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THE HINDU

Decline of pollinators threatens food supply

Poor management of our pollinator species may be leading to lower crop yields, but our level of investment in research on pollinators has been negligible

Most of our staple food crops such as wheat, rice, sorghum, barley and maize do not require animals for their pollination. However, wild pollinators play a very important role in the production of other crops such as some pulses, sunflower seeds, cardamom, coffee, cashew nuts, oranges, mangoes and apples. An army of more than 20,000 species of pollinators including birds, bats and insects service these crops. For most of our food crops, though, the most important pollinators are the thousands of species of bees. The annual economic value of the crops pollinated by animals worldwide is estimated to be between \$235 billion and \$577 billion (in 2015).

The wild pollinators are declining, and their loss will imperil our food supply, warns a recent United Nations report, based on the global assessment of pollinators by an international team of more than 75 scientists from different parts of the world, including India. The large scientific panel was brought together by the Intergovernmental Platform on Biodiversity and Ecosystems Services (IPBES). Endorsed by the governments of 124 countries, the report was released last month in Kuala Lumpur.

Created in 2012 by more than 100 governments, the IPBES seeks to provide scientific information about biodiversity and ecosystem services to policymakers of the member countries. The IPBES, with its secretariat in Germany, is administered by the UN, including the United Nations Environmental Programme (UNEP) and the United Nations Development Programme (UNDP).

How does the IPBES define ‘ecosystem services’? They are the many benefits which society derives from nature. They include fresh water; fertile soil; wild plant resources such as foods, fibres, medicinal plants and the wild relatives of crops; wild pollinators and the natural enemies of crop pests;

carbon sequestration from the atmosphere; and the important spiritual, aesthetic and recreational values of nature.

The IPBES was established as an intergovernmental body akin to the Intergovernmental Panel on Climate Change (IPCC). Reports of the IPCC have become the basis of policies on climate change. It is assumed that the IPBES will have the same impact on policymaking as the IPCC.

Indian context

According to the IPBES report, the pollinator declines are well-documented in North America and Europe but have not yet been well-researched in other parts of the world.

In India, the important pollinators of food crops are various species of honeybee, *Apis*, such as *A. Dorsata*, *A. Cerana*, *A. Florae*, *A. Andreniformes* and *A. Laboriosa*. The European honeybee, *A. Mellifera*, also pollinates many crops and fruits such as apples.

Many of these pollinators are declining. For almost 20 years, my colleagues at Ashoka Trust for Research in Ecology and the Environment (ATREE) have been monitoring the abundance of colonies of the giant Asian bee, *Apis Dorsata*, in Biligiri Rangana Hills near Mysore. The number of bee colonies has shrunk significantly over the last decade. Many other researchers have also reported a decline in the number of honeybee colonies in India.

In the Himalayas, apple yields in recent years have decreased. The decreases have been attributed to reduction in the number of bees, but the exact causes of low yields are not known. In general, for the country as a whole, we have a very poor knowledge of the pollination systems of our animal pollinated crops, and how best we can manage the pollinators for optimal yields.

How are our wild and managed pollinators responding to ongoing loss and fragmentation of natural habitats? What are the effects of widespread pesticide use? Is climate change implicated in the spread of new diseases among honeybee colonies? These questions cannot yet be answered, but they may all be factors in the loss of pollinators documented in the IPBES report.

And this is a potential crisis not only for biodiversity but also for our agricultural economy. The economic stakes are huge. The value of animal-pollinated crops in India is in the tens of billions of dollars. Poor management of our pollinator species may be leading to lower crop yields

and to losses of hundreds or thousands of crores annually. Compared with this, our level of investment in research on pollinators has been negligible.

What should be done?

The IPBES report makes a number of recommendations to restore the integrity of pollinators: improvements in the science of pollination, better land management, strong regulations underlying pesticide use, and restoration and protection of habitats for wild pollinators. Above all, there is an urgent need for monitoring wild pollinators, and for strengthening the governance of natural assets.

The Ministry of Environment, Forests and Climate Change has recently launched a programme to establish a network of Indian Long Term Ecological Observatories (I-LTEO) to monitor the country's ecosystems. The I-LTEO network offers tremendous opportunities to monitor wild pollinators.

But pollinators span wild and managed habitats, agricultural and urban landscapes. Pollinators in urban areas can service and enhance food production in peri-urban areas. Wild biodiversity, including pollinators, must become a significant component of future 'smart cities'.

This brings us to a key point regarding pollinators: it is not only the science that requires attention. Policies and governance for managing landscapes — natural, agricultural, urban — are equally important. The IPBES assessment serves notice to government agencies that they must rethink conventional sectoral approaches and narrow disciplinary perspectives. There are many factors involved in the complex environmental challenges threatening human security today. Only well-integrated approaches can successfully address them.

