

04.05.2016

THE HINDU

Mangoes that pack a vitamin punch



Underutilised: Dragon fruit and (right) rambutan

Horticulturists scramble to save 'nutraceutical' fruit species

A mango that fights night blindness is the focus of horticulture scientists who want to save high-value 'nutraceutical' plants that have long been neglected.

Manoranjitam found in Chittoor, Andhra Pradesh, helps fight night blindness as it is high in vitamin A. But, not many beyond that region are aware of its special property. It is among hundreds of fruits that are underutilised.

That may change, as horticulture researchers prepare to preserve, develop and promote the exotic fruit species.

The first push has come from Bengaluru, where scientists from 20 States discussed 'Fruit breeding in tropics and sub-tropics' at a symposium organised jointly by the Indian Council of Agricultural Research (ICAR) and

the Indian Institute of Horticultural Research (IIHR). They have begun the process of listing underutilised exotic fruit varieties.



IIHR Director M.R. Dinesh said although India has large fruit wealth, the nutraceutical properties of this diverse group are yet to be evaluated. “When we evaluated fruit varieties, we found some of them facing the threat of extinction. That’s why we have decided to develop and promote them,” he said. Preserving and promoting them will have twin benefits – higher revenue for farmers, and improved health of people.

Appropriate processing technologies to tap the full potential of exotic fruits including litchi, dragon fruit, rambutan, longan, avocado and velvette apple will be used, said conference organising secretary, B.N.S. Murthy.

Dwarf varieties

The conference is also looking at the possibility of developing dwarf varieties of fruit crops to help farmers pluck the produce easily, without hiring more labourers. Such varieties are needed to suit the present trend of high-density planting, Dr. Dinesh said.

The conference, which focussed on development of disease-resistant fruit varieties and reducing the time taken for development and improvement of new varieties, will submit a report to ICAR.

Gene bank

For those who cherish mango *appe midi* , the traditional pickle varieties of mango from Karnataka, there is good news.

The IIHR has preserved nearly 85 threatened varieties in a gene bank through molecular characterisation. These are available from IIHR for cultivation.

Over a lakh farmers moved to Bengaluru in two years: survey

Over one lakh farmers, mostly women, with land holdings of around two acres, have migrated to Bengaluru over the last two years, and have taken up jobs in garment factories and other industries.

The farmers, from Mysuru, Mandya and Chamarajanagar districts, migrated to the city after having suffered huge losses in agriculture, forcing them to desert or sell their land. They moved in the hope of a steady income and life that was not bogged down by debts.

The figures were based on a recent survey in Bengaluru by the Karnataka Rajya Raitha Sangha and Hasiru Sene.

Speaking to media persons, Hosuru Kumar, president of district unit of KRRS, and Hosakote Basavaraju, general secretary, said KRRS and Hasiru Sene was persuading the farmers to move back to the villages and to continue agricultural activities with help from the government schemes. Stating that they knew it was an onerous task to persuade the farmers, the members said they appeal to the government to offer incentives to farmers to return to their villages.

The KRRS plans to organise a conference of farmers working in Bengaluru soon.

Researchers focus on preserving exotic fruit varieties with nutraceutical value



Sweet attraction: Some of the exotic fruit varieties include rambutan (top), avocado, and dragon fruit (right), among others.— file photos

A unique mango variety called *Manoranjitam* in Chittoor of Andhra Pradesh is useful in fighting night blindness as it is high in vitamin A. But, not many beyond its growing region are aware of its useful properties. *Manoranjitam* is just one of the hundreds of fruits that are underutilised despite their nutraceutical (functional) properties.

Horticulture researchers from across the country are now setting the stage for preserving, developing and promoting such exotic fruit varieties.

The first push has come from Bengaluru, with scientists from 20 States — who participated at a national symposium on ‘Fruit breeding in tropics and sub-tropics: An Indian perspective’, organised jointly by the Indian Council of Agricultural Research (ICAR) and the Indian Institute of Horticultural Research (IIHR) — beginning the process of listing underutilised exotic fruit varieties, which need to be preserved and promoted.



IIHR Director M.R. Dinesh told *The Hindu* that though India had large fruit wealth, their nutraceutical properties are yet to be evaluated. “When we evaluated some of the fruit varieties, we found they were not only underutilised, but also that some of them were facing the threat of extinction. That’s why we have decided to preserve, develop and promote them,” he said. According to him, preserving and promoting of such fruit varieties will have twin benefits: it will help increase revenue of farmers, and improve the health of people.

Conference organising secretary B.N.S. Murthy said that works would also be taken up to come out with appropriate processing technologies for exploiting the full potential of such exotic fruit varieties, which include litchi, dragon fruit, rambutan, longan, avocado and velvete apple.

Dwarf varieties

The conference is also focusing on the possibility of developing dwarf varieties of fruit crops so that the farmers can pluck the fruits easily, without hiring labourers particularly as there is severe labour shortage. Such dwarf varieties are needed to suit the present trend of high-density plantation, Dr. Dinesh said.

The conference, which focussed on development of disease-resistant fruit varieties and reducing the time taken for development and improvement of new varieties, will submit a report to ICAR.

IT-based solutions for farmers

A group of five computer professionals coming from different parts of Tamil Nadu is now on a mission to garner support of stakeholders to provide Information Technology-based comprehensive farming solution, which they have implemented successfully in Andhra Pradesh, in Tamil Nadu.

With elections round the corner, the professionals are meeting the farmers' groups in the State.

The aim is to explain how their project named 'Information and Communication Technology-based Agriculture focused Integrated Rural Development', which was mooted under the forum of 'Mission-IT Rural', can improve yield and marketing avenues so that the farmers could in turn pressurise the political parties/candidates to get an assurance of implementing the same when come to power.

During a visit to Palladam to meet farmers' groups/forums, the 'Mission IT-Rural' team leader R. Thiruchelvam explained to *The Hindu* how the project was implemented on a pilot basis at Pulivendula block in Kadapa district of Andhra Pradesh a few years ago with the professionals themselves meeting entire project expenses.

"Under the project, we first opened information and process management centre in all 11 villages under the block. Base data of farmers was obtained and computerised apart from information needed for specific crops so as to generate solutions to the farmers depending on the season, soil and water availability," he said.

The live data collected on sowing helped guide the other farmers against raising same crops all over the block to avoid any glut in the market. Similarly, the information of pest breakouts helped take preventive measures.

According to Mr. Thiruchelvam, the project resulted in yield increase by 10 to 20 per cent.

Mosambi and pomegranate harvested from there got exported for first time.

Plea for research in groundnut

The Vice-Chairman of State Planning Board S. Niranjan Reddy has requested the Chief Minister K. Chandrasekhar Rao to sanction a research programme on groundnut cultivated during rabi at the Regional Agricultural Research Station at Palem in Mahabubnagar district because the crop area in the district in that season was the highest in Telangana.

In a letter to Mr. Rao, Mr. Reddy said there was no research on groundnut produced in rabi in Telangana. The Palem station earlier took up research in groundnut of kharif in the combined State but the programme was shifted to the agricultural research station at Kadiri due to drastic decline in area under cultivation and yield.

Bio-diverse crops is the way forward in Telangana

Government asked to look for solutions from within the local farming communities



EXAMPLE TO EMULATE:A farmer from Raikode mandal of Medak district grows millets and earns good money despite drought conditions prevailing in Telangana.-Photo: By Arrangement

While scores of farmers had to endure drought and the Telangana Government seems determined to take up major irrigation projects across the

State to provide water to agriculture, a small farmer from Medak is claiming to have made a handsome income from her three-acre farm growing millets, oilseeds and pulses – without any irrigation source or borewell.

Thirty-year-old M. Vinoda's efforts have already won her laurels having bagged the best farmer award last year and this year despite drought and despair all round.

Hailing from Raikode mandal of Medak district she claims to have made Rs.2 lakh on her farm growing indigenous dryland crops, using own seeds and bio-fertiliser utilising methods passed on through generations. "I have not depended on the Government for anything, not for water, fertiliser or seeds. Our crops are nutritious. We grow enough to feed my family, livestock and even the birds," says the little built mother of three, facing a barrage of television cameras and news photographers here on Monday.

Indigenous methods

The farmer was presented before the media by the Deccan Development Society (DDS), a voluntary organisation working towards preservation of indigenous farming methods, in its campaign against the Government's alleged move to go for Soya and Maize cultivation plus big size irrigation projects encouraging "farmers to go for water intensive Paddy and Sugarcane".

"We had high hopes from the Government when it announced the agriculture policy. We are alarmed as the latest initiatives are not going to help the peasants. Telangana has traditionally been a land of diverse farm practices and turning it into mono-cropping cultivation is not right," said P.V. Sateesh, society director.

Water-intensive crops

The Government was rooting for water-intensive crops spending a lot of money on reservoirs and maintenance as one acre of paddy needs six million litres of water.

He advised the Government to look for solutions from within the local farming communities and promote natural farming with crop diversity like Millets – Jowar, Bajra, Foxtail, etc., which ensures food and fodder while being environment friendly in these days of climate change.

