# THE HINDU

### Rs.1.30-cr. credit facilities for 198 farmers

Forty-six Kisan credit cards have been given to farmers at a programme organised by the Pandyan Grama Bank (PGB) in association with National Bank for Agriculture and Rural Development (NABARD).

During the programme at Pommayapuram near Pasuvanthanai, the credit facilities to the tune of Rs.1.30 crore, including crop loan, poultry loan and priority sector loans, were extended to 198 farmers, M.R. Natarajan, District Development Manager, NABARD, said here on Saturday.

K. Venkateshwara Rao, Chief General Manager, NABARD, presided over the programme attended by members of Ottapidaram Farmers' Federation.

Mr. Rao appealed to the beneficiaries to utilise the assistance to ensure agriculture productivity. S. Malluchamy and Raghavan, progressive farmers of the federation, coordinated. S. Karthikeyan, Chairman, PGB, K. Ramasubbu, General Manager, S. Subbiah, Regional Manager and B. Murugesan, Manager, Tuticorin Region, were present.

### Farmers forced to rely on paddy harvesters



Unsupportive weather condition and scarcity of agricultural labourers is forcing the paddy farmers to depend on the harvesters (a machine used for harvesting crops) in the ongoing rabi season in Krishna district.

The farmers who usually rely on migrant workforce for agricultural operations are a worried lot owing to the acute labour shortage at a time when the harvesting of rabi paddy is picking up.

Of the 90,000 hectares in which the farmers have cultivated paddy this rabi season, in majority of the areas the crop is being harvested with machines.

Farmers are in a hurry to finish the harvesting operations, after the recent sudden rainfall damaged the ready-to-reap crops in many areas in the district, resulting in heavy loses to the ryots.

For this, the farmers are hiring harvester machines from outside the State, though the move weighs heavy on their pockets.

The ryots say that with the hiring of the machines, the input cost for harvesting operations has been doubled.

"We hire machines on hourly basis. An acre of paddy can be harvested in two hours and we have to pay Rs. 6,000. The input cost on harvesting operations has almost doubled this year," farmers say.

With the sudden rain playing spoilsport since the beginning of harvesting season, the farmers in Diviseema mandals, Challapalli and other parts in Eastern Krishna district are relying on harvesters.

### Agriculture graduates to be hired

Under the Central Government Agriculture Technology Management Agency (ATMA) scheme, agriculture graduates will be hired for positions of technology managers in the district.

The posts available are: five for block technology manager (with a monthly salary of Rs. 20,000), with a minimum qualification of B.Sc (agriculture) and two years professional experience in extension; ten posts for assistant technology manager (monthly wage, Rs. 10,000), with a diploma in agriculture, and one year experience in extension; one post for computer programmer (salary of Rs. 16,000 monthly), with B.E. or B.Tech qualification and one year of experience.

The last date for entry is May 31.

### Unbearable stench' overwhelms traders at Puthur fish market

Even as the Tiruchirapalli City Corporation is planning to build a modern fish market at Kuzhumani Road, the city's major fish market at Puthur continues to languish without infrastructure and functions amidst poor sanitary conditions.

Traders say the main fish market in the city receives over 50 lorries of seafood on most days, especially on Saturdays and Sundays from coastal areas in Nagapattinam and Pudukottai districts. Retail traders from neighbouring districts of Tiruchi also make their purchases from here.

Fifteen wholesale traders and about 20 retailers operate out of dingy shops in the market built several years ago and consumers have to brave the stench and unhygienic conditions to make their purchases. Residents living around the market have also been complaining over the dumping of garbage around the market.

### Manpower shortage

Faced with manpower shortage, the Corporation is not able to clean the market regularly. An over-pervading stench prevails around the market owing to the poor sanitary condition and local residents have even staged an agitation last year demanding the market be shifted.

"The Corporation needs to improve sanitation inside the market, especially in the rear where the fish and mutton stalls are functioning. One can not even visit the shops selling tomatoes close to the fish market due to the unbearable stench," said A. Gowri, a regular to the market.

Traders too concede that sanitation inside the market is very poor. A drain running inside has been clogged. A women's toilet is in a very bad shape and men have to relieve themselves in the open spaces, they said. Some also complained over the poor lighting arrangements inside the market and short supply of water. The Corporation has planned to construct a modern wholesale fish market in the city, but the project is yet to take off. An official resolution on the subject adopted at the Corporation Council in June 2012 pointed out that the fish market was functioning in the congested locality and conceded that residents were facing hardships.

