

Farmers blame MRPL for poor crop yield



The HinduAn oily layer is seen in this stream that flows through Mudapadavu, near Mangalore. Photo: R. Eswarraj

Residents complain of skin allergies and breathing problems

Areca trees are not yielding nuts; tender coconuts are becoming dry; and jackfruits are shrivelling in Moodapadavu and Kuthethur villages near here. Residents have skin allergies and breathing problems too.

Farmers allege that the fire-spewing chimney of the Mangalore Refinery and Petrochemicals Ltd. (MRPL), that is visible from their village, is making their lives miserable.

Their grouse is based on these facts: The Central Pollution Control Board found Mangalore to be the second most polluted city in the State in 2010. The Karnataka State Pollution Control Board (KSPCB) in 2004 blamed a chemical leakage from the plant for the death of fish in a stream in the area. In 2001, the MRPL doled out compensation to families for an oil leak that contaminated drinking water.

The KSPCB report was on the leakage of oil and sulphur-based chemicals into the stream that flows through Moodapadavu. The water is used for irrigating fields.

"There is oil and sulphur in the groundwater. Plants do not get minerals from the water," said Ronald D'Souza, who gave up farming after the declining yield in his one-acre paddy field made agriculture untenable. Gracy D'Souza used to get six quintals of areca and 4,000 coconuts from his one-acre arecanut farm until five years ago. "Now, I get only around three quintals of areca and 2,000 coconuts. Trees get diseases and we are not able to control that. What can we expect when water smells like kerosene," she asked.

For more than 96 families that stay along the stream that flows from within the MRPL premises towards the Nandini, the water serves as a lifeline for farming. Also, the company has dumped mud across the stream because of which water has turned murky brown.

And a film of oil is clearly visible. Residents say it has been years since a fish was found in the river.

Thomas Fernandes, a farmer downstream, blames the incessant light and smoke from the MRPL chimneys for crop damage. "There is light throughout the night. The gusts of wind brings with it heat and pollutants. Plants wither due to this," he said.

Residents blamed the hovering smell of petrochemicals and the thick smoke for skin allergies and breathing problems.

Geeta Fernandes, a resident at Kular village, said: "My two grandchildren who are only three and five years fall ill almost every other week. Doctors told us it is because of the polluted air."

In two letters to the company on May 10, copies of which are with *The Hindu*, Shridhar Shetty, president of the Permude Gram Panchayat, informed the refinery that borewells were drawing oil-contaminated water

and dumping of mud into the stream would lead to flooding during monsoon.

"The company is yet to reply. We want them to first stabilise the drinking water supply in the region, and then arrange water for agriculture," he said. MRPL officials said they had been conducting monthly checks of all streams in the area and did not find "any adverse effects" and "no evidence of oil leakage". "If there is a specific complaint, we will send our team there and check," said an official. He claimed that they had not got the letters from the gram panchayat. On the issue of the "contaminated" water, an official blamed the reddish colour of the water on the "laterite soil, whose iron-rich content discoloured the water".

KSPCB officials said that they had been regularly testing water bodies and wells close to the refinery. "Pollution is within permissible limits. There will be a smell or discolouring of water as pollutants cannot be reduced to an absolute zero," said N. Lakshman, environmental officer. The Agriculture Department had to certify the crop loss, he said.

Narayan Shetty, Assistant Director of Agriculture, said he had not received any specific complaint.





Fish harvested from the Pokkali farming system. Photo: Special Arrangement

Pokkali farming is a system in which paddy and shrimp are grown alternately in the same field.

But the sad fact is that the area under this system of farming is becoming smaller day by day and not proving to be remunerative.

To give a fillip to this system of farming, the Central Marine Fisheries
Research Institute (CMFRI) suggested a new method of integrating fish
growing in iron cages along with regular paddy and shrimp cultivation.
FUNDING

A young farmer from Ezhikkara, Mr. Saibil, readily agreed for this new experiment in his field, which was funded by the National Initiative on Climate Resilient Agriculture (NICRA).

He was trained on pond construction, nursery rearing, fish transportation, feeding, cage maintenance, etc. Nursery reared mullet and pearlspot fishes were stocked in iron cages.

They were fed using floating formulated pellet feeds during morning and evening. Cages were cleaned fortnightly and nets changed once in two months.

In eight months time the fishes were harvested and the farmer was able to get a good profit of Rs. 80,000 from the fishes alone. In addition he also earned an income of Rs. 50,000 from the paddy and shrimp.

The harvest was also celebrated as a festival by the local pokkali farmers. "Growing paddy alone is not very remunerative for farmers. Paddy along with shrimp cultivation can get Rs. 50,000 but in this new technique the profit margin is quite high for a farmer since fish is also grown.

INCOME

"If implemented in a hectare a farmer can get anything from Rs. 80,000 to Rs. 85,000 from this cage culture of growing fishes in addition to paddy and shrimp that can fetch Rs. 50,000," says Dr. Shinoj Subramannian,

Programme Coordinator and Senior Scientist, KVK (Ernakulam) of CMFRI.

Pokkali fields are spread in about 5,000 hectares area in Ernakulam,

Alappuzha, parts of Kottayam and Thrissur districts of Kerala.

Paddy is grown during June to October (120 days maturity period) followed by shrimp farming during November to April.

Residue from the paddy crop forms the feed for the shrimps and the residue of the shrimp culture forms the fertiliser for the paddy.

"It is a purely organic system and the paddy and prawn possess good taste since there are no chemical inputs used," says Dr. Subramannian.

Size of a typical pokkali field ranges from two to 30 acres and each field is confined within bunds. There is a sluice gate for water movement to and from the field. The area inside the field adjacent to the sluice gate is called sluice pit (Thoombukuzhi in Malayalam).

SUB CHANNELS

In addition there are many sub channels to drain water from other parts of the field into a main drainage canal.

These sub channels are shallow and paddy is planted in the field as well as on top of these sub channels. The sluice pit and the sub channels are filled with water at all phases of pokkali cultivation.

"Since Pokkali farming is climate dependent, constant attention is required at each phase of its practice. Even then good production cannot be guaranteed and yields unpredictable.

Large amount of manual labour is required since no specialised equipment or machinery is available for this," says Dr. Subramannian.

Quality and taste of pokkali paddy and shrimp are the main attractions.

There is no premium market for the paddy or shrimp. They are sold in the local market.

Various reasons such as lack of labour, costly manpower, pollution from nearby industries contaminating the pokkali fields, widespread attack of viral infection to the shrimps are some of the problems in this line. The initial investment for setting up the cages etc can be provided as loan to the farmers through banks.

AWARD

During the year 2009, Pokkali farming system received Geographical Indication (GI) certificate and an approved logo for its products. The pokkali farming community also received the Plant Genome Community Saviour Award during 2010-2011.

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Food security initiatives result in higher foodgrains production, says Pawar There has been an increase of 42 million tonnes in the 11{+t}{+h}five-year plan

The initiatives taken by the government under the National Food Security Mission (NFSM) have resulted in an increase of 42 million tonnes in foodgrains production against a target of 20 million tonnes in the 11{+t}{+h}Five-Year Plan.

"The NFSM has helped to widen the food production basket of the country. The focused and target oriented implementation of Mission initiatives has resulted in bumper production of wheat, rice and pulses. The production of foodgrains in 2011-12 has been to a record level of 259.32 million tonnes, against a target of 245 million tonnes. In 2012-13 also, despite drought in parts of the country, foodgrains production is on course to realise target of 254.24 million tonnes," Agriculture Minister Sharad Pawar told members of Parliamentary Consultative Committee attached to his Ministry on Tuesday. In the 11th Plan, NFSM-Rice scheme was implemented in 144 districts of 16 States, NFSM-Wheat in 142 districts of nine States and NFSM-Pulses in 468 districts of 16 States. From this year, NFSM coverage has been extended to all northeast States and Himachal Pradesh and Uttaranchal. The NFSM involves targeted interventions in terms of supply of inputs and extension services.

Mr. Pawar said the Mission has distributed almost 75 lakh of farm equipment, nearly 175 lakh quintals of high yielding variety seed of rice, wheat and pulses, and knowledge transfer through more than 49,000 Farmers Field Schools and eight lakh field demonstrations.

During the 12th Plan, the scope of NFSM is proposed to be widened to include coarse cereals. A target of additional 25 million tonnes of foodgrains production has been proposed, including 10 million tonnes of rice and eight million tonnes of wheat. four million tonnes of pulses and three million tonnes of coarse cereals.

While there will be additional focus on low productivity areas, stabilising the productivity gains in high producing areas will also be attended to.

"Accordingly, the NFSM is being revamped during the XII Plan to

concentrate on 'cropping system' approach in place of promoting 'individual foodgrain crops'." the Minister said.

Agricultural labourer 'tills' to turn entrepreneur

Says the peak season gets him plenty of orders from farmers

It's not often that one comes across an agricultural labourer turned landowner and employment provider.

But 37-year-old G.Pichaiah's success is rooted in sensing an opportunity in farm mechanisation to transform his life four years ago.

When scores of drought-affected farmers in his native Dandempalli village in Nalgonda district were forced to sell off their cattle unable to provide fodder, the villagers soon had to depend on tractors for tilling land.

The demand for tractors was so high that farmers would wait for days to hire a tractor.

That's when Pichaiah felt owning a tractor would give him abundant work and enable him to earn more than what he did by working as a farm hand. With no resources to raise the amount required to purchase a tractor, he settled for an alternative, the 'tiller' that is available at one-fourth a tractor's cost but can be used for the same purpose in slushy fields.

He did not waste time in purchasing a tiller with money raised by pledging his wife's jewellery pieces and hand loans from others.

With a steady stream of orders for tilling the fields in the nearby villages, he soon saved enough to buy another tiller two years ago and employed a driver.

Pichaiah says he now tills two acres per day charging Rs.2,500 for an acre and earns over Rs.4,000 on each tiller. Of course, the work is seasonal

from June to the first week of August and then again from November to the first week of December.

But the earnings are handsome for Pichaiah.

Busy with work orders, Pichaiah said that the peak season gets him plenty of orders from the farmers of Undempalli and Chandanapalli villages on the outskirts of Nalgonda.

Four years after his decision to purchase a tiller, Pichaiah is a content man who lives in his own house, bought a piece of agricultural land and sends his two sons to a private school.

A life he had never dreamt of as a farm hand.

