

## Systematic approach to in-situ water harvesting assures irrigation

M. J. PRABU



Special Arrangement About six inches distance from the sapling a plastic pipe is buried and small pebbles are put into it. Photo: Special Arrangement

### TOPICS

#### Agriculture

*During summer, the field is ploughed and furrows (one foot depth) are made. When it rains the water stays back in each of the furrows and sinks into the soil.* Fast changing climatic pattern, untimely rains and prolonged dry spells are creating problems for agriculture. "While not much change in the total annual rainfall is noticed across the country, the distribution becomes the problem, with more heavy rainy days and prolonged dry spells in several places. Rain water harvesting at the farm level is one of the best solutions today as crops need only soil moisture and not water for growth. An integrated approach for this will help rain-fed farmers to save their crops," says Dr. G. V. Ramanjaneyulu, Executive Director, Centre for Sustainable Agriculture (CSA) Secunderabad, Andhra Pradesh.

#### **Good model**

It would do well for other farmers across the country to try and replicate the rainwater harvesting model of a small farmer, Mr. Subash Sharma from Yavatmal district, Maharashtra. Mr. Sharma has integrated several approaches to harvest most of the rain received on his farm. One of them is increasing the soil organic matter. The crop residue is converted into a compost called 'Ko sanjeevani.' It is made using one tonne of cow dung, half a tonne of tank silt, 50 kg oil cake and 25 kg jaggery solution composted for a month. This can be applied for two hectares and can limit moisture evaporation to about 30 per cent. During summer, the field is ploughed and furrows (one foot depth) are made. When it rains the water stays back in each of the furrows and sinks into the soil. If there is heavy downpour the furrows are opened for the excess water to flow towards the lower end of the farm where a channel is dug to facilitate it to run into a trench. Any overflow from the trench leads to a farm pond. For every hectare the farmer has dug a small farm pond

## **Cropping system**

In addition to managing water and soil, appropriate cropping systems with shallow and deep root systems are important to use the available soil moisture judiciously. During previous season in the farm redgram and soybean were grown. Other cropping systems tried were red gram and bhendi, red gram and sesame. In case of delayed rains short duration crops like bajra, mung, or leafy vegetables like palak and mung were grown. Fruit trees are also grown on the farm or bunds to help reduce wind speed and provide dry leaf for biomass.

## **Spacing**

Lemon or citrus plants with 6 mt x 6 mt spacing or seethaphal with 4mt x 4 mt spacing between each plant is ideal for dry lands and space in between can be used for intercropping with annual food crops, according to Mr. Sharma. But the major problem is in planting and rearing the trees during the initial stages, especially for the first 2-3 years. A simple approach evolved by the farmer can help establish a tree to grow well using just 180 litres of water a year. About six inches distance from the sapling a plastic pipe of one foot length and three inches diameter is buried. Small pebbles are put into it and later the pipe is removed. When water is poured here (on the pebbles) it goes directly to the root zone and help the saplings to survive. About two litres of water once every four days for two years will help the saplings to establish themselves and later the in situ water harvesting is sufficient for the trees to survive and give sustainable incomes.

## **Study**

“In a study by CSA we have found that when it rains, for every one centimetre of rain received, over a hectare of land it amounts to about 1,00,000 litres of rainwater. Due to temperature and other factors the evaporation could be about 30 per cent which means about 70,000 litres of water would be available. If we can have an effective mechanism for harvesting 80 per cent of it (which comes to about 56,000 lit) even in areas with 500 mm rainfall (driest districts like Jodhpur and Anantapur) rain water can be effectively harvested per hectare which is sufficient to save a single crop of the farmers,” says Dr. Ramanjaneyulu. For further information interested farmers can contact Mr. Subash Sharma, Choti Gujjiri Mohalla, Yavatmal dist. Farm is in Tiwasa village, Yavatmal district. Mobile no. 09422869620 and Dr. G. V. Ramanjaneyulu, Executive Director, Centre for Sustainable Agriculture, 12-13-445, Street no-1, Tarnaka Secunderabad-500 017, ph. 09000699702, email: ramoo.csa@gmail.com

Keywords: Farmer's notebook, water harvesting, rainwater harvesting model, sustainable farming practices

## **Leaf eating caterpillar menace in greengram**

D. N. KAMBREKAR

A. P. BIRADAR

Agriculture

*All the larval instars feed on the green foliage and defoliate greengram completely and cause more than 50 per cent crop damage.* Among all pulse crops greengram is frequently grown as short duration crop in kharif followed by rabi crops like jowar, wheat, bengalgram and safflower. It is quite a hardy crop grown on residual moisture. It is drought resistant and suitable for dry land farming. The crop plays an important role in sustaining soil fertility by improving soil physical properties and fixing atmospheric nitrogen.

### **Low yield**

The low yield of greengram in our country may be attributed to a wide variety of factors, among which the ravage of insect pest is paramount. A number of insect pests belonging to different orders have been recorded on greengram from various parts of the world. Important pests of greengram are cut worm, stemfly, aphids, thrips, Bihar hairy caterpillar, tobacco caterpillar, gram caterpillar, hawk moth or leaf eating caterpillar and pod borer. These pests occur almost regularly at different stages of the growth and cause heavy damage. Among these, leaf eating caterpillar has gained major pest status on greengram and other pulses in recent years. All the larval instars feed on the green foliage and defoliate greengram completely and cause more than 50 per cent crop damage.

### **Individual eggs**

Small bright bluish coloured eggs are laid individually on all parts of the plant. The eggs are short ovoid, slightly concave at one end and the surface is smooth and shiny. The fifth instar larva is very active and feeds voraciously on leaves including veins. Fully grown larvae stop feeding and pupate into the soil. Emergence of the adult usually occurs during night. Summer ploughing exposes the pupal stage of the pest to natural predation. Hand pick grown up caterpillars during day as they hide in cracks and under the plant during day. Spray insecticides like emamectin benzoate 5 SG at 0.25ml/l or spinosad 45 SC at 0.25ml/litre or lambda cyhalothrin 5 EC 1.00ml/litre or chlorpyrifos 20 EC at 2ml/litre for effective management of the pest. (Dr. D.N. Kambekar, Scientist, (Agricultural Entomology) and Dr. A. P. Biradar, scientist, Regional Agricultural Research Station, UAS Campus, Bijapur-586 101 (Karnataka), email: kambrekardn@gmail.com Phone: 08352-230568)