Kamal Bawa, President of ATREE, Bengaluru, and Distinguished Professor of Biology at the University of Massachusetts, Boston was review editor for a part of the IPBES report.

The views here are his own.

Centre to go slow on marine fisheries policy



The proposals to allow foreign trawlers and the silence on carving out a separate Ministry for fisheries have angered fishermen.

Following widespread protests from fishermen, the Central government appears to have developed cold feet over giving legal sanctity to the draft National Marine Fisheries Policy.

The possible fallout of the policy on the elections scheduled in five States next month is also attributed as a reason for the indication from the Ministry of Agriculture to go slow on the policy finalisation.

The policy has been drafted without including representatives from fishing organisations in the eight-member experts' committee.

The Centre had earlier designated the Central Marine Fisheries Research Institute (CMFRI) as the nodal agency to finalise the draft.

The committee, after drafting the policy, launched an exercise to hold consultation with stakeholders at Visakhapatnam, Kochi, Mumbai, and Chennai last year.

Although the members faced strong opposition at the meeting held here last month, they pointed out that the policy was mainly meant to usher in Blue Revolution and improve the livelihood conditions of fishers.

CMFRI sent an 85-point questionnaire to the stakeholders seeking their opinion — in 'yes' and 'no' format — before drafting the policy. "None responded to it in Andhra Pradesh as the idea of finalising the policy without including stakeholders in the committee was totally unacceptable to us,"

Y.G.K. Murti, president, Federation of Indian Fishery Industries, told *The Hindu* on Monday.

The proposals to allow foreign trawlers and the silence on carving out a separate Ministry for fisheries, granting ST status and agriculture status to the fishery industry, social security for small and medium fishermen, introduction of pension and ban on bottom trawling have angered fishermen across the country.

Its possible fallout on elections in five States seems to have forced a rethink

Wayanad flower show from April 1

The 30th Wayanad flower show, organised by the Wayanad Agri-Horticulture Society, will be held from April 1 to April 17 at the flower show ground near the bypass here.

Speaking to mediapersons here on Tuesday, K. Sadanandan, president of the society, said that all arrangements had been made for the flower show.

Close to 125 stalls, including commercial and nursery stalls would exhibit different varieties of flowers, plants, vegetables, modern agriculture implements and ornamental fish.

A food court on 4,000 sq.ft., musical fountains, peacock garden, art gallery and an amusement park had been put up on the ground. Apart from this agriculture expo, health and educational pavilions and an aqua show had also been set up.

Various competitions for the public including flower decoration, vegetable cutting and carving, air rifle shooting, cookery competitions and a pet show would also be held, Mr. Sadanandan added.

Green initiative for first-time voters

A meeting of senior officials of various departments, chaired by District Collector Kesavendrakumar, here on Monday, decided to popularise the 'Orma maram' project, an innovative project to be launched by the district administration on the Assembly polling day to sensitise first-time voters in

the district to the importance of exercising their franchise and conserving plants.

Earlier, the district administration had decided to distribute two saplings to each first-time voter in the 18-20 age group at the polling station under the Systematic Voter's Education and Electoral Participation programme (SVEEP) initiative. They can plant one sapling on the premises of polling stations or public spaces and the other in their households in memory of casting their first vote.

“But now we have decided to disburse two plants each to all voters after we have got the support for the programme for all sections of people and organisations in the district, Mr. Kesavendrakumar told *The Hindu* after the meeting.

As many as 8.5 lakh of saplings would be distributed on the polling day through polling stations.

Saplings to all poll officials would be distributed during election training programmes, he said. As many as 500 banyan tree saplings would be brought from the Kerala Forest Research Institute, Peechi. These would be planted at schools with big campuses, Mr. Kesavendrakumar said. The saplings raised by the Social Forestry Wing of the Forest and Wildlife Department, Agriculture Department and Mahatma Gandhi National Rural Employment Guarantee Scheme would provide saplings of nearly 12 different species of trees for the purpose.

M.S. Swaminathan Research Foundation here has offered to supply rare, endemic and threatened species of tree saplings for the purpose.

Rs.546-crore agricultural varsity budget passed

The general council of the Kerala Agricultural University (KAU) has passed the budget proposals of the university for 2016-17.

