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THE MORE HINDU

Paddy cultivation in full swing on Pachamalai



BETTER PROSPECTS: (On top)Tribal farmers use fields for thrashing paddy in the absence of thrashing floor at Pachamalai. (Above) Workers transplanting paddy in a field at Ottampattipudhur in Tiruchi.— Photos: B.Velankanni Raj



ADT-43 variety cultivated on about 1,000 acres

: Paddy cultivation at a series of clusters on Pachamalai involves a peculiar phenomenon. While paddy is generally raised during the north-east monsoon (October to January) period, tribal farmers of Pachamalai raise the paddy crop during the fag-end of the monsoon. It is ADT- 43 variety, local farmers term it as 'Super Ponni,' which is widely cultivated on an area of about 1,000 acres spread over different clusters in the hills.

Farmers said the variety was suitable for the gradient lands on the hills.

"Water should not be stagnant in fields as stagnation leads to decay of the crop," the farmers said.

T. Ponnusamy, a farmer of Top Sengattupatti, said paddy cultivation was not a commercial activity for the farmers but it was raised for personal consumption. The duration of the crop was about 115 days and the average yield per acre was about 35 bags of 60 kg each.

Agriculture Department officials said that paddy cultivation has been brisk for the past few weeks not only on the hills but also at the foot of Pachamalai.

Farmers with small land-holdings cultivated the variety and the department recommended ADT-43 which can be raised on the slopes.

Paddy farmers were spread over different villages on the hills indicating that paddy was not a major crop. Tribal farmers largely relied on tapioca as it fetched adequate returns. However, the Agriculture Department supplied adequate fertiliser and seeds to the farmers.

A visit to about 20 villages on the hills revealed that paddy cultivation was a mixed bag in these clusters. While a section of farmers was transplanting nurseries, harvest of the ADT 43 was brisk in other areas.

Farmers said the cultivation depended on the availability of water realised during the monsoon.

While farmers in the upper reaches of the hills, who could adequately realise storm water, had raised the crop during 'Thai' pattam, close to 'Pongal' festival, farmers in the downstream, who could harvest water belatedly, were transplanting nurseries.

Farmers, who had completed harvest, complained of their difficulty in thrashing the paddy due to the absence of thrashing floor.

"We use paddy fields during the post-harvest period for thrashing the paddy," says one of the farmers, Nallathangal.

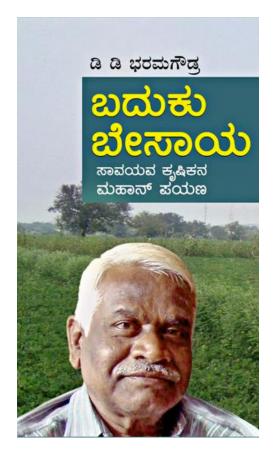
S. Suresh Kumar, Assistant General Manager, National Bank for Agriculture and Rural Development, said that the NABARD had been setting up thrashing floors in rural areas as part of infrastructure development.

As far as Pachamalai was concerned, there was not adequate vacant land which could be converted into thrashing floor. Further, the fields were scattered all over the hills.

However, the possibility of setting up the thrashing floor would be studied in course of time, official source told *The Hindu* on Sunday.

Book on 'art and science of organic farming' released

Chronicles a Gadag farmer's return to organic farming after seeing his soil go bereft of nutrients



Recording farming: The book is a detailed take on the art and science of organic farming

For five decades, D.D. Bharamagowdra collected, collated and documented his experience as an organic farmer in an agricultural industry that was increasingly becoming dependent on chemical pesticides.

The noted farmer passed away three months ago, but not without passing down his knowledge to future generations.

His experience with the rich rain-fed black cotton soil in north Karnataka was recorded by the Institute for Cultural Research and Action (ICRA) and subsequently brought out as a book in Kannada 'DD Bharamagowdra Baduku–Besaya, Savayava Krushikana Mahaan Payana' (in English: The Organic Farmer's Notable Journey).

"It is a detailed take on the art and science of organic farming that can serve as a manual for farmers," said environmentalist Yellappa Reddy at the recent launch of the book.

Bharamagowdra was one of the most seasoned farmers of Gadag.

He had been through a roller-coaster ride with respect to dealing with chemical and organic farming.

His father Byamana Gowda's family grew more than 40 crops with traditional wisdom guiding their 'inter, border and mixed cropping philosophies'.

"The family is said to have been the foremost in bringing onion and byadgi chilli to that region" said V. Gayathri, who transcribed, compiled and edited the newly released book that traces Bharamagowdra's relationship with soil.

After completing his BSc., Bharamagowdra was inspired by the green revolution and was drawn to chemical-dependant agriculture. "The saga of his return to organic farming after seeing his soil go bereft of nutrients is what makes the book a veritable manuscript," says Gayathri. Bharamagowdra's association with Institute for Cultural Research and Action started in the 1980s when he used to be in touch with P. Babu, one of the earliest functionaries and promoters of organic farming.

He later contributed to ICRA's bimonthly magazine 'Sahaja Saguvali', which Ms. Gayathri edits.

ICRA recorded Bharamagowdra's know-how. The project involved meticulously transcribing his oral records. "Although I edited the book, I was careful not to disturb his style of dialect and vocabulary so that farmers could relate to his calling," said Ms. Gayathri.

The 325-page book in two parts starts with Bharamagowdra's early memories, the agricultural practices before the green revolution, the onslaught of fertilizers before the genesis of the organic movement in Karnataka.

The second part contains 17 articles detailing the author's experiments in dry land organic agriculture.

The ecological vision of Bharamagowdra is significant in the context of climate change and distress in agriculture.

Agriculture remains a key area of concern

In several areas, the farms have given way to buildingsand River Noyyal cries for attention

Think Thondamuthur and what comes to mind are lush green agriculture lands on the banks of the Noyyal, with the Western Ghats in the backdrop. Tomatoes, areca nut, grapes, small onions, and bananas are all cultivated here and for the residents of the city who want a short getaway, there are several spots on the banks of the Noyyal that they can go to.

Well, things are not the same anymore. In several areas, the farms have given way to buildings and the Noyyal cries for attention. Elephants crossing the road, entering residential areas, and damaging crops are common.

One of the significant demands of the constituency is efforts to support agriculture. It is an area where different crops are raised. In the recent years, small farmers have been selling their land as they do not find farming viable, say some of them. The grape growers have seen a sharp fall in area under grapes and have been asking for a research centre that can guide the farmers. Instances of elephants and boars damaging crops are on the increase and the agriculture community has sought protection for crops. Construction of retention walls on the bunds of the Noyyal will protect the river, they add.