Dr.MCRHRD Institute Climate and Disaster Management professor W.G. Prasanna Kumar sought introduction of coarse cereals and millets in the public distribution system and also the mid-day meals for better nutrition and since it was eco-friendly too.

“Climate change calls for change in cropping and eating patterns,” he said. Prof. Hymavati of Prof. Jaishankar Telangana State Agriculture University spoke about the nutritional benefits of millets.

Heat wave delays tendu leaf collection

The intense heat wave conditions and delayed pruning of shrubs and late auctioning of some of the tendu leaf units in several Agency areas in the district are likely to hit the tendu (beedi) leaf collection target in the current season.

This has cast a shadow on the hopes of tribals in Agency areas to earn a substantial supplemental income in the peak summer.

The government has set an ambitious target of collecting 86,085 standard bags (1,000 bundles of 50 tendu leaves each) under five forest divisions Palvancha, Kothagudem, Bhadrachalam (North), Khammam and Palvancha (Wildlife Management) in the district for the 2,016 beedi leaf collection season.

However, the tendu leaf collection has not yet commenced in several forest ranges in Khammam and Palvancha divisions.

Barring Sattupalli, the tendu leaf collection is yet to be picked up in the remaining three forest ranges – Thallada, Dammapeta and Karepalli in Khammam forest division, sources said.

A target of 9,700 standard bags of tendu leaf collection has been fixed for the Khammam forest division comprising eight units.

Bleak prospects

The target appears to be tough to achieve considering the bleak prospects of substantial tendu leaf yield in Kamepally, Gubbagurthy and several other

units under Khammam division due to factors like deforestation and late pruning of tendu leaf plants.

In Palvancha (Wildlife management) forest division, tendu leaf collection has started on Monday.

The division recorded a collection of 170 standard bags of tendu leaves on the first day, sources said. The division has been given a target of 5100 standard bags in the present season, sources added.

Scores of tribals are dependent on tendu leaf collection for their sustenance especially during the non-agricultural season of summer in the district, says K Rangaiah, State general secretary, All India Kisan Mazdoor Sabha (AIKMS).

The inordinate delay in payment of the bonus dues to the tendu leaf collectors has aggravated the plight of thousands of tendu leaf collectors in the district, Rangaiah, deplored.

The AIKMS leader demanded that the government immediately disburse the bonus arrears to the tendu leaf collectors forthwith.

A target of 9,700 standard bags of tendu leaf collection fixed for Khammam division

State's agriculture sector wilts under heatwave

Crops in nearly 1,468 hectares hit by rising temperature

Paddy, banana, pepper, coconut, rubber, and areca crops in nearly 1,468 hectares have been hit by the rising temperature and continuing heatwave in the State, say initial reports received by the Department of Agriculture from its district-level offices.

Kasaragod, Kannur, Palakkad, Alappuzha, and Thiruvananthapuram are among the worst hit with large areas under standing crops wilting under heat.

The initial estimates put the losses at Rs.27 crore, sources said, highlighting the preliminary nature of the reports and the need for more accurate and extensive study of the situation.

Paddy loss

Of the total of 1,468 hectares lost to the trying conditions, Palakkad district alone accounts for more than 400 hectares of paddy. Paddy cultivation has been affected extensively in Alappuzha and Malappuram districts, the total estimated area under the crop hit by the heat conditions being 604 hectares.

Bunched bananas in an area of more than 230 hectares have been lost, mostly in Thiruvananthapuram. Seventy-one hectares of non-bunched bananas also have been hit by the persisting hot weather conditions.

Reports from Thiruvanthapuram, Kollam and Alappuzha districts said that around 11 hectares under betel vines had been hit.

Around 60 per cent yield reduction is the least of the fallouts of the heat conditions, said a department official, who pointed out that vegetable cowpea, tomato and brinjal would be the most-affected vegetable crops.

The most visible effect of the dry condition is the sharp drop in neera production. Production of the unfermented sweet sap from coconut flowers has fallen by about 65 per cent over a month, said Biju John, chief executive officer of Thirukochi Coconut Producer Company (TCPC).

The average yield of around two litres of neera per day per tree in wetter conditions has fallen to between 600 and 800 ml a day, he added. The situation is difficult for companies like TCPC because the business is just taking off the ground and there is a big demand for neera in the market, said Mr. John.

K. Krishnankutty, former MLA and head of the committee which drafted the Kerala agricultural development policy, said the State government should have acted in advance given the previous years' experiences.

Bio lab to come up at UAHS to promote organic farming

The University of Agricultural and Horticultural Sciences (UAHS), Shivamogga, will soon establish a centre to conduct study and research on biological means of enhancing soil fertility and controlling pest and fungal infection.

The centre will be named Bio Lab. The State government has provided an amount of Rs. 90 lakh to the university for this, and the centre is likely to be functional by November.

As excessive use of chemicals is detrimental to the health of soil as well as that of humans, the use of biological inputs is becoming popular. The plan is to undertake study and research on increasing the efficiency of bio-fertilisers used for crops such as arecanut, paddy, sugarcane and maize.

Experiments on bio-fertilisers based on rhizobium bacteria, cyanobacteria, anabaena, among others will be undertaken at the centre.

Pest infections

In addition to this, study and research on trichoderma, pseudomonas and other organisms that act as biological agents to control fungal and pest infections too will be done here.

The building for the centre, which will include a laboratory and an administrative unit, is being constructed on the UAHS campus at a cost of Rs. 30 lakh. In addition to this, another Rs. 30 lakh will be spent to purchase equipment. The university will also hire three scientists to work at the centre.

C. Vasudevappa, Vice-Chancellor of UAHS, said after the centre becomes functional, the university plans to produce at least 50 tonnes of bio-fertilisers and bio-pesticides annually.

They will be sold to farmers in the vicinity at affordable prices. The bio-fertilisers and bio-pesticides will be marketed under the brand name 'Sahyadri.'

The centre will also take up evaluation of the quality of biological inputs produced by other firms, Mr. Vasudevappa added.

Govt. to release Rs. 1,000 cr. under debt relief scheme

Farmers and self help groups of women in Andhra Pradesh can look forward to next instalment of promised funds from the Government in a day or two.

Finance Department will release Rs.1,000 crore in a day or two under the debt redemption scheme for farmers. The remaining Rs.2,000 crore will be released by June-end to synchronise release of funds with the commencement of the Kharif season.

The Dwera groups too will get an investment fund of Rs.550 crore in a day or two out of Rs.2,400 crore.

The remaining amount will be released in two months, said Principal Secretary, Finance P.V. Ramesh here on Tuesday. The State released Rs.750 crore for Polavaram Project on Monday and Comprehensive Budget

Release Orders were being issued for various departments bringing in a big change to cut the delay in release of funds to take up various works proposals already submitted in the budget proposals, he said.

In view of drinking water shortage, the Government released Rs.26 crore for urban areas and Rs.40 crore for rural areas to meet any exigencies.

This is in addition to Rs.55 crore released for urban and rural areas last week. The NREGS funds of Rs.1,080 crore were also released, he said.

Dwera groups to get Rs.550 crore

Meet El Nino's sister La Nina

La Nina could bring heavy rain to already flood-prone regions of Asia, exacerbating agricultural damage and leaving crops vulnerable to disease and pests

Withering drought and **sizzling** temperatures from El Nino have caused food and water shortages and **ravaged** farming across Asia, and experts warn of a **double-whammy** of possible flooding from its sibling, La Nina.

The current El Nino which began last year has been one of the strongest ever, leaving the Mekong River at its lowest level in decades, causing food-related unrest in the Philippines, and **smothering** vast regions in a months-long heat wave often topping 40 degrees Celsius (104 Fahrenheit).



Engulfed in fear Freshly cut wheat stands under approaching storm clouds in this file photo taken in Australia. Photo: Reuters

The regional fever is expected to break by mid-year but fears are growing that an equally forceful La Nina will follow.

That could bring heavy rain to an already flood-prone region, **exacerbating** agricultural damage and leaving crops vulnerable to disease and pests.

"The situation could become even worse if a La Nina event -- which often follows an El Nino -- strikes towards the end of this year," Stephen O'Brien, UN under-secretary-general for humanitarian affairs and relief, said this week.

Wilhemina Pelegrina, a Greenpeace campaigner on agriculture, said La Nina could be "devastating" for Asia, bringing possible "flooding and landslides which can impact on food production."

El Nino is triggered by periodic oceanic warming in the eastern Pacific Ocean which can trigger drought in some regions, heavy rain in others.

Much of Asia has been punished by a bone-dry heat wave marked by record-high temperatures, threatening the livelihoods of countless millions.

Asia suffers

Vietnam, one of the world's top rice exporters, has been particularly hard-hit by its worst drought in a century.

More than 500,000 people are short of drinking water, while hotels, schools and hospitals are struggling to maintain clean-water supplies.

Neighbouring Thailand and Cambodia also are suffering, with vast areas short of water and Thai rice output curbed.

In Malaysia, the extreme weather has shrunk reservoirs, dried up agricultural lands, forced water rationing in some areas, and caused repeated school closures as a health precaution.

