

‘World running out of carbon allowance’



China's per capita emissions surpassed Europe's for the first time, between 2013 and 2014. Photo: Reuters

Latest study says we may use up the global carbon budget within 30 years

Children born today will see the world committed to dangerous and irreversible levels of climate change by their young adulthood at current rates, as we poured a record amount of greenhouse gases into the atmosphere last year. The strong rise in annual carbon dioxide emissions — of 2.5% for 2013, taking the total emitted in the year to 40 billion tonnes — means the global carbon budget, calculated as the total we can afford to emit without pushing temperatures above the critical 2 degree Celsius level, is likely to be used up within just one generation, or in thirty years from now.

That will mean children now, with no say in their contribution to carbon, will feel the effects throughout their lives. Scientists think

climate change is likely to have catastrophic and irreversible effects, including rising sea levels, polar melting, droughts, floods and increasingly extreme weather. They have calculated that this threshold is likely to be breached if global emissions top 1,200 billion tonnes, giving us a “carbon budget” to stick to in order to avoid dangerous warming.

Dave Reay, professor of carbon management at the University of Edinburgh, said: “If this were a bank statement it would say our credit is running out. We’ve already burned through two-thirds of our global carbon allowance and avoiding dangerous climate change now requires some very difficult choices. Not least of these is how a shrinking global carbon allowance can be shared equitably between more than 7bn people and where the differences between rich and poor are so immense.”

The study, by the Global Carbon Project, also found that China’s per capita emissions had surpassed those of Europe for the first time, between 2013 and 2014.

TS to pay 25% of crop loans immediately

The Telangana government on Monday decided to credit to the bank accounts of farmers 25 per cent of their crop loans with a ceiling of Rs one lakh as part of implementation of the loan waiver scheme of ruling TRS.

The government also announced release of Rs. 4,250 crore which is 25 per cent of the Rs. 17,000 crore borrowings by 36 lakh farmers up to Rs one lakh. This will be the first instalment of releases to banks and the remaining three instalments and interest will be negotiated with bankers, it was decided at a meeting of the six-member Cabinet sub-committee on loan waiver and later vetted by Chief Minister K. Chandrasekhar Rao.

The decision of the government, in effect, meant that farmers with outstanding loans of Rs one lakh and more will get a flat Rs. 25,000 immediately and those with balances below Rs one lakh will get 25 per cent proportionately.

For instance, a loan outstanding of Rs. 50,000 will fetch only Rs. 12,500.

The government rushed through the decision after a series of meetings by the Cabinet sub-committee last week to meet the September 30 deadline for repayment of loans.

Centre urged to take up river link project

In right earnest to prevent floods and water shortage



VIT University Chancellor G. Viswanathan has appealed to the Central government to take up river link project to solve the water shortage faced by many States.

Inaugurating a 5-day training programme on 'Sustainable Development and Management of Ground Water Resources,' organised by the Central Ground Water Board (CGWB), South Eastern Coastal Region (SECR), Ministry of Water Resources, on

varsity campus here on Monday, Mr. Viswanathan said, “It is time the Centre took control of rivers and accorded priority to the project.

The project, accepted in principle by the previous National Democratic Alliance government during 1999-2014, was not followed up. The implementation of the project would not only mitigate the flood threats faced by some parts of the country but also help rain-shadow States.

E. Sampath Kumar, Regional Director, CGWB, SECR, Chennai, said officials of the Tamil Nadu Water Supply and Drainage Board, agriculture and the agricultural engineering departments, representatives of non-governmental organisations and students were participating in the national-level programme. The participants would be imparted training in aquifer mapping, delineation of horizontal and vertical direction, conservation of groundwater, water quality assessment and vulnerability of aquifer identification.

The programme was aimed at tackling the problem of declining water level owing to urbanisation, population explosion and over-exploitation and would concentrate on areas where there had been 100 per cent exploitation of groundwater, he said.

Bringing colour and light to lives, with eyes

When you harvest eyes from a dead person, not one, but two people acquire vision.

“This is what makes eye donation unique because your eyes light up other lives after your death,” says C. Velu, an eye bank technician who has been instrumental in helping doctors harvest over 1,300 pairs of eyes.

Velu, who has only one functional kidney, has created awareness about eye donation among more than 500 people.

Born in the village of Vachalur in Vandavasi, Velu is the fifth child in a family and lost his father early. With difficulty, he managed to complete his studies up to class IX. He underwent his first surgery, a pyeloplasty to correct a block between the kidney and ureter, at the age of four. But as things did not get better, he had to undergo another surgical procedure, an urethroplasty.

Seeing his grit and determination to withstand his pain and help others with theirs, the urologist who performed the surgery encouraged him to take up a job as a ward boy in Balaji Hospital. Later, he underwent training in the nephrology department and soon qualified as a dialysis technician. He then moved to BRS Hospital as an operation theatre assistant.

In 1995, he joined Rajan Eye Care Hospital and was trained in the donor corneal retrieval procedure. It was here that he realised the importance of eye donation. He says, "Lack of awareness is a major obstacle in convincing families and obtaining consent for eye donation."

He points out that explaining details such as when one can donate eyes, which is within 6-8 hours after death, is important. Also, family members need to be assured that harvesting of eyes will not cause any disfigurement.

About three months ago, he donated the eyes of his brother who met with a sudden death.

In recognition of his dedication and his exemplary service to society, the Rotary Club of Guindy, Rotary International District 3230, presented him a vocational excellence award recently. The honour has only motivated Velu to lead more people from the darkness to light.

"I want to light up at least 1,000 lives before I leave this world," he says.

More nods for organic veggies

While R. Latha from T. Nagar prefers to buy her groceries from a supermarket, when it comes to vegetables, she is very particular that she visits an organic store. “Not only are organic fruits and vegetables healthier and safer, they are also more flavourful,” she said.

Ms. Latha was one of the visitors at the Organic Food Mela, organised by the Citizen Consumer and Civic Action Group (CAG) and Consumers International (CI). Most food vendors point out that people are slowly shifting towards organic fruit and vegetables.

According to Sumathy S. Mani, who runs the Akalpita organic food store on Habibullah Road, there is increased awareness, leading to a preference for organic vegetables. “Organic groceries are more expensive, and so people are a little more hesitant to buy those,” she said.

Speaking of the cost of vegetables, B. Thelakarajan of Aswat Eco Organics on G.N. Chetty Road pointed out that when produce is directly procured from farmers, the cost can be reduced.