Although the Corporation had initially planned to build the complex at Thennur Anna Nagar, it subsequently decided to set up the facility at Kasivilangi along the Kuzhumani Road.

The market is said to be designed by the Kerala State Coastal Area Development Corporation and according to corporation sources the project would take off soon.

However, traders are not enthused over the prospect of having to move over to Kasivilangi. But they are willing to shift to Anna Nagar.

"Kasivilangi is too far away. The site is not easily accessible for consumers and also not safe for traders handling substantial amount of cash every day. Anna Nagar will be the ideal location for our requirements," said S. Sahayaraj, secretary, Tiruchi Corporation Wholesale Fish Traders Association.

The association has already conveyed their preference to the civic authorities. "We hope to put forward our case again," he said. But consumers say that the civic body should at least ensure cleanliness at the market until the new facility is ready.

	15 wholesale traders, 20 retailers operate out of dingy shops in the market
	Kerala State Coastal Area Development Corporation to develop new market at
Ka	ısivilangi

### Haryana procures over 64.27 lakh tonne wheat

Over 64.27 lakh tonnes wheat has so far arrived in various grain markets during the current procurement season in Haryana.

The State had procured over 58.55 lakh tonnes of wheat during the corresponding period last year.

Stating this here today, a spokesman of Haryana's Food and Supplies Department said the government agencies have procured 64.24 lakh tonnes of wheat, whereas 2,779 tonnes have been purchased by traders.

He said that HAFED has purchased highest 24.83 lakh tonnes of wheat, followed by 17.82 lakh tonnes by Food and Supplies Department.

Similarly, Agro Industries Corporation has purchased 5.70 lakh tonnes, followed by Haryana Warehousing Corporation 6.30 lakh tonnes, CONFED 1.60 lakh tonnes and Food Corporation of India 7.97 lakh tonnes of wheat during the current procurement season so far, he said.

### Miniature containers, fish tanks and fresh vegetables

The ancient Aztecs and Chinese did it millennia ago, and now a Berlin start-up hopes it will feed 21st-century city dwellers using aquaponics, a combination of rearing fish and growing vegetables.

Set up inside the brick walls of an old brewery, the company ECF, short for Efficient City Farming, is using an age-old technique to grow tomatoes, peppers and greens in a miniature container farm, fertilised with fish excretions.

"Our vision is to give city dwellers access to agricultural goods produced in a sustainable way," said Nicolas Leschke, who founded ECF two years ago with a business partner.

Aquaponics, as the method is known, combines the techniques of hydroponics, or cultivating plants in water, with aquaculture -- or the rearing of fish in tanks.

Because it allows food to be produced directly in cities, not the distant countryside, "the environmental and financial costs of conserving and transporting the goods are greatly reduced", Leschke told AFP.

"And last but not least, it guarantees access to fresh products," he added, snacking on a home-grown swiss chard, a leafy green vegetable popular in Mediterranean cuisine.

#### How it works?

The business has set up a prototype container farm on two levels, with a fish tank at the bottom and a small greenhouse at the top where vegetables are grown.

Separate to the aquarium is a tank with a special filter which uses bacteria to transform the ammonium of the fish excretions into nitrates.

The nitrate-enriched water is then pumped to irrigate a greenhouse where the plants grow, not in soil but in a hydroponic bath of flowing water enriched with mineral nutrients.

It is ideal for farming in crowded population centres -- an important point at times of growing urbanisation, with half of the world's population now living in cities.

Because the water is used for both the fish and the plants, the method is less waterhungry than traditional farming, while carbon dioxide in the fish waste is recycled as a plant nutrient.

#### Mini farms on demand

The roots of aquaponics have been traced back to the Aztecs, who raised plants on islands in lake shallows, and to Far Eastern cultures who farmed rice in paddy in combination with fish.

ECF has already sold several of its mini farms, but stressed that "our business is not farming as a lifestyle hobby".AFP

### Curtains down for the 2-day fruit show at Coonoor



Having provided a visual treat to well over 25,000 tourists, the two-day 56th Annual Fruit Show organised by the district administration and the Department of Horticulture concluded at the Sima's Park in Coonoor on Sunday.

At the valedictory function, the Nilgiris Collector P.Sankar who was the Chief Guest emphasised the need to promote fruit cultivation at Udhagamandalam in a big way.