With La Nina looming, the situation has laid bare the region's lack of preparedness for the extreme weather swings expected to result from climate change, said Rajiv Biswas, Asia-Pacific Chief Economist at IHS Global Insight.

"What tends to happen is that they (governments) talk about it in the immediate time there is a crisis and then one year later they forget about it and move on," he said, adding that "things will get worse."

Calling the global situation "truly alarming", the UN's O'Brien said Tuesday this year's El Nino spotlights the need for global cooperation to brace against the extreme weather.AFP

Bidar farmers to get help from Tiruchi scientists in growing banana

Scientists from the National Research Centre for Banana in Tiruchirapalli, Tamil Nadu, will help farmers in Bidar and Kalaburagi in cultivating banana. They will work through the Bidar-based College of Horticulture.

Resource persons will train farmers in cultivation methods, protection of crops from pests and insects, post-harvest technologies and provide seedlings and other inputs. The farmers will also be exposed to the market for fresh fruits and fruit-based products.

The National Research Centre for Banana will organise demonstrations in the fields of progressive farmers and organise lectures on the College of Horticulture premises here.

As a first step towards this long-time association, a team, led by the centre director B. Padmanabhan, visited the College of Horticulture recently. They interacted with farmers, teachers and students in the college. They inspected facilities such as the post-harvest laboratory, the library, and the farms and green houses on the college premises.

V. Kumar, a scientist, said that Bidar's climate was apt for horticulture crops and encouraged farmers to try various types of bananas. It is best to start cultivation in a small area and increase it gradually, he said. He asked farmers to study the market and consult experts before taking up any new crop.

R. Thangavelum, another scientist, said that the market for the Kamalapur red banana would grow further as consumers were slowly realising its health benefits.

Dr. Padmanabhan pointed out that one of the mandates of the centre was to train farmers in advanced farming methods and to introduce the crop to non-traditional areas. He said that the geology and climate of Bidar and Kalaburagi were well suited for the crop.

Temperatures ranging from 25-35 degrees Celsius are optimal for banana. Wind speeds below 40 kmph will protect the crops from falling, he said. "This is just the beginning, we will keep coming," he said.

Dr. Padmanabhan said that Bhagwant Khuba, MP, initiated this process by writing to the ICAR and the banana research institute. "The MP wanted us to inspect the area to see if banana could be grown here and to train farmers, if possible," he said. V. Kumar and K.J. Jayabhaskaran were the other members of the team.

Suraj Patil, a farmer from Kamalapur, asked farmers to pick banana over sugarcane. "This has a ready-made market, has assured yields and frees you from the clutches of the sugar factories," he said.

S.S. Baragimath, Deputy Director of Horticulture Department, said that banana farms added up to 2,000 hectares in Bidar district. This can be increased gradually once farmers realise the benefits, he said.

He pointed out that farmers could double their cultivable area by opting for drip irrigation, and increase productivity by 20-30 per cent. He said that banana needed 15-20 litres of water per day per plant that was slightly higher than sugarcane. He said that bananas had a large market potential as they could be sold anywhere.

College of Horticulture scientists N. Srinivas and Vijalakshmi P. were present.

Feed intake in poultry to drop

With hot weather continuing, low egg weight and weak egg shell qualities will remain high in poultry. Hence, farmers were asked to protect birds from the prevailing summer.

A press release from the Nodal Officer of the Agromet Field Unit of Veterinary College and Research Institute and Regional Meteorological Centre, Chennai, said that the sky will be partly cloudy with chance of summer showers.

The maximum and minimum temperature will be 40 degree Celsius (104 degree Fahrenheit) and 27 degree Celsius (80.6 degree Fahrenheit) respectively. Wind speed will be around five km per hour, mostly from southeast direction.

With summer continues to prevail with high temperature as like that of previous months, feed intake will decrease to around 90 gram per bird per day. Hence, farmers were asked to continue with their summer management, especially ensuring bird's intake adequate water.

Tomato production dips by 50 per cent in Mandya

Reasons being severe drought, lack of rain and absence of moisture in the air



Weather woes: The price of tomato is skyrocketing owing to supply not meeting increasing demand.

The tomato cultivation area has shrunk drastically in the district owing to severe drought, lack of rain and absence of moisture in the air.

This has led to a dip in the yield by around 50 per cent this season.

The price of tomato is skyrocketing owing to poor supply and the growers are fetching the best price.

According to the observation of the Horticulture Department officials, the price has been on an upswing for the last three weeks — between Rs. 20 and Rs. 35 a kg in the market — and the trend is expected to continue for the next three weeks.

Dipped

Growers were getting merely Rs. 6 to Rs. 8 a kg a few weeks ago, said Siddaiah, a grower in Nagamangala.

The heatwave and blazing summer are taking a toll on tomato production. The crop cultivation area has significantly decreased during the current season, Gopikrishna, Assistant Horticulture Officer, told *The Hindu* .

Currently, tomato crop is raised only on 550 hectares against the target of 1,081 hectares.

The growers were expected to produce 52,415 tonnes from the current crops, however, production has declined to 26,660 tonnes, Mr. Gopikrishna said.

Common crop

Both hybrid and traditional varieties of tomatoes are widely grown in the rain-fed areas of Maddur, Nagamangala, Pandavapura, Malavalli, and Mandya. Growers also cultivate tomato in parts of K.R. Pet and Srirangapatna taluks.

The growers supply to Bengaluru, Mysuru, Ooty, and parts of Tamil Nadu.

The crop is raised only on 550 hectares against the target of

1,081 hectares

Vegetable prices shoot up in city

Traders cite decline in arrival and easy rotting in heat

The prolonged heat spell has started having an impact on vegetable prices in the city.

In vegetable outlets, prices of beans, coriander, and lemon have risen steeply. In a wholesale outlet in the Chala market, beans were being sold at Rs.130 a kg, and tomato at Rs.40.

The price of salad cucumber has shot up to Rs.38 from Rs.15, and beetroot to Rs.45 from Rs.28. In retail outlets, beans are being sold for anywhere between Rs.120 to Rs.135. The variation in prices depended somewhat on the wilting and damage to the vegetables, retail shop owners said.

Those looking to savour the crunch and flavour of coriander as garnish are being forced to think again before buying the leaves, as the prices are hovering around Rs.160 a kg.



Lemon prices traditionally increase in summer, but this year has seen them rise to Rs.12 for a single lemon. Lack of stock was to blame, a vegetable vendor at Karamana said.

Chilli and capsicum too are expensive, while a host of veggies have shown minor price increase. The quality of vegetables was poor and a lot had to be thrown away because they started rotting quickly in the heat, the vendor said.

There was not much decline in arrival of stock, but for veggies such as salad cucumber and capsicum that came from Bangalore. “We did not get a load on Saturday and Sunday from Bangalore, as there is no stock there,” the wholesaler outlet owner said.

Vegetables such as tomatoes and lady’s finger were particularly vulnerable to the heat, he said.

While prices are a tad less in HortiCorp outlets, they suffer from stock shortage and poor quality, and make up for it with purchases from Chala.

Beans cost Rs.98 a kg in HortiCorp outlets, and lemon Rs.140 for a kg. Salad cucumber costs Rs.42 a kg, and coriander Rs.120.

Fruits such as oranges, guava, and pineapple too have become costly. Oranges cost Rs.120 a kg, pineapple Rs.50 to Rs.60, and guava Rs.100, a vendor at Poojappura said.

Shops, both wholesale and retail, are stocking only what is needed. “This place would have been full of vegetables usually, but now there is only what we can sell in a day or two,” the wholesaler said.

The prices would not change much in days to come, the vendors said, as the lack of rains had affected the crops.



14.6% people suffer from depression in Amravati villages: VISHRAM survey

Patel pointed out that Vidarbha has been in the news in the last two decades due to the large number of suicides in agricultural communities.



By far, the most common mental conditions which contribute to this risk are depression and alcohol, and it was in this context that the VISHRAM project was launched in November 2011 with the goal of establishing a sustainable

rural mental health program to address mental health issues in rural communities in Vidarbha.

In an attempt to understand the prevalence of depression among adults in rural communities and steps taken to address it, the Vidarbha Stress and Health Programme (VISHRAM) conducted a baseline survey at two talukas in Amravati and found 14.6 per cent people from a sample size of 1,456 suffer from depression.

The research was published on April 22 in the international journal 'Social Psychiatry and Psychiatric Epidemiology'. Dr Vikram Patel, principal investigator of the study 'Prevalence and treatment coverage for depression:

A population-based survey in Vidarbha, India' explained that the findings indicate psycho-social distress in rural communities in Maharashtra is strongly associated with social determinants such as gender, poverty and indebtedness, which affect the entire population and not just farmers.

Patel pointed out that Vidarbha has been in the news in the last two decades due to the large number of suicides in agricultural communities.

However, beyond the problem of suicides in farmers, the findings of the Million Death Study (2012) suggest that it is mostly youths who commit suicides, with 40 per cent suicides in men and 56 per cent in women occurring between 15 and 29 years of age.

By far, the most common mental conditions which contribute to this risk are depression and alcohol, and it was in this context that the VISHRAM project was launched in November 2011 with the goal of establishing a sustainable rural mental health program to address mental health issues in rural communities in Vidarbha.