Downpour brings down temperatures

The sudden downpour followed by heavy gales on Tuesday evening had brought relief from the sweltering heat wave conditions in Karimnaga, Ramagundam industrial belt and other parts of the district.

In the meantime, the farmers have intensified their agricultural operations by tilling the soil for taking up khariff cultivation. -Staff Reporter

The betel leaf keeps Council engaged

The extended debate on the gutka ban also provided lighter moments in the Legislative Council. The former Muzrai Minister and BJP MLC Kota Srinivasa Poojary compared it to the breaking of a marriage engagement. "During an engagement, betel leaf and arecanut are offered by the prospective bride's family to the groom's family seeking complete protection to the girl. In the same way, the farmers of arecanut-growing regions voted you to power in expectation of some more welfare measures. However, you have breached their trust," Mr. Poojary taunted the Congress.

Removing stigma

Responding to this later, Minister for Health and Family Welfare U.T. Khader said the Congress government had "removed the poison" in the betel leaf package by banning gutka. "This ban has also removed the stigma over arecanut as otherwise the nut itself was thought to cause cancer."

BJP member G. Madhusudhan, responding to Mr. Khader's statement that the ban was implemented to honour the Supreme Court's directive, said the Congress appeared to adopt different yardsticks in honouring court verdicts. "The very same Supreme Court had come down heavily on the Central Bureau of Investigation (CBI) in the coalgate scam, which in fact warrants the resignation of the Prime Minister. However, the Congress did not show any respect to those observations," he quipped, attracting loud protests from the treasury benches.

Offer economic package to arecanut growers'

Fall in arecanut prices causing distress to farmers



The Opposition takes up the case of arecanut farmers in the Legislative Council in Bangaloreon Wednesday.— Photo: Bhagya Prakash K.

The government on Wednesday relented to the Opposition's demand in the Legislative Council asking for a reply from the Chief Minister on whether he

would offer an economic package to arecanut growers in view of the ban on gutka.

Even though Minister for Health and Family Welfare U.T. Khader replied that the ban was long-pending and the Congress government had taken a tough decision in the interest of public health, the Opposition insisted on a reply from the Chief Minister as it was concerned by the falling prices of arecanut after the ban.

The discussion was taken on a motion by Leader of the Opposition D.V. Sadananda Gowda who said though everyone welcomed the ban, the measure had adversely impacted the growers. This is the time when farmers repay their loans and avail fresh crop loans, so the price reduction has crippled their finances, he said.

He demanded waiver of arecanut growers' loans and sanctioning of fresh loans with zero per cent interest as well as other sops. He sought a scheme for the livelihood of petty vendors and gutka factory workers. Leader of the House S.R. Patil promised the Chief Minister would make a statement on Thursday if necessary. The debate remained inconclusive and the House was adjourned.

Earlier, initiating the debate, Mr. Sadananda Gowda described it a "death knell" for arecanut growers and maintained that the government should have banned cigarettes first if it had genuine concern towards protecting the health of the people.

'Deadline on June 25'

Pointing out that the Supreme Court had given a deadline of June 25 to ban gutka, he wondered why the government issued the notification on the ban "in a hurry" without holding consultations.

Probe on supply of spurious fertilizer

Minister of State for Agriculture Krishna Byre Gowda on Wednesday announced in the Legislative Assembly that the Police Department would conduct a probe into the sale of spurious fertilizers in some parts of the State.

In his reply to the issue raised by C.T. Ravi of the Bharatiya Janata Party (BJP) during Zero Hour, he said five persons have been arrested in connection with sale of spurious potash by the Primary Agricultural Credit Cooperative Society (PACCS) of Hanbal, Sakleshpur taluk in Hassan district and Gubbi taluk of Tumkur district.

Besides the secretary of PACCS, cases have been registered against Milan Gowda, Ashok, Naganna and Palaksha.

"Salt was coloured and sold as potash to farmers. The Cooperative Department has been asked to initiate action against the society in question," he said.

Noting that the department had received information of sale of spurious fertilizer in other parts of the State too, a systematic network was behind the supply, Mr. Byre Gowda said. Deputy Commissioners of some districts had been directed to test the quality of fertilizer supplied and submit a report.

He said he had conducted a video conference with the Joint Director of Agriculture and ordered a detailed probe into the matter.

Salt was coloured and sold as potash

Despite timely rain, Chitradurga farmers haunted by the past

Timely rain has done little to dispel their worries

While timely rain has brought some relief for farmers in the district, the rain pattern of the past 12 years has become a major cause of worry for them. According to sources, the district experienced seven droughts between 2002 and 2012, floods for two years, and received average rainfall for three years.

The annual expected rainfall in the district is about 486.6 mm. In 2001, Chitradurga received 494.6 mm rain.

Depleted

In 2002, 2003, 2006 and 2011 the district received 443.4 mm, 329.6 mm, 459.9 mm and 264.6 mm rainfall. Every time the rains failed, farmers had to arrange for water to be supplied through alternative means; however, their efforts were in vain, as the groundwater table itself was depleted.

On the other hand, Chitradurga received 665.3 mm in 2000, 544.9 mm in 2004 and 794 mm in 2005, and all three years recorded considerable crop loss, especially for farmers who planted groundnut and onion.

Heavy rain

Apart from 2011, the district received very heavy rainfall from 2007 onwards.

In 2007, Chitradurga recorded 688.5 mm rain; in 2008, 638.5 mm; in 2009, 814.5 mm; in 2010, 886.6 mm; and in 2012, 524.2 mm.

The situation was particularly dire in 2010, owing to cyclone 'Jal' in November that year. Apart from crop loss and flooding, many parts of the district reported property damage.

This year

In 2013, the district received 167 mm rainfall against the expected 144 mm. Challakere taluk received 169.6 mm rainfall against 114.4 mm; Chitradurga 284.6 mm (170.9 mm); Hiriyur taluk, 129.5 mm (135 mm); Holalkere, 220 mm (176 mm); Hosadurga taluk, 102 mm (130 mm), and Molkalmur taluk received 95.5 mm rainfall against the expected 115.1 mm, sources added.

Fire at cold storage put out after 72 hours

Agricultural produce insured, farmers will get compensation: owner

The fire that broke out in a cold storage on the outskirts of the city was put
out by Fire and Emergency Services personnel after nearly 72 hours. The
question on everyone's minds now is just how much of the agricultural
produce stored there was destroyed in the inferno.

Hundreds of tonnes of agricultural produce was stored in the unit, including paddy, wheat, jowar, maize, groundnut, Bengal gram, tamarind, and chillies.

The cold storage was used not only by farmers from Bellary but also those in Anantapur and Kurnool districts of Andhra Pradesh.

The total loss has been estimated to exceed Rs. 20 crore. The owner of the unit, while talking to presspersons on Sunday, said insurance cover was provided to every bag of agricultural produce stocked in the unit, and farmers would be compensated for their losses. Like many other farmers, Veerbhadra Gowda, a farmer from the taluk, was anxious to know when the compensation would reach him.

Sources said that a team from an insurance company, Oriental Insurance, visited the spot for inspection and verification.

Inspection

Meanwhile, Deputy Commissioner Amlan Aditya Biswas instructed Fire and Emergency Services officials to inspect all cold storages and godowns in the district and verify which of them have adhered to fire safety norms, obtained NOCs from the department and had the equipment to combat fire. He directed them to submit a report within four days.

Small steps for a greener world

Individuals, institutions honoured for acts of conservation

When S. Gunasekar arrived as headmaster, the Government Kallar Middle School in G. Thummalapatti in Dindigul was in a bad shape. Sewage would accumulate on the school ground and during the monsoon, rain water would stagnate. There was no compound wall and anti-social elements frequented the campus after school hours.

But now, all that has changed thanks to Mr. Gunasekar's efforts.

"From 2008, with financial assistance from residents, alumni and the PTA, we managed to transform the school. A compound wall was raised, the ground was levelled and at least 50 trees now provide shade," said the proud principal, who won an award from the State government for protecting and managing the environment.

He received the award from Minister M. C. Sampath at a function organised on Tuesday by the Tamil Nadu Pollution Control Board and the Department of Environment as part of Environment Day celebrations.

A total of 10 environment awards were presented to individuals and institutions and 10 awards for plastic awareness to self-help groups, villages and schools.

Battle against plastic

Radha Balasubramanian, a teacher of PSBB School on Thirumalai Pillai Road, who won an award under the individual category, said she has been making bags out of old newspapers and giving them to a nearby stationery shop and a laundry.

"As soon as the newspapers pile up, my daughters and I make the bags and give them to the shops. We may not be able to make a huge number of such bags but each of them means one less plastic bag given by the shop," she said.

This teacher is also known for standing in the rain during Deepavali holding placards in T. Nagar's Jeeva Park, asking walkers and joggers not to burst crackers.

"People have called me mad. But I don't mind it as I believe that simple thoughts lead to great changes," she said.

Restoring reefs

In the institution category, the Suganthi Devadasan Kadal Saar Aaraichi Niruvanam in Tuticorin won the first prize. J.K. Patterson Edward, director of the institution, said that from 1998, a four-sq-km area of coral reefs had been restored.

"We place some artificial surface on the sea floor and then transplant coral fragments and let it develop. We have been working with funds from the Ministry of Environment and Forests, Forest Department and Gulf of Mannar Biosphere Trust," he said.

Non-governmental organisation Sevalaya won an award for its efforts in segregating waste generated on its campus and practising organic farming in its fields and also providing training to local farmers.

Environment and Forests secretary Mohan Verghese Chunkath, TNPCB chairman D. Karthikeyan, State Environmental Impact Assessment Authority chairman V. Thangavelu, TNPCB Member Secretary S. Balaji and Director of Environment H. Mallesappa were present on the occasion.

'Conserve the soil, protect the environment'

Call for multi-pronged approach to check ecological degradation



Soil erosion continues: A rain-fed muddy waterfall on the Kalhatty ghat road near Udhagamandalam. -Photo: Special Arrangement

Even as activities of a varied kind — particularly tree planting — which were organised by several agencies in the government and non-governmental sectors marked the observance of World Environment Day in this ecologically-sensitive district on Wednesday were welcomed by various sections of the society here, discerning observers opined that the need of the hour is value addition in the manner in which the occasion was being commemorated.