“We tell the farmers to name their price and adjust our overheads accordingly. Currently, our vegetables are sold at costs that match those of regular retail fruit and vegetable outlets,” he said. When the demand increases, organic produce will cost less than regular groceries, he added.

The demand for other organic products including millets and cold pressed oils, however, are not as high. Lakshmikanthan from Sankaraa Naturals, based in Ambattur, said, “There are a large number of organic products available. While most people agree they are good for health and will buy them occasionally, it will take a while to shift completely.”

Metrowater to sell treated waste water for construction

In these days, when freshwater resources are becoming scarce, Chennai Metrowater has come up with the idea of supplying treated waste water to the construction industry.

The industry needs close to 20 lakh litres of water daily for various construction activities. Of this, nearly 6 lakh litres are estimated to be required for major construction sites along the IT corridor. In a bid to ease the burden on groundwater, Metrowater has proposed to build another treatment plant to once again treat the water from the treatment plant in Perungudi.

The water agency is already supplying about 30 million litres a day of recycled water to industries, the Chennai Corporation, and the Tamil Nadu Road Development Company. The Rs. 56.6-lakh plant will treat six lakh litres per day, which will be provided to the industry.

Though the treated waste water is good enough to be used directly, the water agency will treat it again to ensure quality production of concrete and safe handling.

With Metrowater planning to complete the construction of the additional plant in November, the recycled water will be available for Rs. 20 per kilo litre. Besides saving freshwater sources, the project also aims at meeting the expenditure towards treating sewage. Construction contractors may register themselves to get the service, the release said.

Madurai Malli farmers form federation

Madurai Malli farmers in the district are joining hands to create a federation for sustainable development.

The Madurai Malli Farmers' Federation, formed by Dhan Foundation, has around 80 groups and 1,500 members at present.

"Farmers from Usilampatti, Chellampatti and Tirupparankundram, who are cultivating Madurai Malli, have joined the federation. It is likely to be fully functional from October," said A. Madhan Kumar, a programme leader in Dhan Foundation.

The federation has been formed with an aim of promoting collective activities, introducing the latest technologies and forming a producer company for better pricing of the flowers, he added.

According to Mr. Madhan Kumar, proposals have been submitted to form such federations in Theni, Dindigul, Sivaganga, Ramanathapuram and Virudhunagar districts as well, where Madurai Malli is cultivated. "The federation is to help farmers establish the brand and expand the export market," he further said.

The flowers have a good market in countries such as Singapore and Malaysia.

N. Saravanan, project coordinator of the federation, noted that on several occasions Madurai Malli is adulterated with flowers from other parts of the State while being exported.

"Farmers also pay stable amounts to agencies at the market, irrespective of the market price. The federation will help farmers trade directly and curtail adulteration," he added.

The flower is being sold between Rs. 200 and Rs. 1,000 per kilogram based on the demand.

Natural sago manufacturers' protest continues

Protesting against the adulteration of sago with wet starch, members of the Tamil Nadu Tapioca Natural Sago Manufacturers Association continued their strike for the third consecutive day.

Members said that since harvest of tapioca season began, all the sago processing units were functioning in the district and nearby districts. They were producing 100 per cent chemical free sago that has good market in North India. But allege that wet starch, produced by mixing banned chemicals, were supplied by manufacturers from Attur and Thalaivasal areas. Though in 2012 the then Collector J. Kumaragurubaran issued five guidelines for functioning of these units, the manufacturers failed to follow it later. Hence, adulteration continues, they said.

Members said that if adulteration is allowed to continue, tapioca starch will no longer be needed and the crop cultivated in over one lakh acre in the State will go wasted. They wanted officials from Food Safety Department to inspect these units immediately and take action against them for adulteration. Members wanted the Collector to ban the wet starch trading.

Wet starch

Meanwhile, Collector V. Dakshinamoorthy has called for a meeting of natural sago and wet starch manufacturers and others involved in activities related to the industry.

The meeting will be held at the Collectorate on Tuesday.

Stern warning to traders selling expired food

Local Administration Minister N.G. Pannir Selvam has warned of stringent action against those who sell substandard and expired food stuff at the Puducherry Bus Stand.

Replying to questions in the Assembly on Monday, Mr. Pannir Selvam said stringent action would be taken under the Food Safety and Standards Act, 2006 against those who sell such food products.

A separate wing under the Excise Department has been functioning to check if shopkeepers were selling packaged food above the maximum retail price.

Admitting that private parties have been running municipal shops at cheaper rents, he said his department has been considering auctioning of those shops once in three years to earn more revenue .

Mr. Pannir Selvam also said there was no written complaint about sub-letting of those shops at higher rents at present.

Answering queries raised by AIADMK MLA Omsakthi Sekar on the mushrooming of cable television networks in Puducherry, Mr. Pannir Selvam said he was aware of the assurance of the government on examining the possibility of taking over all cable television networks. The government has been in the process of setting up a committee to examine the feasibility of taking over all cable television networks.

Mr. Sekar alleged that the cable television operators and multi system operators deliberately failed to pay taxes running to several crores of rupees.

Hence they should be taken over by the government without any delay.

Tender floated for water supply scheme

Tender has been called for the implementation of Combined Water Supply Scheme (CWSS) to 698 rural habitations in Mecheri and Nangavalli Union at a cost of Rs. 89 crore in the district.

During the Collector's Conference in Chennai in 2012-13, Chief Minister has announced that the scheme would be implemented to augment the drinking water needs in these areas. Accordingly, water would be drawn from the surface water of River Cauvery near Thottipatti in Mettur and the raw water would be treated at the treatment plant with a capacity of 23.45 million litres a day (MLD). The treated water would then be pumped and taken through feeder main to Nangavalli and Mecheri Union and stored in tanks with capacity of 10,000 litre, 20,000 litre and 30,000 litre in the areas concerned. Water would then be distributed through 90 mm pipeline for 27,100 metres.

The last date for submission of bids would be September 26 and bids would be opened on the same day at 3.30 p.m. at the office of Chief Engineer, TWAD Board, Coimbatore.

Water level at Mettur

The water level at the Mettur Dam stood at 89.98 feet on Monday against its full level of 120 feet. The inflow was 5,631 cusecs and the discharge, 18,000 cusecs.

Water released from Amaravathi Dam

Providing relief to farmers over a command area of 47,117 acres spread over Tirupur and Karur districts, the Public Works Department (Water Resource Organisation) released water from Amaravathi Dam on Monday.

