliflower contains in plenty. Go for cabbage which is tightly packed with no brown spots. Cauliflower soup is the ideal healthy meal for a cold day.

### **Honey**



**One spoon of honey daily is all you need to avoid a sore throat and a horrible cough. (Shutterstock)**

The best way for you to avoid having a sore throat and a horrible cough is honey. Honey soothes the throat and has antimicrobial properties that power your immunity system. One spoon a day of honey is all you need. It also acts as a cleansing agent for your stomach and also boosts your digestive immunity. Start your mornings by mixing honey in warm water on an empty stomach to kick start your day.



## **Cabbage**



**Cabbages improves our skin's immunity against dryness and acnes during winters. (Shutterstock)**

Cabbage is freshly grown in winters and the nutrients in the vegetable are important for the body in the cold season. Cabbage improves the skin immunity against dryness and acne during winters. The high content of sulphur in cabbage increases the production of white blood cells in the body. Choose a tight cabbage that has firm heads with no broken or bruised leaves. Include cabbage in your salad.

## **Yoghurt**

**Yoghurt boosts immunity against acidity, indigestion and infections. (Shutterstock)**

Yes, you heard it right — yoghurt in winters! Due to the cold outside our digestive system is more prone to indigestion, acidity and microbial infection. Yoghurt boosts immunity against acidity, indigestion and infections by providing healthy bacteria for your gut and the intestinal tract to function properly. Add cinnamon to your yoghurt to add a bit of flavour or make a fruit bowl and mix it with yoghurt.

## **Spinach**



**Spinach helps in increasing the count of red blood cells in the body. (Shutterstock)**

Smogs during winters can lead to respiratory problems. To boost your immunity against such problems include spinach in your diet. It increases the count of red blood cells in the body which are responsible for carrying oxygen to and fro from the lungs to the body. The recommended daily dose is 15 mg for women, 9 mg for men and 2-9 mg for children. Excessive iron can damage your organs, so, don't go overboard.



# THE TIMES OF INDIA

## **Showers to intensify tomorrow: Met office**

CHENNAI: The city is still smarting from the previous spell of rain and the next one is here after a week's gap, the Met office said on Sunday.

For close to a week, residents have been anxiously looking at the sky after a prediction of more rainfall this weekend.

There was only isolated rainfall on Saturday, however, and on Sunday, Nungambakkam recorded 1.6mm of rainfall and Meenambakkam, 4.9mm, far less than the three-figure number the rain gauges hit last week.

"Several parts of coastal Tamil Nadu, including Chennai, are likely to have generally cloudy skies over the next two days with very heavy spells of rain in some areas," said an official with the regional meteorological department.

The Met office has attributed the incoming rain spell to a trough of low pressure close to the Andamans. Weather experts and bloggers say the showers set in again on Sunday night and will intensify by Monday night, lasting till Wednesday.

The northeast monsoon accounts for as much as 48% of Tamil Nadu's annual rain, with coastal areas, including Chennai, receiving about 60% of their annual rain during this season. This year, Chennai recorded 114cm since October, with November accounting for 102.4cm.

### **Jayalalithaa orders release of water from Mullaperiyar, Amaravathi dams**



CHENNAI: Chief minister J Jayalalithaa on Sunday ordered release of water from Mullaperiyar and Amaravathi dams for the benefit of farmers in Theni, Karur and Tirupur districts.

"Following demands of farmers in Theni district, I have ordered release of water from the Mullaperiyar dam from November 30. More than 5,146 acres will benefit due to this," said chief minister in a statement.

Similarly, following demands from the farmers of Karur and Tirupur districts, the chief minister ordered release of water from the Amaravathy dam.

"Water will be released from the Amaravathi dam for the benefit of farmers in Karur and Tirupur districts. More than 54,637 acres of land in new and old ayacuts will benefit from it," said Jayalalithaa in a statement.

Water was released from the Vaigai dam on Saturday to irrigate 2.59 lakh acres of land in Theni, Madurai, Dindigul, Sivaganga and Ramanathapuram districts.



### **ISRO chief: Climate change a great challenge**

---

Climate change is a major issue which is impacting environment and economy and is a great challenge facing the world, ISRO chairman A S Kiran Kumar said today. "Climate change is no longer a scientific curiosity but a great challenge facing us as an environmental issue impacting economy, livelihood, health safety, agriculture, food production and many other dimensions," Kumar said at the second convocation of Assam Kaziranga University here.