Conservation

Lamenting that despite heightened activity on the conservation front, the pace at which the environment is getting degraded is showing no signs of slowing down, they opined that occasions like the observance of World Environment Day should not be used only to increase the green cover but

also to do some serious reflection and consider the need for eco audits which can provide a clear, 'before and after' picture.

Underscoring the need for a multi-pronged approach to be undertaken in order to check environmental degradation in the Blue Mountains, they told *The Hindu* that proper farm management will go a long way in protecting the environment.

Regretting that soil erosion is not being viewed with the seriousness it deserves, they pointed out that there is a marked difference in the maintenance of farm lands by their owners and lessees.

While the former ensures that the top soil is protected, quite often the latter do not show the same interest.

Consequently, precious soil is not only washed away but dams and reservoirs are also affected.

Recently they came across a very muddy waterfall along the Kalhatty Ghat near here.

The waterfall was fed by the numerous rainfed streams that drain the Kadanad and Chinnacoonoor regions which form the northern border of the Upper Plateau.

It was usually a small trickle of clear water which eventually drains into the Segur stream at the foot of the ghat.

However, now, whenever there is heavy rain, it becomes a raging torrent of muddy water.

Stating that it reflects poorly on the soil conservation and water drainage measures of the upper plateau, they said that a careful study of the Nilgiri Hills will reveal that there are more such falls.

Productivity

Stressing the role of top soil in increasing productivity, they said that if farmers are taught to manage it scientifically there would be a significant improvement in the status of the environment.

Adverting to the active interest taken by many outfits in organising tree planting programmes on Wednesday, they said that it augurs well for The Nilgiris and hoped that the same kind of enthusiasm would be displayed in nurturing the trees.

A tree planting campaign organised under the aegis of the district administration, the Kinder Foundation and Larson and Toubro was inaugurated by The Nilgiris Collector Archana Patnaik at the Government Higher Secondary School in Thuneri.

A tree planting programme was organised by the Forest department and the C.P.R. Environmental Education Centre at the Herbal Garden in Thambatty.

Programme

A programme was organised by the Public Awareness Association of Udhagamandalam at the YMCA garden here.

The Nilgiris Environment and Cultural Service Trust (NEST) conducted an awareness programme at the Bethleham Teacher Training Institute here.

The Rural Development Organisation at Aruvankadu used the occasion to promote its eco-friendly prefabricated toilets.

Students of the Madras Christian College joined hands with the YMCA to organise a campaign in Coonoor.

How the indigenous are turned off their lands

Cambodia

More than 400,000 people have been forcibly evicted from their lands since 2003, often without compensation, as the nation sells off its territory to sugar and rubber barons and property developers. Villagers who protest have been beaten, imprisoned and murdered — such as the environmental campaigner Chut Wutty, who was killed last year — as more than one-tenth of land has been transferred in the past few years from small-scale farmers to agribusiness, rights groups claim. A recent Global Witness report — and investigation by the *Guardian* — found that Deutsche Bank and the International Finance Corporation were bankrolling massive government-sponsored land grabs in both Cambodia and Laos through two Vietnamese companies.

Vietnam

In recent years the government has grabbed land to make way for ecoparks, resorts and golf courses. Last year, around 3,000 security forces were deployed in the northern Hung Yen province after villagers protested against a 70-hectare land grab to make way for an "eco-urban township".

Thailand

The sea gypsies in the southern resort island of Phuket are facing eviction after living on and around the beaches of Rawai for the past 200 years. Thai landowners claim they want the land back to build houses and a "sea gypsy village" in which tourists can buy fish and see how this once nomadic seafaring tribe now lives on land. The sea gypsy communities have so far

refused to move, but could be forcibly evicted if no resolution is reached. — © Guardian Newspapers Limited, 2013

Stress on farmers' health, environmental protection

: Voice Trust, an organisation working on healthcare issues of the marginalised communities, conducted an awareness programme to celebrate the World Environment Day at the Boys Higher Secondary School at Andipatti near here on Wednesday. It held an interactive session, which was attended by around 60 farmers from the surrounding areas. "Most farmers cite health reasons and skip our awareness programmes. So we chose to integrate medical problems and environmental issues this time and create awareness among them in their own place," said T.Murugesan, director of Voice Trust. Andipatti MLA Thangatamilselvan spoke on the importance of saving the environment. "The people here should make an effort to segregate garbage and plant saplings in their own backyards. When the people in villages take these initiatives, it will spread to the cities as well," he added.

K.Arumugam, an agricultural officer who spearheads 'Úzhavar Unavagam', an initiative focusing on healthy diet, spoke on the importance of traditional foods which had a host of health benefits.

"Foods that were rich in fibre and protein have now given way to fast foods that cause health problems" he said. "Dr.Krishnan Swaminathan, endocrinologist, Apollo Speciality Hospitals, Madurai, detailed the increasing incidence of diabetes among farmers though they work for long hours.

"Farmers should wear masks and gloves while handling fertilisers as accumulation of fertilisers in the blood might lead to increased blood sugar," he said, and added: "India is, however, yet to carry out substantial research to prove this trend."

Dr.Swaminathan emphasised the need to get checked for diabetes at a proper healthcare facility as many people were not aware of its symptoms and often failed to treat it in the right way.

Later, Voice Trust planted 25 neem and portia trees inside the compound of the school.

Sale of cotton seed begins



Farmers purchasing cotton seeds at a shop in Khammam on Wednesday.— Photo: G. N. RAO

The sale of cotton seed has commenced at various parts of the district on Wednesday even as the sky turned overcast leaving ample indications of good rainfall ahead. According to official sources, the Agriculture Department has already disbursed a total of 8.5 lakh cotton seed packets to the licensed distributors and retail outlets all over the district.

Nearly 8.50 lakh packets containing BT cotton seeds of different companies have been made available at the outlets for distribution among the farmers. As many as 2.58 lakh cotton seed packets have been earmarked for

Khammam division, which accounts for a major chunk of the area under cotton cultivation in the district.

The officials concerned have drafted an action plan to ensure supply of more than 10 lakh cotton seed packets in the kharif season-2013 in anticipation of good rain. A team of agriculture department officials, headed by the Joint Director V. B. Bhaskar Rao visited some outlets at Gandhi Chowk on Wednesday to oversee the distribution of cotton seeds. The officials reviewed the arrangements to be taken for smooth distribution of the seeds as the demand for cotton seed is likely to grow in the next couple of days. All necessary arrangements have been made to ensure timely distribution of the cotton seeds to the farmers in a hassle free manner, said Mr. Bhaskar Rao. A total of 8.50 lakh BT cotton seeds of different companies had been kept at the disposal of the licensed dealers and outlets to meet the demand from the cotton cultivators; he said adding that the area under cotton cultivation was expected to increase from 1.62 lakh hectares to 1.82 lakh hectares in the kharif season.

Small onion price increase brings tears to consumers

Arrivals from Karnataka in 10 days may bring down the price, say traders



Skyrocketing price: A wholesale onion trader busy sorting onions at the Gandhi Market in Tiruchi.— FILE Photo: A. Muralitharan
Just as the price of sambar onions has soared beyond the reach of many families, wholesale traders in the city have some good news. The price of

small onions will see a downtrend gradually over the next 10 days as arrivals are expected from Karnataka soon.

Wholesale price of small onions has touched Rs. 75 a kg and the retail price is Rs. 5 to Rs. 10 higher. The price of the onions has steadily been on the rise from Rs. 45 a kg in April to the current level. The drought condition impacting on cultivation and the heavy export demand are cited as the reasons for the rise in the price.

Arrivals have come down to a trickle at Gandhi Market, the wholesale market, which caters to the most of the retail traders in Tiruchi and neighbouring districts. Normally, the market gets about 25 truck loads a day. Currently, less than five truck loads are procured by traders now. Fearing poor off take at current price, many wholesale traders are hesitant to lift stocks.

Hoteliers, the bulk buyers, have been forced to go in for Bellary onions instead of small onions. The spiralling price has left small onions beyond the reach of many families.

But consumers could get some relief in the days to come. "We expect arrivals from Karnataka, especially from Chamrajnagar district, over the next days. Small onions do not have much demand there and a major portion of the production will find its way to Tamil Nadu and some to Kerala. Once the arrivals pick up, we expect the price to come down by about 50 per cent," A. Thangaraj, general secretary, Tiruchi Onion Commission Mandi Traders' Association, told *The Hindu* on Wednesday.

There are possibilities of the price coming down to Rs. 30 a kg in about 20-25 days as arrivals from Perambalur and Tiruchi districts are expected. The rise in price has spurred even some farmers in Thanjavur to raise small onions now. Small onions have been raised in places such as Thiruvaiyaru and Thirukattupalli, he said.

Perambalur and Tiruchi are major onion producing districts in the State. The crop is raised in over 8,000 hectares in Perambalur district and in about 4,000 hectares in Tiruchi district. But the absence of rain forced many onion growers to put off cultivation.

The rise in the price of small onions has been a cause for concern and wholesale traders here have been demanding restrictions on exports.

"There would be a hue and cry if the price of Bellary (big) onions were to go up. But nobody bothers about small onions," Mr.Thangaraj said.

But the price of Bellary onion is on the rise in recent days, up from Rs.15 to Rs.20 a kg in the wholesale market here. This again, is due to heavy export demand. There are no standing crops now and only the stocks available with producers are finding its way to the market. Unless the Centre steps in to restrict exports, the price of big onions will double over the next 30 days, he said.

Increase in price of small onions

Smaller volumes of the commodity are arriving in markets



Price of small onions has gone up several folds in the recent weeks. - PHOTO:M. GOVARTHAN

The price of small onions has skyrocketed in the last three weeks, pushing the commodity beyond the reach of common people.

The commodity, an essential ingredient in every kitchen, is being sold from Rs. 90 to Rs. 110 by the retailers at the markets and the neighbourhood stores.

The price of the commodity stood at around Rs. 45 three weeks ago. The drastic fall in the production due to drought and heavy demand for export contributed to the sharp increase in the price of small onions, traders point out. The wholesale markets here used to receive around 50 tonnes of small onions every day from Udumalpet, Mysore and Tiruchi.

"This has come down to 25 to 30 tonnes now. Since there is a huge export demand, farmers are selling significant amount of the commodity to large traders," vegetable merchants here said.

The supply from farmers in the district had also come down sharply. Vaniputhur, Goundampalayam, Kongarpalayam and Chendrayanpalayam in the TN Palayam block are the largest onion-producing areas in the district.