He pointed out that the conditions here are ideal for cultivating a variety of fruits. He also lauded the organizers for the attractive show.

Joint Director of Horticulture, R.Kathiravan welcomed the gathering. Assistant Director of Horticulture V. Ramsundar proposed vote of thanks.

The trophy for the best maintained private fruit garden (above one acre) went to Muzibur Rehaman of Ottupatrai, Coonoor.

The trophy for the best fruit garden attached to schools and institutions was won by the Saint Joseph's Boys Higher Secondary School, Coonoor.

### Water level

### **Madurai**

The water level in Periyar dam stood at 114.20 feet on Sunday with an inflow of three cusecs and a discharge of 200 cusecs. The level in Vaigai dam was 32.91 feet with an inflow of 186 cusecs and a discharge of 40 cusecs. The combined storage in Periyar credit was 1,444 mcft. There was no rainfall recorded during the 24 hours ending at 8.30 a.m. on Sunday, PWD sources said.

### **TIRUCHI**

The water level in the Mettur Dam stood at 35.32 feet on Sunday against its full level of 120 feet. The inflow was 887 cusecs and the discharge, 500 cusecs.

### **TIRUNELVELI**

Water level in the Papanasam dam on Sunday stood at 54 feet (maximum level is 143 feet). The dam had an inflow of 28.12 cusecs and 204.75 cusecs of water is discharged from the dam. The level of the Manimuthar dam stood at 67.65 feet (118 feet). The dam had an inflow of 40 cusecs and no water is discharged.

### Kanyakumari

The level in the Pechipparai dam stood at 19.95 feet, 45.30feet in Perunchani, 7.94 feet in Chittar 1, 8.03 feet in Chittar 11, 6 feet in Poigai and 54.12 feet in the Mamabazathuraiyaru dam.

### hindustantimes

Chennai **▼** 

Max Min

 $40^{\circ} + 29^{\circ}$ 

### Chennai - INDIA

Humidity: 75

Today's Weather

Monday, May 19

Tomorrow's Forecast

Tuesday, May 20

Max Min
Sunny

34° | 28°

Partly Cloudy

Sunset: 06:28

Rain: 0 Sunrise: 05:42

Wind: normal Barometer: 1008

### Extended Forecast for a week

Wednesday	Thursday	Friday	Saturday	Sunday
<b>May 21</b>	<b>May 22</b>	<b>May 23</b>	<b>May 24</b>	<b>May 25</b>
Š	Š	Š	<del>-×</del>	- <del>\</del> \
40°   29°	42°   30°	42°   30°	42°   30°	41°   28°
Partly Cloudy	Partly Cloudy	Partly Cloudy	Sunny	Sunny



### **Business Standard**

### Soybean price down on low soy product demand



<u>Soybean</u> prices were down around Rs 150-200 in a week in physical markets as traders feel the new government will take tough steps to curb <u>inflation</u> in the coming days, said traders.

"Most market players feel the new government will do everything in its power to curb inflation which will bring down all <u>agriculture commodity</u> prices," said B L Saini, a soybean trader in Indore.

On Saturday last, soybean prices in mandi auction were Rs 4,400- 4,700 per 100 kg compared with Rs 4,500-4,900 per 100 kg a week ago, said traders.

Plant delivery prices were Rs 4,600-4,700 per 100 kg compared with Rs 4,770-4,825 per 100 kg a week ago.

Also, traders feel all other factors except low arrivals are not in favour of prices.

Soybean arrivals are extremely low as the average daily arrivals in Indore are around 2,500 bags of 100 kg each and across Madhya Pradesh average daily arrivals are 25,000

bags of 100 kg each.

Among other factors, low soy product demand and strong rupee against the US dollar are affecting the soybean prices adversely, said traders.

Currently, domestic soyoil demand and export demand for soymeal is not encouraging and it may not show any near term improvement, feel traders.

### India's groundnut exports fall 8% in 11 months



India's groundnut exports declined eight per cent in the period between April 2013 and February 2014 due to huge carryover stocks in global markets led by a bumper crop in Argentina and the United States.

Indian Oilseeds and Produce Export Promotion Council (IOPEC) data showed India's groundnut exports at 456,955 tonnes in the first 11 months of the financial year 2013-14 as compared to 496,059 tonnes in the corresponding period last year.