In some of the tribal hamlets at the foothills, the residents seek bore wells so that they can continue farming during summer months and when there is shortage of water too. The Noyyal restoration is important not only for the constituency but also for the districts through which the river passes. Now, untreated sewage is let into the river and waste is dumped on the river bed. The local bodies in the constituency need to go in for sewage treatment plants so that the Noyyal can be revived. Checking of violation of Hill Area Conservation Authority rules, controlling water bottling plants that operate without licence and improvement in public transport facilities for tourists are among the other demands. Eco-friendly measures that will conserve Nature, benefit tourists, and develop the religious and Natural tourist destinations will help develop the constituency better, say environmental activists.

Sitting MLA S.P. Velumani (AIADMK) polled 62.40 per cent of the votes in 2011 in Thondamuthur Assembly constituency, which was bi-furcated in 2007 to create Kavundampalayam and had some areas of Perur added to it. This election, the main parties contesting include AIADMK (S.P. Velumani), Manithaneya Makkal Katchi in the DMK front (M.A. Syed Mohammed) and DMDK in the DMDK-PWA-TMC front (K. Thiagarajan). The constituency requires not just lights and roads but more development to increase the income of the people. It has potential for promotion of tourism and agriculture, says Mr. Thiagarajan. According to Mr. Mohammed, the constituency has not got any new industry or initiative to generate more jobs in the last five years.

Cultivation of tapioca brisk

The average yield per acre is five tonnes that fetches Rs. 20, 000 to farmers



HAPPY: Farmer checking the tapioca cultivated in Pachamalai.— Photo: B.Velankanni Raj

Cultivation of tapioca, one of the major horticultural crops which ensure sustained livelihood to a large number of tribal farmers, has been brisk on the Pachamalai, about 90 km from here. Every year, an estimated 3,000 acres is brought under the crop in the district but it is Pachamalai which accounts for a lion's share of about 2,500 acres. A cluster of villages at the foot of the hills such as Shobanapuram in Uppliyapuram block account for about five percent of the tapioca.

Most farmers have resorted to raising 'rose tapioca' and 'H-165' varieties which are starch-rich plants so that they can register higher returns from the cluster. The crop is raised for a period of about seven to eight months and is readily marketed to private starch industries in Salem and Athur down the hills.

Farmers say that though the duration is about eight months, they used to wait for a couple of months more to ensure more attractive price. A major advantage of the crop is that it can withstand drought-prone conditions, although periodical watering or irrigation would strengthen its quality and weight.

The average yield per acre is five tonnes that fetches Rs. 20, 000. Farmer's investment per acre is about Rs.10,000. The only problem has been the price of the produce. Farmers say they do not get attractive price from industries. Although Thuraiyur in Tiruchi district is the nearest town, the absence of any sago industry in Thuraiyur and surrounding areas forces the farmers to rely on the Salem-based sago industrialists. In fact, many farmers receive advance towards the produce. Farmers complain that middlemen were the largest beneficiaries of tapioca cultivation.

Sago units, all of them owned by private sector industrialists, fix the price according to their demand and based on starch content. Often farmers are given a lower price on the ground that starch content was low in their produce.

The National Bank for Agriculture and Rural Development has been implementing a tribal development project on the hills. Development of orchards, raising of silver oak and cashew trees was one among them. These efforts are being taken to diversify the cropping pattern. Official sources said the alternative horticultural activity would not only fetch higher returns but also help avoid soil erosion.

Manual harvesting of tapioca during June or July, particularly after the summer showers, leads to soil erosion in Pachamalai. The red laterite soil on Pachamalai is so fine that it is easily eroded due to showers after harvest.

Cotton farmers urged to shift to pulses cultivation



Healthier option:Minister G. Jagadishwar Reddy having a look at organic vegetables at the launch of 'Mana Telanagana Mana Vyavasayam' in Suryapet on Monday.– Photo: Singam Venkataramana

Energy Minister G. Jagadishwar Reddy called upon cotton farmers to switch to cultivation of pulses.

Addressing farmers after launching the 'Mana Telangana Mana Vyavasayam' programme at Pinnaipalem village near Suryapey on Monday, the Energy Minister said that the State government has decided to discourage the cultivation of cotton in the State this year since the demand for cotton has declined drastically in the international market in the past one year.

Mr. Reddy said that they have decided to educate farmers to take up cultivation of pulses by organising village-level meetings across Telanagana to protect the farming fraternity from prevailing crisis in the international cotton market. To sensitise the farmers, he said that they have decided to appoint one agriculture personnel for every 200 hectares of land.

The Energy Minister also underlined the importance of taking up vegetable cultivation, since Hyderabad and other parts of the district depended on

imports from other States even today. He urged farmers to restrict the use of pesticides in cultivation.

Drought to hit rice production in State

Against production of 45.45 lakh tonnes during 2014-15, it is likely to touch a mere 29.34 lakh tonnes in 2015-2016

ith rabi season over and the yields from various crops arriving at the market yards across Telangana, the Directorate of Economics and Statistics has released advance estimates of agricultural production for 2015-16 which showed a huge shortfall in rice stocks.

Against 45.45 lakh tonnes of rice production, both in kharif and rabi, during 2014-15, the directorate, which is responsible to compile statistics relating to all aspects of agriculture, has said rice production in 2015-16 was likely to touch a mere 29.34 lakh tonnes.

The 16 lakh tonnes of shortage in rice was solely due to drought which resulted in lack of water in irrigation projects and bore wells going dry, according to Agriculture Production Commissioner C. Parthasarathi. Whatever production of rice which is a water intensive crop was mainly due to bore wells but they too could not deliver in later stage due to deepening of groundwater table, he added.

The situation was expected as kharif, the first crop, was not good on account of poor inflows in projects. However, the government waited till October because there were heavy rains around that time in the past which resulted in projects getting water. But, even that did not take place. In the face of a continuous dry spell, the government had come to a conclusion about a bad year for agriculture, Mr. Parthasarathi added.