Keywords: Leaf eating caterpillar, greengram cultivation, dry land farming

## Sowing to resume in Gulbarga, Yadgir districts



Widespread rain in the past two days is expected to help farmers resume sowing for the kharif season in Gulbarga and Yadgir districts. Sources in the Agriculture Department told *The Hindu* on Tuesday that Gulbarga district recorded an average rainfall of 29.3 mm on Monday. The district recorded 44.37 mm of rainfall from July 2 till Monday. The rain was not only widespread but it also helped retain moisture in the soil and help the seeds germinate successfully. Sources said farmers were likely to resume sowing from Wednesday. Although the time for taking up sowing of black gram, soya bean and sesamum was over, farmers can still hope to get something out in this short period. Despite the recommendations by the Agriculture Department not to take up sowing of black gram, sesamum, and soya bean, farmers still go for the sowing of these three considering the remunerative returns if the crops survived. Sources said most of the areas meant for green gram, black gram, soya bean and sesamum cultivation, which remained unsown due to lack of rain, would now shift to red gram. The drought resistant red gram would survive and provide some return to the farmers even if the rain failed in the future. As per available details, farmers have completed sowing on 15 per cent of the targeted area. Against the targeted area of 5.7 lakh hectares (ha) during the kharif season, farmers have completed sowing on 88,078 ha. The farmers in Chincholi taluk have completed sowing on 58 per cent of the targeted area. The figure for Afzalpur is 22 per cent, Gulbarga 16 per cent, and Sedam is 13 per cent. The situation was the worst in Chitapur where sowing was complete on only one per cent of the targeted area and in only 5 per cent of the targeted area has been covered in Aland. Sowing has resumed in Yadgir too and farmers were busy sowing red gram, cotton and bajra. According to the Agriculture Department, the highest rainfall of 131.6 mm was recorded in Yadgir taluk. While the lowest of 2.3 mm was recorded in Surpur taluk, 26.2 mm of rainfall was recorded in Shahapur taluk. Chetana Patil, Joint Director, Agriculture, said sowing was complete on 9,778 ha of the targeted 2.69 lakh ha.

## Fodder, new cash cow for Madurai farmers

S. MOHAMMED ROHITH



Cutting edge technology: Officials looking at a chaff cutter kept on display at the newly inaugurated Farmer's Club at Vedar Puliyankulam in Madurai district on Wednesday.— Photo: G. Moorthy

When 37-year-old P. Pothirajan of Thanakkankulam near Tirunagar resolved to take up fodder cultivation in 2006, he was mocked by fellow farmers and his family members who warned him of the damage it could cause to his farmland. After nearly seven years, the idea helped turn the tables for Pothirajan who is now a successful entrepreneur supplying 'CO4' fodder to several farmers in and around his village. Many farmers affected by drought conditions and high feed prices have found a cost-effective and innovative solution in 'CO4' fodder. Mr. Pothirajan shared his success story at the inauguration of a first-of-a-kind Farmer's Club, formed by those who have taken up fodder cultivation, at Vedar Puliyankulam. "I started cultivating fodder crops on a small portion of land, but now I have allotted an acre for them," he said. "I make a profit of around Rs.1 lakh in a year. The fodder cultivation has helped increase the milk yield of my cattle," he added. The farmer, who is also the treasurer of the Farmer's Club, said with pride that his standards of living had vastly improved.

R. Shankar Narayan, Assistant General Manager, National Bank for Agriculture and Rural Development (NABARD), said the club would act as a bridge between the banker and the farmer. It would serve as a ticket for farmers from the village to visit cities and interact with farmers from other States. The members would be updated on new developments taking place in the farming industry. They could share their experiences at meetings and group discussions. Stressing on the need for availability of locally produced fodder, Mr. Narayan said Madurai district was reeling under a severe fodder deficit. There are more than 180 Farmers' Clubs in the district. There are clubs in Usilampatti (formed by jasmine growers), Chellampatti (vegetables) and Peraiyur (minor millets). According to Animal Husbandry Department officials, for any cattle to stay healthy and give good milk, 70 per cent of its diet must comprise green fodder and the rest by leguminous plants. Collector L. Subramanian, who inaugurated the club, said a successful farmer must shift his cropping pattern to suit market trends. He should know the requirement of the market and cultivate the right crops. Only then his economic condition would improve. There was no use in simply

growing some or other crops in a routine manner and then hankering after a middleman for selling. Farmers must also make the best use of government schemes, he added. Gopinathan, Joint Director, Department of Animal Husbandry, and A.J.A. Jeyasingh Gnanadurai, Joint Director, Department of Agriculture, spoke.

### **Standing tall as agriculturists**

M. VANDHANA



Twenty-year-old V. Sundarapandi from Mettupatti near Alanganallur is a second year commerce student at Madurai Kamaraj University College here. What sets him apart from other students is that he is a part-time farmer. "My father owns 50 cents of land in our village where jasmine is being cultivated. After returning home, I take care of agricultural activities in our field," says Mr. Sundarapandi. Gone are the days when youth shied away from taking up agriculture as a profession. Having tasted success in agriculture, most graduates in villages surrounding Alanganallur stand tall. P. Vellai, a B.Sc (Mathematics) graduate from Yadava College, took up agriculture five years ago at Salvarpatti. "Soon after graduation, I joined a private company where I was paid Rs. 3,000 per month. After a month, I quit the job and took fifty cents of land on lease. Today, I earn not less than Rs. 25,000 every month," Mr. Vellai says. As many as eight of his batch mates have taken up agriculture. A. Gopi, a B.A. (History) graduate, who is into jasmine cultivation, says, "We have to migrate to the city to work in private companies. Without migrating for a meagre pay, we are able to earn a decent income in our village by taking up farming," he also explains. A post-graduate in Zoology, along with a B. Ed degree, T. Chidambaram cultivates jasmine and guava in his two-and-a-half-acre land. "I was offered a paltry salary in private schools. So I decided to become a full-time farmer," he says.

### **Study on youth**

A study conducted by Dhan Foundation, a non-governmental organisation, in Alanganallur area indicates that more youth are taking up farming these days. However, water scarcity, climate change and lack of training in better farm practices, are the major issues faced by young farmers. "The youth confine themselves to traditional farming techniques. There is inadequate training facility for them," notes Sai Saranya, a student of Tata Institute of Social Sciences, Mumbai, who conducted the study for the NGO.

### **Issues**

B. Ramesh, a youth from Devaseri, says water scarcity is the major issue agriculturists face. "With the monsoons failing us for the past two years, we are finding it very difficult. More youth are willing to become farmers, but the challenges are many," he concludes.