In value terms, however, the decline was steep at 22 per cent due to fall in global prices of groundnut. IOPEC data showed total exports in value terms at Rs 2,913.8 crore in the first 11 months of the financial year 2013-14 as compared to Rs 3,776 crore during April 2012-February 2013 period.

"The fall can be attributed to the global demand and supply factors. Groundnut prices in world markets crashed and have become almost half during the last two years from around \$2,480 a tonne to around \$1,300 a tonne due to bumper crops, huge carryover stock in Argentina, China and the US," said Kishore Tanna, chairman of IOPEPC.

The US has a huge carryover stock of about 1.04 million tonnes, whereas Argentina holds about 0.43 million tonnes of stock for 2013-14. These countries are offering competitive price in world markets as compared to India. "The import demand from China has also reduced due to huge production of groundnuts in China (about 17 million tonnes in 2013-14). Since China is one of the key markets for Indian groundnuts, lower imports from China have exerted pressures on Indian exports," said an analyst.

Another key factor is huge depreciation in the currency of Argentina, which is one of India's biggest competitors. The Argentine peso has depreciated 36 per cent from 5.12 during April 2013 to 7.99 against the US dollar in April 2014. By comparison, Indian rupee has depreciated just 10 per cent from 54.12 to 60.28 in the corresponding period. The huge depreciation in the currency of Argentina has enabled the exporter to offer much competitive prices.

TOP 50	GROU	NDNU	T EXPO	ORT DE	STINA	TIONS	Expressing concerns over huge	
	2010-11		2011-12		2012-13		subsidy by competing	
Country	Quantity (tonnes)	Value (₹ cr)	Quantity (tonnes)	Value (₹ cr)	Quantity (tonnes)	Value (₹ cr)	countries, Tanna said the US	
Indonesia	182,810	932.71	252,665	1,589.93	170,219	1,256.90	currently pays around \$ 20	
Vietnam	2,978	15.04	241,497	1,505.14	139,362	1,060.66	earrently pays around φ 20	
Malaysia	71,175	376.33	76,596	487.6	70,276	535.01	billion per year to farmers in	
Philippines	46,010	234.03	54,824	351.09	57,906	452.83	direct subsidies as "farm	
Thailand	11,497	60.37	32,889	212.26	22,766	178.04		
Total	433,751	2,178.41	832,623	5,246.45	535,673	4,065.59	income stabilisation via US	
Source: DGCIS		72				=77	farm bills. Large subsidies	

given by developed countries to their farmers have blunted the competitive edge of

Indian agricultural products.

On the domestic front, factors such as unsteady production accompanied with lower yield, lower quality of Indian groundnut, high freight rate and various taxes imposed on exports have caused downward pressures on exports.

### Global wheat, corn yields seen suffering from El Nino: Study



Global <u>corn</u>, rice and <u>wheat yields</u> appear to suffer from the <u>El Nino</u> weather event, while <u>soybeans</u> may benefit, according to a study led by <u>agricultural</u>-weather researcher <u>Toshichika Iizumi</u>.

An analysis of wheat productivity found global yields for the world's most widely grown grain were on average 1.4 per cent lower than normal in El Nino years, according to the study published in the journal Nature Communications. Signs are for an El Nino event to start later this year, according to the <u>World Meteorological Organization</u>.

An El Nino occurs every two to seven years and is caused by warmer surface water in the Pacific Ocean, while its counterpart La Nina is associated with cooler years. An El Nino in 2006 saw a slump in Australia's wheat crop, contributing to a run-up in prices that pushed global food costs to a then record in 2008. The four studied crops all seem negatively affected by La Nina, the cooler phase of the climate phenomenon known as the El Nino Southern Oscillation.

"The overall impacts of ENSO on global yields are uncertain," the researchers led by Iizumi of Japan's National Institute for Agro-Environmental Sciences wrote. "Our findings highlight the importance of ENSO to global crop production."

Based on the area harvested worldwide in 2000, about 22 per cent of wheat suffered "significant" negative impacts from El Nino, including in south and east Australia, Mexico, parts of China and the northwest US, the study indicated. About 6 per cent of wheat benefited significantly, including in parts of Russia, Argentina and northern China, the researchers found. Global wheat yields were 4 per cent lower than normal in La Nina years, the researchers found.

### **Dry conditions**

El Ninos tend to lead to dry conditions in parts of Australia and Southeast Asia as well as the northern half of South America. Australia's wheat harvest fell to 10.8 million tonnes (mt) in 2006-07 from 25.2 mt, US Department of Agriculture data show.