Many farmers in these areas did not take up the cultivation last year following monsoon failure.

Traders said the government should ban the export of small onions till the prices in the domestic market stabilised and also take steps to release the stock from wholesale traders. Otherwise, the price would continue to climb. Meanwhile, the spiralling price of small onions has triggered an increase in the demand for bigger variety of onions.

This, in turn, has pushed up the price of big onions, which stood around Rs. 25 a kilogram, to Rs. 40 to Rs. 45 a kg in the retail outlets.

Apart from small onions, the prices of almost all the vegetables have gone up in the last three weeks, severely affecting families in the low and middle-income groups, who spend a sizeable portion of their income on food. The price of tomato, a must-have in most cuisines, has gone up to Rs. 54 a kg.

"We have stopped buying the small onions and switched to the bigger variety. We have also reduced the use of vegetables because of the price rise," said S. Nithya Devi, a resident of Surampatty.

Nine vegetables for Rs.99



Popular move:Vijayawada Central MLA Malladi Vishnu distributing the bag of vegetables priced at Rs. 99 to customers in Vijayawada on

Wednesday.— Photo: V. RAJU

Move initiated with the help of farmers: Malladi Vishnu

District officials have launched a unique scheme of providing nine vegetables at Rs.99. This was done to provide some solace to the customers from the rising prices of vegetables. Get a bagful of vegetables for Rs.99 only is the catch phrase.

The bag will contain nine varieties of vegetables - one kg of potatoes, one kg of tomatoes, one kg of onions, one kg of water gourd, half-a-kg of ladies

finger, half-a-kg of ivy gourd, quarter-kg of chillies, drumsticks and an assortment of leafy vegetables and all for 'Just' Rs.99.

Launching the offer, Vijayawada Central Congress MLA Malladi Vishnu said that this was initiated with the help of farmers to control the rising prices of vegetables and to stabilise the situation. "It was first initiated in Hyderabad on Tuesday and launched today over here," he said. An officer from the Rythu Bazar said that this would not have been possible without the cooperation of the farmers. "We have entered into a pact with the farmers to supply us the vegetables at Rs.2 less from the board price to bring price rise situation under control," he said.

According to the bazaar board price, the assortment of nine vegetables in tune with the quantity would cost Rs.125 and the farmers are supplying at Rs. 99. The variation is set to be between Rs.18 and 25.

Big hit

The offer will initially be for 15 days, and they will extend it depending on the market scenario, said the MLA. The offer appears to be a big hit, as the farmers at the Swaraj Maidan Rythu Bazar sold over 200 bags in the very first hour of business, on the day of the launch.

Controlling black rot in pineapple

Black rot of pineapple, is a post-harvest disease. It is also known as water blister, soft rot or water rot. Penetration of a fungus inside cells occurs through wounds and stem cutting, causing infection.

Fruit may be bruised or wounded during picking, packing, storage and transportation. The wounds pave the way for fungal infection. Conditions of high humidity tend to encourage development of black rot.

Early stages

At the early stage of infection, the fruit exhibits a juicy and water soaked appearance. At advanced stage, it is covered with blacks spores and the flesh becomes totally black. As the decay intensifies, the affected area emits a bad odour. The rot eventually destroys the entire fruit. Infestation starts at the stalk-end of the fruit, resulting in small, circular, water-soaked spots that are very soft.

Management tips

Care should be exercised during harvesting and packing so that the fruit is subjected to minimal injuries. Fruit may also be dipped in a fungicide after harvesting, to give protection against infections. Avoid contaminating the central base of the plant with disease-infected soil especially during the hilling-up operation. If polyethylene mulch is more practical and economical, use it on raised beds.

Good soil drainage is a necessary. Where rainfall is heavy or soils are not well drained, soil management techniques such as ridging must be used to improve drainage.

Planting material

Planting material that is cured before planting has less rot problems.

Crowns and slips can be exposed to the sun for several days before planting.

Maintaining weed-free areas around fields reduces inoculums and therefore disease problems.

Field plantings of pineapple are usually in double-row beds. Plantings of small fresh fruit are advisable.

(Utpal Dey, PhD scholar, Department of Plant Pathology, Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra and Dr. D. N. Dhutraj is Associate Dean and Principal, College of Agriculture, Osmanabad, Maharashtra, email: utpaldey86@gmail.com, mobile: 08275824103)

Next-generation batteries from rice husk

Nano-size silicon particles for the next-generation Lithium-ion batteries could be produced from rice husk, an abundant agricultural waste, according to research recently published in *Scientific Reports*.

Nano silicon had attracted considerable attention as a promising anode material for such high-performance batteries, which would power future electric vehicles and portable devices, observed Yi Cui, an associate professor of materials science and engineering at Stanford University in the U.S., and his colleagues in their paper.

Although nano silicon anodes were superior to graphite ones in terms of performance, methods to produce the silicon anodes at a cost and with scalability comparable to graphite were needed. Current processes to form silicon nanomaterials were usually complex, costly and energy-intensive, they pointed out. In rice husk, silica existed naturally in the form of nanoparticles and accounted for as much as 20 per cent of its dry weight. Using a simple, energy-efficient and easily scalable method, nano silicon could be produced. The silicon that was recovered maintained the unique nanostructure of silica as it existed in the husk, which made for excellent battery performance.

Apart from its use in Lithium-ion batteries, there were many potential largescale applications for such nanostructured silicon, they added.

Coconut growers demand MSP for copra

The district unit of the Karnataka Rajya Raitha Sanga (KRRS) staged a protest outside the Deputy Commissioner's office here on Wednesday demanding minimum support price (MSP) for copra.

A. Govindaraju, district president, KRRS, demanded that the government open centres of the National Agriculture Co-operative Marketing Federation of India Limited at Chikkanayakanahalli, Tiptur, Tumkur, Gubbi and Kunigal and start procuring copra from coconut growers. He also demanded a support price of Rs. 2,000 a quintal for copra.

Mr. Govindaraju said coconut was being grown on 1,42,710 hectares in the district. However, owing to the drought in the past two years, 80 per cent of borewells had dried up and 10 per cent of coconut trees grown on 25,000 acres of land had dried.

Farm journal goes online

Kerala Karshakan, perhaps the first major publication in Malayalam devoted exclusively to farming, has taken a giant stride, this time on the information super highway: the journal has taken an e-avatar.

Launched in 1954, Kerala Karshakan was for long the only major publication on farming in Malayalam.

The last few decades have seen the publication gaining in colour and variety and encouraging major publishers in Malayalam media to come out with their own niche products for the farm sector.

One lakh copies

The journal has a print order of one lakh copies, says the Farm Information Bureau team that brings it out. Just as it completes six decades in

existence, the magazine would now be freely accessible at the Farm Information Bureau website www.fibkerala.gov.in.

The inaugural issue of e-journal, unveiled by Agriculture Minister K.P. Mohanan on Wednesday, has articles by experts from institutes such as Indian Institute of Horticultural Research, National Bureau of Plant Genetic Resources, Directorate of Rice Research, and Centre for Earth Science Studies,.

KAU to plant 25,000 saplings



Green gesture: District Collector P.M. Francis plants a sapling in Thrissur on Wednesday.

A massive afforestation programme was initiated at the Kerala Agricultural University (KAU) on Wednesday, World Environment Day. P.V. Krishnan Nair, secretary, Kerala Sangeet Natak Akademi inaugurated the programme.

He said the world's greatest authors were inspired by nature. "Man cannot live without nature; it is the most advanced living being's duty to nurture the nature. An eco-friendly lifestyle is indispensable for a peaceful and healthy life," he said.

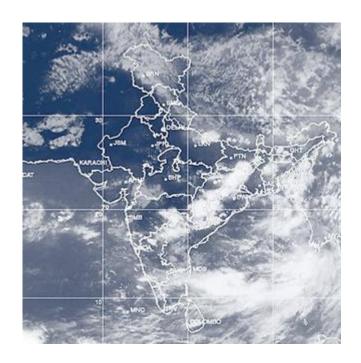
P. Rajendran, KAU Vice-Chancellor, in his presidential address highlighted the relevance of the environment day theme — Think. Eat. Save.

He stressed the need to grow the right trees in the right environment. He said KAU would plant 25,000 saplings in various campuses and take efforts to make all campuses green. Guests and members of the KAU General Council kicked off the afforestation programme was by planting mahagony saplings along the periphery of the KAU central stadium.

Officers of the university, teachers, staff, students and filed staff took part in the afforestation drive. B.D. Devassy, MLA, inaugurated the Haritha Keralam project at Chalakudy Government Model Boys High School on Wednesday.

The Social Forestry division had readied 4.6 lakh tree saplings for the project. The saplings would be distributed free of cost to educational institutions.

weather



INSAT PICTURE AT 14.00 hrs. Observations recorded at 8.30 a.m. on June 05th.

	Max	k Mir	١R	TR
New Delhi (Plm)	43	31	0	0
New Delhi (Sfd)	42	31	0	0
Chandigarh	41	31	0	1
Hissar	44	28	0	0
Bhuntar	35	17	0	0
Shimla	28	19	0	13
Jammu	39	27	0	8
Srinagar	30	17	0	13
Amritsar	43	26	0	0
Patiala	43	30	0	0
Jaipur	44	30	0	6
Udaipur	41	27	6	6
Allahabad	39	29	0	17
Lucknow	37	26	0	1
Varanasi	42	28	0	1
Dehradun	36	27	0	2
Agartala	35	28	0	9
Ahmedabad	41	24	11	11
Bangalore	30	21	0	119
Bhubaneshwar	38	26	0	7
Bhopal	41	24	17	17
Chennai	36	28	0	91
Guwahati	31	25	22	259

Hyderabad	34	25	0	56
Kolkata	37	28	0	0
Mumbai	33	25	20	28
Nagpur	42	28	0	1
Patna	31	26	0	29
Pune	34	21	43	51
Thiruvananthapuram	31	24	0	116
Imphal	34	23	0	5
Shillong	23	17	29	40

The columns show maximum and minimum temperature in Celsius, rainfall during last 24 hours (tr-trace) and total rainfall in mm since 1st June.

HEAT WAVE

Heat wave conditions are prevailing in some parts of Rajasthan.