Hence, as part of the survey, a random sample size of 1,456 people (from the voters' list) was included from Chandur Bazaar (population 49,451) and Dhamangaon (population 51,104) tehsils of Amravati district.

The baseline community survey sponsored by Tata Trust was carried out during December 2013-March 2014 and a follow-up community survey was completed in August 2015-September 2015.

The Patient Health Questionnaire found at least 14.6 per cent (212 individuals) suffering from depression.

The elderly, especially above 55 years of age, had seven times higher chances of depression compared to young adults. Females were 40% more likely to have depression compared to males.

“Just like Exit polls, if you interpret and extrapolate these findings to one lakh population, at least 14.6 per cent or every seventh adult is suffering from depression in this region,” Patel, who is a professor of international mental health at the London School of Hygiene and Tropical Medicine, and also coordinates Goa-based NGO Sangath, pointed out.

Of those interviewed, 75 (5.2%) responded that they have thought of taking their life in the last 12 months. Close to half of them (45.3%) suffered from depression at some point or the other, while 4 (5.3 %) of them had planned committing suicide in the last 12 months.

Uma Bharti gave consent for special irrigation package worth Rs 30,788 crore for Maharashtra

At a meeting in Mumbai, Fadnavis made a presentation, seeking a Rs 7,188-crore package for irrigation projects in Vidarbha and Marathwada, which have witnessed the maximum number of suicides.



Bharti, Union minister Nitin Gadkari, CM Devendra Fadnavis and state water resources minister Girish Mahajan at the meeting in Mumbai on Tuesday.

Union Minister for Water Resources Uma Bharti on Tuesday gave in-principle consent for a special irrigation package worth Rs 30,788 crore for Maharashtra proposed by Chief Minister Devendra Fadnavis, which will be taken up in the Union cabinet.

The state would be accorded a special package to tackle drought and suicide by farmers, she assured.

At a meeting in Mumbai, Fadnavis made a presentation, seeking a Rs 7,188-crore package for irrigation projects in Vidarbha and Marathwada, which have witnessed the maximum number of suicides.

Apart from this package, a Rs 2,000-crore package to tackle the severe drought in some parts of western Maharashtra was also accepted by Bharti.

The biggest component sought was for 26 projects enlisted under the Prime Minister's Krishi Sinchai Yojna (PMKSY).

The enhanced cumulative cost of these projects is Rs 36,000 crore. The Centre's share of 60 per cent works to Rs 21,600 crore.

The remaining 40 per cent share will be provided by the state to complete these projects under the Accelerated Irrigation Benefit Programme.

While describing the drought situation in Maharashtra as a tragedy, Bharti said, "The state's irrigation potential at 48.66 hectares is very poor. It has the potential of 126 lakh hectares. It is a cause of concern as it has been neglected by those who ruled the state for maximum years.

Look at Madhya Pradesh, it has touched 30 per cent irrigation." Lauding the efforts of Fadnavis, Bharti added, "Maharashtra will get a special package for irrigation projects."

Fadnavis said, "We have taken up 132 irrigation projects in drought and suicide-prone districts of Vidarbha and Marathwada on highest priority.

Of these, 98 projects are from Vidarbha (Rs 4,098 crore) and 34 projects from Marathwada (Rs 3,090 crore).

Similarly, small and medium-irrigation projects, which would make an immediate impact in tackling the water crisis worth Rs 2,000 crore, are being pursued in western Maharashtra.”

Today’s meeting was an outcome of Fadnavis’s letter to PM seeking a special package to tackle suicides in drought-prone districts of Maharashtra.

Apart from the special package for drought and PMKSY, the chief minister urged Bharti to consider the Tapi Recharge Irrigation Project. The Union minister has given the nod for the Rs 5-crore recharge project.

However, the Centre has asked the state government to provide a revised estimate along with expenditure details on the Gosikhurd National Irrigation Project.

The state government has sought Rs 8,000 crore from the Centre to complete the work on the project languishing for three decades. A joint team of the state government and the Centre will be set up to prepare a plan for Gosikhurd which would be submitted in 15 days.

It would be headed by a senior secretary at the Centre. The Gosikhurd project will bring 2.5 lakh hectares under irrigation. “We want to complete the project in the next three years,” the CM said.



Climate change to shrink economies by mid-century as water woes grow

Economies across large swathes of the globe could shrink dramatically by mid-century as fresh water grows scarce due to climate change, the World Bank reported on Tuesday.

The Middle East could be hardest hit, with its gross domestic product slipping as much as 14% by 2050 unless measures are taken to reallocate water significantly, the Washington-based institution said in a report.



Women carry pitchers of water towards their village after collecting drinking water from an almost dried up well at Padal village of Samba district, around 40km from Jammu. (Nitin Kanotra / HT Photo)

Such measures include efficiency efforts and investment in technologies such as desalination and water recycling, it said.

Global warming can cause extreme floods and droughts and can mean snowfall is replaced by rain, with higher evaporation rates, experts say.



A sign which reads "Land for sale or for lease" is seen placed on a drought-affected rice field in Bac Lieu province, in the Mekong Delta, Vietnam. (Reuters file photo)

It also can reduce mountain snow pack that provides water, and the melting of inland glaciers can deplete the source of runoff, they say. Also, a rise in sea level can lead to saltwater contaminating groundwater.

“When we look at any of the major impacts of climate change, they one way or the other come through water, whether it’s drought, floods, storms, sea level rise,” Richard Damania, World Bank lead economist and lead author of the report, told reporters in a telephone conference.

Fresh water shortages could take a toll on sectors from agriculture to energy, the World Bank said.

“Water is of course at the centre of life, but it’s also at the centre of economic activity,” Damania said.

Water scarcity would not have the same impact worldwide, and Western Europe and North American economies would likely be spared, according to the World Bank models.

But rising economies such as China and India could be hard hit, it said.

In the Sahel belt that stretches across Africa below the Sahara, GDP could well dip some 11% with water scarcity, the World Bank said. A similar impact would be felt in Central Asia, it said.

But measures to reallocate fresh water could show gains in some regions, the bank said.

For example, a shift in allocation could lead to GDP growth of about 11% by 2050 in Central Asia, the bank said.

The World Bank also advocated pricing water consumption, a proposal that has stirred controversy and is opposed by those who do not think water should not have any price tag.



A man walks past the carcass of sheep that died from the El Nino-related drought in Marodijeex town of southern Hargeysa in northern Somalia's semi-autonomous Somaliland region. (Reuters file photo)

“If you’re making money out of water, particularly if you’re using a lot of water as a commercial user, then it’s reasonable to suggest that you pay minimally enough to cover the cost of providing you with that water,” Damania said.

“This might well mean free water if you are exceedingly poor,” he said.

About a quarter of the world’s population, or some 1.6 billion people, live in countries where water already is scarce, according to the World Bank.

Last month, 175 nations signed a deal reached last year in Paris to slow global warming and cut greenhouse gas emissions.

Centre to give Maha Rs9,187cr for pending irrigation projects



The Centre has agreed to fund Rs7,189 crore for the completion of 132 incomplete projects from 14 Marathwada and Vidarbha districts.

The state government's efforts to push for more funds for incomplete irrigation projects in Maharashtra have borne fruit.

The Centre has, in-principle, admitted to pool in Rs9,187 crore for incomplete projects in drought-prone talukas and districts where farmer suicides is rampant.

Although the Centre has turned down the state's demand of 90% funding for these projects, it has assured it will also allocate a majority of the Rs80,000 crore earmarked for large irrigation projects in the country to those in Maharashtra

In a meeting between Union water resources minister Uma Bharti, Union transport minister Nitin Gadkari, chief minister Devendra Fadnavis, finance minister Sudhir Mungantiwar and water resources minister Girish Mahajan, the Centre assured the state it will provide sustainable measures to fight the drought in Marathwada.

The Centre has agreed to fund Rs7,189 crore for the completion of 132 incomplete projects from 14 Marathwada and Vidarbha districts, which have witnessed the most farmer suicides in the past few years.

Of this, Rs4,098 crore will be allocated for 98 projects in Vidarbha, while 34 projects in Marathwada will get Rs3,089 crore. Besides this, the Centre has agreed to allot Rs2,000 crore for incomplete projects in 73 drought-prone talukas. The state government aims to complete these projects in the next three years.

The state government had demanded 90% funding to these projects worth Rs29,900 crore. Bharti, however, clarified the Centre cannot change the funding ratio of 60:40 applicable across the country.

She, however, admitted the Centre is considering allocating a majority of the funds earmarked for 89 large projects across the country, towards the 26 projects in Maharashtra under the Pradhan Mantri Krishi Sinchai Yojana.

“Owing to corrupt practices of the past, Maharashtra is lagging behind other states in the irrigation sector, which is just 48 lakh hectare of irrigated land against its potential of 126 lakh hectares.

Prime Minister Narendra Modi is very concerned about the drought situation. We are very positive about the funding for the projects in drought-hit districts and the chief minister has assured us fair and transparent implementation,” Bharti said.

She said the proposals of the central funding for the Maharashtra projects will be presented before the central cabinet for its nod.