The rice production was a mere 22.13 lakh tonnes in kharif and an estimated 7.21 lakh tonnes in rabi this year. The area of cultivation was 7.49 lakh hectares and 2.52 lakh hectares respectively. It was 28.55 lakh tonnes in kharif and 16.90 lakh tonnes in rabi, making up to 45.55 lakh tonnes in 2014-15. The area of cultivation last year was 9.20 lakh hectares and 4.95 lakh hectares respectively. Surprisingly, the directorate has estimated that the production of cotton will be more this year at 35.98 lakh tonnes against

35.83 lakh tonnes last year. Similarly, chilli production was estimated at 2.04 lakh tonnes against 2.53 lakh tonnes last year. However, the directorate has estimated nil production in recent rabi in red gram, castor, soya bean, palm oil, mesta, sugarcane and turmeric. Red gram was grown over 247 hectares in kharif but it was only one hectare in rabi. There was no area at all for soyabean and turmeric in rabi.

Dry land farmers to get additional 50 square yards in residential zone

Farmers of dry lands in the Capital region who have given away their lands as part of Land Pooling for the new Capital Amaravati would get an additional 50 square yards of developed plots in residential zones, said Chief Minister Nara Chandrababu Naidu here on Monday.

The Chief Minister said he was conceding the demand of the farmers who were the first ones to give their land.

The announcement soon after performing the house warming ceremony was greeted with loud cheers from farmers who had turned up at the makeshift venue even at 4 a.m.

As per the APCRDA Land Pooling Scheme, the lands in the Capital region have been classified into dry and wet (multi cropped) lands. Landowners of the dry region have been allotted 1,000 square yards in residential zone, 200 square yards in the commercial zone while those having lands in multi cropped areas have been allotted 1,000 square yards in residential zone and 450 square yards in the commercial zone.

But some of the farmers cultivating crops in dry lands under Lift Irrigation scheme said they were still not happy as their pleas for considering a similar package to multi cropped lands had not been heeded so far. "We have filed cases in High Court seeking judicial intervention in the classification of lands. Our multi cropped lands should also be treated under Jareebu package," said Karumanchi Anil Kumar from Krishnayapalem.

Some farmers say they are still not happy as their pleas have not been heeded so far

Plantain trees damaged

More than 500 plantain trees were damaged in gale accompanied by rainfall in Mannayakkanpatti village in Vazhappadi block on Sunday.

The villages surrounding Vazhappadi town experienced sharp showers last evening.

The gale which accompanied the rainfall uprooted the plantain trees. The farmers urged the government to sanction adequate compensation to make good the loss of crop.

Wholesale price of egg drops further

With drop in demand, the wholesale price of egg has dropped by 20 paise to be fixed at Rs. 3.10 here on Monday.

Officials of the National Egg Coordination Committee (NECC), Namakkal Zone, said that the price of egg that remained at Rs. 3.50 from April 1 to April 22 dropped to Rs. 3.30 on April 23 and further dropped to Rs. 3.10 on April 25. They said that the drop is due to fall in demand as presently eggs are not supplied to noon meal centres. Officials said that the average price of egg in the month of April was Rs. 3.47 and expect upward trend in the coming days.

Farmers said that with summer at its peak, the stress level in poultry birds are very high leading to reduced size of eggs.

Arrange for water, fodder till June 15

Chief Minister Siddaramaiah categorically warned that both the deputy commissioners and the chief executive officers of zilla panchayats in the districts will be held responsible for any lapses in providing drinking water to the people and fodder to cattle, even as he instructed all officials concerned to arrange drinking water and fodder in every drought-affected taluk in the State till June 15. Reviewing drought relief works with elected representatives and senior officials of the district at the Central Hall of Suvarna Vidhana Soudha here on Monday, he reiterated that the government had accorded top priority to supply drinking water for people and fodder for cattle at any cost. Funds would flow on priority without any delay but the officials must ensure that no man went without drinking water and no cattle left hungry without fodder and water.

Advising on short-term measures to find temporary solutions, such as removing silt from river courses and nala beds, water tanks under the Mahatma Gandhi National Rural Guarantee Scheme, taking over private borewells by paying liberally and stocking sufficient fodder, besides ensuring availability of medicines in hospitals and veterinary centres, he said that the officials should not deny jobs to job card holders if there was a demand from them.

The Chief Minister said that he would consider the demand of farmers to supply free fodder, which was now being supplied at a subsidised price of Rs. 3 per kg. The legislators said that the government could supply fodder at Re. 1 a kg considering the economic conditions of farmers hit by severe drought.

Fronts leave dairy farmers high and dry

Dairy farming is among the sectors seriously affected by price rise. The cattle feed prices have gone up steeply in recent months, but there is no indication of a corresponding hike in milk prices. The main fronts facing the electorate have chosen to ignore the farmers' demand for a price rise.

Though the manifestoes of the LDF and the UDF mention about plans to increase milk production and attain self-sufficiency, they are mum on increasing the procurement price.

But the fronts are in no position to offer an increase for several reasons. First, the pricing is done by the apex body of milk cooperative societies, Kerala Cooperative Milk Marketing Federation Limited (KCMMF), Milma, ruled by the UDF. The authority to increase prices was vested with Milma after a court battle with the government in 2011. Since then, Milma has increased the price twice, with the last hike in 2014.

But the farmers are unhappy and are clamouring for a hike. Though there are thousands of small-scale farmers who do not supply milk to the Milma network, a unilateral hike in prices by private players will boomerang on them. Milma distributes 12 lakh litres of milk daily, of which 3 lakh litres are brought from other States.

Milma will have to review the prices periodically, according to a court ruling which gave it the power to decide on procurement and market prices. In fact, the top brass of the milk marketing body hinted at a review a month ago, but the word no longer prevails. "There is no scope for an increase now or in the months ahead," P.T. Gopala Kurup, Milma chairman, told *The Hindu*, adding that such a move was not permitted during election time.

Even otherwise, the cooperative body would not have liked to make a promise as it would invite the wrath of the public which could make a heavy impact on the electorate.

"None cares for the sector," says Gino G.Maliyakal, general secretary of the Kerala Aggressive Dairy Farmers' Association. The organisation had recently poured milk into the streets in a show of protest against the non-remunerative prices.

The benefits given to farmers under the Milma network is not available to other farmers. The approved quality standards for milk procurement by Milma are unrealistic, he said. "Many small-scale dairy farmers who own one or two cows are in penury," he says. There are many disenchanted voters among them who would not like to go to polling booths, he adds. Ironically, it happens at a time when the government is spending large amounts under the SVEEP initiative to widen the voter base.