RAINFALL: Rain/thundershowers have occurred at isolated places over east Rajasthan, east Uttar Pradesh and Uttarakhand. Weather was mainly dry over rest of the region. The chief amounts of rainfall in cm are: EAST RAJASTHAN: Pilani 2, EAST UTTARPRADESH: Churk 7 and Robertsganj 2 and UTTARAKHAND: Pithoragarh and Chamoli 1 each.

MAXIMUM TEMPERATURES The maximum temperatures rose appreciably in Haryana, Himachal Pradesh, Jammu and Kashmir and Punjab, rose in west Uttar Pradesh and Uttarakhand and changed little elsewhere. They were appreciably above normal in Rajasthan, above normal in Punjab and normal in rest of the region. The highest maximum temperature in the region was 47.8°C recorded at Bikaner Airport (Rajasthan).

FORECAST VALID UNTIL THE MORNING OF 07th June 2013:

Rain/thundershowers may occur at one or two places over Jammu and Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours and mainly dry weather thereafter. Weather would be mainly dry over rest of the region.

WARNING: Heat wave conditions are likely to continue in some parts of Rajasthan during next 48 hours.

FORECAST FOR DELHI AND NEIGHBOURHOOD VALID UNTIL THE MORNING OF 07th June 2013: Mainly clear sky.



Tractor sales gain traction, signal turnaround

It could be the first green shoots of a revival of sentiment. After a miserable 2012, the tractor industry is in top gear in the first two months of the new fiscal. According to latest data by the Tractor Manufacturers' Association of India, tractor sales grew 30.19% in April and nearly 21% in May — a huge jump from the 2% drop it recorded in the April 2012-March 2013 period. Tractor marketers say a good monsoon, higher minimum support price and a general sentiment upturn has brought about what looks like a genuine turnaround. And if the next few months keep the good news rolling, the positive sentiment can spill over on to other sectors as well including consumer durables and two and four-wheelers.

Top tractor companies reported smart growth in the first two months of the fiscal. Said Rajesh Jejurikar, chief executive, tractor & farm mechanization, Mahindra & Mahindra: "We clocked a 38% growth in April and 24% in May so it's definitely a turnaround. Overall there is positive sentiment about the rains which coupled with the higher minimum support price for wheat and a good soya crop last year -- which fetched decent price -- has helped build positive sentiment. If June continues to be good, we will revise our yearly estimate upwards from the 6-8% growth that we had announced earlier this calendar year."

Agreed Sonalika group chairman L D Mittal: "It is definitely a turnaround and if this continues overall growth for the industry should not be less than 20%." Sonalika clocked 36% growth in April and May and is looking at June

to continue the demand spurt. "Last year the monsoon was erratic but this year it seems to be on time so things are looking better," added Mittal. "Financial assistance to the farmers has also improved, land values have gone up and there is now more money in rural India so demand for other goods may also go up," he said.

Monsanto to invest over Rs 2,000 crore on R&D in India

Monsanto, the US biotech giant, will be investing over Rs 2,000 crore on
research and development over the next 10 years in India but it sees a
drop in cotton acreage by 5-7% which could impact its
business. Gyanendra Shukla, India region lead, Monsanto Company said
cotton acreage will increase in Gujarat with conditions becoming favourable
for the further advancement of the southwest monsoon during the next 3-4
days.

However, in other parts of the country, particularly in Vidarbha, it could fall with farmers opting for soyabean. "At this stage, farmers have made up their mind on what they want to plant. If there is a variation in rainfall, there might be a change in sowing pattern," he said while adding that he was expecting a 5-7% drop in overall area under cotton. "There will be a marginal impact on the business. As an agriculture company, we are used to this. You cannot expect things to always go up. A 5-10% swing is a normal thing," he said while mentioning that farmers in Andhra Pradesh, Maharashtra and Punjab use more seeds for cotton unlike their Gujarat cousins.

Cotton, corn and vegetables are the three main segments the company is focusing on. "Vegetable crops are prone to diseases and we are working on breeding and research regarding hybrid vegetable seeds, particularly

tomato and pepper. We plan to launch exotic vegetable seeds of cherry tomato and bellafina bellpepper," he said. The company sells vegetable seeds under the Seminis brand, corn under the Dekalb brand and cotton under the Paras brand.

The company is working on corn seeds to make them resistant to the stemborer pest. "It looks that our pipeline for corn seed is well for the dry season (sowing in Bihar and Andhra Pradesh). We are working on the wet season (80% of corn sowing in India takes place during the kharif season) pipeline and some of our new products will be demonstrated and launched in the new season," he said.

The company gets Rs 163 for a 450-gram packet of Bt cotton seed (or Rs 250 per acre) as technology fee from farmers. On an average, a farmer in India uses 1.6 packet for sowing an acre. As world's second largest cotton exporter and producer, the country sows cotton on an average 11-12 million hectare during the early to late kharif season across nine states.

Monsanto is working on bollgard 111 genetically modified cotton technology. "The idea is to improve bollworm control by bringing new technique. The initial work has begun but given the way our regulatory system works, it will take anywhere between 5 to 7 years for approvals to bring it to market," said Shukla. Terming India's regulatory framework to be robust compared to other parts of the world, Shukla said systems had to evolve with changing times. "As an industry person, all you are looking is a system which is scientific and has a predictable time frame to get a technology approved. The current system is scientific but not predictable," he said.

Food processing plan back to shelf in a week

More than one-third of the total garbage generated (3,500 tonnes) in the city is food waste. And most of it is by hotels and marriage halls. A grand plan of the BruhatBangalore MahanagaraPalike (BBMP) to process such organic waste separately fell apart within a week after it was announced, thanks to hectic lobbying from some corporators.

About a week ago, the BBMP signed a memorandum of understanding with a private agency and Bruhat Bangalore Hotel Association (BBHA) to set up a biogas plant to generate energy from the city's food waste. The private agency was entrusted with the task of buying organic waste from these bulk generators at 90 paise per kg, and carrying it to the plant. BBMP also identified a five-acre land on Magadi Road to set up the plant. However, the ambitious plan still remains on paper.

Sources in the Palike said some corporators raised objections to the MoU and demanded calling for tenders instead of allocating the project to the private agency.

Resolve it soon

Dr Vaman Acharya, chairman, Karnataka State Pollution Control Board (KSPCB), who played a major role in facilitating the project, said the plan got stuck after some elected representatives raised objections. "The issue needs to be resolved soon as segregation and processing of food waste is the need of the hour," he added.

An official with the BBMP solid waste management wing said a few more months will be wasted in setting up the plant if Palike decides to opt for the

tendering method to start the project. The BBHA has around 1,350 hotels, catering units and other such establishments under its ambit. A member said these units generate more than 1,500 tonnes of food waste every day.

Feed the hungry

Food wastage is a concern across the world as an estimated one-third of all food produced ends up in the waste bins of consumers, retailers, farmers and transporters. The 3,500 tonnes of waste is enough to feed 870 million people who go hungry each day several times over.

Harvest rainwater and make hay in summers too

Can you irrigate a farmland using a locally dug groundwater recharge well? Scientists at Central Soil Salinity Research Institute(CSSRI) have developed a technology where groundwater can be used for harnessing irrigation water for farmlands. The specially designed recharge wells along with drip irrigation technique have now come handy for farmers by enabling them to take crops during moisture stress periods.

The technology which took almost five years to fructify is very cost effective and easy to install in the fields and is more suitable for regions falling in arid and semi-arid climate having moderate to heavy textured soils of Gujarat. The process involves excavation of artificial rainwater recharge wells of 400 mm bore, lowering of 110 mm outside of PVC pipes, installing strainers and filling with lose mixture of aggregates 8-20 mm in size. A compressor is then used to compress the mixture to a depth of 100 ft. The year-long experiment has revealed that there has been a rise in water-table levels with significant improvement in the water quality.

A farmer in Borebhata village of Bharuch district, Kaushik Patel, used to grow banana and papaya in about 11.5 acres and vegetables in 1.2 acres of land. He had one tube well for irrigation, but the water was highly saline with a TDS of 1,219 ppm prior to monsoon and not enough to provide irrigation throughout the cropping season.

The CSSRI artificial rainwater recharge helped Patel harness rainwater runoff from his farm during the monsoon. The groundwater recharging during the years 2008 and 2009 monsoon had resulted in reduction in salinity and brought TDS levels to 192 indicating the improvement in groundwater quality of his tubewell.

"The average income from my banana plantation was Rs 8,000 per acre before the recharge well. Now, it has increased to Rs 30,000 per acre," says Patel.

Head of CSSRI G Gururaja Rao says, "We have installed 15 artificial rainwater recharge wells in different areas of Gujarat. Besides this the combination of drip irrigation with the recharge well ensures that every drop of water is saved and used for irrigation purposes."

State yields best cashew crop in years

Boosted by pre-monsoon rains, stoppage in mining activity and the start of the season at least 21 days in advance, most cashew farmers have experienced one of the best crops in recent years, said sources. The season normally starts during the last week of March or the first week of April. "But the unseasonal rain, in February, was good for the cashew crop, although the mango crop was adversely affected," said Madhav Sahakari, president of the Goa Cashew Manufacturers Association.

Association adviser A S Kamath added, "The early rain towards the end of February helped the crop and most farmers got a better yield." The heat wave, with mercury soaring to 37 degrees Celsius consecutively during the first week of March, transformed the cashew flower to the seed stage and then to a mature fruit at a rapid pace.

Most of the cashew crop was harvested between March and April and by mid-May the industry had completed their purchases from farmers. "At least 85% of the crop was harvested by the end of April," said Kamath.

The farmers received a good price at the commencement of the season. "At least 85% of the cashew nuts were sold at 76 per kg and the remaining between 72 to 60 per kg at the peak time," added Sahakari.

The farmers benefitted from the support price offered by the government as well. Goa is the only state in the country where farmers are assured a price of 90 per kg of cashew nuts. The difference of the price paid by processors to farmers is made good by the government support price.

About 10 years ago, the state produced around 24,000 tonnes of cashew nuts, but this figure has gradually declined to around 17,000 tonnes. "This

year, we may have crossed 20,000 tonnes. Overall, the production is 40% more than last year's and around 20% better than the average crop," said Sahakari.

Goan cashew nuts are preferred for their taste and quality as they are gathered only after the fruit falls from the trees. "This year, locals and tourists will have access to good quality processed cashew nuts," said Sahakari.

Incidentally, the distillation of feni too doubled this time. "But we have no record of the production," said Sahakari.