Water level was 80.96 feet against the total 90 feet and inflow was 185 cusecs when the shutters were opened at 9.30am.

The water was released through 18 channels in the old ayacut and through Amaravathi Main Canal.

“Total outflow from the dam is 1,450 cusecs at present and we are planning to continue the release of water for a period of 120 days depending upon the storage position as well as the good inflow expected with the arrival of north-east monsoon in the catchment area that is situated in Kerala,” a senior official of PWD (WRO) told *The Hindu* .

Benefit

Joint Director of Agriculture P. Santhanakrishnan said that the water released from the dam would immensely benefit irrigation of standing crops like sugar cane and coconut besides for increasing the area under paddy and maize. “Moreover, farmers will be enthused to raise pulses as the second crop after the harvest of paddy in the old ayacut areas. This is because that the old ayacut region has got clay soil which could retain the moisture for longer period,” he added.

Minister for Forests M.S.M. Anandan opened the shutters in the presence of Deputy Speaker of Tamil Nadu Legislative Assembly Pollachi Jayaraman, District Collector G. Govindaraj, various elected representatives and officials.

Cardamom growers in Sakleshpur hit hard by low yield, mounting debts

“A few years ago, the cardamom growers were very affluent in Sakleshpur, but now, many of them have applied for the below the poverty line (BPL) ration cards,” H.K. Kumaraswamy, Sakaleshpur MLA, had said at a recent meeting of the zilla panchayat here.

What Mr. Kumaraswamy meant to highlight was the plight of cardamom growers now. The cardamom growers are now in distress owing to various factors, including viral infection to the crop, decrease in the yield and rising interests on the loans they have borrowed.

For many years, the cardamom growers have been urging both the Union and the State governments to sanction a package to relieve them from the debts of over Rs. 9 crore. Addressing a press conference here on Sunday, Janata Dal (Secular) supremo and Hassan Lok Sabha member H.D. Deve Gowda urged the Chief Minister to respond to the woes of cardamom growers. He said he had written to the Chief Minister in this regard.

The banks have started issuing notices to farmers as part of the recovery process. The primary land development (PLD) bank has distributed about Rs. 2.56 crore as loan in Sakleshpur taluk.

“In this taluk, the recovery has been very low, compared to other taluks. The rate of recovery is only 43 per cent in Sakleshpur while it is about 70 per cent in other taluks,” said Shivaprakash, an officer in PLD bank. Mr. Kumaraswamy has appealed to the State government to direct the banks to stop the recovery process as cardamom growers were not in a position to repay their loans.

“Cardamom growers are already in distress. We are making efforts to get a relief package sanctioned for them. Soon, we will meet the Chief Minister in this regard. I hope, the banks stop the recovery

process till the Chief Minister takes a decision,” he said. Cultivation of cardamom suffered a serious set back in 2003-04 when the plants were infected by a viral disease, Kokke Kandu. “The disease spreads to a vast area within a short time. So far, the scientists have not been able to find a remedy to this disease,” said Uday, a cardamom grower in Ucchangi village.

“At present, cardamom is cultivated in around 3,800 hectares in Sakleshpur taluk. This was roughly double, a few years ago. In the last couple of years, parts of Sakleshpur have been receiving copious rain in short spells, which is not good for the crop,” said B.M. Jayaram, Deputy Director of Spices Board in Sakleshpur.

Rabi seed fest

University of Agricultural Sciences (UAS), Raichur has planned to hold a Rabi season seed festival on Thursday at university campus. The event would be inaugurated at 10 a.m.

Farmers’ forum launches agitation against slow pace of Kuttanad package

The Kerala Karshaka Sangham launched a 55-hour day-and-night satyagraha at Mankombu on Monday to protest against the alleged neglect of the UDF government towards the implementation of the Kuttanad package.

Inaugurating the agitation, Kerala Karshaka Sangham president E.P. Jayarajan, MLA, held Chief Minister Oommen Chandy responsible for the failure to initiate discussions regarding the related projects. “The Kuttanad Prosperity Council has not met in recent times. The government has also been unable to coordinate the efforts of the 12 departments involved in the various works. The fact that only less than 10 per cent has been utilised proved the lack of planning that has gone into implementing the package,” he said.

According to Mr. Jayarajan, the government remained unwilling to rectify its mistake despite agricultural scientist M.S. Swaminathan, who had designed the package, pointing out the problems that affected the projects. He also alleged that the package has been misused for the personal gains of certain Ministers.

He was of the view that the implemented projects had adversely impacted the Kuttanad region in several aspects. "The unscientific construction of bunds has disturbed the ecological balance in the region. The paddy production in Kuttanad has also come down drastically. The production has shrunk to 10 per cent of what it was over three decades ago. The difficulties faced by paddy and coconut farmers have resulted in lesser number engaging in cultivation," he said.

Mr. Jayarajan said the State had suffered a loss of Rs. 28,000 crore during the previous four years owing to the decision of the Congress-led United Progressive Alliance (UPA) government in bringing down import duty for natural rubber.

He said that a delegate led by the Kerala Karshaka Sangham would submit a memorandum to the Prime Minister and the Union Agriculture Minister seeking measures to revive the Kuttanad package. It was also announced that the organisation would launch a vegetable cultivation drive in all fertile lands across the State from November 1.

Kerala Karshaka Sangham district president M. Sreekumaran Thampi presided over the public meeting.

Big push to organic farming

The State Horticulture Mission (SHM) is planning to implement organic farming and certification in 2,000 hectares in the State. The programme is to be implemented initially in the three districts of Idukki, Wayanad and Kasaragod during 2014-15, under the guidance of the National Horticulture Mission (NHM).

Under the programme, financial assistance will be provided over a period of three years for groups of farmers covering an area of 50 hectares each. The aid will cover expenses on formation and maintenance of internal control system, documentation, and group certification by agency accredited by the Agricultural and Processed Food Products Export Development Authority (APEDA).

The programme was being implemented in only three districts at present as the NHM aid was intended for those districts which had high potential, K. Pratapan, Director, State Horticulture Mission, told *The Hindu*. The scheme would cover different crops under a specified area where groups of farmers joined together to form a cluster, he said.

Crops covered

The scheme is applicable to NHM-mandated crops, including banana, pineapple, mango, guava, litchi, pear, strawberry, passion fruit, cut flowers, pepper, cinnamon, clove, ginger, turmeric, cocoa, cashew, aromatic, and medicinal plants. Financial assistance will be provided for a period of three years to a maximum of Rs.5 lakh a group of farmers for certification and associated processes.