Team of Ministers surveys drought-affected villages

A Cabinet sub-committee on drought, comprising four Ministers, visited several villages in the district on Monday to get first-hand information about the prevailing drought situation.

All the four taluks in the district have been declared drought hit, and more than 20 farmers have allegedly committed suicide following crop loss. The team included Law and Parliamentary Affairs Minister T.B. Jayachandra, Public Works Minister H.C. Mahadevappa, Food and Civil Supplies Minister Dinesh Gundu Rao, and Minister for Cooperation H.S. Mahadeva Prasad. They inspected lakes, canals and farmlands in the district.

The team visited Hanur, M.M. Hills, Kempaiahana Doddi, Lakshmammana Doddi, Koudalli, Ramapura, Ajjipura, Singanellur, Madhuvanahalli, Santhemaralli, Kuderu and Bhogapura. The Ministers interacted with the villagers and received grievance letters. Most of the complaints were on acute shortage of drinking water and fodder for animals.

The team also held a meeting with the villagers at Ajjipura, collected information on the number of borewells that have dried up, and on the depletion of the groundwater table and its impact on the standing crops. They also took down notes on the efforts initiated by the district administration to tackle the drinking water crisis, and on the implementation of the midday meal scheme.

The villagers made sure the Ministers did not have an easy ride, taking them to task for not solving their water woes already. The tribals on the fringes and deep inside M.M. Hills and Hanur forests are facing a severe drinking water crisis. There are tribals who have to trek 5-6 km to reach their settlement carrying water and foodgrains on a donkey. Without motarable roads, water and power connections, their woes are worsening by the day, the villagers said.

Later, the team of Ministers visited several villages in Gundlupet and Chamarajanagar taluk. They also held a meeting with district officials at the district office complex. Construct water harvesting structures in market yards, Minister tells officials



Taking stock:Minister for Irrigation T. Harish Rao and Nizamabad MP K. Kavitha inspecting the Kakatiya canal in Vellula village in Karimnagar district on Monday.– Photo: By arrangement

Minister for Major Irrrigation T. Harish Rao has informed officials to take measures for the construction of water harvesting structures in all agricultural market yards to tap every drop of rain.

The Minister, along with MPs K. Kavitha and Balka Suman, and Korutla legislator K. Vidyasagar Rao, participated in the inauguration of Mission Kakatiya works and development of Korutla village tank into a mini tank bund at a cost of Rs. 3.27 crore on Monday. They also participated in the swearing-in ceremony of AMC chairpersons and members of Korutla Agricultural Market Committee.

Speaking on the occasion, he informed the authorities to construct water harvesting structures in all AMCs during this summer season so that that water was not wasted and the ground could be re-charged. He said that they were constructing go-downs at a cost of Rs. 1,024 crore to store 14 lakh metric tonnes of farmers produce in the State.

He informed the farmers to store their produce in the market yards under the Rythu bandu scheme and avail financial assistance of Rs. 2 lakh without any

interest, and sell their produce whenever there was market price. With regards to the Mission Kakatiya works, he said that they had released Rs. 313 crore in the first phase and Rs. 464 crore in the second phase in Karimnagar district. The restoration of minor irrigation tanks would bring back past glory in the villages, he said.

Mr. Rao also said that they would lift Godavari water from Kaleshwaram project to the LMD reservoir within two years and transform the district on the irrigation front. The Irrigation Minister, along with MPs and MLA, also laid the foundation stone for the modernisation of Kakatiya canal at Vellula village of Metpally mandal at a cost of Rs. 28 crore.

Expressing concern over turmeric and sugarcane, Nizamabad MP Kavitha said that they were fighting with the Union government to increase the minimum support price for the same. She said that she was demanding the Union government to constitute a turmeric board in the region.

Water released into the Krishna

Meanwhile, in response to Karnataka's request for 4 tmcft water, Maharashtra released one tmcft water into the Krishna river course on Monday.

This water is expected to enter Karnataka on Tuesday, according to Small Scale Industries Minister and district in-charge Satish L. Jarkiholi.

Mr. Jarkiholi also advised the officials of the Minor Irrigation Department to monitor the water flow so that it was not utilised for irrigation but only for drinking purposes.

Water will continue to be scarce



SOlution: "Increased water conservation and promoting cultivation of less water-intensive crops can go a long way towards coping with the crisis." A farmer in drought-hit Ahmedabad.

A focus on minor irrigation projects and drip irrigation could go a long way in coping with frequent crises.

The incidence of drought can no longer be considered a rare event. Climate change has quickened the occurrence of extreme events such as **drought**, floods and cyclones in different parts of India. It is alarming that the frequency and severity of such extreme events has increased in recent decades. India has experienced numerous drought years in the past, but the frequent recurrence after 1988 — in 1999, 2002, 2004, 2009, 2014 and 2015 — is highly worrisome. It causes enormous hardships to resource-poor farmers, who are forced to fend themselves through sale of assets and migration to urban areas. Though the impact of drought varies across regions, it invariably affects human, livestock and natural resources.

Severe **drought conditions** are being experienced in some parts of the country this year as well. The Union government has already declared that the country is grappling with severe drought conditions which are estimated to have affected a sizeable population, nearly 330 million people. More than 50 per cent of the districts across the country have had rainfall deficit, many

in tandem with high temperatures of above 45 degrees Celsius. The most severely affected States include Maharashtra, Karnataka, Jharkhand and Telangana. Given the current scenario, the government has initiated drought relief programmes to compensate crop losses, encourage judicious use of groundwater, and has sent 'water trains' to the highly water-scarce areas besides extending financial help to the States to cope with the emerging crisis.

As much as these relief measures are essential to ease the **drinking water shortage**, the problem is deep-rooted and has important implications for the agricultural sector that provides livelihood to almost 75 per cent of the population directly and indirectly. **Drought conditions** would severely affect the production and the productivity of key crops viz. wheat and rice, which contribute substantially to India's food basket. In a situation of a continuous decline in the level of water tables and low capacity of water reservoirs, irrigation would contribute little to help in the drought conditions.

Scaling up irrigated area

Government statistics have hardly shown any increase in the total net irrigated area, which has been hovering around 63 million hectares and constitutes only 45 per cent of the total area sown in the country. Some improvement in irrigation intensity has taken place in Assam, Jammu and Kashmir, Madhya Pradesh and Rajasthan in recent years. But it appears to be insignificant in view of a massive increase in real public investment in major, medium and minor irrigation from Rs.235 billion in 2004-05 to Rs.309 billion in 2013-14. While the capital expenditure in major projects increased by 3.5 times, the investment in minor irrigation increased by 2.5 times only. A virtually stagnancy in irrigated area — especially of the area under canal irrigation — raises concerns about the efficiency of the ongoing investments and the quantum of investment that is further required to scale up area under irrigation.