In El Nino years, global corn yields were on average 2.3 per cent lower than normal, while they were 0.3 per cent lower in the cooler La Nina phase. About 24 per cent of corn suffered "significant: negative impacts from El Nino, including in parts of the US and China as well as in Mexico and Spain, while 8 per cent benefited significantly, particularly in Brazil and the Black Sea region, the study showed.

Water temperatures in the tropical Pacific have risen to levels similar with the onset of El Nino, and about two-thirds of climate models indicate thresholds to declare the event may be reached from June to August, the WMO said last month.

#### Soybean Advantage

Soybeans seem to benefit from El Nino, with average global yields 3.5 per cent higher in the warm phase, while they were found to be one per cent lower in cooler La Nina years. El Nino means a significant positive impact for 36 per cent of the planted area, mostly in Brazil and the US, and a significant negative effect on 9 per cent, mainly in India and parts of China.

Rice yields on average were found to be 0.4 per cent lower than normal in El Nino years, and 1.3 per cent lower in La Nina years, according to the study. During El Ninos about 7 per cent of the world's rice area experiences significant negative impacts, particularly in southern China, the study showed.

Wheat was harvested from 216 million hectares worldwide in the 2012-13 season, followed by corn with 177.2 million hectares and rice with 158 million hectares, according to the USDA. Farmers harvested 109.2 million hectares of soybeans.

# BusinessLine

### Rich harvest on the horizon



The party in stocks of companies with a Gujarat connection started much before the final election verdict was out. But despite the rally in the last month, here's one pick from the stable which is still available cheap. At ₹67, the stock of Gujarat State Fertilisers and Chemicals (GSFC), one of the leading fertiliser producers in the country, trades at an attractive four times its one-year forward earnings. Besides, the current value of GSFC's investment in other state-owned firms such as GNFC, Gujarat Alkalies and Gujarat Industries Power stands at ₹12 a share.

Healthy growth prospects, expansion initiatives, a strong balance-sheet and a re-rating potential make the stock a good buying opportunity for investors with a one-to-two year horizon. After a lacklustre show over the last few quarters, GSFC's performance has improved significantly in the March quarter. The company took a slew of initiatives to prune costs. This coupled with higher realisation for its fertiliser and chemical products led to a 55 per cent jump in its operating profit during the March quarter compared to the

same period a year back. The company is likely to continue its healthy performance in 2014-15, aided by a few factors.

### **Strong prospects**

First, concerns in the fertiliser business have begun to recede. The high fertiliser inventory in the distribution channel in 2012-13, which impacted volume growth in 2013-14, has normalised now. The current inventory of di-ammonium phosphate (DAP) fertiliser with dealers has reduced from about 45 lakh tonnes in early 2013-14 to about 20 lakh tonnes now. This should help GSFC post higher DAP sales in the current fiscal.

Also, the supplies of phosphoric acid from the company's joint venture Tifert commenced last year. Tifert — a three-way joint venture between GSFC, Coromandel International and two Tunisian state owned companies — will sell 1.8 lakh tonnes of phosphoric acid to GSFC annually. This should aid the company's higher complex fertiliser production and sales in 2014-15. GSFC has increased the selling price of select fertilisers in the last two quarters. The selling price of ammonium sulphate and ammonium phosphate sulphate has been increased by 12 per cent and 16 per cent respectively, which will also aid profit growth.

The risk to the fertiliser segment's performance may be a weak monsoon. However, barring a drought-like situation, marginal deviation in rainfall may not have a material impact on fertiliser volumes.

Second, GSFC's chemical business is also showing signs of stability. The market dynamics of methanol, a key product, has changed for the good in the last few months. Reduction in dumping by Iran, a leading producer, due to sanctions and expansion into other value-added products has helped. This should enable GSFC sell more methanol at reasonable prices in the curent year. The margins for GSFC's key product, caprolactum, moderated during the second half of 2013-14 due to a sharp rise in the price of its key raw material, benzene. But now, with an increase in benzene supply from the US

refineries, input prices are expected to moderate. GSFC has also made investment in the caprolactum facility at Baroda to reduce benzene consumption. These factors should help the company improve its efficiency and profitability from the chemicals segment.