Vegetable prices hit summer high

For the past six weeks, homemaker Vijayalakshmi has not had beans and tomatoes in her kitchen as the prices of these vegetables — usually consumed daily — have risen sharply due to poor arrivals.

On Wednesday, beans were retailing at `90 a kg while tomatoes were sold at `65 a kilo in Tiruvanmiyur market. The last time the veggies sold at reasonable prices was in early April — beans were sold at `20 a kg and tomatoes at `12 a kg. "Now the prices are crazy. I simply can't afford such high prices. All this while, I thought being vegetarian was cheaper on the wallet. It is no longer true, not at these rates," Vijayalakshmi said. Traders at the wholesale markets attribute the high prices to poor arrivals. "We get beans from Chinnamannur in Theni district and from Karnataka. Nearly 500 trucks of beans entered the markets.

But, suddenly the arrival has dropped to just 150 trucks. This has resulted in the sharp increase in prices," said M Pandian of MPA Traders, which deals with beans and broad beans. The wholesale price for a kilo of beans at Koyambedu market on Wednesday was `80 a kg, while that of broad beans was `50 a kg.

Dealers said the excessive summer heat has reduced production of vegetables. "We do not have storage facilities. We are at our wits' end whenever there is shortfall in arrivals.

Excessive summer heat and poor arrivals are keeping prices very high. The temperature will drop after the rains in Karnataka and Andhra Pradesh, which are big feed markets for Chennai," said A Ramesh, a wholesale vegetable merchant in Koyambedu. Carrot prices have risen to `50 a kg from `12 couple of months ago. Beetroot is sold at `50 a kg, up from `15 in early April. Ginger prices are at a record high of `200 a kg. In early April, it stood at `60 a kg. Even coriander leaves are in tremendous demand. What was `2.50 a bunch in the wholesale market has risen 10 times to `25 a bunch. Some households have shifted to papads. "We need an accompaniment to rice when we eat. I cannot afford some of these vegetables. So, I microwave papad and serve it with meals," said Shoba, a homemaker.

Monsoon rains have cooled the prices of vegetables in north India. Prices there have dropped up to 20% in the past month. The retail prices of select

vegetables have dropped a bit over the past few days in Chennai, but are still higher than normal.

Five-day jute exhibition begins in Ooty

As part of the World Environmental Day celebrations, a jute promotional exhibition was inaugurated in Ooty by the National Jute Board (NJB), a body set up by the ministry of textiles, on Wednesday. For the first time, the Board has organized an exhibition in Ooty.

The five-day jute exhibition will display lifestyle products made of jute.

Around 15 jute entrepreneurs from states including Tamil Nadu,

Kerala, Andhra Pradesh, and West Bengal will showcase their consumer products.

"The main objective of organizing the exhibition-cum-sale is to create awareness about eco-friendly products made from natural fiber," said T Ayyappan, market promotion officer, NJB. The exhibition was organized with the support of Small Industries Product Promotion Organization (SIPPO), a Madurai-based NGO, with the hope of encouraging jute entrepreneurs and SHGs in various marketing related activities and employment opportunities, Ayyappan said.

Nilgiris collector Archana Patnaik inaugurated the exhibition at the USSS hall, where jewelry, gift articles, consumer products, wall hangings, foot wear and floor coverings made of jute were on display.

P Jayaprakash, 30, a jute product manufacturer from Palladam, who has

displayed his products including knee pads made of jute told TOI, "Ultimately, the earth is very important. We don't have any right to pollute the earth. Hence, I decided to do something eco-friendly for my livelihood, manufacturing jute products including trays, baskets, bags etc." The knee pad made of jute, a first of its kind and manufactured by him, is waiting patent registration. "Once the patent formalities are over, I will circulate the jute knee pads in the market," he said.

Ayyappan said the main advantage of jute is its eco-compatibility. It has been considered an ecologically sound fiber because of its inherent properties. Jute as a natural fiber is finding keener acceptance as an environment-friendly product since its contents are cellulose and lignin which are biodegradable.

Mainly grown in West Bengal and botanically known as 'Corcorus Capsolacier' or Corcorus Olitorius', jute holds bright prospects in the global trend of opting for natural products in various sectors.

hindustantimes

Green Heroes: Assam's forest guardian

Going green is expensive. The National Green India Mission entails Rs. 46,000 crore for 10 years to bring 33% of the country's landmass under forest and tree cover. Another \$10million is powering NGOs nationwide for forest and wildlife conservation.



Are we growing trees on money or money on trees, asks Jadav Payeng

"They are growing trees on money or money on trees?" asks Jadav Payeng, like most Mishing tribal men famed for their earthy repartees. Payeng, 52, should know. All he has had spend to turn a 550-hectare barren sandbar on river Brahmaputra into a forest in 30 years is his labour. Of course, one has to be as passionate as him about trees and the will to accomplish the impossible single-handedly.

Compare Payeng's 'free trees' with the Rs. 10.52crore the State forest development agency Assam received from the Union ministry of environment and forests during the 2011-12 fiscal under a national afforestation programme. The money did little to improve the state's forest

cover; the last Forest Survey of India said Assam lost 19 sq km of forest from 2009-2011.

Forest officials, though, noticed Payeng's work in 2008. They were amazed by the floral diversity – the forest has more than 100,000 trees – that housed reptiles, monkeys, deer, wild boars, wild buffaloes, leopards and birds.

Locals subsequently named the forest Mulai Kathoni, Mulai being Payeng's nickname. In Assamese, Mulai is a word derived from either 'root' or 'original'. That, greens say, makes Payeng the 'original forest man of India' rooted to his 'friends with roots'.



Arrivals of pulses affected by rain

Barring masoor, all the pulses and pulse seeds ruled firm at Indore mandis on Wednesday on subdued demand and buying support. Moong (best) ruled at Rs 4,800-5,100 a quintal, while moong (medium) was at Rs 4,600-4,800. Compared to last week, moong is up Rs 200 in local mandis. Arrivals got affected on Wednesday with rains and thunderstorm lashing various parts of the State. 4,900. However, a rise in buying support and demand in the past few days have perked up its prices by Rs 200. Moong dal, on the other hand, ruled stable on weak demand with mong dal (medium) remaining steady at Rs 6,300-6,400, and moong dal (bold) at Rs 7,000-7,100, while moong mongar ruled at Rs 7,200-7,300.

Marginal gain for tur

Tur saw a marginal gain on improved buying support, with tur (Maharashtra) ruling at Rs 4,525-4,550 (up Rs 50 from last week), while tur (Madhya Pradesh) ruled at Rs 4,000-4,100.

Notwithstanding a marginal rise in tur, its dal ruled stable with tur (full) quoted at Rs 6,200-6,300 and tur dal (sawa no.) at Rs 5,800-5,900, while tur marka ruled at Rs 7,000- 7,100. Masoor (best) ruled at Rs 4,250-4,300 (up Rs 50 from last week), while masoor (medium) ruled at Rs 3,600-3,900. Masoor dal (average) was quoted at Rs 4,725-4,775, and masoor dal (medium) at Rs 4,800-4,825, while masoor dal (bold) ruled at Rs 4,925-5,000 (up Rs 100 from last week).

Ginger stings as growers pare production this year

Now quotes at record Rs 7,500-8,000 in Kerala markets



From around Rs 600 for a 60-kg bag in April, fresh ginger now quotes at over Rs 7,500-8,000 in markets near growing centres of Wayanad in Kerala.

"It is the costliest vegetable right now," says Jis Thomas of K.K.T. Ginger Traders in Sultan Bathery, Wayanad.

Data obtained from Agmarknet, a portal that tracks prices of agricultural produce in different parts of the country, show that ginger prices have increased from around Rs 4,000 a quintal to over Rs 22,000 now.

Ginger prices have zoomed primarily because many well-to-do growers did not cultivate the spice crop.

"It all boils down to supply-demand situation. It has got nothing to do with the prolonged dry period or any other thing," says Thomas.

"This is the effect of low prices last year," said a trading source, who did not wish to be identified, from Wayanad.

"Last year, the production was three times the demand. Hence, prices crashed. That resulted in growers giving a go-by to ginger cultivation," said Thomas.

However, growers did not shift to any other crop. Ginger growers mostly belong to middle and upper middle class and are well-off.

"Only small farmers cultivated ginger this year," said the trade source. Ginger production usually hovers between 7 lakh tonnes and 8.3 lakh tonnes.

However, it is said to have increased to 9.42 lakh tonnes in 2010-11 with the spice being planted on a record 1.71 lakh hectares.

The fall in price was despite a record export of over 20,000 tonnes. Karnataka leads in ginger production followed by Orissa and Assam, according to the Spices Board.

"At least 90 per cent of the demand in South India is met from the ginger grown in the Wayanad region," the trade source said.

"Such a trend of low prices is seen once in three-four years," said Thomas.

"In fact, prices should have gone up even higher. But ginger imports from China and Thailand have tempered the rise," he said.

Imported ginger has found its way into almost all States, except Andhra Pradesh and Tamil Nadu.

The next crop could be better, according to Thomas and the source.

"Supplies should improve from August when tender ginger arrives in the market," Thomas said. "Prices may begin to drop but they are not likely to drop below Rs 3,000 for a 60-kg bag," he said.

The rise in fresh ginger price has resulted in dry ginger becoming unfeasible, trade sources said.

Five kg of fresh ginger will yield one kg of dry ginger. "Besides conversion costs, you will have to take into consideration labour and other costs. t is simply unviable now," said the trade source.

"The coming crop will be better but it is definitely not going to be higher like last year," the source said.

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Coonoor tea sale volume hits 3-week high

A volume of 13.90 lakh kg would be offered for Sale No: 23 of Coonoor Tea Trade Association auction to take place on Thursday and Friday, says an analysis of brokers' listings.

It is the highest offer in three weeks. It is 44,000 kg more than last week's offer and 1.11 lakh kg more than the offer this time last year.

Of the 13.90 lakh kg on offer, 9.93 lakh kg belongs to the leaf grades and 3.97 lakh kg dust grades.

As much as 13.11 lakh kg belongs to CTC variety and only 0.79 lakh kg, orthodox variety.

The proportion of orthodox teas continues to be low in both the leaf and dust grades.

In the leaf counter, only 0.48 lakh kg belongs to orthodox while 9.45 lakh kg, CTC. Among the dusts, only 0.31 lakh kg belongs to orthodox while 3.66 lakh kg, CTC.