A study carried out by International Food Policy Research Institute shows a sharp drop in the marginal returns from additional public investment in major and medium irrigation from 1.41 per cent during the nineties to 0.12 per cent when expenditure incurred during the 2000s is also considered. Evidence also shows that the ratio of irrigation potential created from public expenditure is higher for minor irrigation projects than medium and large irrigation projects. Unfortunately, minor irrigation projects have received

only scant attention from policymakers over time. Minor irrigation structures play a significant role in recharging of wells, drought mitigation and flood control.

Long-term

remedial

options

While the India Meteorological Department has forecast above average rainfall during the upcoming South-West monsoon and Finance Minister Arun Jaitley expressed confidence that agriculture would withstand the ongoing drought, the situation calls for long-term solutions. Increased water conservation and promoting cultivation of less water-intensive crops can go a long way towards coping with the crisis. The other remedial option could be to adopt drought-resistant crop varieties as has been done in some parts of Odisha for paddy/rice through the help of the International Rice Research Institute. This can maintain productivity and income of the farmers and also ensure price stability to the consumers. It is important for the government to sustain an increased investment in irrigation but at the same time gear up towards faster completion of the ongoing projects.

Micro irrigation system comprising drip and sprinkler irrigation has greater potential to improve water use efficiency in agriculture. Despite various promotional efforts undertaken by State governments, their level of adoption and spatial spread has remained low. Studies show that micro irrigation system helps save water, reduce cost of cultivation and improve crop yield. Various studies showed that the net return per inch of water supplied through drip irrigation was 60-80 per cent higher than that of conventional irrigation system. However, among others, high initial capital cost, suitability of designs to different soil conditions, problems in receiving subsidy and small holdings are reportedly affecting the adoption of this technology. Subsidy being an important factor influencing adoption decision of farmers, delay in disbursement and appropriation by better-off farmers seems to have affected the vast majority of resource-poor small and marginal farmers in accessing this technology.

The Pradhan Mantri Krishi Sinchayee Yojana is a good policy initiative that would accelerate public investment in both micro and macro irrigation. During the recently organised India Water Week, 2016, India has also partnered with Israel, a water-scarce country, to learn and adopt innovative strategies to harness rainwater. Small vegetable-growing farmers near Solan, Himachal Pradesh, have long adopted Israel's water-saving technology through the assistance of the Mother Dairy retail chain that procures their fresh produce. It is an opportune time to scale up technology adoption.

Finally, the shortage of drinking water can be addressed through promoting conservation and generating awareness among people to use the scarce resource with utmost care. Media reports indicate that the funds allocated by the Centre for drinking water projects have remained underutilised in many of the States hit by water scarcity. The States must act responsibly and gear up to come out of the current situation of water crisis.

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hindustantimes

Jharkhand launches single-window facility for farmers, wins PM praise



The Jharkhand government has come up with a single-window solution to address farmer woes. (Sanjeev Kumar/HT photo)

Jharkhand has become the first state in India to launch a single-window facility for farmers, an initiative that earned the praise of Prime Minister Narendra Modi when he visited Jamshedpur on Sunday.

Chief minister Raghubar Das' move complements the Prime Minister's push for the Kisan Suvidha App, a farmer-specific mobile application, and eNAM, a national electronic marketing platform for agriculture products, which were launched on March 19 and April 14 respectively.

Over 250 farmers from various states downloaded the Kisan Suvidha App at the agricultural exhibition here on Sunday.

"Everyone has talked and heard about the single window (facility) for industries, but your CM has come up with the novel concept of (creating a) single window for solving all the woes of farmers.

You people are lucky to have a government ready to fight and die for farmers," Modi said, launching the portal during the concluding ceremony of the National Panchayati Raj Day at the JRD Tata Sports Complex.

Jharkhand's facility seeks to provide farmers with crucial information on government schemes, weather, pricing of agricultural products, soil health cards, seeds, fertilisers, crop insurance and loans.

"The Kisan Suvidha App is a mobile application that provides weather forecasts for the next five days, besides information on prices of agricultural products at 50 nearby mandis (agri-markets); diseases likely to affect crops; advice from agricultural experts; technologies; and dealers in agricultural equipment.

Any farmer can download it for free," said Dr Uma Shankar Singh, joint director, agriculture and farmers welfare ministry.

Dr Singh said information technology has become a key catalyst for boosting agriculture production and marketing.

"After the Prime Minister launched it on April 14, the eNAM (electronic national agriculture marketing) platform has become functional in 21 mandis across eight states. By December, it will reach 200 mandis across the country – fetching farmers good prices for their crops," he added.

Through eNAM, the government plans to create a nationwide online market for farm products by linking all mandis and agricultural market trading committees in the country.

"So far, 12 states – including Jharkhand – have agreed to be linked with this network. To start with, it's being used to trade in 25 products – including rice, wheat, potato, onion, apple, turmeric, mustard oil, pulses, soybeans, groundnuts and red chilli," Dr Singh said.

BusinessLine



Cottonseed sales seen stagnant at 4.40 cr packets

Telangana govt's advisory to shun cotton could bring down sales by 20-30%

Notwithstanding hostile weather conditions, a poor forecast for international prices and resistance developed by pink bollworm to Bollgard II, the cottonseed industry expects an average year with projected sales of 4.40 crore packets (of 450 gm each) in the ensuing kharif season.

With an inventory of over eight crore packets, the industry sees no scope of shortage for the seed.

"We are anticipating a normal year for cotton. The market size could be in the region of 4.30-4.50 crore packets, stagnating at the same size last year," Satheesh Kumar, former President of the Seedsmen Association of the undivided Andhra Pradesh, told *BusinessLine*.

Govt's bearish view

The industry faces a roadblock in the form of the Telangana government's advisory to the farmers not to go for cotton this year.

As outlook for global cotton prices paints a bleak picture, Chief Minister K Chandrasekhara Rao asked the farmers to stay away from the fibre for the year to save themselves from a bearish market.

This would have an impact on the overall cottonseed sales in the country.