### **Promoting cultivation of minor millets to beat poverty**

S. SUNDAR

The Department of Agriculture has chosen to promote cultivation of minor millets to beat economic backwardness among the farming community in rain-fed Kalligudi block. The officials have identified 322 farmers and 78 farm hands as beneficiaries under the State Balanced Growth Fund in seven villages of the block. The State Government has allotted Rs. 23 lakh under the fund. "Select farmers will be given training on improved farming technology on cultivation of Kuthiraivaali and Varagu on 300 acres in the block. They will also be given a subsidy of Rs. 2,000 each in the form of seeds, ploughing, fertilizers and pesticides," the Joint Director of Agriculture, A. Jeyasingh Gnanadurai, said. The training programme has started in batches for the farmers. By July-end the farmers will begin rain-fed cultivation of minor millets. "We hope to double their yield and income through modern cultivation technology," he added. A. Athimoolam, a progressive farmer, said that farmers had given up cultivation of the minor millets owing to poor returns in the past. "The yield used to be only around 4 to 5 quintals an acre under the conventional method of cultivation. Traders used to buy the crops for Rs. 15 to 20 a kg," he said. Now, the farmers have been told that they could get at least eight quintals of yield in an acre if they adopted new technology and used quality seeds. "Besides, the officials have promised to provide machineries free of cost for post-harvest process of the millets. The grains that fetched us just Rs. 20 a kg will get us up to Rs. 70 a kg if we cultivate Kuthiraivaali rice and varagu rice and provide them in packets," Mr. Athimoolam said. Farmers will benefit economically when they sell millets as rice and not as grains. "For this we have formed a cluster of farmers and farm hands. The farm hands will be trained on processing the grains, packing and marketing the rice," the Assistant Director of Agriculture, G.S.V. Amudan, said. The cluster will also be given five sets of rain guns for irrigating the crops with minimum water supply. Soil tests will be done at a nominal cost and right mixture and quantity of fertilizer suitable for the soil will be suggested so that farmers incur minimum expenditure on fertilizers, he said. They will be taken for exposure visits to meet successful farmers in other parts of the State. The new scheme will help bring back traditional food habits of Tamils and also realise the Chief Minister's wish of farmers getting more income, the Tirumangalam MLA, M. Muthuramalingam, said.

## **Ryots in despair as coconut trees dry up in Erode dist.**



**BONE DRY:** Almost all coconut trees in a farm near Chennimalai in Erode district have withered.- PHOTO: M.GOVARTHAN

Hundreds of coconut trees in Erode district have dried completely due to drought, adding to the misery of farmers. The sight of coconut trees drying up on a large scale have become visible in Chennimalai, Perundurai and other parts of the district where the water table is spiralling downwards. In normal conditions, a tree yields revenue of not less than Rs. 1,000 a year, all through its lifetime varying from 20 to 50 years depending on the variety. There is nothing that farmers are able to do to salvage the semi-dry trees, says V.M. Velayutham, president of Kalingarayan Pasana Sabhai. The farming community, he said, was in a state of despair as the government had not responded to the appeal for suitable compensation. A minimum of Rs. 10,000 had to be given as compensation for a dried-up tree, Mr. Velayutham said. There was now a huge demand for coconut due to scarcity of supply caused by the drying trees. The agony of farmers does not end with watching the trees drying up. They have to contend with the risk of the trees catching fire in extreme heat conditions and getting reduced to ashes, it is learnt.

## **NABARD gives away awards to farmers' clubs**

The National Bank for Agriculture and Rural Development (NABARD) on Wednesday presented State-level awards for best performance under its Self-help Group (SHG), Joint Liability Group (JLG) and Farmers' Club (FC) programmes, here. Canara Bank chairman and managing director (CMD) Rajiv Kishore Dubey, Syndicate Bank CMD Sudhir Kumar Jain and State Bank of Mysore managing director Sharad Sharma gave away awards to FCs and agencies, bank branches and NGOs which promoted the programmes during 2011-12 and 2012-13.

### **Efforts lauded**

NABARD chief general manager, Karnataka, G.R. Chintala lauded the efforts made by the State government and various agencies for making these programmes a great success, and hinted at introducing some more initiatives for farmers and SHGs.



## **Bank accounts**

NABARD general manager J.C. Das said that in Karnataka, 8.90 lakh SHGs had opened bank accounts and all banks had provided credit totalling Rs. 13,430 crore to 9.40 lakh SHGs as on March 31, 2014. This programme covered 122 lakh families, of which 93 per cent were women. He lauded the role played by the Co-operation Department. Mr. Das said that 14,732 JLGs were formed and financed during 2013–14.

## **Translate Act into Kannada: farmers**

Farmers have criticised the government for publishing the The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, in English, inviting objections from them. B.R. Padmanabha, of Raita Horata Samiti, said all farmers were not able to read it as it is in English and demanded that it be translated into Kannada.

## **Separate ministry demanded for fisheries**

On the eve of the presentation of the national budget by the Bharatiya Janata Party government, National Fish Workers Forum (NFF), an umbrella organisation of fishermen, has sought creation of a separate ministry for fisheries. NFF has been alleging that fisheries was not getting adequate attention as it is part of the Agriculture Ministry. In a letter sent to Prime Minister Narendra Modi, the NFF has pointed out that there were three crore fishermen including one crore of them, engaged in inland fisheries and rest in marine fisheries. NFF Chairpersons M. Ilango has pointed out in the letter that the BJP's 2010 document "National Policy on Fishing and Fishermen" itself had recommended creation of a separate ministry pointing out that, "after agriculture and weaving, fishing is the largest sector in terms of livelihood generation". It also observed that "... the fishermen in coastal villages ... are in a very pathetic condition besieged by abject poverty with 90 per cent of of them living below poverty line". In addition, NFF has sought greater allocation of funds for fishermen, who contribute 0.7 per cent of the GDP. Of Rs. 2,025 crore allocated for Agriculture Ministry in 2013-14, only an amount of Rs. 317.30 crore was allocated to fisheries. A major portion of this allocation went to training and research institutions leaving only Rs. 8.5 crore for fishermen's welfare. The other demands include supply of diesel and kerosene exempting fishermen from all taxes including excise duty and sales tax; supply of kerosene for out board engine boats at the public distribution system (PDS) price; loans to fishermen at the rate of 4 per cent interest per annum as is the case with farmers; loan waiver for fishermen during calamities; inclusion of fishermen community in the SC/ST list; and subsidy to encourage deep sea fishing.

## **Farmers' Day logo release on Saturday**

The Department of Agriculture will host this year's Farmers' Day celebration in Kozhikode from August 16. The logo of the four-day celebration, being organised with a

series of arts and cultural events, will formally be released here on Saturday. In a communication here, District Collector C.A. Latha said it was the first time that Kozhikode was getting the opportunity to host the State-level programme. "Agriculture exhibitions, seminars, food fete, and contests in traditional sports and games will be the highlight of the celebrations," she said. Agriculture Department officials said 125 stalls on diverse themes would be put up to enable farmers to know the latest trends and agricultural practices. The food fete would focus on the cuisine of the Malabar region. To mark the inaugural day, a cultural procession in which delegates from all the districts would take part would be taken out in the city. Floats from all the districts would add colour to the procession. Farmers, students, and voluntary organisations would also participate. Principal Agriculture Officer P.K. Ranjini said over 1,000 farmers from various grama panchayats would be given the opportunity to attend the scientific sessions organised in connection with the event. The seminar, led by resource persons from Kerala Agricultural University and Kerala Veterinary and Animal Sciences University, would be held on August 18, she said. The annual excellence awards for outstanding farmers would be presented at the valedictory of the festival on August 19.

### **Call to discourage farm cartels**

The existing crisis in the farm sector can be resolved only by discouraging cartels which decide the prices, Kerala Agricultural University Director of Extension P.V. Balachandran has said. Government intervention should be ensured so that farmers get fair prices, he said. He was inaugurating a seminar on 'Agricultural crisis and solutions,' organised as part of the golden jubilee of the Palakkad District Cooperative Bank here on Wednesday. Mr. Balachandran said farmers in India faced a plethora of problems, most of these the creation of middlemen and vested-interest groups. "Middlemen were posing a severe challenge to farming activities and so farming was turning unprofitable. Even if a farmer ensures better yield, he fails to get proper price for his product. Proper intervention by the government and facilities for value addition can make a change," he said. Former MLA K. Krishnankutty presided over the seminar.