Fresh tea accounts for 13.51 lakh kg. Only some 39,000 kg comprises teas which had remained unsold in previous auctions. In the leaf auction last week, Hindustan Unilever Ltd operated on better medium varieties while Tata Global Beverages Ltd was fairly active on good medium teas. Godfrey Philips India Ltd was selective. In the dust auction, HUL and Tata Global were selective. Indcoserve was fairly active on good medium smaller dusts. Exporters chose medium and plainer varieties.

Spot rubber improves further

Spot rubber improved further on Wednesday.

The market gained strength following a firm closing in June futures on the National Multi Commodity Exchange (NMCE).

"We are experiencing an acute shortage of sheets as the arrivals are extremely low," dealers said.

The trend was mixed and volumes continued to be low.

Sheet rubber improved to Rs 171 (Rs 170) a kg both at Kottayam and Kochi, according to traders and the Rubber Board.

June futures closed at Rs 171.15 (Rs 170.03), July at Rs 166.91 (Rs 167.21), August at Rs 164.20 (Rs 164.40), September at Rs 161.52 (Rs 161.75), October at Rs 163.40 (Rs 162.04) and November at Rs 157.06 (Rs 161) on the NMCE.

RSS 3 (spot) weakened to Rs 164.55 (Rs 164.75) at Bangkok. June futures closed at ¥246.5 (Rs 140.44) on the Tokyo Commodity Exchange.

Spot rubber rates Rs/kg were: RSS-4: 171 (170); RSS-5: 166 (166); Ungraded: 158 (156.50); ISNR 20: 157.50 (157.00) and Latex 60%: 108 (108).

Cabinet to take final call on urea price hike

The Government is considering a hike in urea prices as well as raising fixed costs for nearly 30 units producing urea in the country.

A higher fixed cost would translate into a higher 'retention price', on which the subsidy payable to urea manufacturers is calculated.

"The prices should not be raised just to contain the subsidy or protecting health of the soil. There should be some reasonability. (The) Cabinet will take a final call," Fertiliser Minister Srikant Kumar Jena told reporters, after

a meeting of the Group of Ministers called to discuss changes in urea pricing policy.

The ministerial panel has heard industry views on the issue of changes in fixed cost. Jena said that the Government will examine the suggestions.

The panel headed by the Agriculture Minister Sharad Pawar has Finance Minister P Chidambaram, Petroleum Minister Veerapa Moily, and Food Minister K V Thomas as members, besides Jena.

Now, the panel will hear the views of the Planning Commission. The Planning Commission favours nutrient-based subsidy for urea and freeing maximum retail price within a reasonable limit.

The Department of Fertiliser has opposed this.

The current maximum retail price is Rs 5,360/ a tonne which includes an Rs 50/tonne cess for the Mobile Fertiliser Monitoring System imposed on October 12.

controlled fertiliser

Urea is the only controlled fertiliser where difference between the costs of production of urea as assessed by Fertiliser Industry Coordination Committee (known as the retention price) and the statutorily fixed sale price is paid as subsidy under the Retention Price-cum Subsidy Scheme.

The subsidy is fixed to allow a 12 per cent return on capital investment to manufacturers, a margin which manufacturers have been claiming has been eroded by rising costs.

Meanwhile, the fertiliser industry has pitched for raising fixed cost for urea plants.

"Fixed cost for all the urea plants need to be raised by Rs 700 for now, while for future, revision should be linked to an index such as Whole-Sale

Price Index," Satish Chander, Director General of the Fertiliser Association of India, said.

Fixed costs were last revised in 2002-03. Chander also mentioned that for plants which are 30 years or older, there should be a provision of an additional Rs 500. This means the hike in fixed cost for these plants should be Rs 1,200.

Ruchi Soya to form edible oil venture with Japanese firms

Ruchi Soya Industries Ltd has announced it will form a joint venture with Japanese edible oil major J-Oil Mills Inc. and Toyota Tsusho Corporation, one of the largest global trading companies of Japan.

Ruchi Soya will hold a 51 per cent stake in the joint venture while J-Oil and Toyota Tsusho will hold 26 per cent and 23 per cent, respectively.

new venture

The new venture will produce and market high quality, functional edible oils.

It plans to start supplying products to institutional customers by the end of 2013 and launch consumer products for the Indian market in the second half of 2014. The Ruch board has approved the sale and transfer of the soya processing business run at its Shujalpur plant in Madhya Pradesh to the proposed joint venture, which will be managed by representatives from all the three companies.

Dinesh Shahra, Managing Director, Ruchi Soya, said: "Ruchi Soya will provide raw materials and marketing and distribution assistance to the joint venture.

J-Oil will provide technical assistance and Toyota Tsusho will provide management assistance for internal control and access to international markets."

Export demand seen supporting castorseed



Castorseed price gained on Wednesday as stockists and traders started covering purchases before the onset of monsoon.

Castor futures, too, gained on the back of rise in demand for spot castorseed.

According to traders, once monsoon sets in, arrivals will decline.

Moreover, at this level, export demand likely to emanate in the near future. On National Commodity and Derivatives Exchange, castor June contracts increased by Rs 96 to Rs 3,327 a quintal, with an open interest of 23,100 lots. July futures moved up by Rs 70 to Rs 3,406 a quintal with an open interest of 172,920 lots.

On the Rajkot Commodity Exchange, castor June contracts traded higher by Rs 65 at Rs 3,429 a quintal and September contracts increased by Rs 74 to Rs 3,674 a quintal. RCX spot castor improved Rs 45 to Rs 3,325 a quintal. Castor oil price gained by Rs 5 at Rs 690 per 10 kg.

Some 60,000-65,000 bags of castorseed arrived in Gujarat and the price was Rs 655-670 for a *maund* of 20 kg. Around 3,400-3,500 bags arrived in Saurashtra and the price was Rs 630-664 a *maund*.

Edible oils may rise on falling palm oil stocks

Soyabean refined oil rose in domestic futures market on Wednesday, tracking the higher closing of Malaysian palm oil futures.

While slack demand pulled soyabean and cotton refined oil down in physical markets by Re 1 each, groundnut oil fell by a further Rs 10 in line with bearish trends in Saurashtra. Sunflower, rapeseed and palmolein ruled steady.

Volumes were thin but the undercurrent was firm on the prospects of higher festival demand in the coming months, an observer said.

Sources said that market players expect support from lower stocks in Malaysia by the end of the month.

The Malaysian Palm Oil Board, the official regulator, will release official stocks data on Monday. In the local market, about 200–250 tonnes of palmolein was resale traded at Rs 507-Rs 508. Liberty sold about 300-350 tonnes of Super palmolein at Rs.550. Soyabean arrivals were 63,000-65,000 bags, including 33,000 bags in Madhya Pradesh and their prices were Rs 3,650- Rs 3,700 ex-mandi and Rs 3,800- Rs 3,850 for plant delivery.

Mustard seed arrivals were 2 lakh bags and prices were Rs 3,100-Rs 3,575. At the close of the day, Liberty was quoting Palmolein at Rs 515-Rs 517, super palmolein at Rs 553, super deluxe at Rs 573 and sunflower refined oil at Rs 780.

In Rajkot, groundnut oil declined by Rs 20 to Rs 1,650 (Rs 1,670) for telia tin and by Rs 10 to Rs 1,070 (Rs 1,080) for loose (10 kg).

On the National Commodities and Derivatives Exchange, soyabean refined oil's July futures ended higher by Rs 3.60 to Rs 693.50 (Rs 689.90), August was up by Rs 2.80 to Rs 685.80 (Rs 683.00) and September increased by Rs 1.90 to Rs 675.50 (Rs.673.60). **Vikram Global Commodities, Chennai**, quoted Malaysian Super Palmolein, ex-Chennai at Rs 560 for 10 kg.

The Bombay Commodity Exchange spot rates (Rs/10 kg) were: groundnut oil 1,065 (1,075), soya refined oil 665 (666), sunflower exp. ref. 675 (675), sunflower ref. 765 (765), rapeseed ref. oil 695 (695), rapeseed expeller ref. 665 (665) cottonseed ref. oil 642 (643) and palmolein 508(508).

Far-month pepper contracts dip on correction

Prices prices were mixed on the India Pepper and Spice Trade Association with the running contract (June) moving up, while other contracts fell. Activities were limited on the exchange as is evident from the reduction in turnover. July and August contracts declined, which, traders said, was due to a technical correction to bring the prices to "realistic levels".

Supply continued to remain thin due to rain in several growing areas in Kerala. Arrivals from Karnataka have slowed. In the spot market, 35 tonnes of fresh pepper arrived, of which 16 tonnes were from Karnataka. The entire quantity was traded. There was good demand for both highest and lowest grade pepper from leading exporters and expert processors, market sources told *Business Line*.

High bulk density Rajakumari pepper from Idukki was offered at Rs 350 a kg, while buyers were only willing to take it at Rs 348 a kg. High range pepper was offered at Rs 345 a kg while pepper from Battery and Pulpally

in Wayanad was offered at Rs 340 a kg. The asking price for Karnataka pepper was Rs 335 a kg, while buyers quoted Rs 330 a kg. Sellers asked for Rs 331a kg for lower grade pepper. June contracts rose by Rs 385 to Rs 35,855 a quintal. July contract decreased by Rs 180 a quintal to Rs 36,040 and August declined by Rs 171 a quintal to Rs 35,921 a quintal. Total open interest slipped by one tonne to 14 tonnes. Total turnover fell by 32 tonnes to 30 tonnes.

Spot prices remained unchanged at Rs 33,700 (ungarbled) and Rs 35,200 (MG 1) a quintal on matching demand and supply. Indian parity in the international market was at \$6,450 a tonne (c&f) for June shipments for Europe and \$6,650 a tonne (c&f) for the US and heading to competitive levels.

Rising production costs hold feed firm

An uptrend in the prices of key ingredients kept poultry feed prices unchanged, on Wednesday.

Aditya Mishra, a commodity expert, told *Business Line* that a rise in the cost of production kept feed prices unchanged. Feed prices were expected to fall but an uptrend in soyameal, mustard, bajra and maize kept feed at its previous levels, he added. Soyameal went further up by Rs 950 to Rs 34,800 a tonne. Bajra improved by Rs 10 to Rs 1,520 a quintal, DCP was at 35 a kg, MBM improved by Re 1 to Rs 37 a kg, while maize improved by Rs 5 to Rs 1,480 a quintal. Mustard de-oiled Cake improved by Rs 300 to Rs 15,000 a tonne, DRB was up by Rs 150 at Rs 9,250 a tonne, while rice bran oil ruled at 49 a kg, unchanged.