The charges for organic adoption would include cost of seeds and planting materials, organic fertilizers, organic manures, organic pesticides, biocontrol agents, biofertilizers, biopesticides, and permitted chemicals. Agencies should facilitate the buy back

arrangement of organic produces and products, as per the guidelines of the programme.

Many farmers were willing to adopt organic farming practices, but lack of proper guidance and reluctance of banks to extend loan to them had deterred many among them. Banks were reluctant to extend loan to organic farmers, Jose Francis, a Kochi-based entrepreneur who operates a sales outlet for organic farm products, said.

Interestingly, studies conducted by established agencies have indicated high pesticide content in vegetables marketed in Kerala. A report prepared recently by the Food Quality Monitoring Laboratory under the Council for Food Research and Development (CFRD) indicated presence of pesticides beyond permissible limits which rendered several lots collected from the market unfit for human consumption. Organic farming practices have assumed greater relevance under the situation.

Financial aid will be provided for three years for groups of farmers under a State Horticulture Mission initiative.

Palakkad fast losing its rice fields

Though Palakkad district continues to be the traditional rice bowl of Kerala, having the largest acreage under paddy cultivation, there has been an alarming trend of rice growers gradually moving to cultivation of other crops that promise instant returns. As per statistics with the Agriculture Department, the acreage under paddy has fallen to 87,000 hectares in the district.

Though paddy production has remained comparatively steady in the last five years at 4.5 tonnes a year, large-scale diversion of paddy fields has raised concern. As per available data, the district is losing

about 200 acres of rice field every year to ginger and other short-term crops and also for construction purposes. “If the trend continues, the district would not have rice fields in two decades. Lack of irrigation water, labour shortage, weakening government patronage, and low support prices are dissuading the younger generation from taking to the fields,” says Prabhal Mohandas of Daksh Farm at Chittur.

As per official records, the district had paddy cultivation in 1,82,621 hectares in 1970-71. It expanded to 1,83,634 hectares in 1980-81, largely due to the increased network of irrigation canals. However, the acreage under paddy declined to 1,45,687 hectares in 1990-91. In 2000-01, the acreage shrunk to 1,18,701 hectares.

“We lost about 47 per cent of our rice fields over the last decade. About 30,000 hectares has been diverted for other purposes between 2000 and 2014 alone,” points out Indyanur Gopi, a social activist.

On their part, farmers blame the real estate lobby which buys paddy fields from farmers at a cheap rate and converts them into house plots. “The farmers are forced to sell the fields owing to loss in paddy cultivation. The government should take steps to make paddy cultivation profitable,” says farmers’ leader Muthalamthode Mani.

In areas such as Chittur, ginger cultivators from other districts are taking rice fields on lease at Rs.40,000 a hectare. Labour shortage is another issue with farmers, who depend on workers from Bengal in the absence of local labour force.

Non-payment of crop loan dues to attract 12 p.c. penal interest

The farmers, who are the beneficiaries of the Telangana government’s loan waiver scheme, would be exposed to 12 per cent penal interest for non-repayment of dues before the deadline. In the

process, the farmers would also not qualify for zero interest on prompt repayment.

Zero interest

They were eligible for zero interest because the Central and State governments subsidised the seven per cent interest on crop loans in the ratio of 4: 3.

By this decision, the government also ensured issue of fresh loans by banks with the possibility of scaling up finance and crop insurance.

Otherwise, the bankers and insurance companies would not entertain fresh applications as the kharif ended on September 30.

For a credit of Rs. 25,000 now, sources said farmers would get another Rs. 25,000 to 35,000 as hike in scale of finance and 'consumption loan' which is given at the discretion of bankers on perception of repayment.

Fresh loans

Agriculture Minister Pocharam Srinivas Reddy and Finance Minister Eatala Rajender told the media after the Cabinet sub-committee meeting that the panel will meet bankers to speed up steps for fresh loans on Tuesday.

They said it was the responsibility of the government to negotiate with bankers payment of the remaining three instalments and interest. "We will sort it out," he said.

The decision will apply to all the commercial crops and loans borrowed by mortgaging gold at seven per cent interest.

Minister talks tough on hoarding of fertilizers

Minister for Agriculture Prathipati Pulla Rao has vowed to crack down on illegal hoarding of fertilizers and warned that errant dealers would be blacklisted if they continue to sell fertilizers on higher prices than MRPs.

The Minister's statement came in the wake of reports that farmers had been forced to pay higher prices for procuring fertilizers from dealers, with the latter allegedly hoarding the stocks and selling them at prices as per their whim and fancy.

"Three cases have been registered against fertilizer dealers in Guntur district alone and I have instructed all agricultural officers to conduct surprise checks at the depots," Mr. Pulla Rao told the media at the end of a video conference held with agricultural officers of 13 districts of the State on Monday. The Minister also warned those selling inferior quality of bio-fertilisers of severe action.

The Minister said that dealers would be given 5-7 days to keep the fertilizer stocks with them and if they exceed the time limit, they would have to inform the respective Agricultural Department officials.

"Sufficient stock of Urea and complex fertilizers is available in the State, in spite of the closure of the Nagarjuna Fertilisers and Chemicals Ltd (NFCL). Only two districts, Visakhapatnam and Srikakulam, have sought additional quantities," he informed.

'Polam Pilustondi'

Mr. Pulla Rao said that the total requirement of Urea in the State was 7.58 Metric Tonnes, out of which 5.9 MT had been made available. An additional rake of Urea was in transit and would reach the godowns soon, he said, adding that he was in regular touch with Union Agricultural Ministry pertaining to supply of fertilizers.

Later, the Minister said 'Polam Pilustondi' would be taken up on every Tuesday and Wednesday to create awareness on best agricultural practices to farmers.

He said that Agricultural Technological Management Agency (ATMA) would play a major role in organising interactive meetings with farmers and scientists.

Chilli, turmeric farmers to get loan waiver benefit

Minister for Agriculture P. Pulla Rao on Monday clarified that farmers cultivating horticultural crops such as chilli, turmeric and yam would be covered under the loan waiver scheme.

The Minister said that though chilli, turmeric came under horticultural crops, farmers were extended credit by banks on the lines of other agricultural crops. The move would help 2.6 lakh chilli farmers in the State. The Minister also said that in the first phase of loan waiver, loans to the tune of Rs.50,000 would be credited to the bank accounts of farmers each . "This alone would cost the State government Rs.15,000 crore and the resource mobilisation committee is looking into various options to raise funds," Mr. Pulla Rao said.