### **Farmers to be compensated for high tension power lines**

A meeting convened on Tuesday in the Ranga Reddy district Collectorate decided to constitute a committee to look into the issue of laying of high tension power lines through agricultural fields and the loss suffered by farmers. The district-level committee will have representatives from power, revenue, and agriculture departments, and farmers' delegates, and discuss the compensation payable to the farmers in lieu of loss suffered. The 400 KV high tension power lines and towers laid through a few mandals including Yacharam, Kandukur, Shahbad, Chevella and Shankarpally mandals are causing loss of acreage and also loss in terms of real estate value to the farmers. The lines are being laid from Suryapet on one side and Srisailam on the other, up to the 400/220/132KV sub-station in Shankarpally.

## **Objections raised**

“Each tower occupies 120 square yards of space. So far the APTransco has been paying compensation only for standing crops. But the farmers are raising objections about the drop in resale value of the lands, as nobody would be willing to buy land hosting electric towers,” an engineer informed. After negotiations, the transmission corporation has agreed to increase the compensation, and modalities are being worked out to decide the amount, he said. Joint Collector M.V. Reddy, who presided over the meeting, has asked the officials concerned to conduct a survey to assess the loss suffered by farmers, and submit a report in a week’s time.

## **40 farmers for CoP-12 meet in South Korea**

The Andhra Pradesh State Biodiversity Board will be sending around 40 farmers from Andhra Pradesh and Telangana to participate in the Conference of Parties–12 (CoP-12) in October. The decision was taken by the Board after consultation with the government. The group will visit Singapore, Malaysia and South Korea between October 1 and 15, said R. Hampaiah, chairman, A.P. State Biodiversity Board (APSBB) on Wednesday. CoP–12 is being organised at South Korea and Dr. Hampaiah recently attended the advisory committee meeting held there recently. “The aim is to help farmers get a first hand account of benefits reaped by other countries after taking up biodiversity preserving measures,” he said.

## **Rain brings relief to people, but of little use to farmers**



Several areas got inundated due to rain in Nizamabad on Tuesday.–Photos: K.V. RAMANA.

Rain lashed several parts of the district on Tuesday night and brought relief to people who suffered from the hot weather all these days. However, the rain was of little use to farmers as it did not help them undertake sowing activity immediately. Low-lying areas in the town were inundated with the rain lasting a couple of hours. Ironically, there was no rain in Bodhan located just 30 km from here and also in some areas in Kamareddy revenue division. Navipet mandal received the highest rainfall of 45 mm followed by Gandhari 36 mm. The least rainfall (2.3 mm) was recorded at Biknoor and Domakonda. “Of the 36 mandals 30 mandals witnessed rain and on an average 18.6 mm rainfall was recorded in the district. If this continues for the next couple of days it will help activate sowing. Soyabean was sown in 46,000 hectares of which the seedlings dried

up in 35,000 hectares, while maize sowed in all the 16,000 hectares went dry due to the long dry spell,” according to K. Narasimha, Joint Director of Agriculture.

### **Split impacts paddy seed supply**

B.V.S. BHASKAR



Acute shortage of 'Swarna Masuri' variety paddy seed hit farmers. The shortage of the seed is seen as an immediate impact of bifurcation of Andhra Pradesh. The seed has great demand in the ongoing kharif season but it is not available throughout the State. As far as East Godavari is concerned, a total of 1.10 quintals of seed of all varieties are required for kharif season. In addition to this, seed retailers of East and West Godavari districts get 20,000 to 25,000 quintals of Swarna Masuri variety from Karimnagar and Warangal district. When contacted, Joint Director of Agriculture, East Godavari, K. Vijayakumar said the much-sought after Swarna Masuri was being imported from Karimnagar and Warangal every year as it was not available locally. He said the Agriculture Department did not recommend production of Swarna Masoori variety to farmers, as the germination rate was not more than 50 per cent. "When it is in the panicle stage, mites attack at the germination point, destroying total crop. So, we don't recommend this crop", he said adding that the 'seed village' programme and farmer-to-farmer programme had generated employment. But the farmers of delta region have been protesting the non-availability of Swarna Masuri.

### **Fertilizer ready for distribution: Collector**

In-charge Collector A. Sarath has informed that buffer stock of 4,300 tonnes of fertilizer was ready for distribution whenever required in the district. Presiding over a meeting of the officials held here on Wednesday, Mr. Sarath said that already 62,000 metric tonnes of fertilizer was distributed for farmers.

### **Water level**

#### **Mettur**

The water level in the Mettur dam stood at 47.70 feet on Wednesday against its full level of 120 feet. The inflow was 2,538 cusecs and the discharge 2,000 cusecs.

Chennai

Chennai - INDIA

## Today's Weather



Cloudy

**Thursday, Jul 10**

Max Min

34° | 27°

Rain: 0

Humidity: 75

Wind: normal

Sunrise: 05:48

Sunset: 06:39

Barometer: 1005

## Tomorrow's Forecast



Partly Cloudy

**Friday, Jul 11**

Max Min

37° | 26°

## Extended Forecast for a week

**Saturday  
Jul 12**



37° | 27°

Partly Cloudy

**Sunday  
Jul 13**



38° | 26°

Cloudy

**Monday  
Jul 14**



38° | 26°

Cloudy

**Tuesday  
Jul 15**



39° | 27°

Cloudy

**Wednesday  
Jul 16**



38° | 26°

Partly Cloudy

## Airport Weather

Delhi

Delhi

Rain: 0

Sunrise: 05:29

Humidity: 75

Sunset: 07:22

Wind: normal

Barometer: 1002



# THE NEW INDIAN EXPRESS

## **Crop Loans to be Rescheduled in Telangana too**



Crop loans will not be waived but will be rescheduled in Telangana state. This development came as the State government officials are set to furnish the details of rescheduling of loans to the Reserve Bank of India. "A letter in this regard will be sent to the RBI within three days," officials in the finance department told Express on Wednesday. When the government repays the loans on behalf of farmers, it would reflect in their passbooks. Till such time, `1 lakh loan will be shown as dues in the passbooks of farmers. The officials confirmed that the passbooks of farmers would still show that they owe Rs 1 lakh to bankers even after rescheduling of the loans. As per the RBI norms, the crop loans could be rescheduled for a minimum period of two years to a maximum period of ten years when the crops suffer damage in natural calamities like floods and drought. A list of the mandals hit by lack of rains would be submitted to the RBI. "The RBI will decide on the tenure of the rescheduling of the loans depending upon the intensity of the natural calamity," an official said. During the reschedule period, an interest of 10 per cent will be levied. As the state government has assured to waive crop loans up to Rs 1 lakh, the interest component would be borne by it. However, long-term loans and gold loans may not be covered under the rescheduling of the loans.