The current estimated cost of 26 irrigation projects in Maharashtra –which has the irrigation potential of 20 lakh hectare — is Rs38,000 crore.

Maharashtra batted for a major chunk of the allocation by considering a rise in the cost owing to higher compensation prompted by the 2013 amendment in the Land Acquisition Act.

The Centre has also agreed to release its share of funding (90%) for the Goshikhurd project, which has the status of national project. The Centre has halted funding for the past three years after financial irregularities in its implementation were reported.

The consent came in after chief minister Devendra Fadnavis assured the Union minister he would appoint a special committee for the transparent implementation of the project.

Gadkari said the Centre's robust funding for irrigation projects in the state will help Maharashtra tide over the current drought situation.

THE HINDU BusinessLine

Jeera up on healthy export demand



Jeera (cumin) prices are moving higher again during the current peak arrival season, as witnessed last year.

In 2015, Jeera prices touched an all-time high in May, as output was affected by unseasonal rains, which hit during harvest in Gujarat and Rajasthan.

Similarly, in 2016, prices on the National Commodities and Derivative Exchange (NCDEX) have been surging due to good export demand on availability of higher quality jeera and reports of yield loss in Saurashtra region of Gujarat, as unseasonal rains hit during March.

Arrivals in Gujarat physical market have declined as compared to last year.

Price Surge

In 2016, spot and futures touched its lowest level in one year during first week of February on expectation of bumper harvest on reports of higher sowing acreage and favorable climatic conditions in top jeera producing states.

However, prices recovered more than 32.4 per cent to ₹17,400 per quintal on NCDEX from its lowest levels of ₹13,150 levels on reports of lower yield, good export demand and dwindling arrivals.

Lower yield Gujarat is the top cumin producing state followed by Rajasthan.

As per the final rabi sowing report, Gujarat has cultivated about 10.8 per cent more area in 2015-16 at 2,95,400 hectares compared to 2,66,700 hectares last year.

There was delayed sowing due to lower soil moisture during October 2015 while warmer weather during January-February affected the flowering setting which expected to affect crop productivity.

As per third advance estimate of Gujarat State for 2015-16, production pegged at 2.13 lakh tonnes (lt) higher by about 7 per cent forecasted in revised fourth advance estimate for 2014-15 at 1.97 lt.

In Rajasthan, jeera output expected to be lower this year, compared to last year due to hot weather and lower acreage.

In the current financial year, jeera exports were lower until January compared to last year. According to Department of Commerce data, the export of jeera during first 11 month of 2015-16 (Apr-Jan) is 71,983 tonnes, compared to 1, 37,742 tonnes during the same period last year.

However, exporters were active during February, March and April due to improved in quality supplies on favorable weather during the harvesting season in both Rajasthan and Gujarat.

Export demand expected to pick up further in May before monsoon rains in June, because physical movement can be interrupted and may affects

quality. During last three years, major volumes of export were happening during March to August. Therefore, it is expected that the export might pick up in coming months.

New season jeera arrivals are lower in Gujarat domestic market in the current year. As per Agmarknet data, during March and April 2016, jeera arrivals were down by 15-20 per cent in physical markets in Gujarat.

Price outlook

Prices are moving higher on fear of lower-than-expected production and slower arrivals, coupled with good export demand as supplies from Syria and Turkey will arrive only during September-October.

Moreover, there is good demand from traders for domestic consumption.

We expect jeera prices to touch ₹17,900-18,200 per quintal in next two-month period.

The writer is Associate Director (Commodities & Currencies Business), Equity Research & Advisory, Angel Broking. Views expressed are personal.

MPs seek steps to check onion price fall

Several members in the Lok Sabha, on Tuesday, expressed concern over the falling prices of onions and urged the Centre to intervene and stabilise prices.

Raising a supplementary during Question Hour on the issue of the recent launch of the online National Agriculture Market (e-NAM) to break the monopoly of middlemen and offer good prices to farmers for their produce, BJP member Sumedhanand Saraswati from Sikar (Rajasthan) pointed out that onions were being sold at ₹3/kg following the bumper crop in Rajasthan, Madhya Pradesh and Maharashtra.

He urged the Centre to lift the produce as farmers did not have adequate storage space and were being forced to sell their produce cheap.

“What will we do with e-trading, if farmers are forced to sell onions at ₹2/kg,” said BJP member Hukum Singh, adding that “the solution can only

come from the government, which should enter the market and purchase onions from farmers.”

e-NAM hailed

Boora Narsaiah Goud from Telangana Rashtra Samithi, while welcoming the launch of e-NAM, wanted to know how it was executed, adding that it would prove to be a “snake and ladder game” for farmers, as implementation was a “different” thing.

Addressing the members’ concerns, Agriculture Minister Radha Mohan Singh said the matter of purchases fell under the purview of the Food Ministry.

However, he pointed out that States had been advised to make three changes in their mandi laws — approve e-trading, single levy and ensure a single licence for the entire State.

“ Seventeen States have made complete or partial changes in their mandi laws so far. I have received 365 mandi proposals from 12 States, for which we have agreed to release ₹160 crore.

Funds have already been released to six States,” he said, adding that this was a “pilot project’ prior to connecting all 585 mandis with the e-trading platform to ensure that farmers get the right price for their produce.

Telangana turmeric farmers take a leaf out of Salem

Salem model could help double yield, increase income

Nizamabad has been a traditional turmeric growing region in the country.

For cultivators here, sales and cultivation have been quite satisfactory thanks to good demand in other regions, and how their peers in other markets go about cultivation is of little concern to them.

Farmers in Salem and Erode follow crop management techniques that are completely different, thus resulting in yields and returns way higher than peers in Telangana.

Taking a cue from a farmer's tip off, a group of 50 farmers from Nizamabad, sponsored by the State government, visited Salem and Erode in the third week of April to learn a few tricks.



“They sow just two quintals of seed in an acre of land, while our farmers sow 10 quintals. At ₹4,000 a quintal, we spend ₹40,000 on seeds alone. If we follow their model, we can save ₹24,000 up front, on seeds alone,” said Pocharam Srinivas Reddy, Telangana Minister for Agriculture and Cooperation, .

If all farmers in the State convert to the Salem model of farming, Telangana expects to save ₹360 crore on seeds alone. Telangana, which grows turmeric in about 1.50 lakh acres, is planning to develop 215 model farms with a budget of ₹1.20 crore (₹75,000 for each) to showcase the techniques to the farmers.

“We are going to get about 20 tonnes of turmeric seed from Salem and distribute it to farmers with a subsidy of ₹2,000 a quintal,” Reddy said.

Double yield

Besides huge savings in seed investments, the Salem model would help farmers double the yields to 40 quintals from the present 20 quintals.

“If we follow the model, we can increase turmeric incomes for farmers to ₹6,000 crore from the present ₹3,000 crore,” he added .

Business Standard

Farmers earn lesser than industrial, services sector workers: Agriculture minister

Radha Mohan Singh total number of agricultural workers in the country increased from 234.1 million in 2001 to 263 million in 2011. Therefore, it cannot be categorically stated that farmers are leaving the profession of agriculture.



A farmer channels water to irrigate his wheat field on the outskirts of Ahmedabad. Photo: Reuters

Farmers are earning less than workers in industrial and services sectors because of lower farm output, Parliament was informed Tuesday.

"Income from the farm sector is less as compared to income from industrial and services sector," Agriculture Minister Radha Mohan Singh told the Lok Sabha.

"Less income is due to low productivity in the agriculture sector, on account of preponderance of small and marginal holdings coupled with uncertainty of weather, lack of market access and lack of access to irrigation," he added.

The minister said that although the share of agriculture sector in total Gross Value Added in 2015-16 is only 15.3% at 2011-12 prices, the share of agriculture workers in the total workers is 54.6% as per Census 2011.

However, he said the industry and services sectors together account for 84.7% of the Gross value Added and only 45.40% of the total workers are engaged in these two sectors.

"As per the Census data, the total number of agricultural workers in the country increased from 234.1 million in 2001 to 263 million in 2011. Therefore, it cannot be categorically stated that farmers are leaving the profession of agriculture," Singh said.

The minister informed that the government has taken various steps to increase the income of farmers.

He said the government has formulated various schemes, including Soil Health Card, Pradhan Mantri Krishi Sinchai Yojna and Pradhan Mantri Fasal Bima Yojna, to increase production and productivity of crops, reducing input cost and initiating market reforms.



Green revolution now marked by rising rural despair, as high costs, low incomes push small cultivators into debt trap

Fifty-eight and counting... the number of farmer suicides in Punjab during the last three months due to agrarian distress is alarming and among the highest in the country.

Even as Union minister of state for Agriculture, Mohanbhai Kundariya, was divulging details on farmers suicides in India and said that Maharashtra topped with 57 suicides during the past three months, followed by 56 in Punjab, a farmer and his mother in village Jodhpur of district Barnala consumed pesticide in the presence of the police and revenue officials in broad daylight.

Maharashtra, Punjab and Telangana top the list for farmer suicides in India, informed the Minister in Parliament.