Pre-lay mash sold at Rs 1,020 for a 50-kg bag, while layer grower mash quoted at Rs 960 for a 50-kg bag.

"Layer concentrate 25 per cent" sold at Rs 1,445 for a 50-kg bag while layer concentrate 35 per cent went for Rs 1,130 for a 50-kg bag. Broiler concentrate quoted at Rs 1,980 for a 50-kg bag, while broiler starter mash was at Rs 1,500.

Meanwhile, after witnessing a continuous uptrend in the recent past, egg witnessed some correction while other poultry products witnessed an uptrend on account of low availability of stocks on Wednesday.

Egg went down by 19 paisa and sold at Rs 2.94. Broiler improved by Rs 5 and quoted at Rs 76-83 a kg, while Chick went for Rs 12-13, Re 1 up from previous levels.

Ample stocks could put pressure on sugar

Sugar prices in the spot market rose by Rs 10-15 on Wednesday on improved demand for fine variety in the first week of the new month. Naka and Mill tender rates were unchanged.

On the Vashi wholesale market, volumes continued to show slight improvement as offtakes rose. As the crushing season is almost over across the country, the undercurrent remained positive, noted an observer. A Vashi-based wholesaler said, "Producers and stockists are carrying sufficient inventory with them while demand remains need-based, leading to ample supply that has maintained the pressure on price. For the last two months, prices are ruling on a thin volatility."

Despite expectations of lower sugar production in Maharashtra next season, traders believe that carryover stocks of more than 90 lakh tonnes at the end of September will be enough to meet the domestic requirement for at least three months. No supply crunch is expected till December. Sources said the Vashi market currently caries inventory of 110-115

truckloads while retail demand is lacklustre. In Vashi on Wednesday, arrivals were about 65-66 truckloads (each of 100 bags) and local dispatches were around 63-64 truckloads. On Tuesday evening, about 15-16 mills offered tenders and sold 48,000-50,000 bags to local traders at a steady price of Rs 2,930-2,990 (Rs.2,930-Rs2,990) for S-grade and Rs 3,000-Rs3,090 (Rs 3,000- 3,090) for M-grade.

On the National Commodities and Derivatives Exchange, sugar July -13 futures rose by Rs 5 to Rs 3,090 (Rs 3,085), August was up by Rs 8 to Rs 3,145 (Rs 3,137) and September inched up by Rs 15 to Rs 3,194 (Rs 3,179) till noon.

Bombay Sugar Merchants Association's spot rates: S-grade Rs 3,072–Rs 3,145 (Rs 3,080– Rs 3,130) and M-grade Rs 3,172-3,346 (Rs 3,152-3,331). Naka delivery rates: S-grade Rs 3,030 -3,070 (Rs 3,030-3,070) and M-grade Rs 3,100-3,200 (Rs 3,100-3,200).

Huge inventories with users could keep turmeric flat

Turmeric prices are likely to be subdued in the short-term as the user industry is reported to be holding huge inventories built at a cost lower than Rs 4,000 a quintal.

Stockists are also said to be holding nearly five lakh bags of turmeric.

These stocks together are likely to put pressure on turmeric.

On the other hand, growers have been smart retaining fine variety stocks running into 25 lakh bags while disposing of second and low grade turmeric. Sales in turmeric markets have slowed with only 45 per cent of stocks being sold.

"Arrivals fell to 3,170 bags on Wednesday. Stockists were main buyers. Local traders procured little as also exporters as they didn't receive any

upcountry demand. Also, buyers purchased medium variety turmeric, while low quality turmeric was unsold," said R.K.V. Ravichandran, President, Erode Turmeric Merchants Association.

Traders said that as only low quality turmeric arrived on Wednesday, the price fell by Rs 300 a quintal. Turmeric futures have fallen by three percent, which is also being reflected in the local market. At the Erode Turmeric Merchants Association sales yard, the finger variety was sold at Rs 3,558-6,784 a quintal, the root variety for Rs 3,496-5,714.

Salem Hybrid Crop: The finger variety was sold at Rs 5,824-7,529, the root variety at Rs 5,511-6,361. Of the 1,193 bags that arrived, only 40 per cent was sold.

Business Standard

Food security and sustainable farming are two sides of the same coin Study shows that past agricultural practices have caused more long-term harm than good, to agricultural sustainability in Punjab

Food security is a complex socio-economic issue, intricately linked to human health and sustainable economic development. Historically, large sections of the world's population continued to experience hunger, exacerbated by human activities or natural phenomenon or a combination of both.

Even today, combating hunger and malnutrition remains an existential necessity of human society.

According to a 2012 report by the Food and AgricultureOrganisation (FAO), one in every eight (approximately 870 million) people on Earth go to bed hungry each night. In 2011, the World Health Organisation (WHO) ranked hunger as the number one health risk on the planet, killing more people each year than AIDS, malaria and tuberculosis combined.

As world population edges closer to 9.1 billion by 2050, it is estimated that agricultural systems will need to increase food production by 70% to match growing demand for food. Although we have come a long way since global leaders promised to halve the number of the world's undernourished at the World Food Summit, in 1996, global food security today stands at crossroads — marked by the continuing prevalence of hunger and malnutrition, despite increasing yields and large surpluses in foodgrain production.

India is not new to hunger. Post-independence, in 1961, the nation stood poised on the brink of mass famines. To combat this, by mid-1960s, a new agricultural policy of intensification, predominated by use of chemical fertilizers, high-yield IR8 variety of rice and irrigation, was implemented, starting with the state of Punjab. To say that this 'Green Revolution' was successful is an understatement. According to official estimates, total foodgrain production in India in 2011-12 stood at 252.56 million tonnes; reaffirming India's position as a self-sufficient nation in foodgrain. The question is: at what cost?

As a species, we are intrinsically linked to our ecosystems due to our capacity to impact its functioning and existence via our activities, while remaining extensively dependent on continuous provisioning of its goods and services from nature (from water regulation to food security, livelihood provisioning to better public health, flood control to climate regulation) for our survival. Studies have proved that ecosystem services are a major contributor to agricultural productivity; leading to increases in agricultural crop yield and thereby towards food security. But agriculture produces more than just crops. Agricultural practices have environmental impacts that affect a wide range of ecosystem services, including water quality, pollination, nutrient cycling, soil retention, carbon sequestration and biodiversity conservation. One of the lesser advertised, if not largely ignored, fact about India's, and in particular Punjab's, agricultural miracle is the severe negative impacts on the region's ecology and on provisioning of biodiversity and ecosystem services (BES).

The three pillars of the agricultural revolution in India and Punjab — high-yield crop intensification, subsidised access to electricity for drawing water for irrigation and increased chemical fertiliser use — have culminated in several negative ecological externalities, such as depletion in underground water and negative impacts on soil fertility. These need to be probed, measured and valued in order to ensure future agricultural sustainability and food security. A United Nations Environment Program (UNEP) study titled "Capacity Building in National Planning for Food Security" does so precisely.

By analysing the trade-offs between productivity gains from agricultural practices implemented post-Green Revolution versus provisioning of ecosystems services such as water regulation and soil fertility in Punjab; the study indicates that while area under foodgrains cultivation has doubled in the past five decades (with area under rice increasing by 1,146%), total fertiliser consumption in the state has increased six times over and around 7% of total area in the state suffers from soil erosion of more than 10 tonnes per hectare. This is symbolic of a much deeper malaise of increasing nutrient imbalances and declining soil fertility, reflected by the consistent decline in compound annual growth rate of agricultural productivity in Punjab, which has fallen from 6.98% in 1960s to 0.25% in the 2000s. With productivity of rice and wheat projected to decline by 0.16% to 9.6% and 4.6% to 32% respectively, due to temperature increase of 0.5°C to 2°C as a result of climate change; ensuring agricultural sustainability is the key challenge.

Intensive production of rice-wheat monocultures has also led to higher incidence of pests and diseases within these two crops; further fuelled by a remunerative price regime and significant subsidies on fertilizers and pesticides. Resultant leaching leading to increase in chemical contamination of underground water reserves, coupled with increase in soil salinity, has impacted Punjab's groundwater reserves. Currently only 46% remain suitable for agriculture.

Currently, Punjab exports over 3,554 cubic metres/ton of virtual water each year via foodgrains; despite experiencing a water deficit of up to 1.63 million hectare-metres.

With the share of area irrigated by canals declining from 45% in 1970-71 to 27% in 2010-11, there has been a corresponding increase in the share of area irrigated by tube wells; culminating in significant increase in the percentage of areas with water-table depths of more than 10m, 15m and 20m. Currently, over 11.5 lakh agricultural tube wells consume 10,000 million units of electricity worth Rs 4,700 crore every year in Punjab, free of charge.

Despite significant subsidies, the incidence of poverty among farmers in Punjab has increased from 8.65% in 1995-96 to 11.36% in 2005-06, raising questions on effectiveness of policy. There is an urgent need for policymakers to rethink current practices in order to curtail the impacts of the food-water-energy nexus affecting ecological sustainability. Breaking the rice-wheat cycle by diversifying farmland approaching 'tipping points' to

other crops and implementing sustainable agricultural practices; establishing check on rapid decline in sub-soil water table by fast tracking consultation with stakeholders and implementing Participatory Irrigation Management (PIM) practices; and curbing mounting energy-subsidy bill by strengthening the accountability loop between farmers and administration for rationalisation and collection of irrigation service fee are the need of the hour.

Punjab today stands at a critical juncture, with ecological thresholds for soil fertility and water availability nearing their tipping points. There is still time – provided action is taken – to change current trends via use of sustainable practices, better technology and prudent policy; to mitigate losses in ecosystem services, volatility in foodgrain production and threats to food security.

It is necessary to remember that the root cause of hunger is the inability of the poor to gain access to resources they need to feed themselves – resources such as fuelwood for energy; fruit availed freely and abundantly from nature; availability of raw materials to build homes, craft a living and earn their daily bread; regular rainfall, fertile soil and healthy seed to reap bountiful crops; and fresh water to irrigate and drink. All availed by nature for free. Unless we rethink our historical disregard for cost to ecosystems, we shall continue to relinquish many of these — starting with our soil and water.