With 22 lakh hectares under the fibre, the State is among the top cottongrowing States in the country, consuming about a quarter of the 4.30 crore packets the industry sold last year.

The Chief Minister has directed the State Agriculture Department to take up a campaign to convince farmers to stay away from the crop.

In fact, the cotton farmers in the State, like their peers in Maharashtra, are under severe financial pressure as the monsoon failed for the third consecutive year.

Over 1,500 farmers ended their lives last year — the bulk of them being cotton farmers.

"Even if 20-30 per cent people quit cotton, it would mean a lot. It will bring down pressure on natural resources. We are going to discuss this in detail during the District Collectors' meet this week.

The Agriculture Department will campaign in villages, educating them about the impending price fall and its impact on them," a Government official said.

Industry unfazed

The industry, however, is unfazed. It feels that the government advisories are not something new.

"I'm not saying there won't be any impact. But it will be minimal as farmers tend to go by their own judgment rather than following the advice given by government officials," a top executive at a seed firm, wishing to be anonymous, said.

"If the government announces an incentive (to stay away from cotton), the impact will be more. Maize and soya will benefit if farmers think of alternatives," he said.



Titlagarh sizzles at 48.5 deg C as mercury flares up in East

Titlagarh in Odisha has recorded a maximum temperature of 48.5 deg Celsius during the 24 hours ending Monday morning as the heat wave continued unabated in East India.

An India Met Department forecast indicated that the 'top heat' will stay pinned to this region until April 29 with a likely extension to Bihar and East Uttar Pradesh during the period.

Cooler North-West

In contrast, North-West India will remain largely insulated from the searing heat thanks to western disturbances calling in one after the other and setting off thunderstorms and dust storms in the region.

Western disturbance represents a belt of lower pressure that circumnavigates the globe and periodically dips over Afghanistan-Pakistan-North-West India to impact seasonal weather.

Areas of low pressure during this time of the year here are associated with varying weather including rain, showers, high winds, hail, squall, thunder and lightning.

Thunderstorms/dust storms are other manifestations of this type of weather; they help bring down maximum temperatures by several notches.

But enabling conditions for proper monsoon onset and progress demand that North-West India too heat up without much delay.

'Heat low'

In the monsoon scheme of things, it is here that the 'heat low' develops after the rising motion of air sets up the lowest point of atmospheric pressure in Rajasthan.

This will make for a perfect contrast with the relatively high pressure obtaining to the South-West of the country (around Kerala) from where monsoon winds can blow in towards the North of the country.

According to international forecasts, the heating of North-West India may begin in right earnest by the end of this week.

Extreme West Rajasthan is shown as heating up to a new high by May 3 even as the heat wave phenomenon will be confined to Odisha, Coastal Andhra Pradesh and Telangana.

It remains to be seen how long the 'heat low' can sustain given the frequent movement of western disturbances and development of thundery weather in and around Rajasthan.

Severe heat

The IMD has forecast heavy wave conditions at a few places over Odisha on Tuesday with severe heat wave at isolated places.

Heat wave conditions are also likely in the immediate neighbourhood i.e. Bihar, Jharkhand, Gangetic West Bengal, Telangana and Rayalaseema.

In contrast, dust storms/thunderstorms are likely to line up in Punjab, Haryana, Chandigarh, Delhi, West Uttar Pradesh, and Rajasthan to put a cap on the heating trend.

Thunderstorms accompanied by squall/hail are also likely at isolated places over Assam, Meghalaya, Nagaland, Manipur, Mizoram, and Tripura.

This will more or less be the pattern of weather panning out over the respective regions for another two to three days, the Met said.

Turmeric gleams on quality

Spot turmeric prices increased at Erode markets on Monday due to quality arrivals and upcountry demand. "Good quality turmeric arrived and traders also received some fresh upcountry demand.

So they purchased good number of turmeric bags at an increased price," said RKV Ravishankar, President, Erode Turmeric Merchants Association.

He said 7,500 bags arrived and the traders procured 70 per cent stocks. The price of the hybrid finger turmeric was up ₹200 a quintal, while the local finger and root varieties gained ₹100.

At the Erode Turmeric Merchants Association,the finger turmeric went for ₹8,489-10,289 a quintal; the root variety ₹8,214-9,314. Of the arrival of 1,800 bags, 1,020 were sold.

Bearish cues dissolve sugar

Sugar prices in spot and futures extended further loss by over ₹20 a quintal tracking weak physical demand and selling pressure in resale trade. *Naka* rates were also steady.

Stockists stayed away from fresh bulk bets and tried to ease their inventory. Freight rates were steady. Sources said arrivals to the Vashi market declined to 50-52 truck loads and local dispatches were at about 57-58 loads.

The Bombay Sugar Merchants Association's spot rates: S-grade ₹3,600-92 and M-grade ₹3,622-3,602.*Naka* delivery rates: S-grade ₹3,580-3,630 and M-grade ₹3,620-3,780.

Cardamom continues to gain aroma on demand

Cardamom prices continue to gain on strong demand amid increased arrivals at auctions held in Kerala and Tamil Nadu. Continued dry spell in the growing regions has created a bullish sentiment in the market.

An estimated 20 per cent of the plants have dried up in "new generation" small estates where adequate shades are absent, PC Punnoose, General Manager, CPMC, told *BusinessLine*.

Consequently, the next crop is unlikely to hit the market before late July/August, creating gap of 3-4 months. At the same time, it is expected to be around 70 per cent of the normal crop.

This phenomenon is said to have prompted the buyers to cover now and that has been pushing the prices despite an upsurge in the arrivals.

Exports up

Meanwhile, the decline in unit value has raised the country's small cardamom exports during April-December 2015 by 83 per cent in quantity and 63 per cent in value. Total shipments during the period stood at 3,825 tonnes valued at ₹300.85 crore against 2,095 tonnes valued at ₹184.06 crore in the corresponding period in 2014. The unit value dropped to ₹786.54 a kg from ₹878.56, according to Spices Board sources.

Centre to continue buying jute bags for packing wheat



Reportedly, there has been manipulation of supply of jute bag and its price (file photo) - Arunangsu Roy Chowdhury

Reportedly, there has been manipulation of supply of jute bag and its price

The Centre will not stop procurement of jute bags for mandatory packaging of wheat in jute bags, in May and June. Since the beginning of April, the Centre has been paying higher subsidy than last year for buying jute bags, at ₹86,917 a tonne.