The loan waiver would be implemented after the banks give the final enumeration lists on September 26. Even then, the government has the software to verify the eligibility of farmers.

"Farmers can submit any one of the identity proofs during verification," he said.

Children eat poor quality cereals

Children in both States are eating poorer quality cereals, pulses, legumes and nuts. Percentage of 12-year-olds from STs in Telangana who consumed pulses, legumes and nuts, came down from 40 to 19.5 in the last seven years. For SCs, the figure fell from 35.4 to 20.6 per cent, and for OCs, from 29.2 to 15.4 per cent. - Staff Reporter

Farmers lament shortage of fertilizer

Despite repeated assurances by the officials from Agriculture Department to farmers that there would be sufficient stock of fertilizer, the long queues at the dealer shops and the Primary Agriculture Societies (PACS) centres in Nalgonda tell a different story.

Fearing that the delay in using the fertilizer may adversely affect the yield, farmers are seen waiting for long hours in queue at these centres for their turn to get a few bags.

There is anger and despair among the farming community as they were forced to spend number of days in queue lines and this is leading to rasta roko by them. Taking advantage of the situation some dealers are resorting to black marketing, allege the farmers.

Speaking to *The Hindu*, a woman farmer K. Lingamma, who has been waiting in the queue since morning on Monday, said that they cultivated paddy in four acres, but have not used fertilizer for the crop so far. She and her husband came to Nalgonda to purchase a few bags of urea last Saturday, but there was no stock at any of these centres and she doubts if she could get them today.

The State government was supposed to send about 95,000 metric tonnes of fertilizer, but the district received 25,000 metric tonnes less than its share.

The farmers allege that some of the dealers were selling one bag of urea at Rs. 370 as against the MRP of Rs. 284.

“Neither the district administration nor the public representatives conducted a review meeting to resolve the issue so far, the farmers lamented. The Vigilance Department turned totally inactive and was turning a blind eye to the goings on, the farmers allege.

Joint Director of Agriculture, B. Narasimha Rao, said that the farmers were using more than the suggested quantity of fertilizer which is one of the cause for the shortage.

No shortage of urea: Collector

Urea and other fertilizers have been made available as per the projected requirement of the farmers in the district and 29,358 metric tonnes out of the projected demand of 30,850 MT of urea have already been supplied, according to District Collector and Magistrate N. Yuvaraj. In a statement issued here on Monday, the Collector said that if any fertilizer dealer or Primary Agriculture Cooperative Society was found to be charging extra amount they would be punished under the relevant provisions of the Fertilizers Control Act.

INDIAN CITIES

INTERNATIONAL CITIES

Chennai - INDIA

Today's Weather



Cloudy

Rain: 0

Humidity: 89

Wind: normal

Tomorrow's Forecast

Tuesday, Sep 23

Max

32°

Min

24°



Partly Cloudy

Sunrise: 05:57

Sunset: 06:05

Barometer: 1009

Wednesday, Sep 24

Max

32°

Min

25°

Extended Forecast for a week

Thursday
Sep 25



35° | 26°

Cloudy

Friday
Sep 26



35° | 26°

Cloudy

Saturday
Sep 27



36° | 27°

Sunny

Sunday
Sep 28



36° | 27°

Partly Cloudy

Monday
Sep 29



35° | 27°

Partly Cloudy

Airport Weather

Chennai

Rain: 0

Humidity: 89

Wind: normal

Sunrise: 05:57

Sunset: 06:05

Barometer: 1009



THE NEW INDIAN EXPRESS

Corporates Thinking About Climate Change

BANGALORE: Sustainable business model expert Damandeep Singh said climate concerns are increasingly influencing strategies in the corporate sector.

He was speaking at the release of a report highlighting the preparedness of the information and communications technology sector in dealing with climate change, at the Indian Institute of Management, Bangalore (IIMB) recently. The report was prepared by the Carbon Disclosure Project India (CDP) and IIMB. It includes responses from 320 leading ICT companies, including Google, Microsoft, IBM and Infosys, from around 35 countries on their preparedness in addressing climate change, risks involved and opportunities presented.

The report states that most companies believe climate change impacts their business continuity and profits and feel that undertaking energy-efficient activities is the way to go. Singh, who is the director of CDP, said reducing carbon emissions continues to dominate agendas, with many firms setting emission reduction targets and focusing on quantifying the impact of climate change. “Though over 40 per cent of companies report a decrease in emissions, there is still a sizeable group which has not yet geared up to manage risks arising out of climatic change,” he said.

Plant to Draw Water from Neyyar Dam

THIRUVANANTHAPURAM: The city's dependence on a single source from Peppara dam to get drinking water is set to get an alternative. A 115 mld plant is being planned at a cost of Rs 200 crore by the Kerala Water Authority to draw water from Neyyar Dam. The proposal has got the green signal and initial funding of Rs 33.30 crore has received the approval of the State- Level Scheme Sanctioning Committee.

Under this project, a water treatment plant will come up in the Maranalloor panchayat. Of the total capacity, the city will get 100 mld and the rest will be equally shared by Maranalloor, Malayinkeezhu, Vilavoorkkal-Vilappil panchayats.

A well will come up adjacent to Neyyar river and water will be pumped to the plant at Maranalloor. "The initial funding is for making arrangements in the rural area. The construction of the plant and a well will be done at first. Kerala Water Authority and the government will discuss the mobilising the remaining amount," said Leenakumari S, executive engineer, project division of Kerala Water Authority, Thiruvananthapuram.

The water will be treated at the plant in Maranalloor and brought to the KWA compound at PTP Nagar in the city by laying pipelines where the treated water will be collected in a tank. On the route from Maranalloor to PTP Nagar, water will be supplied to the other three panchayats. KWA will write to the Irrigation Department to ensure continuous water flow from the downstream of Neyyar for this purpose. The preparation of the detailed project report is in the final stages now.

It was only when the city was facing the threat of water scarcity earlier this year that the concept for a secondary source of water came up. In a meeting of the empowered committee of JNNURM transition phase, this idea was put forward by Health Minister V S Sivakumar. Directions were issued to conduct a feasibility study and for preparing a project report.

Disparity in Rubber Stock Figures Alleged

KOCHI: Tyre and rubber industry associations have written to Additional Secretary Plantations, Department of commerce, Central government alleging that the Natural Rubber stock figures released by the Rubber Board at the end of August 2014 shows a discrepancy of around one lakh tonne. NR stock figure represents the existing NR stock in the country and is arrived at by deducting offtake (consumption + export) from availability (production + import).