## **RBI Agrees to Reschedule Farm Loans in AP**



In a much awaited relief to the farmers of Andhra Pradesh, the RBI Governor had in principle agreed to reschedule the Kharif loans. The AP government is expecting official letter on the loan rescheduling assurance from RBI in the next two days. Announcing the decision at a press conference at the Secretariat here on Tuesday, finance minister Yanamala Ramakrishnudu, agriculture minister P Pulla Rao and communication advisor Parakala Prabhakar said RBI Governor Raghuram Rajan had communicated the decision to chief minister N Chandrababu Naidu. Ramakrishnudu said a clear picture on the crop loan rescheduling would emerge only after the government receives the RBI letter. "We can comment on the crop loan rescheduling only after we see the RBI letter; how much we have got; what we can offer to farmers; and other things," he remarked. "We want to make it clear that whatever be the conditions for loan rescheduling we would see that the burden will not fall on the farmers. All the farmers would get the benefit of loan rescheduling," he said. He said the RBI will be writing on loan rescheduling to the Centre and clarity will emerge only after that. Commenting on the 30 days performance of his government, the finance minister said it was taking measures to attract investment to the state. Royal Dutch Shell and Reliance Power are planning to set up a floating liquefied natural gas (LNG) import terminal off the coast of Kakinada. Similarly, Petronet is also planning to set up an LNG terminal at Gangavaram port near Visakhapatnam, he said. These two projects would help develop the Kakinada- Visakhapatnam industrial corridor, he added. He said the state government was looking into the issue of fee reimbursement of students. "We would see that all the students get justice," he remarked. Justifying the Centre's decision to handover law and order to the Governor, Ramakrishnudu said this was being done as per the AP State Reorganisation Act and the Telangana state government should honour it. "The Governor had been given the charge of taking care of the people living in Hyderabad and rest of the powers are still with the government of Telangana," he pointed out. Due to the efforts of the AP government, the Centre has issued the ordinance allowing the merger of 7 mandals of Khammam district to execute the Polavaram project.

### **24-Hour POWER FROM October 2, Says Yanamala**

Andhra Pradesh government would provide 24 hours power to domestic and industrial consumers from October 2. Finance minister Ramakrishnudu said AP has been chosen, along with Rajasthan and Delhi states, for the NDA government's ambitious programme to provide 24-hour power supply and through this, the state would get uninterrupted power supply. He said the farmers would also be initially provided seven hours of uninterrupted power supply, which would be enhanced to nine hours in the coming days. "The government was trying to purchase power from Tamil Nadu and other sources to meet the requirements of the state," he said. The finance minister said all the damaged pump sets of the farmers would be replaced free of cost under the Central scheme. He said that the state had been assured of supply of 4 lakh mt of coal by the Centre and with this the power requirement of the state would be fulfilled.

## **Madikeri Farmer Eyes Record With 41-ft Cane**

B Hoovaiah is a happy man. A stalk of sugarcane grown by Hoovaiah in Madikeri is all set to enter the Guinness Records as the tallest in the world. The earlier record, set in 2001, was held by Venkatesh Gowda of Kolar. Hoovaiah, a BSNL tower operator in Convent Junction in Madikeri, has been protecting the cane for three years now. All the required inspections have been completed by expert committees and a team from Guinness is expected to arrive shortly, before an official announcement can be made. Hoovaiah told Express that an expert team inspected the stalk and measured it at 41.1 feet. He then formally approached the Guinness authorities, asking them to consider it for a world record. Later, he received an acknowledgement from Guinness records in-charge, Era Norroy. Hoovaiah, who served in the Indian Army for 26 years, lives at Bettathoor in Madikeri taluk and has served as a tower operator for 11 years.

**He expressed happiness that the cane had been grown organically.**



The government will set up an expert committee to decide on the procurement price of sugarcane for the next crushing season. Sources said, the Cabinet which met on Wednesday, decided to include in the committee all stake-holders like representatives from sugar industries, office-bearers of farmers' unions and officials. The ministers reportedly favoured that cane growers get the lion's share of the profit and factories get 30 per cent. It may be recalled that sugar factories had failed to obey government orders to pay growers `2,650 per tonne of sugarcane. The Cabinet also decided to take suitable steps for making Kannada the administrative language in the Karnataka High Court. It felt that this will help petitioners understand court proceedings. The Cabinet reportedly decided to upgrade 18 town panchayats to municipalities and municipalities to municipal councils. This will benefit T Narsipur, Nanjangud (in CM's district), Shiddalagatta, Siruguppa, Hiriyur, Kanakapura and Hoskote municipalities. The Cabinet also gave its consent for state-owned Krishna Bhagya Jala Nigam to raise `1,100 crore through bonds and debentures from the open market.

## **Farmer's Son Secures Seat in Private college**

The general academic counselling session at the TNEA was not the only place where smiles and satisfaction were writ large on faces of candidates from lower economic strata



of society. The vocational stream counselling that began on Wednesday was also witness to success stories.



Vignesh S P, the 17-year-old son of a farmer from Sathyamangalam taluk in Erode, emerged overjoyed from the venue of the vocational stream counselling. The second of two sons, Vignesh never faced any difficulties in his academic pursuits, as his parents kept their burdens to themselves. The sacrifices made by the family paid off with Vignesh securing a civil engineering seat at PSG College of Technology in Coimbatore. The high fee of a private college is not a worry for Vignesh's family. "We have made enquires for loans. A good college is something you cannot compromise on just because of high fees," says Vignesh's brother. The views were echoed by J Melba, the second rank holder in the stream. The daughter of a provision shop owner on the outskirts of Coimbatore, she too selected PSG Tech. "She wanted ECE in this college and she got it," said her father triumphantly. The lack of seats for the vocational stream in the university departments of Anna University had pushed several toppers to choose PSG Tech. With several of them hailing from the Western districts, it remained top on the preference list.

### **seats filled up at top colleges**

Chennai: Most of the seats in the top colleges in the State, with the exception of those under the SC/ST categories, were filled on the third day of TNEA counselling at the Anna University here on Wednesday. Of the 4,884 called for counselling, 3,837 were allotted seats, while 20.9 per cent were absent. Electronics and Communication Engineering had the highest number of takers with 1,910 opting for it.