However, the procurement level has been brought down to 70 per cent instead of 100 per cent. The balance 30 per cent of wheat packing by the Food Corporation of India and various State agencies will be done in plastic bags.

According to sources, the review meeting of the Committee of Secretaries of five Union Ministries, including Ministry of Finance, on April 22, did not further dilute the use of jute bags.

"By default, this meant that the price and the level of jute bag procurement for the 2016-17 rabi wheat crop will continue for May and June as decided earlier," an industry insider told *BusinessLine*. Under the provisions of the Jute Packaging Materials (Compulsory Use in Packing Commodities) Act, 1987, the Standing Advisory Committee would take a stock of the situation and decide on the level of use of jute or plastic bags for wheat in June.

If the committee opts for any change in usage, it could be effective from July onwards.

Manipulation

The Centre, which is gradually reducing mandatory usage of jute bags for food grains and sugar through the provisions of the Act, is in a dilemma this year over the reported manipulation of supply of jute bag, considered as an essential commodity, and its price. It is alleged that the legislation, which was formed to protect the environment-friendly commodity, is being misused currently by a section of mill owners and traders.

The Union Ministry of Consumer Affairs, Food and Public Distribution had been urging to stop jute bag procurement immediately because of the marked-up cost as well as supply issues.

The Ministry of Textiles, however, has resisted the dilution for now. It argued that the proposed dilution would affect the entire jute sector, including the farmers and mill workers, creating a vicious cycle for the next season.

THE TIMES OF INDIA

Min tells agri officials to visit villages for crop plans

Guardian minister Chandrashekhar Bawankule, who chaired the Nagpur district kharif crop planning meeting here on Monday, exhorted officials of agriculture and other departments to prepare micro-level plans by visiting each of the 1,800 villages in the district and after interacting with farmers.

The minister, in fact, expressed his displeasure that his earlier instructions were not followed, since officials were yet to visit and meet farmers in villages. He also requested collector Sachin Kurve to personally follow this up and ensure that officials visit villages and submit crop pattern plans.

The meeting was attended by MLAs Sunil Kedar, Ashish Deshmukh, Vikas Kumbhare, Sameer Meghe, MLC Prakash Gajbhiye, collector Kurve, ZP president Nisha Sawarkar, CEO Shivaji Jondhale and officials of various departments.

Bawankule stressed on micro planning with a view to guiding farmers and helping them increase yields using appropriate technology and inputs. He exhorted agriculture officials to form groups of villagers and give them information on the correct crops, weather conditions and climate change exigencies.

Kedar pointed out that subsidy payments under drip irrigation scheme were yet to be settled. The officials concerned were unable to give a satisfactory reply. Bawankule asked officials to prepare taluka-wise reports with specific data on farmers belonging to backward classes, small and marginal holdings and cropping pattern.

Regarding crop loans, he said a committee headed by tehsildar is operational in every tehsil to help farmers and give information on documents required, and monitor each loan case so that farmers do not face hardship.

Till March 31, as many as 95,262 farmers in the district had been disbursed crop loans totalling Rs987.72 crore during last kharif season. The

outstanding dues amounted to Rs425 crore. Following complaints of noncooperation from 72 group secretaries of cooperative societies, punitive action was taken and their salaries were held up since September. He said 10 mega loan camps were being planned in the district for speedy disbursal.

The guardian minister assured that all pending applications for agriculture pump power connections would be cleared by June. He instructed irrigation department officials to carry out urgent repairs in Pench left and right bank canals to plug breaches to prevent wastage. Fertilizers reserves were reported to be adequate while 81,744 quintal seeds were available for distribution. Soil health cards were being prepared and by 2018-19, 90,000 such cards would be ready, he added.

Under crop diversification, fish farming most profitable: Gulzar Singh Ranike

Gulzar Singh Ranike, minister for animal husbandry, fisheries, dairy, SC/BC Welfare, has said that the farmers of Punjab should leave the wheat-paddy cropping cycle and join the crop diversification so that the depleting underground water table is checked.

He said this while addressing the gathering after inaugurating first ever twoday "Punjab Fish Mela-2016" at Punjab Agricultural University.

Ranike said that the farmers of Punjab are going through a rough patch because the cost of agricultural inputs have increased and the income is decreasing.

He said that at present, agriculture is not a profitable venture and that is why the farmers should indulge into crop diversification and adopt subsidiary occupations. He said that fish farming is a very profitable venture and it is being fast adopted across the globe.

He called upon the Punjabi youth to play important role in ushering an era of blue revolution in the state.

He said that in Punjab, around 38,000 acres of land is under fish farming and it is a matter of great pride that Punjab ranks number one in terms of fish production in the country.

He said that the average fish production per hectare per year of our country is three tonnes, whereas in Punjab its 6.5 tonnes. He said that while keeping in mind the benefits of fish farming, Chief MinisterParkash Singh Badal had visited China some time back so that their fish farming techniques can be implemented in our state.

Gulzar Singh Ranike said that for boosting fish farming in Punjab, the state government is giving 90 percent subsidy and with a cost of Rs 25 crore, 14 fish seed farms in 13 districts are upgraded.

He said that these fish seed farms were earlier in pitiable condition. He said that the state government has also decided to set up these farms in those districts where these were not present. He said that for proper marketing, a fish market has been established in Ludhiana, that would benefit blue revolution in a big way.

He said that similarly, fish markets are also being established in Amritsar and Bathinda.

It is pertinent to mention that during this two day "Punjab Fish Mela-2016", experts from different parts of the country are providing valuable information about fish farming.

Seeds reached HP farmers when sowing season was over: CAG

Raising a question mark on the functioning of the agriculture department in Himachal Pradesh, the Comptroller and Auditor General (CAG) of India has found that 33,011 quintal of seeds reached farmers when the sowing seasons (for both wheat and maize) were over during the 2010-15 period.

In its report, CAG has said that the authorities distributed 28,909.63 quintals of wheat seed and 4,101.47 quintal of maize seed costing Rs 9.39 crore among farmers in the test-checked districts with a delay ranging between one and 135 days.

Similarly, in seven (out of eight) test-checked blocks, 10,671.35 quintals of seeds (8,709.46 quintals wheat) and (1,961.89 quintals maize) costing Rs 2.99 crore were distributed among farmers during the 2010-15 period after a delay ranging between one and 135 days.

CAG report said delays in distribution of seeds were attributable to nonpreparation of annual action plans (AAPs) for procurement of inputs and delay in preparation of AAPs for distribution resulted in late sowing of crops which would have adversely affected the production and productivity of crops.