According to the industry, based on the opening stock of NR in April this year and other factors, the closing stock ought to have been 2.85 lakh mt at the end of August this year.

However, the stock figures published by the Board is 1.85 lakh mt. The mismatch of one lakh tonne has significant consequences for all stakeholders, the industry has stated.

Either the production is being over estimated or consumption is being under estimated or a combination of both”, said Rajiv Budhraj, Director General, Automotive Tyre Manufacturers’ Association.

“Adjustment of NR stock data through self correction at periodic intervals without baseline correction in production and consumption figures presents a distorted picture. Since government policy is determined by import (as well as the stocks in the country), such an anomaly will lead to flawed assumption and hence erroneous outcomes”, said Mohinder Gupta, President, All India Rubber Industries Association (AIRIA).

CPCRI - A Crop Research Centre Par Excellence

KASARGOD: Farmer-couple Kunhiraman Bhasi and Vimala of Periya, a village in Kasargod, have never heard of Edward Victor Nelliath or P K Ramachandran Nair. But, their small land holding of 40 cents is testimony to the pioneering research done by the two scientists at Central Plantation Crops Research Institute (CPCRI), Kasargod, in the 1970s. The couple converted their land, a plot with laterite soil, into a multi-storey green haven of coconut trees, black pepper and pineapple.

The once-sustenance farmers say their yield has increased and so is their income from the land. Today what the Bhasis are doing is taken for granted because of the years of research done by Nelliath and Nair. Nelliath studied the different stages of growth of coconut trees, the sunlight the trees would pass to the ground, and based on that found the suitable lowerstorey crops that could be cultivated along with coconut trees. Nair left the institute in 1976 and is with the University of Florida. Today, he is a world leader in agroforestry.

In 2016, the research institute in Kasargod will turn 100, and scientists at the institute say most of their methods and machines have percolated to the people.

Origin

The institute was set up as a Coconut Research Station in 1916 by the government of Madras. The Indian Central Coconut Committee took over the station in 1948. CPCRI in today's form was established in 1970 under the Indian Council of Agricultural Research (ICAR). It has regional stations at Kayamkulam (Kerala), Vittal (Karnataka) and Minicoy (Lakshadweep Islands) and research centres at Kahikuchi (Assam), Mohitnagar (West Bengal) and Kidu (Karnataka). The institute conducts research on coconut, arecanut and cocoa, a plant

introduced in Indian by CPCRI, says K Muralidharan, Head, Division of Social Sciences.

Computers & Crops

But, CPCRI was not only about crop research. It had its share of computer research, too, as one of the first institutes to introduce the machine in Kasargod. After a Facit calculator and a DCM microcomputer, in 1982 an office table-sized PC arrived from ECI. "It's memory was 36 MB," recalls Muralidharan, who had then just joined the institute as a trainee scientist. Seeing the machine lying idle, K V Ahmed Bavappa, the founding director of the institute, called technical officer C H Amarnath and asked him to computerise the payroll in three months. "I was left with no choice. I learnt COBOL language, and then wrote the program for the payroll system," says Amarnath, who retired as chief technical officer.

Future

The task is cut out for CPCRI. Last year, Indian farmers wanted 15 million coconut seedlings, but only 2.3 million were delivered. "To meet the demand, plant tissue culture is the way forward. But now only CPCRI is working on it," says Anitha Karun, head and principal scientist (Horticulture). The UK and France have given up on coconut tissue culture, and recently other labs in India, too, have discontinued their research after multiple failures. "We are almost there. Now, we get four to five clones. We need at least 1,000 to make the technique commercially viable," she says. CPCRI is also working on unravelling the information in the DNA sequence of coconut to develop drought, temperature and disease-resistant varieties. "In the future we cannot do away with biotechnology tools, including transgenic," says Anitha Karun

IFC to Power Rajasthan's Solar Project

HYDREABAD: International Finance Corporation (IFC), said it will provide a loan aggregating `202 crore for the development of a 100-mw solar power project in Rajasthan.

Being developed by ACME Solar Energy, the overall cost of the proposed plant is pegged at `808 crore and is likely to be commissioned by April, 2015.

Such moves validate financial institutions' interest in renewable story of India, said Manoj Kumar Upadhyay, Founder & CMD, ACME Group.

Located around Bari Seer village in Jodhpur district, the upcoming 100-mw project is being developed by five subsidiaries of ACME Solar Energy Pvt Ltd -- Ranji Solar Energy, Acme Gurgaon Power, Acme Rajdhani Power, Acme Mumbai Power and Medha Energy.

'Foreign Investment in Cold Storage Units Will Help Farmers'

Foreign investment in setting up cold storage units in the district will be a great help for horticulture farmers, said District Industrial Centre joint director M L Halalli.

Addressing the valedictory of the two-day UGC sponsored national seminar on 'Foreign Direct Investment (FDI) in Retail Marketing in India' on Sunday, he said there is an urgent need of establishing cold storage units to protect agriculture produce.

He favoured FDI in this sector to be allowed in a phased manner and said it would help both the farming community and the customers. He opined that the sector would have access to adequate capital and sophisticated technology by allowing FDI.

'Good Days Ahead for Consumers'

Earlier, speaking on 'development of Indian economy- a perspective', M R Sollapur from Siddhaganga Institute of Technology- Tumkur said good days are ahead for consumers with the introduction of FDI in retail sector. Basaveshwara Institute of Management Studies Director R G Allagi presided.

As many as 13 teacher delegates presented papers on different aspects of FDI. Associate professor in Rani Channamma University (Belgaum) S O Halasagi, who chaired the session, said necessary precautionary steps have to be taken before welcoming FDI into Indian economy as there is a need to safeguard the interest of the people of the country.

Indian economy cannot be compared with that of Germany, Japan and other countries as it is a developing nation, he said.

"Why some big Indian retailers are incurring losses is an interesting and key topic to study at this juncture," he opined.

J V Chavan and M M Hiremath were present. The two-day seminar was organised by Basaveshwara Commerce College.

Principal L S Patil presided over the valedictory. Organising secretary S B Gavimath welcomed. Rapporteur S N Nargund presented a report on the proceedings of the seminar.

Deep Sea Fishing Still a Risky Means of Livelihood

KOZHIKODE: The killing of two fishermen by Italian marines two years ago had exposed the insecurity of the life of the fisherfolk then, but deep-sea fishing is still a risky means of livelihood for lakhs of fishermen across the state.