### **Forest Dept Yet to Recover Rs 215 Cr Dues**

The State Forest Department is yet to recover dues to the tune of Rs 215.46 crore owed to it by various establishments, mainly public sector units. The Comptroller and Auditor-General (CAG) report which was tabled in the Assembly, severely criticised the Forest Department for major lapses, including failure to check violations of lease agreements. The CAG report said there was no system in the department for identification and inventorying of forest land. "Violations of lease conditions by the lessees were not properly monitored and there was no system to take immediate action to resume the land

in cases of violation. Also, there was no system to ensure strict compliance of Government of India directives limiting the assignable area under provisions of KLA Rules 1964. There was also no system for periodic verification of leased forest land to ascertain lease violations,” said the report, adding that there was no system for timely fixation of lease rent and renewal of rate of lease rent. Arrears of lease rent from State Farming Corporation of Kerala from 1987 to 1992 was not converted as share capital. The audit report found that as on March 31, 2013, the Punalur DFO has demanded only Rs 11.53 crore only as arrears with penal interest instead of Rs 30.14 crore. This resulted in short demand of dues of Rs 18.61 crore. Though the government had stated that the arrears of lease have to be calculated afresh in consultations with law and finance departments, the report has not yet been given. The CAG in its report also pointed out failure by the Forest Department in monitoring adherence of lease conditions and also failure in taking follow-up action in cases of violations. In the case of land leased out in Perumpara estate in Chalakkudy, even after lease rules were violated by alienating government land and mortgaging the leased land, resumption procedure has not been initiated. In another similar issue, 389.35 hectares of forest land under the Thrissur DFO was transferred and the details remain unknown. The report also pointed out cases where forest lands were assigned without the concurrence of the Union Government. In its audit report, the CAG recommended identifying all forest lands on a war-footing by surveying and demarcating the land. Setting up a mechanism to monitor and review the lease/lease rent, a system to realise lease rent dues and ensuring that agreements are executed in lease cases are some of the suggestions put forward by the CAG.

### **Telangana, AP Farmers can Attend Biodiversity Conference**

Farmers of Andhra Pradesh and Telangana will get a chance to participate in Conference of Parties (COP)-12 to be organised in South Korea in October this year as the AP State Biodiversity Board said that they will facilitate the farmers’ participation in the biodiversity conference, provided they can fund themselves. The COP-11 was organised in Hyderabad in 2012. Speaking at a press conference here on Wednesday, chairman of the board Dr R Hampaiah said the objective of taking farmers to the conference is to apprise them about the effects of biodiversity on livelihood in South Korea. They will be touring some more countries like Singapore, Malaysia, etc., as part of the visit. As of now, around 50 farmers from Andhra Pradesh and Telangana each will be taken to the conference. “We will request the governments to sponsor their expenses,” said Hampaiah. He said that one day of the conference is specifically dedicated to ‘Biodiversity in Villages’ and the farmers will be participating on those specific days. Chairman of the board informed that he was invited by the South Korean officials to advise them in conducting COP-12. “I participated in the Advisory Committee meeting held in South Korea and toured the nation,” he said. He said that the nation had 15 per cent forest cover in 1945 and with the help of public participation, now, the cover increased to 82 per cent. “The rainfall there increased from 600 mm to 2500 mm. In our

state, we are receiving 500 mm rainfall, with plantation of more trees it might go up to 2000 mm,” he added. Back home, the board is planning to improve biodiversity from village-level by asking the locals to propose the plants which are suitable for them. The board will act as a facilitator here. It will direct the resources, like funds issued for medicinal plants, according to requirements of villagers, he said.

## THE HINDU BusinessLine

### **Buyer resistance saps rubber**



Spot rubber prices ruled weak on Wednesday. The market lost further on buyer resistance though there was no visible selling from dealers or growers in the local trading houses. Sheet rubber declined to Rs. 142.50 ( Rs. 143) a kg, according to traders and the Rubber Board. The grade dropped to Rs. 139.50 ( Rs. 140) as quoted by the dealers. July futures closed at Rs. 142.66 ( Rs. 141.98), August at Rs. 142 ( Rs. 142.06) on the National Multi Commodity Exchange. RSS 3 (spot) slid to Rs. 119.41 ( Rs. 119.72) at Bangkok. July futures closed at ¥191.3 ( Rs. 112.50) on the Tokyo Commodity Exchange. Spot rubber rates ( Rs. /kg): RSS-4: 142.50 (143); RSS-5: 135 (136); Ungraded: 132 (132); ISNR 20: 125 (126) and Latex 60%: 112.50 (113.50).

### **Tea dealers reiterate demand for scrapping of import duty**

Waghbakri Group Chairman and President of the Western India Tea Dealers Association (WITDA) Piyush Desai has once again reiterated his demand for removal of 100 per cent duty on tea imports citing possible shortfall of tea in the country. This comes amid stiff opposition from the tea traders and tea grower community across the country. Expressing concern over a delayed monsoon at tea planting regions and a possible shortfall in crop this year, Desai said, “In the first two months of this year, there is a deficit of 21.37 million kg (mkg) in tea crop as compared to last year. This is due to delayed rains at planting regions. Tea consumption is growing at a pace of 4 per cent per year, while production is almost stagnant.” Notably, Desai has been raising the demand for the past

three years but the Tea Board and the Government have not agreed to relax import duty on tea.

### **Growers' stance**

Tea growers have been opposing any relaxation in import duty fearing tough competition with imported tea. According to Desai, India requires around 40 mkg of tea from Kenya and Sri Lanka to meet any eventuality of a shortfall. However, currently India's annual tea production is around 1,180-1,200 mkg, out of which around 970-980 mkg is consumed within the country and the rest is exported. He maintained that in the next five years, India's consumption will increase substantially, while with stagnant production, tea prices will double. According to Desai, tea procurement prices at auction centres have jumped by Rs. 30-40 a kg in the past during May-June period. "Retail tea prices will continue to increase by Rs. 20-30 every year," he added.

### **Tea volumes hit 1-year high at Coonoor sale**

PS SUNDAR

The rising trend seen in the offerings at the auctions of Coonoor Tea Trade Association in the recent weeks continues this week with 23.36 lakh kg tea being offered at Sale No: 28 on Thursday and Friday. This is the highest volume to be offered so far this calendar. Of this, 15.88 lakh kg belongs to the leaf grades and 7.48 lakh kg belongs to the dust grades. As much as 21.92 lakh kg belongs to the CTC variety and only 1.44 lakh kg belongs to the orthodox variety. A volume of 2.61 lakh kg of teas unsold in previous weeks is being re-offered this week. In the Leaf auction last week, among corporate buyers, Hindustan Unilever Ltd bought brighter liquoring varieties. In the Dust auction, Godfrey Philips India Ltd was active on medium smaller grades. Indcoserve was active on good medium smaller grades. There was good demand for brighter liquoring teas from upcountry buyers. Overall, internal buyers were less active. Exporters chose mostly plainer grades.

### **Coconut oil turns volatile; copra prices may rise on shortage**

Coconut oil prices have turned volatile in Tamil Nadu and Kerala this week with prices dropping initially and then rising on Wednesday. But copra prices continue to rule firm on shortage. "Coconut oil prices dropped to Rs. 1,970 for 15 kg on Tuesday but increased for no valid reason on Wednesday to Rs. 2,050 initially before closing at Rs. 2,100," said RM Palanisamy, a trader in Erode. The volatility saw only two loads (20 tonnes) being traded. "The rise is merely due to speculation. There is no justification behind it," he said. Earlier this week, prices dropped following selling pressure. Compared with last week, prices in Kerala dropped to Rs. 2,200/15 kg from Rs. 2,250. Thalath Mahmood, Director, Cochin Oil Merchants Association (COMA), said that the price fluctuation is cyclical and the market is expected to pick up in a couple of days due to low arrivals and

copra shortage. The higher price trend is likely to continue. But oil crushers in Tamil Nadu say prices have to drop for demand to pick up. Bharat Khona, former Board Member of COMA, said that upcountry buyers are staying off the market at these price levels and demand was subdued. Copra is ruling steady at Rs. 10,400-10,500 in Kerala and Tamil Nadu against Rs. 10,200 last week.