Third, an increase in power costs, which impacted the company's operating profit margin last year, may abate in 2014-15. GSFC has added 32 MW of wind power capacity last year, taking its total capacity to 152.8 MW — this should reduce the company's outgo on fuel cost.

Fourth, the company's expansion initiatives should start paying off by early 2015-16. GSFC's water soluble fertiliser plant with an annual capacity of 20,000 tonnes is expected to commence operations by the end of 2014-15. Also, the company's 15,000 tonnes high-grade nylon chip plant is expected to be operational by the end of the year. These should add to revenues next fiscal.

### **Adding capacity**

In addition, GSFC is increasing its fertiliser and chemical capacity, which should aid revenue growth over the medium term (three to five years).

Expansion initiatives include an additional complex fertiliser unit with an annual capacity of 0.5 million tonnes at Sikka (Gujarat) with a capex of ₹600 crore. Likewise, the company plans to augment its melamine capacity by setting up a new plant with an annual capacity of 40,000 tonnes at Dahej at a cost of ₹1,100 crore and a new caprolactam plant with an annual capacity of one lakh tonnes in Vadodara entailing investment of ₹4,000 crore.

A portion of the above mentioned capex will be met through borrowings. But GSFC's is well-placed to leverage its balance sheet given its cash reserves of ₹386 crore as of March 2014, much more than its long-term debt of ₹224 crore.

### Prices fall at Kochi tea auction



Almost all varieties at the Kochi Tea auction quoted lower this week. In sale no 20, the quantity on offer in CTC dust grades was 11,10,000 kg.

With fair demand, the market opened ₹3-5 lower. As the sale progressed, the decline in price was ₹5-10 and sometimes more. Medium and plainer teas witnessed heavy withdrawals due to low or lack of bids.

According to the auctioneers Forbes, Ewart & Figgis, the arrival in orthodox dust category was low compared to last week with only 6,500 kg on offer. The market for primary grades remained steady while others were irregular and lower. A small quantity of orthodox dust sold was absorbed by exporters.

In the best CTC dusts, PD grades quoted at ₹97/114, RD varieties fetched ₹105/125, SRD ruled at ₹118/151 and SFD stood at ₹120/152.

The leaf category also witnessed a declining trend in prices and the quantity on offer in orthodox grades was 1,31,000 kg. The market for select best Nilgiri Brokens, Whole Leaf and Fannings barely remained steady. Others were irregular and tended to ease.

Clean Black Well Made Medium Bolder Brokens, Whole Leaf, Tippy Grades was steady to firm. There was a subdued demand from exporters.

The quantity on offer in CTC leaf was 80,500 kg. The market for good and medium barely remained steady and tended to ease. Plainer varieties were lower and witnessed heavy withdrawals due to low or lack of bid.

In the dust category, Injipara (Prm) SFD quoted the best prices of ₹163 followed by Injipara (Prm) RD at ₹155. In leaf varieties, Chamraj Green FOP (s) fetched the best prices of ₹310 followed by Pascoes Woodlands Hyson Green Tea at ₹280.

### THE FINANCIAL EXPRESS

### Column: Agriculture must get climate smart

With the Indian Met department having recently warned of weak monsoons this year due to the El Nino effect, there will be serious implications on agricultural production and food prices. More than 60% of the area under cropping in India is rain-fed. Low and erratic monsoon will severely affect the livelihood of those dependent on agriculture. It may be recalled that the frequency and intensity of droughts have increased during the last two decades. This is the direct impact of global warming and climate change. The recent IPCC report has highlighted that India's high vulnerability and exposure to climate change and global warming will slow its economic growth, impact human health, and make poverty reduction and food security efforts more difficult. It is also projected that the climate change will lead to severe water shortage and trigger water-borne diseases. There are projections that India could lose 10-40% of its current crop production by the

end of century due to global warming. A recent IFPRI-CCAFS study estimated that a 10% drought will increase prices of rice by 23%, followed by maize (16%), and pigeon pea (10%). These evidence indicate that drought will upset the government's efforts of increasing agricultural production, ensuring food security and controlling food inflation. There is no choice but to avert the negative impacts of a drought-like situation to meet the future demand for food, feed and fibre. It requires a long-term strategy which would prepare farmers to adapt and respond to climate change, and effectively overcome the threat of drought and other climate change eventualities. Climate-smart agriculture, which sustainably increases agricultural productivity and enhances achievement of national food security goals, provides a window of opportunity to avert the impact of drought. It contributes in:

n promoting sustainable increase in agricultural productivity by incorporating climate change perspective (including drought),

n building adaptive capacity and resilience of production portfolio to climatic risks without compromising food security and,

n minimising green-house gas emissions and maximising carbon sequestration by improved management practices.