Though the Fisheries Department admits that there is risk involved in the job of the fisherfolk, the department has not been able to chalk out effective steps to ensure security to the lives of the fisherfolk, despite an insurance scheme.

The data available with the Fisheries Department say that the number of fishermen losing their lives in the sea is escalating. As many as 113 persons died during fishing in the last four years on the Kerala coast. As per the data, 40 fishermen lost their lives in the sea in 2011-12 and 2012-13, while 33 died during 2013-14. Of these, 10 fishermen lost their lives this year till June.

V Dinakaran, convener of Matsyafed, says the escalating number of accident deaths reveals that the job of fishermen is getting highly risky.

“The government has introduced an insurance scheme for the fisherfolk and this is the only initiative intended to help them. As many as 1,57,000 fishermen have been brought under the coverage of the group insurance scheme”, he says.

“We face many kinds of risk in the sea. Besides big ships, there are many other possibilities such as collision with fishing boats, and bad weather. In some cases, fishing boats may collide with fibre boats engaged in fishing in the deep sea. The Union Government has given permits to foreign trawlers to lavishly fish in the Indian waters. This is eating into the livelihood of the native fishermen and is also creating a fear among them,” says Manoj, a fisherman at the Puthiyappa harbour in Kozhikode.

Mariyam Haseena, Deputy Director, Fisheries, says the department has no insurance scheme, while the Kerala Fishermen’s Welfare Fund Board, under the Fisheries Department, has set up a group insurance scheme for fishermen to provide assistance to the family members of the deceased fishermen.

As per the scheme, a sum of `115 should be remitted as premium every month by the policy holders and a compensation of `3 lakh will be allocated in cases of accident. Besides, a sum of `1 lakh will be disbursed to the family members if a fisherman dies of heart attack while fishing. Besides, a sum of `50,000 will be allocated to the family

of the fisherman, who is not a beneficiary of the scheme, who dies in the sea.

Meanwhile, painting a sordid picture, official documents reveal that the disbursement of these benefits is caught in red tape. As per the documents, not a single pie has been allocated this year as compensation.

DECCAN Chronicle

Solar power developers show interest after tariff revision

Chennai: Days after the Tamil Nadu Electricity Regulatory Commission (TNERC) fixed the tariff for solar power, the Tamil Nadu Generation and Distribution Corporation (TANGEDCO) has received proposals from solar power developers to set up solar projects to a quantum of over 300 MW. The commission has announced a tariff of Rs 7.01 per unit for a solar photovoltaic (PV) plant and Rs 11.03 per unit for solar thermal projects. If the solar power developers availed of accelerated depreciation benefits, the tariff for the solar PV plant will be Rs 6.28 per unit and Rs 9.88 per unit for thermal projects.

“We are receiving more enquiries from the solar power generators (SPGs) ever since the commission fixed the tariff for solar power. Till Friday, we have received offer letters from a few SPGs, proposing to set up about 300 MW plants in the state,” said a senior Tangedco official while refusing to divulge names of the companies which offered to set up the plants. The official said since the tariff fixed by the commission was a competitive one, they were expecting good

numbers of solar developers coming forward to set up their units. “We are working on guidelines to be followed for setting up solar power projects in the state. Once it is done, granting approval for the projects will be streamlined,” sources said.

Police lathicharge agitating farmers

The farmers of East Godavari district were agitating as there is inordinate delay in the implementation of farm loan waiver scheme.

The farmers of East Godavari district were agitating as there is inordinate delay in the implementation of farm loan waiver scheme.

Kakinada: Police lathicharged the agitating farmers on Monday at the collectorate. Four farmers, including Bharatiya Kisan Sangh state secretary Jalagam Kumara Swamy, were injured in the incident.

The farmers of East Godavari district were agitating as there is inordinate delay in the implementation of farm loan waiver scheme, promised by the Telugu Desam government. The farmers from different parts of the district, especially from Konaseema, converged near the collectorate and were trying to enter the premises.

Meanwhile, a sub-inspector beat up some farmers. Expressing ire over the police action, the farmers led by Mr Swamy complained to the collector, Neethu Prasad. She immediately called the police and inquired about the matter. She instructed the police not to take such action in future.

Mr Kumara Swamy told reporters that the loan waiver scheme for farmers was promised by the Chief Minister N. Chandrababu Naidu. But, the government wants to suppress the farmers. They demanded that horticulture crops and all kinds of farm loans should be covered under loan waiver scheme.

BKS state vice-president Y. Suryanarayana said that the CM delinked good relations between farmers and bankers as the farmers would have repaid their debts by making use of the interest-free loans, had Mr Naidu not announced the waiving of farm loans scheme.

Another farmer Chudru Prasad said that now the farmers were made defaulters in view of the bankers, and their interests have been abnormally increased.

The Farmers Association leader Muthyala Zameel said that the Government is contemplating to include compensation amount to be paid to the farmers for Neelam, Helen and other calamities. The Government should pay the compensation amounts of flood relief, crop insurance scheme amounts which amounts to nearly Rs.300 crores in the district to the farmers, apart from loan waiver.

Business Standard

Andhra Bank launches 'Kisaan Vaani'

The facility provides latest technical information on agriculture and allied activities to farmers of Andhra and Telangana



[Andhra Bank](#) on Monday launched 'Andhra Bank Kisaan Vaani', a new facility which provides latest technical information on agriculture and allied activities to farmers of Andhra Pradesh and Telangana through 'Green SIM'-based voice message, in association with [Iffco KisaanSanchar](#)Limited(IKSL).

different fields of farmers interest. Green SIM can be used as a regular SIM since it has all the features of the normal SIM in addition to the value-added services. For getting the green SIM, the farmer has to produce a valid identity and address proof in addition to a passport-sized colour photo.

According to an Andhra Bank press release, the cost of green SIM is Rs 86, out of which free talk time of Rs 82 is available. The cost of

the SIM thus works out to Rs 4 and the farmer can use this free talk time for his regular purposes. The SIM is valid for lifetime.

Andhra Bank and IKSL have entered into an MoU for transfer of latest technology on a continuous basis without any charges. The bank is also providing green SIMs to all its rural development officers and rural branch managers to help the farming community.