The 125th meeting of the council which met in Thiruvananthapuram on Tuesday approved the budget estimates without declaring new programmes. Vice Chancellor P. Rajendran, who chairs the council, presented the Rs.546.63-crore budget which envisages non-Plan expenditure of Rs.378.94 crore and Plan expenditure of Rs.68.11 crore. The budget includes a non-

Plan grant-in-aid of Rs.281.91 crore and Plan grant-in-aid of Rs.65.50 crore. Mr. Rajendran said the non-Plan grant-in-aid was expected to go up in the light of the new pay revision, recruitment of staff and other unavoidable expenditure. He assured the House that a separate meeting of the council would be held to discuss detailed budgetary programmes after the election code of conduct was withdrawn.

EPTRI to prepare report on sustainable agriculture

The Director General, Environment Protection Training and Research Institute, Telangana State, B. Kalyan Chakravarthy on Tuesday said the State government was looking for agriculture which impacts less on environment and is sustainable.

He said the government has released a sum of Rs. 25 crore towards this objective to take up climate resilient agriculture in Mahabubnagar district.

At the fourth regional consultation workshop on State of Environment Report for Telangana State held at Utnoor, Mr. Chakravarthy said the report will be the basis on which every budget and policy in the future will be planned.

The policy document will be based on the methods to minimise environmental impact.

Environment policy

The regional workshop elicited suggestions and responses in terms of difficulties the government departments faced while implementing policies for protection of environment. The other sections of society who placed on record their suggestions which will go in making of environment policy were NGOs.

EPTRI advisor and former Principal Chief Conservator of Forest, S.D. Mukherji said the forests in Telangana, especially those in Adilabad did not need plantation.

Protection of forests

Proper protection of the forests will help natural re-growth of vegetation to bring back past glory, he added.

There was a long debate on agriculture and its sustainability concentrating on some government programmes aimed at shifting farmers from agriculture to other allied activities.

Integrated Tribal Development Agency Project Officer R.V. Karnan and the co convenor of Indian National Trust for Art, Culture and History, Telangana chapter and convenor of its Hyderabad chapter, P. Anuradha Reddy, also participated among others.

‘Report will be the basis on which every budget and policy in the future will be planned’

Problem of odour hots up as chilli stocks arrive

Water being sprayed twice a day at the yard to minimise the problem



Agriculture market yard employee sprinkling water in the area adjoining the chilli market yard to minimise the pungent odour, in Khammam on Tuesday.-PHOTO: G N RAO

The arrival of red chilli into the market yard here has touched 8.70 lakh quintals so far in the current season even as heavy arrivals into the yard continued for the second consecutive day on Tuesday.

Over 50,000 bags of chilli produce had arrived in the yard from various parts of the district, adjoining Warangal and Nalgonda districts besides Krishna district of Andhra Pradesh on Tuesday.

The same trend is expected to continue till second week of April.

The popular "Teja" variety chilli commanded a price of Rs. 12,000 per quintal, say sources in the Khammam Agricultural Market Yard.

Even as thousands of chilli bags lying scattered all over the premises of the market yard, the local residents continue to grapple with the problem of pungent smell being emitted from the chilli stocks.

The district administration has earlier mooted shifting of the chilli market yard to a suitable place away from the core area of the town.

But, some organisations representing the hamali workers and other stakeholders opposed the move citing its "negative impact" on their livelihood.

However, the proposal came into spotlight during Chief Minister K Chandrasekhar Rao's visit to Khammam in February this year.

The government departments concerned have reportedly identified around 20 acres of land at Gurralapadu village in Khammam rural mandal for relocating the chilli market yard to a suitable place away from residential locality, sources said.

Water is being sprayed twice a day to minimise the problem of spicy odour in the vicinity of the chilli market yard, says S Vinod Kumar, Assistant Director, Marketing Department, Khammam.

The present trend of good arrivals to the market yard is expected to continue till Sri Rama Navami festival in April, he says,.

He also said that arrangements were in place to ensure drinking water and other amenities to the farmers at the market yard.

Training programme

A free one-day training programme on ‘Integrated Pest and Disease Management in Groundnut’ will be held on the Krishi Vigyan Kendra in Veterinary College and Research Institute premises on Mohanur Road on March 31.

A press release from N. Akila, Senior Scientist and Head, said that the programme would deal with types of disease that affect groundnut, identifying the diseases in crops, pest management and application of fertilizers. Farmers, members of self-help groups, youth and interested persons can participate in the training programme.

For registration visit the KVK in person or register through phone: 04286-266345 and 266650. Only 30 people can participate in the programme and registration is mandatory by March 30.