Rain-fed states may be in grip of an agrarian crisis due to drought in the last two years, but Punjab is an irrigated state that pioneered the green revolution in India. Nonetheless, it is grappling with high debts and dwindling farm income.

Despite assured purchase of crops in Punjab (wheat, paddy and cotton), the farmers are neck deep into debt.

According to a study conducted by RBI Chair Professor at the Centre for Research in Rural and Industrial Development (CRRID), Satish Verma, the debt-to-income ratio in Punjab is 96.77 per cent for the period ending December 2013.

The debt-to-income ratio is the highest among low-income farming families and keeps decreasing with increase in income.

A joint study conducted by PAU Ludhiana, GNDU Amritsar and Punjabi University Patiala has calculated the estimated farm debt of Punjab at Rs 69,000 crore.

Of this, RS 54,000 crore is attributed to the institutional sector. The study also incorporates data on farmers suicide from year 2000-2010 in the state

and reports 3,954 farmers deaths in the given period. This study has been approved by the state government. A survey is going on in the Universities of Punjab on period post 2010 and this is yet to be compiled.

While the minimum support price of the grains has been revised by 4-5 per cent year-on-year, the cost of cultivation has been rising by 8-10 per cent y-o-y (labour cost, diesel, pesticides, deepening of tube well bore) so the gap has been widening in the past few years that has accelerated the incidents of suicides in Punjab, told G S Kalkat, Chairman, Punjab Farmers' Commission.

Rural indebtedness and debt-income ratio in Punjab as on December 2013				
Household income*	No. of households	Annual income per household*	Debt outstanding per household*	Debt outstanding per household as %age of income
Up to 0.50	8	0.22	0.86	390.91
0.50-1.00	28	0.66	1.29	195.45
1.00-2.50	44	1.67	2.47	147.90
2.50-5.00	38	3.49	5.36	153.58
5.00-7.50	19	5.86	6.49	110.75
7.50-10.00	15	8.26	6.50	78.69
10.00-20.00	23	13.62	10.61	77.90
20.00 and above	4	28.13	9.45	33.59
Total	179	4.95	4.79	96.77
* Rs lakh; Source-Study conducted at CRRID Chandigarh				

According to National Sample Survey Data released in December 2014, the average debt per household in India is Rs 47,000 per annum and on all India basis more than 60 per cent of rural households are under debt.

A survey conducted by ICSSR (Indian Council of Social Sciences Research) released in January 2016 pegged the average debt per household in Punjab at an average 5,52,064. The state average of household under debt as per the survey is 85.9 per cent.

The data on rural indebtedness and farm distress are sourced from different surveys because no comparable data from same source are available.

A disturbing trend in Punjab agriculture is indicated in Punjab census 2011 which pints that number of small farmers (having a land holding of up to 5 acre) dipped from 5 lakh in 1991 to 3.60 lakh in 2011 census.

The high cost of cultivation in Punjab due to mechanization and low water table has turned small land holding unviable for cropping.

An average income of Rs 3000 per acre (after meeting all expenses) gets an income of Rs 15000 per crop for a small farmers.

This amount is not sufficient to meet his daily needs and he borrows from one source to repay the other and gets into a debt trap, reveal the studies.

The high cost of cultivation due to increasing cost of inputs and declining water table incur higher burden y-o-y on farmers undermining the profitability in agriculture in Punjab, says Sukhpal Singh, a Professor at Punjab Agriculture University, Ludhiana.

The farmers avail interest subvention from the nationalized bank but need to repay the principal and interest at the end of the year to be eligible for the loan next year.

He borrows at a higher rate (24%-36% from commission agents) to repay the bank to maintain the good credit record.

One year income is needed to pay off debt in rural areas but at low income levels it is almost four times of the income, and such households comprise two-third of rural households, examines Verma's study.

Despite liberal lending by the nationalized banks, the grip of commission agents in Punjab has become stronger over the period of time.

Farmers in Punjab cannot sell in open market as they are entitled for various schemes (like health insurance scheme for farmers) of state if they produce 'J Form' which is a receipt of sale of grain to the commission agent.

The law of the land allows them to do so but the tacit network of moneylenders and procurement agencies makes it impossible for him to sell in open market.

In order to regulate unorganized farmer credit and debt market, Punjab Assembly recently passed 'The Punjab Settlement of Agriculture Indebtedness Bill, 2016' to provide relief to the agriculturists by creating a mechanism for fair settlement of their debt related disputes.

In the absence of a ceiling on the rate of interest charged by the money lender from farmers, tenet farmers and farm labourers, the bill remains a paperwork.

The maximum rate of interest, says the bill, would be fixed each year by the government based on repo rate by the Reserve Bank of India and interest charged by the banks.

The private banks, in order to achieve target, lent aggressively against the collector rate of land to the farmers.

The loan amount was spent on consumption. The farmers in Punjab borrow from unorganized private moneylenders to repay bank loan. In years to come, the situation will become more precarious when the amount raised to repay the private banks debt would grow beyond farmers' means, said a banker who did not wish to be quoted.

Efforts by the state government to diversify agriculture did not fructify as market for crops other than wheat-paddy-cotton are not available to Punjab farmers.

Dry spells



Kharif crop area had shrunk in the 1.5 million acres of command area in the Krishna delta

Grain output in Andhra Pradesh is expected to be 16.5 million tonnes (mt) against a target 19 mt, according to officials.

Dry spells, deficient rain in some districts and a drastic fall in Krishna inflows from the upstream Nagarjuna Sagar caused drought conditions in 50 per cent of the kharif area in the state, officials said.

Rain in November and December have changed the situation in most of these areas, leading to a normal rabi season.

“But in districts like Anantapur and Kurnool in Rayalaseema, and Prakasham in coastal Andhra Pradesh, farmers are selling their cattle due to fodder scarcity,” said Kiran Kumar Vissa, a member of the Raithu Swarajya Vedica, which works on farmers’ issues.

The kharif crop area had shrunk in the 1.5 million acres of command area in the Krishna delta. “Since the beginning of the kharif season the Krishna delta has received only 65 trillion cubic (tmc) feet of water against a normal flow of 520 tmc, creating a gap in irrigation and drinking water needs in the

Krishna, Guntur and Prakasham districts,” said K Dhananjaya Reddy, commissioner of agriculture.

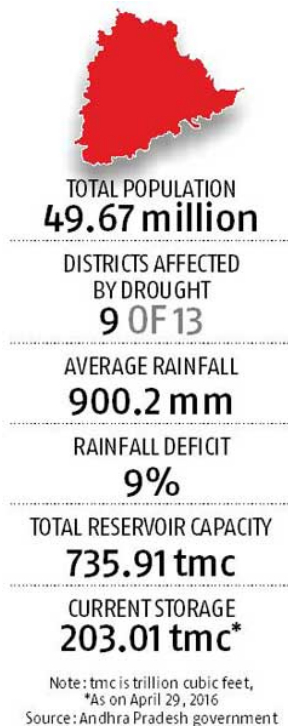
The government has sanctioned Rs 260 crore for supplying water to villages and municipalities. Also, there is a nine per cent requirement gap in cattle fodder, mostly in the north coastal region and some parts of Rayalaseema. The government has released Rs 17 crore for the purchase of fodder.

The government has to disburse Rs 730 crore input subsidy to farmers who faced crop loss during the kharif season. The Centre has agreed to grant Rs 430 crore, according to officials.

Between May 2015 and March 2016, the groundwater level in coastal Andhra Pradesh fell by about one metre, while in Rayalaseema it rose by four metres due to heavy rain.

Seven of 13 districts received normal rain while Chittoor and Nellore received excess rain.

Srikakulam, Guntur, Prakasham and Kurnool districts rainfall deficient in the range of 21.3-34 per cent.



Irrigated winter crop in Bengal has taken a hit

The level in almost all the major reservoirs from which West Bengal draws water -- Maithon, Panchet, Konar and Tilaiya -- is lower than last year



The fields by the side of the Kana river in Dhaniakhali, an administrative block in Hooghly, are generally lush green this time of the year. But this year brown has replaced green, a sight uncommon in West Bengal.

In nearly 65 years, Kashi Patra, a farmer leader in Dhaniakhali, has not seen as dry a spell as now.

The Kana river, the principal source for irrigation, has turned into a dry soil bed and the numerous ponds have transformed into depressions of cracked soil. "It's a near-drought situation," says Patra.

Water reservoirs at the Damodar Valley Corporation are a major source of irrigation in Dhaniakhali from December onwards.