Shifting weather patterns threaten food production through increased unpredictability of precipitation, rising sea levels, contaminated coastal fresh water and reserves, and increase the risk of catastrophic flooding and a warming atmosphere, the space scientist said.

The north-eastern region is prone to natural disasters like flood, landslide, thunderstorm, drought and forest fire, he said.

In order to improve weather forecast services, including flood forecast and thunderstorms, ISRO's North Eastern Space Application Centre at Shillong has developed innovative techniques under its Flood Early Warning System project involving the regional climate modelling centre, Guwahati.

The scope of this project has been extended to flood-prone areas in the north-eastern states and it has proved very helpful in managing floods in Assam.

Kaziranga University conferred honorary doctorate degrees to the ISRO chairman and sarod maestro Ustad Amjad Ali Khan.

# THE HINDU BusinessLine

**'There's a mad rush to fund renewable energy projects'**



The total spending on infrastructure projects has gone up 21 per cent for the six months ending September, says YM Deosthalee, L&T Finance Holdings



While there are hardly any big-ticket projects in sectors such as ports and power, there is a lot of lending activity in renewable energy, transmission projects and road projects (to some extent), according to YM Deosthalee, Chairman and Managing Director of L&T Finance Holdings. He believes that government spending is key to revival in economic activity. Excerpts:

**In the last 6-8 months, the Centre has been announcing various policy reforms in the infrastructure space. How are things at the ground level?**

At the ground level, there is some visible pick-up, but it is not broad-based. Let us first look at some macro numbers. Oil demand for the month of October has grown 17 per cent over last year, which is the highest growth in the last 11 years. This is a reflection of growth in the transport and industrial sectors.

The other indicator is bitumen sales, which grew 54 per cent, indicating that there is some pick-up in road construction, where bitumen is mainly used. Power consumption, which was lagging behind, has also started to pick up pace in line with the improved production of coal. It was growing at sub-5 per cent earlier but has now started to grow at 10 per cent.

If we look at the order book for infrastructure players — road construction and transmission business — there is some revival there too. The construction order books of road developers are growing steadily with two-years-plus revenue visibility. This has happened on the back of increased tendering and awarding activity.

If one goes by the statistics of projects awarded in 2015, we see a lot of traction in roads, power distribution, water supply, pipelines and irrigation projects. Some of this is driven by the States while some are driven by the Centre. For instance, water supply and irrigation are largely driven by the States.

Lastly, if one were to look at the total spending on infrastructure projects, it has gone up 21 per cent for the six months ending September. Putting numbers to this growth, contracts worth Rs. 1.65 lakh crore have been awarded. And more importantly, tenders worth Rs. 2.68 lakh crore were floated, an increase of over 50 per cent.

So, if we look at the value of tenders, more projects are likely to be awarded in the next six months. Hence, if we look at all these figures, it indicates that things are indeed improving at the ground level.



## **So, has there been an increase in lending opportunities as well?**

Despite some signs of revival, lending opportunities are still limited and have a long way to go before picking up. For instance, most of the projects that have been awarded have been on EPC (engineering, procurement, construction) basis and therefore, the scope for financing is limited as these will be executed by the NHAI, Indian Railways or State Governments.

Nevertheless we can see financing activity in three areas.

First is the renewable energy space. There is a mad rush to finance projects in this space. Every other lender wants to fund renewable energy projects. But this is a specialised sector that requires the requisite appraisal skills and understanding of risks. Fortunately for us, L&T Infra Finance has created competencies in this space three years ago and we continue to be a major player when compared with other NBFCs and banks.

Lenders are keen to expand in this segment as the Centre is giving top priority to this segment and also this is one area where there are significant opportunities to lend.

The second lending opportunity is in power transmission projects. This is because distribution and transmission lagged behind the tremendous growth in generation capacity over the last few years.

Lastly, there is some activity in road projects, but there is typically a lag between bidding and project implementation. Many of the road projects that have been awarded are yet to reach financial closure. Once that happens there can be increased activity in road projects.