### **Copra trade**

Palanisamy said huge quantities of coconut are being brought to Erode from Kerala and Mysore for conversion to copra. In Erode, copra on Wednesday ruled at Rs. 9,300 against Rs. 10,200 last week. In Erode's Perundurai market, over 120 tonnes of copra were sold with Kerala crushers making the purchase. Palm oil is currently selling at Rs. 5,790 and palm kernel at Rs. 9,200 a quintal. Demand for palm group of oils has picked up due to surging coconut oil prices. (With inputs from Our Erode correspondent)

### **Rubber industry opposes curbs on imports**

Tyre and rubber industries have denigrated the demand for curbing the import of rubber as it will bring rubber manufacturing to a halt. The industry said in a press statement that the gap between domestic production and consumption is widening and imports are inevitable. According to Rajiv Budhraj, Director-General, Automotive Tyre Manufacturers' Association, the rubber farming sector needs to be strengthened to meet the rising demand of rubber in the country. India's rubber exports have dried up which need to be revitalised by equipping farmers to produce quality rubber. Merely strangulating supply of rubber to the industry by curbing imports will be a retrograde step with long-term damages, he said. ML Gupta, Senior Vice-President, All India Rubber Industries Association, said that SMEs running into 5,000 units in the country are already facing a challenging economic environment.

### **Monsoon free from typhoon influence**

VINSON KURIAN

The disruptive influence of north-west Pacific typhoon Neoguri on India's monsoon is on the wane as the monstrous storm weakened and readied for a landfall over mainland Japan. Formation of a low-pressure area over north-west Bay of Bengal around Friday would mean that the monsoon would be left to its own to be able to resume its journey into the central parts of the country.

### **Preparatory whirl**

A preparatory upper air cyclonic circulation has set up a perch over west-central Bay of Bengal off the Andhra Pradesh coast, an update from India Met Department said. It would descend to lower levels to set up the 'low' that, according to initial indications, would

cross the Andhra Pradesh-Odisha coast and move into central India. The Met has said that conditions are becoming favourable for advance of monsoon into those parts in Vidarbha, Marathwada and Madhya Maharashtra where the rains have not reached as yet. Some parts of adjoining west Madhya Pradesh and Gujarat may also receive showers as the rain-head churns its way across over the next three to four days, the Met said.

### **Drier over Gujarat**

The Climate Prediction Centre of the US also agrees with this outlook but indicates that Gujarat, east Rajasthan, rest of north-west India, east India and south Kerala would witness deficient rainfall until Monday. Areas which are shown as receiving excess precipitation are east Madhya Pradesh; Chhattisgarh; north coastal Andhra Pradesh; and the Konkan-to-north Kerala stretch. The US agency assesses that the week that follows (July 15-21) would bring back the rains to Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal and the North-East. The West Coast too would witness excess rainfall; rain deficit for the week would be spread over Gujarat, entire central India (Madhya Pradesh, Maharashtra, Andhra Pradesh) and Tamil Nadu.

### **Next typhoon**

According to the European Centre for Medium-Range Weather Forecasts, the reasonably strong spell of the monsoon might just continue until July 18 when it is likely to run into another building typhoon in the Pacific.

### **Nutrient-based fertiliser subsidy policy is flawed; needs review**



Concerned over the increased use of cheaper urea, the Economic Survey has called for a review of the nutrient-based subsidy (NBS) policy and made a pitch for transfer of subsidy directly to farmers. “The roll-out of NBS was flawed since urea was kept out of ambit, which has defeated the objective use of nutrients,” the Survey said “There is a need to review the NBS policy,” it pointed out. The consumption of urea – the main source of Nitrogen (N) – has increased from 59 per cent to 66 per cent of total fertilisers consumed in 2012-13 over 2010-11. However, the per hectare consumption of fertiliser

has declined from 140 kg to 128 kg over the same period. Prices of urea are highly subsidised by the Government, while the non-urea complexes were decontrolled with the introduction of NBS in March 2010. The fertiliser subsidy stood at Rs. 67,971 crore in 2013-14, an increase of 11 per cent over 2009-10. India meets 80 per cent of its urea requirement through domestic production, but it is largely import dependent for its potassic (K) and phosphatic (P) fertiliser requirements. "The current trends in agricultural output reveal that the marginal productivity of soil in relation to the application of fertilisers is declining," the Survey pointed out. The pricing of subsidised fertilisers is also probably responsible for higher usage of straight fertilisers and the skewed usage of nutrients. While NPK ratios were higher than the recommended national 4:2:1 NPK balance in 2009-10, the situation has drastically worsened, it said.

### **Imbalanced use**

"The indiscriminate use of NPK has led to imbalanced use of soil nutrients, especially in Haryana and Punjab, leading to deterioration in soil quality and declining growth in land productivity in these States," the Survey said. Further, it said that the recommendation of the Task Force for Direct Transfer of Subsidy to shift to a system of direct transfer of fertiliser subsidy farmers in a phased manner needs to be considered.

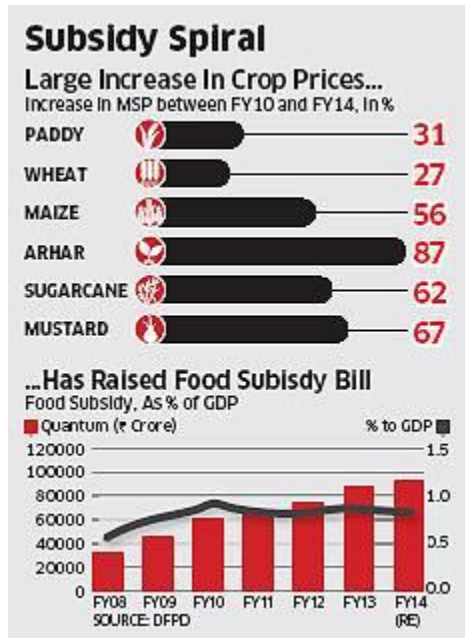


### **Economic Survey 2014: Govt has an agenda to liberalise agricultural markets, looks at ways to cut subsidies**



The Modi government has advocated far reaching reforms in food production, distribution and marketing, and suggested food stamps or direct transfer of subsidy instead of procurement and distribution to subsidy, as well as a Central law to end the grip of middlemen, the Economic Survey said. It also proposed corporate involvement in facilitating farmer markets and setting up supply-chain infrastructure by including these