The required information will be provided to the farmer in the local language for a one-minute duration, free of cost. IKSL has taken the assistance of Airtel as service provider to facilitate the delivery of OBD (Out Bound Dialogue/Voice Messages). Every day, farmers will get two messages pertaining to all agricultural and allied categories, one message on agriculture-related to agro climatic zone and one on bank products (like banking operations, schemes, loan disbursement and crop insurance). On Sundays, only two messages will be delivered.

The core contents of the message will be provided by experts in related fields in addition to the institutions like agriculture, veterinary and horticulture departments, Incois (Indian National Centre for Ocean Information Services), Icrisat (International Crops Research Institute for the Semi-Arid-Tropics), Spices Board and other related organisations.

There are also continuous monitoring methods to assess the requirements of farmers through a feedback system.

Rabi paddy sowing to be higher in Telangana, AP

Improved rainfall augured well for paddy sowing in south Telangana, Godavari districts and Krishna in Andhra Pradesh

After the initial hiccups, the kharif paddy acreage shortfall in Telangana and Andhra's rice bowl districts has narrowed down and the prospects of a better rabi sowing is gaining ground among the farming communities in both states.

Improved rainfall from August-mid till last week this month augured well for paddy sowing in south Telangana, Godavari districts and Krishna in Andhra Pradesh, effectively bringing down the combined deficit to around 15 per cent.

As against the kharif target of 1 million ha, sowing was done in around 700,000 ha in Telangana and 675,000 ha (as against a target of 727,000 ha) in the key paddy-growing regions of Andhra, according to the department of agriculture.

“We saw a huge pick-up in paddy sowing starting from August-mid. However, many farmers in Nizamabad, Karimnagar and Adilabad have gone for irrigated dry crops such as soya bean, cotton, maize by the fag end of July,” said J Dharma Naik, additional director in the department Agriculture, Telangana.

With a likely delayed withdrawal of southwest monsoon and with rains still happening in many parts of the state, Naik said the standing crops would see a good harvest, and added, rabi crops would also gain from the improving soil moisture.

A joint director in the agri department said with improved power situation in Telangana, they were advising farmers to opt for paddy in

the rabi season. “This would help cover the shortfall in paddy acreage witnessed this kharif,” he added.

According to a report of the directorate of Economics and Statistics published in August, Telangana and Andhra had surplus foodgrains. The report suggested major foodgrains, including rice, jowar, ragi and bajra registered higher production across Telangana in both kharif and rabi seasons last year.

When contacted, a senior official of the agri marketing committee in Hyderabad said there was no scarcity of rice in the retail markets as both Andhra and Telangana had a surplus crop in the last kharif and rabi.

He further said the Food Corporation of India (FCI) had so far procured around 31.542 million tonne rice as on Sept 19, 2014, for its Oct 2013-Sept 2014 procurement season, as against the target of 34 million tonne. The shortfall was due to a drop in sowing in Telangana, Andhra and Odisha.

THE HINDU **BusinessLine**

UPASI to launch tea e-auction in December

The United Planters’ Association of Southern India (UPASI), under the aegis of UPASI Commodities Exchange Limited, plans to launch the regular e-auction on December 1.

UPASI President Vijayan Rajes said in a press release that this would address most of the industry's concerns.

The system has been conceived with the idea of conducting the auction on a pan-India basis, allowing buyers across the country to participate from the comfort of their home, office or even with the help of smart phones, while on travel.

It is a step towards the continuous improvement of the auction system. In addition to the one being operated with the assistance of the Tea Board, Rajes said, "the new platform is expected to help realise better prices and attract larger volumes."

Tea exports

Expressing concern over two major plantation commodities – tea and natural rubber, Rajes said that India had lost its prominence in tea exports, ranking fourth, next only to Kenya, China and Sri Lanka.

"Unless concerted efforts are taken by the Government and the Tea Board, the country would lose to Vietnam as well in the near future. Export of Orthodox teas should be stepped up and for this; the Government should consider increasing the orthodox subsidy to encourage production of such teas," he said.

On natural rubber, the UPASI President reiterated the association's demand for imposing Safeguard Duty on natural rubber imports, as the unrestricted import of natural rubber from countries such as Indonesia and Vietnam spelt doom for the domestic growers.

"The lives of millions of small growers in Kerala are at stake as there is a steep slide in the price of the RSS IV grade. It has fallen to Rs. 123 a kg compared with Rs. 183 during the same period a year ago. The Government should intervene immediately."

“There is not much to cheer about the coffee sector either, though prices are relatively better compared to tea and natural rubber,” he continued, emphasising the need for focused research to control the widespread White Stem Borer menace in Arabica coffee.

Kharif sowing down 2.5%

The area under rice and cotton has exceeded last year’s level during the current kharif sowing season with the revival of the South-West monsoon.

Overall coverage

According to data from the Agriculture Ministry, overall sowing of kharif crops stood at 1,015.18 lakh hectares (lh) as on September 19. During the same period a year ago, sowing was 1,040.85 lh, down 2.5 per cent.

Rice has been sown on over 373.6 lh (373.15 lh), while cotton acreage is up 10.7 per cent at 125.75 lh.

Pulses acreage has declined to 100.05 lh against 107.71 lh last year, while coarse cereals sowing has slipped to 182.07 lh (195.25 lh). Oilseed coverage, too, is lower at 176.82 lh (192.49 lh).

Cash crops

Sugarcane acreage has been reduced to 48.74 lh (50.32 lh).

The area under jute and mesta is down marginally from 8.33 lh last season to 8.15 lh.

Spot rubber slips with global cues

Sheet rubber declined to Rs. 124 (Rs. 126) a kg, according to traders on Monday.

The grade dropped to Rs. 123.50 (Rs. 124) and Rs. 120.50 (Rs. 121) respectively, according to the Rubber Board and dealers.

Sharp declines in the global trendsetters and the overall weakness in domestic futures kept the sentiments under pressure during late trading hours.

The market failed to sustain at higher levels mainly on buyer resistance.

October futures surrendered to Rs. 117.75 (Rs. 120.61), November to Rs. 117.60 (Rs. 120.44), December to Rs.117.30 (Rs. 120.52) and January to Rs. 117.45 (Rs. 121.08) on the National Multi Commodity Exchange.

RSS 3 (spot) weakened to Rs. 98.61 (Rs. 100.73) at Bangkok. September futures closed at ¥168.2 (Rs. 93.81) on the Tokyo Commodity Exchange.

Spot rubber rates (Rs. / kg) were: RSS-4: 124(126); RSS-5: 116 (116.50); Ungraded: 104 (106);ISNR 20: 104 (104) and Latex (60% drc): 87.50 (87).