More precisely, it is a 'win-win' proposition that enhances agricultural productivity and farm incomes, reduces climatic risks (especially drought), and controls emission of green-house gases. To avert negative impact of climate change, accelerated adoption of climate-smart agriculture would be necessary which would require dynamic national policies and investment priorities that will positively influence local institutions and interventions to adapt climate change.

To prepare for averting impact of drought, we



### Sugar Factory Harassing Cane Farmers

YADGIR: Sugarcane farmers have been suffering heavy losses thanks to the negligence of a sugar factory. The Karnataka Rajya Raitha Sangha alleged that Core Green sugar factory at Wadigera is responsible for the withering of the standing sugarcane crop in the surrounding villages in Shahapur taluk.

The Sangha members allege that Core Green had reached an agreement with the farmers that the sugarcane they grow would be harvested and transported by the factory.

Considering this as an opportunity, Ameen Patel, a farmer at Wadigera village, cultivated sugarcane on three acres.

But the factory did not harvest the sugarcane even after nine months. Since the cane was not harvested on time the farmer suffered a huge loss. Patel's is not the only case. There are many other growers who have been facing similar difficulties due to the negligence of the factory, the members alleged.

It is said that the factory officials turned a deaf ear when the growers approached them with their problems.

Sangha members urged the factory management to immediately harvest the crop in the hobli. They warned that if the demand was neglected, a protest would be launched in front of the Deputy Commissioner's office.

### Rainwater Harvest Relief for Drought-prone Areas

BHUBANESWAR: After an innovative idea of storing water at subsurface level through rainwater harvesting proved successful in 10 blocks of six districts, the State Government, on Saturday, decided to replicate the model in drought-prone areas.

A group of engineers of the State have developed a technique of storing water at subsurface level by using low cost technology. The subsurface water storage will be within 10 meters of the surface from which vegetation can source water and ground water can be recharged. Besides, such storage will significantly improve the moisture level of the soil in drought-prone areas.

"This is a low cost technology in which the investment per hectare will be between `15,000 and `20,000," said a senior officer after a meeting with the engineers.

The group of engineers led by Banamali Nayak explained the new technique to senior officers of the Government at a high-level meeting chaired by Chief Secretary JK Mohapatra here.

As surface storage of rainwater, though helpful for ground water recharge, has its limitations and sufficient water cannot be stored in a surface reservoir that can support cropping over a significantly large area, the group developed the technique of storing water at subsurface level.

The technology was taken up on pilot basis in the blocks like Tarabha in Subarnapur district, Maneswar in Sambalpur district, Barkote in Deogarh, Ghatagaon and Patana in Keonjhar district, Padmapur, Paikmala, Bhatli and Jharbandh in Bargarh district and Banpur in Khurda district. The application of the technology has yielded targeted benefits.

The projects have been done through Government agencies like Western Odisha Development Council, Western Odisha Rural Livelihood Project, Integrated Watershed Management Project and Chilika Development Authority.

Application of the technology have also been facilitated through Nabard and other corporate agencies in Bansapal and Ghatagaon blocks of Keonjhar district, Thakurmunda block of Mayurbhanj district, Mohana block of Gajapati and Hinjilikatu block of Ganjam district. Mohapatra asked the Water Resources, Agriculture and Panchayati Raj departments to replicate the technique in about 40 to 50 drought-prone blocks.

## THE ECONOMIC TIMES

### Gur closes quiet on some support



NEW DELHI: The wholesale gur ( Jaggery) market settled on its previous closing levels in the national capital on Friday on paucity of stocks amid some buying. Muzaffarnagar and Muradnagar gur markets, however, ended flat in thin trade.

Marketmen said negligible arrivals due to rising mercury against dull demand, mainly keep prices unchanged. Following are Friday's rates per quintal: Gur chakku 3,300-3,400, pedi 3,300-3,400, dhayya 3,500-3,600 and shakkar 3,600-3,700.

Muzaffarnagar: Rasket 2,600-2,650, chakku 2,750-3,100, khurpa 2,900-2,950 and Ladoo 3,000-3,125.

Muradnagar: Pedi 2,950-3,000 and dhayya 3,050-3,100.