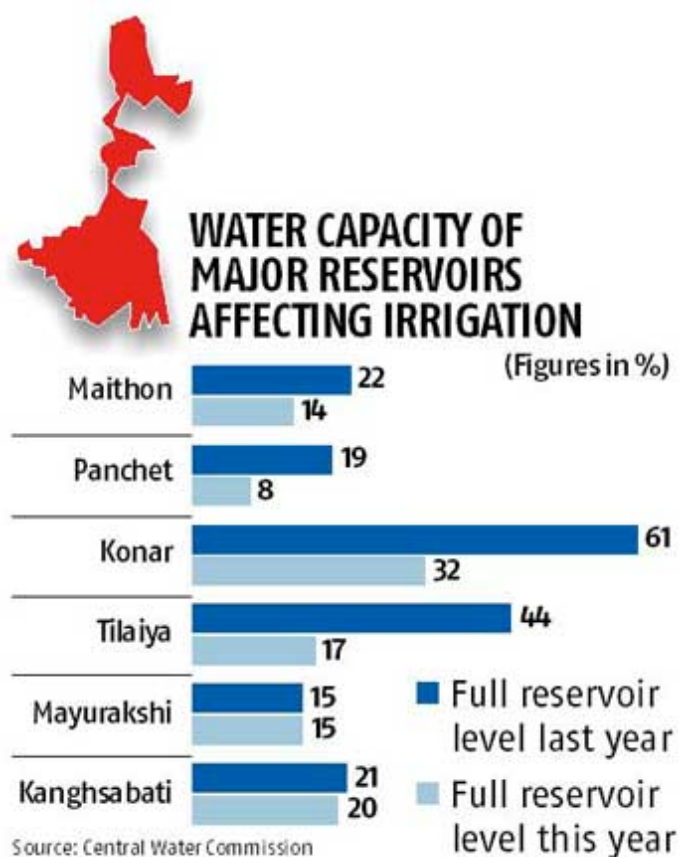
After the monsoon, water replenished in the reservoirs is used for irrigating potato, paddy, jute and vegetables between January and May. However, last year, there has been almost no rainfall between August and December.

During the boro paddy season (January-April), around 2,000 of 6,000 hectares could not be irrigated in Dhaniakhali, according to an official in the agriculture department.

With little river and dam irrigation, farmers are relying on deep tube wells. But a prolonged dry spell has made that unsustainable, too.

Groundwater has dipped so much that even tube well irrigation is not possible, according to Nepal Chandra Das, a panchayat official at Dhaniakhali.

With cultivation taking a hit, farm incomes have come down for both farmers and farmhands.



Tapan Soren, a farmhand who normally earns around Rs 10,000 a month, has seen his income come down to Rs 3,000. Against an average 30 days of work, he now works for 12 days a month.

Harichandra Das owns about 2.5 acres in Dhaniakhali. His income from potato farming has been just enough to plough back the cost of production. In the absence of water, a large part of his crop was infested with pests.

Jute farmers are bracing up for losses. Against a cost of production of Rs 7,000 a quintal, the market price of jute is Rs 5,000-6,000 a quintal. “Almost half of our jute crop was destroyed by the heatwave and lack of water,” says Das.

The level in almost all the major reservoirs from which West Bengal draws water — Maithon, Panchet, Konar and Tilaiya — is lower than last year.

According to the Central Water Commission, water in reservoirs in the eastern region is 30 per cent of capacity, against 42 per cent at the same time last year.

“Irrigation from reservoirs in the boro paddy season is for 1.2 million hectares. This year, it has not been more than 1.05 million hectares,” says an engineer in the West Bengal irrigation department.

Farmers are worried about loan repayments. “Last year, the government had restructured loans.

We have submitted a plea with the government for a similar facility this year,” says Patra, the farmer leader in Dhaniakhali.

Banks have restructured a significant portion of crop loans in West Bengal for the kharif season.

Farmers were given a year-long moratorium, extension of repayment up to five years and a facility to avail new loans for the rabi season. The drought in the early kharif season last year, followed by heavy rain, had led to a significant crop damage.

“Unless the government declares a drought, we cannot restructure loans. So far, there is absolutely no offtake for kharif loans as the weather conditions are not conducive,” says a United Bank of India executive.



THE TIMES OF INDIA

Opt for primary processing of pulses: Punjab Agricultural University tells farmers

The experts of Processing and Food Engineering, Punjab Agricultural University (PAU) have urged the farmers and the rural youth to opt for primary processing of pulses to enhance their income.

According to AK Singh, head, Processing and Food Engineering, providing value addition to the agricultural produce is an important factor to usher in rural prosperity.

Post-harvest processing either primary or final helps in reducing the losses and adding value to the produce, he observed. Plans have been initiated to cut down the area under paddy crop and raise the area under cultivation of maize, pulses and cotton.

Dr Sajeew Rattan Sharma, another expert, said processing can be done in two ways including primary processing (drying, cleaning, grading and packaging) and secondary processing (dehusking, splitting and polishing etc.).

PAU expert MS Alam said, "By investing an amount of approximately Rs 50,000/, farmers can easily enhance their income through primary processing of pulses."

For further technical or machinery related information, they can visit or contact the Department of Processing and Food Engineering, PAU @ 2401960/Ext.(384).

Punjab Agricultural University holds training course on kharif crops

A training course on "Technical Information to Enhance the Yield of Kharif Crops" was organized at Punjab Agricultural University (PAU) for agriculture officers, agriculture development officers, district extension specialists and scientists of Krishi Vigyan Kendras.

According to the Course Coordinator, TS Riar, experts dwelt on cultivation of paddy, maize, oil seeds and pulses and their insect-pest and disease management.

Besides, they delved on marketing of agriculture produce, integrated weed management in kharif crops, judicious use of pesticides and their spraying techniques, water management, balanced use of fertilizers, importance of aromatic and medicinal plants, farm mechanization and organic farming.

Farmers must refrain to use hybrid seeds: Minister

Punjab Agriculture Minister Tota Singh today reviewed the arrangements of the agriculture department regarding the cultivation of kharif crops such as paddy, cotton and basmati rice in the state.

During a high-level meeting, Singh issued instruction for the adequate availability of river water and electricity to the farmers.

He categorically asked the Chief Agriculture Officers (CAOs) to complete the task of cotton sowing within week by all means.

He directed the officers to persuade the farmers not to use un-recommended and hybrid seeds of cotton crop.

He said that farmers be sensitized to use the varieties of seeds recommended by Punjab Agriculture University, Ludhiana.

The Minister also instructed the Chief Agriculture Officers to send weekly crop cultivation progress report to the department so that the department, after compilation of reports of all the districts, could inform the Chief Minister, Punjab on routine basis.

During the meeting, Nirmaljeet Singh Kalsi, Additional Chief Secretary (Development) directed the officers to aware the farmers regarding the latest cultivation techniques and technology so that the state might not face any eventual untoward situation of crop failure.

Kalsi asked the officers that any problem faced by farmers must immediately be brought to the notice of higher authority so that problems could be redressed without any delay.

He also asked the officers to use multimedia means of communication like Doordarshan/Radio for reaching out to more and more farmers in a bid to sensitize regarding the cultivation process and techniques besides producing special documentaries casting progressive farmers unrevealing their success stories in farming.

Jasbir Singh Bains, Director, Agriculture informed the minister that for the coming kharif season, the state had fixed the target of 27.10 lakh hectare paddy cultivation, 2 lakh maize and 5 lakh hectare for cotton cultivation.

He informed that all the arrangements of pesticides, seeds and fertilizer have been completed. VJ MKJ

State govt task force tells banks to disburse crop loans by May 31

Head of the Vasant Rao Naik Shetkari Swavalamban Mission (the task force set up by the state to address farm distress), Kishore Tiwari, has instructed banks and financial institutions to disburse at least 80% of the crop loans for the impending kharif season by May 31.

The Mission held a meeting of farmers from Chandur Railway taluka's Dhanora (Mogal) and Ghuikheda villages on Monday as part of its 'government at your doorstep' programme.

Tiwari exhorted farmers to not to get bogged down by the earlier cycle of crop losses and get ready with new resolve for the fresh season. He said that besides the regular crops, farmers should look for supplementary income from dairy farming or some value addition.

He said that the state government this year has acted in advance to plan for the kharif season and fixed a target of reaching out institutional finance to 80% of farmers in the state.

Revenue officials have been directed to complete documentation of each and every farmer requiring crop loan and provide them assistance at every village. Loan camps will be held at taluka level for speedier disbursement. Banks

have been told not to insist on mortgage for crop loans of less than Rs1 lakh and give it on basis of land documents presented by the farmer.

Tiwari also advised farmers to cut expenses on costly chemical fertilizers and rely on natural farming, bio-fertilisers and manure prepared in farms. He also stressed on the need to revert to traditional coarse grains and food crops instead of cash crops. Farmers were also told about benefits of the new PM Crop Insurance Scheme that would help them recover their losses in case of crop damage.

Tiwari and district collector Kiran Gite also heard problems of resettlement of Ghuikheda villagers displaced by the Bembla irrigation project.

THE ECONOMIC TIMES

Slowing Indian sugar exports to boost Thai, Brazil sales in Asia



An expected slowdown in Indian sugar exports as domestic prices surge, will boost the market share of Thai and Brazilian sugar in Asian markets, traders said on Tuesday.

LONDON: An expected slowdown in Indian sugar exports as domestic prices surge, will boost the market share of Thai and Brazilian sugar in Asian markets, traders said on Tuesday.

India will soon scrap an order that requires sugar mills to export excess supply, two government officials said on Monday, after back-to-back droughts look set to turn the country into a net importer next season and open the door to rival suppliers.

Traders said the news came as little surprise as many had expected that India, the world's number 2 sugar producer after Brazil, would swing next season to a net importer from exporter after drought ravaged production.