The office manual of the state government requires the directorate to prepare AAP for departmental programmes and schemes in advance in January every year with periodical break-up of targets in respect of each activity including procurement and distribution of agriculture inputs.

The CAG noticed that the AAP for the year 2014-15 was not at all prepared and plans for 2010-11 to 2013-14 were finalized after a delay of four to five months. However, the planning for procurement of the agriculture inputs was not included in the AAPs. As a result, there was a delay in distribution of seeds among farmers.

It added that director in October last year said nearly 80% area of the districts is rain-fed and sometimes deficient rainfall resulted in delay.

Farmers sell their animals for dearth of water, abandon cattle in forests

Villages of Shivpuri district are in no better condition than the town. Rupesh Sharma of Singhniwas village, 6 kms from Shivpuri district headquarters, sold his cows because of the water shortage.

"I sold both my cows at a meagre price of Rs 1,500 and Rs 700," Rupesh Sharma told TOI. "I had to sell my cows as there is no water for them. If animals don't get water, they will die. When we don't have water to drink, what do we give the cows?" he asked.

Sharma's neighbour Dayaram Rawat left his cows in the jungles so he wouldn't have to watch them die of thirst. "I couldn't sell my cows so I took them to the forests and left them there.

At least, I won't have to see them die." Another farmer Jalim Rawat gave away three of his buffaloes to a relative who lives near a canal. "The canal is dirty. But the buffaloes will survive," he explained. Singhniwas is a village with 4,000 population and 15 government bore-wells and ten private ones. All bore-wells are dry as water level reached below 750 ft and villagers get water from a field three km away.

At 3pm, Rupesh Sharma, Dayaram Rawat and Jalim Rawat were waiting for power supply. "There is one agricultural field with two bore-wells which has water. But you need electricity in three phase to pump the water up.

We are waiting since morning for the power connection to resume after which we will walk three km with containers to fetch water," Jalim Rawat said.

Villagers in Singhniwas said that one person per family has been given the job of fetching water for the household.

"From morning to night, one person in every family is given the duty of filling water and fetching it either on foot or on a bicycle," Rupesh Sharma said.

Twenty km away in village Marora Khalsa, only one hand-pump remains as the source of water for over a hundred households.

"With so much pressure on one hand-pump, the chain breaks often or the pipe starts leaking," said Ramesh Chandra Jatav.

"There are five other hand-pumps but there is no water in them. One sullied reservoir is temporarily the source of water for the animals. But it will dryup in another ten days," he added.

Anjali Jatav (14), a class IX student in Munderi village fetches 200 litres of water from a neighbouring village two km away between 12 noon to 2 every afternoon. "There is no water in the village.

My father is a school teacher, he has to work. I have three sisters and a brother and mother has to look after them. I tie plastic canisters to my bicycle and travel to the next village where one bore-well still has water. I keep traveling up and down fetching water till I have filled the 200 litres reservoir," she said.

THE ECONOMIC TIMES

Weather may hit this year's tea production



While Darjeeling and parts of Dooars are witnessing a dry spell, tea gardens in Assam are facing incessant rains, which may bring down tea production.

KOLKATA: Erratic weather conditions in the major tea producing regions of Darjeeling, Dooars and Assam is likely to pull down tea production this year by 5-10%, industry executives said.

Darjeeling and parts of Dooars are witnessing a dry spell. On the other hand, tea gardens in Assam are facing incessant rains, which may bring down tea production in April by at least 10% from a year ago. "Darjeeling gardens are the worst hit. There is no rain in the area that produces the finest.

"Ideally, by this time the gardens should have received 10 inches of rainfall. The gardens had received some 2 inches of sporadic rainfall in March which was not enough."

This continuous dry spell has already affected the famous first flush Darjeeling teas that are sold mostly overseas. "It is going to affect the second flush as well," Singh said. The 87 tea estates in Darjeeling produce 8.5-9

million kg annually. A part of Dooars has also not received rain which too will take a toll on the crop size, industry executives said.

"While the dry spell is affecting tea production in Darjeeling and Dooars, excessive rains in Assam has become a matter of concern to planters," said Aditya Khaitan, managing director of McLeod Russel IndiaBSE 0.44 %.

"A clearer picture on the extent of crop damage will emerge by the month end. But definitely there will be some crop loss in the second half of April." Singh puts the crop loss at 5-10%.

"We are also worried over pest attack due to this erratic weather condition," he said. India had produced 75.61 million kg of tea in April 2015.

Meanwhile, prices of new-season teas have dropped at the auctions in comparison with last year. CTC prices are down by 7.64% while dust tea is fetching 3.5% less.

Khaitan said that since production was high, buyers were on a wait-andwatch mode, which has affected prices. "But in April, production will be lower. Prices will remain firm," he said.

Odisha seeks 5,000 tonne of pulses, as price rises

While Arhar dal is selling at Rs 150 per kg in the market compared to Rs 125 last week, the price of toor dal has increased from Rs 151 last week to Rs 165 per kg.

BHUBANESWAR: In an effort to check the rise in prices of pulses in the state, the Odisha government has placed an order of 5,000 tonne of dal from the central pool, an official said.

The state government's action in this regard came after the Centre decided to sell arhar and toor dal to the states. The state may provide pulses to the consumers at a price not exceeding Rs 120 a kg.

"We have placed an order for around 5,000 tonne in the first phase. The Centre had asked us to inform it on the state's requirement in view of rise in price of pulses," Food Supplies and Consumer Welfare Secretary MS Padhi said.



Controlling prices of pulses is a difficult task as the state government has limited role to play in this regard, Padhi said.

All Odisha Byabasaye Mahasangha secretary Sudhakar Panda welcomed the state government's effort to procure pulses from the central pool.

While Odisha consumes about 4 lakh tonne pulses of different varieties per annum, the state produces only about 1.5 lakh tonne every year. The remaining quantity of pulses is imported from the states like Maharastra, Panda said.

The prices of different varieties of pulses have been on a rise in the last few days across the country. Prices of pulses have increased about by Rs 20 per kg during a span of only 10 days.

While Arhar dal is selling at Rs 150 per kg in the market compared to Rs 125 last week, the price of toor dal has increased from Rs 151 last week to Rs 165 per kg.

Padhi said the Centre would release the pulses from the buffer stock they have created. "The intervention would help market stabilisation," Padhi said.