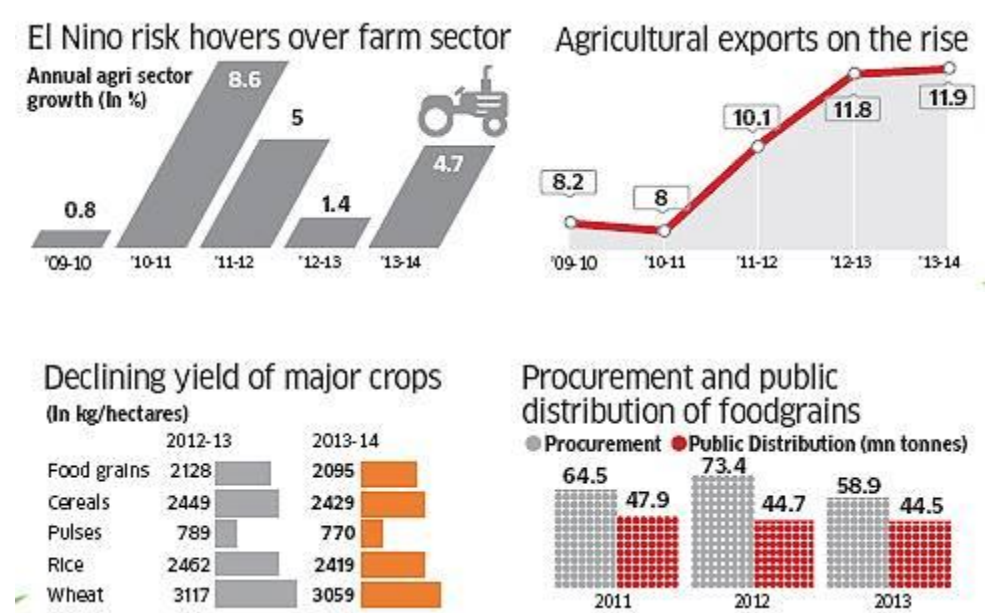
activities in the list of activities under corporate social responsibility . The survey also noted the importance of commodities futures in helping farmers take cropping decisions and bargaining better rates. But the onoff policy of banning/allowing futures in some commodities had hampered the development of the platform as a tool for price discovery, it said. The government says a change in approach towards grain procurement is necessary. It said foodgrains are central to food security but it also wants to take into account data that shows that expenditure on cereals in rural India has fallen from 24.2 per cent of total consumption expenditure in 1993-94 to 12 per cent in 2011-12.



In urban areas it has fallen to 7.3 per cent from 14 per cent over the same period. "The continued emphasis on procurement and distribution of rice and wheat is contrary to the ground reality that shows changing preference functions of consumers. A shift to a direct cash transfer system or food stamps would anchor our food policy to the requirements of the people and would additionally reduce fiscal deficit," the survey said. The Survey notes that the system of Agricultural Produce Marketing Committees (APMC), which forces farmers to sell only at mandis has outlived its utility. It says the Centre has powers to change the way farm produce is sold in states. It said states had created trade barriers. "State APMC laws are a major hurdle to modernization of the food economy. They have artificially created cartels of buyers who possess market power ... Parliament has the power to legislate a national market under the Constitution which gives it ability to legislate the freedom to buy and sell, for farmers and traders across state lines," the survey said. To establish a common, national market, it has also suggested review of the Land Tenancy Act, pursuing direct marketing and contract farming, examining the inclusion of agri-related taxes under the General Goods and Services Tax



(GST) and providing incentives to the private sector to scale up incentives. Traders said a common market won't help. "Talking about a national market will not help farmers, consumers or traders. These statements are just to befool people. The government should as an immediate step abolish market fees outside mandi and mandi yard," said Rajinder Sharma, president of Azadpur APMC. A leading vegetable trader in Mumbai said replacing APMCs would be costly. "If the government wants to create an alternative, it will require investment of Rs 15,000 crore only in Maharashtra," he said.



A top Maharashtra government official said the Centre should legislate to create a national market as attempts to reform APMCs have not worked. "There is no harm in trying this solution. There are vested interests of the weighing labour and loading and unloading labour, which restrict implementation of APMC reforms," he said. PK Joshi, director for South Asia, International Food Policy Research Institute said a national market was a good step but it needs cooperation of states. "Indonesia and Vietnam have adopted similar models wherein they promoted exemption of taxes, pushed co-operative and contract farming and expanded retail," he said.

## **Beekeeping training course concludes at Punjab Agricultural University**

A three-day beekeeping training course for horticulture supervisors concluded at Punjab Agricultural University (PAU) on Wednesday. As many as 25 trainees participated in the course, coordinated jointly by department of horticulture and department of entomology, PAU. Giving details, P K Chhuneja, professor of entomology and the course coordinator, said that the trainees were apprised of the scope and significance of beekeeping, important considerations and tips to start beekeeping, economics of beekeeping and strategies in honey marketing, and financing schemes for beekeeping. Besides, the PAU experts delved upon honey bee species, colony organization, division of labor and life cycle of honey bees; management of honey bee colonies during different seasons; management of major bee enemies and diseases; and honey quality, grading, packing and AGMARK, he said. Jaspal Singh, PAU entomologist and technical coordinator of the course, said that practical training was imparted in examination of honeybee colonies, acquaintance with apicultural equipments, identification and management of bee enemies and diseases, honey extraction and wax purification, and management of bee colonies in spring, summer, monsoon, autumn and winter seasons.

## **Farmer's club to meet green fodder demand**

Considering the demand for green fodder, a group of farmers from Vedarpuli Ankulam village in district have come out with Green Farmer Club of fodder growing farmers. These farmers are assisted by the National Bank for Agriculture and Rural Development (NABARD) in association with the Bank of India in the village. Inaugurating the club on Tuesday, district collector L Subramanian said that farmers have to adapt themselves to technology to derive maximum benefits during troubled times. He added that the district administration wants to improve the production and productivity in the agricultural sectors and urged the farmers to come together with unity and take advantage of the various subsidy schemes introduced by the state government. NABARD came up with the unique concept of farmers clubs as a friend of the bank acting as a bridge between banking and farming. Under the support programme NABARD encourages the dictum of "one farmers club in one village" comprising of 20 farmers who represent the farming community in the village. Accordingly, 20 farmers from Vedarpuli Ankulam formed a club cultivating green fodder varieties like Napier Grass (CO4) and other grass varieties. R Shankar Narayan, AGM, NABARD said that they accorded approval for the formation of the farmer club comprising fodder growers which is really unique especially in the light of the lukewarm response for fodder cultivation in these parts. While the livestock population is increasing, grazing lands and fodder availability keep shrinking. However, most of the farmers in Vedarpuli Ankulam village had the wisdom to cultivate green

fodder and earn extra income by supplying the surplus available to other dairy farmers. A new breed of fodder entrepreneurs was coming up in and around the village, he said. Despite severe summer heat and drought-like conditions, most of the dairy farmers in the area did not resort to distress sales of animals since they had fodder in their own farms, he said. As the next step, NABARD was contemplating on turning Vedarpuliankulam and surrounding villages as model fodder villages and encourage fodder cultivation in other villages too supporting dairy farmers, NABARD sources said. Joint Director of Agriculture, Jayasingh Gnanadurai and Joint Director of Animal Husbandry S Gopinath also addressed the farmers.