But there are hardly any big-ticket projects in sectors such as ports, airports and power for now.

## **What is the scope for refinancing of projects? Are Infrastructure Debt Funds (IDFs), which were conceived to provide an additional funding route for infra projects, on track?**

Most of the recent lending activity is on account of refinancing of existing projects. There are lenders who have funded infrastructure projects in the initial phase. Once these projects become operational, their risk profile changes and a lender can refinance the project at much better terms.

Entities that have promoted IDFs like ours have a lot of potential in refinancing infrastructure projects. Typically, IDFs are AAA rated and also tax-free entities. Hence, the cost of borrowing is low, allowing them to lend at more competitive rates when compared to other infrastructure sector lenders.

Earlier, NBFC-IDFs were only allowed to invest in infrastructure projects that were developed through public private partnership (PPP) with a project authority and a tripartite agreement. This largely limited the scope of IDF funding to

sectors, such as roads and ports. The RBI has now allowed funding of projects in the PPP segment without a tripartite agreement. This enables IDFs to fund renewable energy projects in addition to the sectors covered earlier. This increases the potential to refinance projects, particularly for entities like ours, which has funded all types of infrastructure projects in the past through L&T Infra Finance. These projects, in addition to projects financed by other lenders, can be refinanced through the IDF.

**Only de-leveraging of private sector developers can kick-start big-bang projects. But many highly leveraged companies are selling their core assets, which will only hurt earnings. What is the way forward?**

These companies were caught in a difficult situation because of project delays due to problems in land acquisition, environmental clearances and inability to raise equity. This, coupled with the slowdown in the economy, has affected cash flows of private sector developers.

So, first, the overall activity in the economy needs to pick up to improve the cash flows of these companies. Second, while these companies need to de-leverage, they must be careful not to sell their core assets out of desperation, because this will only hurt their earnings in the long run.

Infrastructure projects have long gestation periods. Hence, restructuring these projects under the 5:25 route can help, to some extent. A combination of re-adjustment of repayment schedules of projects, pick-up in economic activity and selective asset sale can help in reviving these companies.

**So, what can revive economic activity?**

The most important driver for investment activity is government spending, which is already happening. The results of this will be visible in the second half of this year. Given the erratic monsoons and the limited spending capacity of the private sector, it is critical for the government to generate demand through productive spending.

That said, the private sector does have some capacity to bid for new projects as well, provided the risks are well apportioned.

Along with this there is scope for foreign direct investment in the infrastructure sector.

Since the government seems to be working towards improving the PPP framework and proactively seeking FDI in infrastructure development, we should see economic activity reviving in the next one year.

## **The government recently came out with a relief package for discoms. Will it help revive the power sector?**

It is a comprehensive package and, if well-implemented, will certainly help lessen the burden of the lenders and the discoms.

For the package to succeed, discoms will be required to rationalise tariffs by increasing rates and minimising cross-subsidisation; direct transfer of subsidies to sensitive segments, such as agriculture can be considered by State Governments over the current model of cross-subsidisation.

Discoms would also be required to improve operational efficiency through measures like electronic metering and minimising transmission & distribution losses.

Proper implementation will require a disciplined approach on the part of the respective State Governments and discoms.

## **Alltech Innovation contest to boost agri-business**

It's a competition that intends to bring out the best ideas in agri-business and allied fields. The contestant will be from seven universities. The prizes worth a couple of lakhs are up for grabs.

To be held at the University of Agricultural Sciences, Bengaluru, the event is being sponsored by Alltech, a global company involved in the products related to human and animal nutrition.

This is the first time the Alltech Innovation competition is being held in India. Earlier, it was hosted in Dunboyne, Ireland and Kentucky, US. The objective is to motivate students with ideas to take them forward to successes in the food and agricultural industries, says a press release.

The seven finalists from all-over India competing will be the Indian Institute of Management, Ahmedabad, Indian Institute of Management, Lucknow, University of Agricultural Sciences, Bangalore, Institute of Rural Management Anand, Gujarat, Tamil Nadu Agricultural University, Coimbatore, Indian Institute of Plantation Management, Bangalore & University of Agricultural and Horticultural Sciences, Shivamogga.

The competing students from the universities will unveil their innovative business plans that could help boost the economic potential of the food and agricultural industries.