India, also the world's top sugar consumer, has been a major source of low quality white sugar shipped to Myanmar, much of which was then smuggled into China, traders said.

Over the past several weeks, flows of white sugar to China have slowed after brisk trade into the country in the fourth quarter of last year, they added.

"With India now marginalised, and if Chinese demand does pick up again, the sugar (for China) will come from Thailand and other sources," a senior European physical trader said.

Indian mills are now prioritising sales to the local market to benefit from higher domestic prices as supplies tightened.

Traders said they expected Indian mills to lose market share in Asia to exporters from Thailand, Middle Eastern and Indian tolling refineries, as well as from Brazil.

Tolling means importing raw sugar, refining it into high quality white sugar and re-exporting it.

Traders said Thai sugar was likely to be the first choice of buyers in Asia as freight costs and shipping times were less than from Brazil.

However, current cheap freight costs had made Brazilian crystal, or 150-ICUMSA sugar, competitive with Thai and tolled supplies in Asian markets.

Excluding freight charges, traders quoted Brazilian crystal sugar at a \$20-25

discount to benchmark August ICE white sugar futures , compared with \$20 over futures for high quality, 45-ICUMSA Thai supplies.

Traders said they expected tight supplies of white sugar, combined with strong demand from markets in Asia, the Middle East and West Africa, to keep the whites-over-raws premium buoyant in coming months.

The nearby whites premium was in excess of \$100 per tonne this week, a comfortable margin for refiners.

Farmers earn lesser than industrial, services sector workers: Radha Mohan Singh



"Income from the farm sector is less as compared to income from industrial and services sector," Agriculture Minister Radha Mohan Singh said.

NEW DELHI: Farmers are earning less than workers in industrial and services sectors because of lower farm output, Parliament was informed today.

"Income from the farm sector is less as compared to income from industrial and services sector," Agriculture Minister Radha Mohan Singh told the Lok Sabha.

"Less income is due to low productivity in the agriculture sector, on account of preponderance of small and marginal holdings coupled with uncertainty of weather, lack of market access and lack of access to irrigation," he added.

The minister said that although the share of agriculture sector in total Gross Value Added in 2015-16 is only 15.3 per cent at 2011-12 prices, the share of agriculture workers in the total workers is 54.6 per cent as per Census 2011.

However, he said the industry and services sectors together account for 84.7 per cent of the Gross value Added and only 45.40 per cent of the total workers are engaged in these two sectors.

"As per the Census data, the total number of agricultural workers in the country increased from 234.1 million in 2001 to 263 million in 2011. Therefore, it cannot be categorically stated that farmers are leaving the profession of agriculture," Singh said.

The minister informed that the government has taken various steps to increase the income of farmers.

He said the government has formulated various schemes, including Soil Health Card, Pradhan Mantri Krishi Sinchai Yojna and Pradhan Mantri Fasal Bima Yojna, to increase production and productivity of crops, reducing input cost and initiating market reforms.

Group of secretaries calls for fixing genetically modified crop regulatory issues

A group of secretaries has recommended fast tracking of Biosafety Regulatory Level 1 (BRL1) trial and for resolving regulatory issues of GM crops.

NEW DELHI: A group of secretaries has recommended resolving regulatory issues of genetically modified (GM) crops, Parliament was informed today.

Bt cotton is the only GM crop allowed for commercial cultivation in the country.

"A group of secretaries has recommended fast tracking of Biosafety Regulatory Level 1 (BRL1) trial and for resolving regulatory issues of GM crops," Minister of State for Agriculture Mohanbhai Kalyanjibhai Kundariya said in a written reply to the Lok Sabha.



These recommendations have been shared between the ministry and other departments including the Ministry of Environment and Forest, he added.

The minister was replying to a query whether a group of secretaries has recommended promotion of chickpea and pigeon pea as GM pulses.

He informed that the ICAR-Indian Institute of Pulses Research, Kanpur has developed transgenic events for resistance against gram pod borer in chickpea and pigeonpea.

"Application has been submitted to Review Committee on Genetic Manipulation (RCGM) for event selection trials of four transgenic events, two each in chickpea and pigeonpea," Kundariya said.

"After the selection of appropriate events and clearance of RCGM, transgenic events will be submitted to GEAC for further observation and approval of BRL1 trial," he added.

The Genetic Engineering Approval Committee (GEAC) is a biotechnology regulator.

Meanwhile, the GEAC is looking into a proposal for commercial cultivation of a GM hybrid variety of the mustard plant. It had asked for testing of GM-mustard seed to address safety concerns before taking a final decision on commercial cultivation.

This is the first proposal that has come up before the NDA government after the previous regime had put a moratorium on commercial cultivation of Bt Brinjal in 2010.

E-portal to be launched by 2018 for benefit of farmers: Radha Mohan Singh



A pan-India electronic trading portal (e-NAM) will be deployed in 585 regulated wholesale markets across the country by March 2018 for the benefit of farmers, Agriculture Minister Radha Mohan Singh said.

NEW DELHI: A pan-India electronic trading portal (e-NAM) will be deployed in 585 regulated wholesale markets across the country by March 2018 for the benefit of farmers, Agriculture Minister Radha Mohan Singh said today.

Singh said in Lok Sabha that the government has approved a central sector scheme 'Promotion of National Agriculture Market' (NAM) through Agri-Tech Infrastructure Fund (ATIF) on July 1 last year with a budget allocation of Rs 200 crore.

"Under the scheme, a pan-India electronic trading portal (e-NAM) will be deployed in 585 regulated wholesale markets across the country by March 2018," he said during Question Hour.

Singh said the e-NAM portal was launched on April 14 on a pilot basis integrating 21 mandis in eight states.

Eligible states desirous of integrating their Agriculture Produce Marketing Committee markets to NAM platform could send their proposals to the government for consideration and for release of assistance, the Minister said.

"The government provides grant as one-time fixed cost, subject to the ceiling of Rs 30 lakh per mandi for related equipment, infrastructure and software free of cost," he said.

Singh said the NAM platform, when fully operational, is expected to benefit the farmers with more options for selling their produce and competitive returns, the local traders with access to larger national market for secondary trading, the bulk buyers and processors.

Exporters will get opportunity for direct participation in the local mandi trade thereby reducing intermediation cost, consumers with stable prices and availability and reduce the burden of APMCs in accounting and other paper works with chances of better market fee recovery, he said.

Under NAM, the states are supported financially at the rate of Rs 30 lakh per APMC market to upgrade the market infrastructure and participate on NAM platform.

This assistance is in addition to the free supply of software and other support given to the state governments to enable them to join e-auction platform, the Minister said.

India got \$397 million FDI for agri promotion in last 4 years



Radha Mohan Singh said foreign investment of \$397.08 million was received for promoting the country's agriculture sector during April 2012 and February 2016.

NEW DELHI: India has received foreign direct investment (FDI) of \$397.08 million in the last four years for promotion of its agriculture sector, with maximum inflows from Mauritius followed by Singapore and Germany.

In a written reply to the Lok Sabha, Agriculture Minister Radha Mohan Singh said foreign investment of \$397.08 million was received for promoting the country's agriculture sector during April 2012 and February 2016.

Maximum inflow of \$141.69 million FDI was from Mauritius, followed by Singapore \$119.95 million, Germany \$25.74 million, France \$20.71 million and the US \$20.60 million in the said period, he said.

The minister placed the FDI inflow data of 30 countries before the Upper House.

That apart, Singh said, India in the last three years has signed four memorandums of understanding (MoUs) with Morocco, Vietnam, Mongolia and Armenia for extending cooperation in the farm sector.

The approval for the signing of an MoU for cooperation with Lithuania has also been secured, he said.

Under the MoU signed with Israel, the minister said the action plan for 2015-18 is under way and centres of excellence for vegetables and fruits and integrated bee keeping development, among others, will be set up in 21 states.

The technology transfer and training is provided by Israeli experts through their visits to India.

Indian scientists and experts also visit Israel to get training before imparting technology at the field level in areas of energy-efficient green houses, precision irrigation and recycling of domestic waste for irrigation, among others, he added.

Higher mango output may keep prices reined in this year

NEW DELHI: Mango prices are unlikely to "soar" this year as production is expected to be 2.1 per cent higher at 18.91 lakh tonnes (LT) in the 2015-16 crop year ending June, Parliament was informed today.

Production of Mango was 18.52 LT in the previous year.

"In view of higher production in the current year, it is unlikely that the prices of mango will soar in the domestic markets," Agriculture Minister Radha Mohan Singh said in a written reply to the Lok Sabha.

According to the information received from the states so far, "there is likely to be an increase of 2.1 per cent in mango production in the current year 2015-16, as compared to the previous year," he said.



Except for Telangana which has reported decrease in mango production due to unseasonal rains and hot weather, the output in other states is likely to be "either normal or better" than previous year, he added.

Andhra Pradesh and Uttar Pradesh together account for about half of the total mango production in India. Of over 1,300 varieties of mangoes grown across the world, India alone cultivates over 1,000 varieties of the fruit.

The UAE is the top export destination for India's mangoes accounting for over 50 per cent share followed by UK and Saudi Arabia.