Focus on irrigation, State govt. told

Union Minister for Road Transport, Highways and Shipping, Nitin Gadkari, who said that he is a “farmer”, wanted the State to focus on stopping river water and rainwater within its territories. Addressing a gathering after attending bhoomi puja for strengthening and widening of Vijayapura-Hubballi section of National Highway 218 here on Tuesday, Mr. Gadkari referred to the farmer suicides in Vidharbha and how north Karnataka was no different from it. Elaborating on the changed scenario in Vidharbha, he said that it was because of the emphasis on rain water harvesting and preventing excess river water flowing into the sea through check dams. He also said that farm income had increased and subsequently the suicide rate decreased.

The union minister asked the State government to focus on ways to stop flowing of river water into the sea and then make it seep into the ground. He also spoke about the Union government’s new schemes on micro-irrigation for which Rs. 20,000 crore has been allocated.

On the proposal to develop waterways in the country, he said rivers in Karnataka too could be developed as waterways.

However, Mr. Gadkari was silent on the issue of Kalasa-Banduri Nala project.

Although District-in-charge Minister Vinay Kulkarni had raised the issue and sought his assistance in convincing Prime Minister Narendra Modi to intervene, Mr. Gadkari did not respond.

Conserve Kangayam cattle: farmers

Conservationists and farmers involved in protecting/rearing genetically pure Kangayam cattle are looking forward to the formation of new government in the State as they feel that the species is at the crossroads and need immediate policy interventions to save them from extinction.

They are of the opinion that the need of the hour would be to set up a full-fledged breeding centre in Kangayam for facilitating ‘in-situ breeding’ and schemes to promote ‘A2 milk’.

“Kangayam cattle population dwindled from 11.74 lakh in 1990 to around 4.44 lakh in 2000, as per the Animal Husbandry department survey. Presently, only around one lakh Kangayam cattle are there”, pointed out K. S. M. Karthikeya, managing trustee of Senaapathy Kangayam Cattle Research Foundation, which is involved in conservation activities for six decades.

V. Sivakumar, an Indian-American who is conserving Kangayam cattle rescued from slaughter at his shelter home here, said that the State Government should market Kangayam cattle milk as a premium product through Aavin and distribution points to be set up across the State which, in turn, would increase the demand for rearing the variety.

“Since Kangayam cattle feed at ‘Korangadu’—a specific grazing area for the breed that contains 20-odd varieties of shrubs and plants,—the A2 milk produced by the species contains more calcium and lactoferrin, a multi-functional protein that is found in breast milk”, he said

Another major demand was the need for formulation of a policy to promote supply of value-added products from dung and urine of Kangayam cattle that could be used for organic farming.

Teak to be replaced by fruit trees in national parks

To address the issue of man-animal conflict, especially in Kodagu, the Department of Forests on Tuesday decided to prepare an action plan to replace teak plantations in the national park area with elephant fodder species. A decision in this regard was taken at a meeting of elected representatives of the areas affected by man-animal conflict and senior officials of the department. "It is part of habitat management technique practices. A decision has been taken to plant fruit-yielding varieties, which help in restricting elephants from straying into human habitat," said Minister for Forests B. Ramanath Rai.

Chhattisgarh has come forward to adopt elephants from Karnataka. With increase in the population of elephants, the Karnataka government is planning to donate a few to other States that come forward to adopt them. "Chhattisgarh's Minister for Forests, who visited Karnataka recently, showed interest in adopting elephants from the State. The department is examining the request. "There are no legal hassles in giving elephants for adoption," Mr. Rai said.

'No major investment required after 5 years'

Irrigation, energy, drinking water and infrastructure development were the top priorities of the Telangana government in that order, Chief Minister K. Chandrasekhar Rao told the Assembly on Tuesday.

The government was committed to take the irrigation potential in the State to one-crore acres over the next five years by executing newly conceived projects, ongoing projects and with the help of redesigning some of the schemes in progress. In his reply to the debate on the Appropriation Bill, he said the debt repayment capacity of the State would increase once irrigation projects, including Mission Kakatiya and Mission Bhageeratha yield fruits. No major investment would be required thereafter since the investment for making the State surplus in terms of power generation would be met by State and Central power entities. The State government was not even required to stand guarantee for borrowings needs to achieve it. Talking about employment, he said that over 24,500 vacancies were already notified and the recruitment process was in different stages and another 10,000 teacher

posts would be notified soon. The Group-II posts could also go up to 1,000 from 400 already identified. On irrigation, the Chief Minister reiterated that his government's policy was to maintain "live and let live" relations with neighbouring States as fighting over every small issue would only harm the State's long-term interests.

hindustantimes

Denied space in cold stores, Doaba potato growers left in the lurch



Labourers sorting potatoes on the outskirts of Jalandhar. (HT File Photo)

The unprecedented rush by potato traders and the cold storage owners to book space in cold storage units in advance has created a mess for the potato growers, who are facing problems in storage of their crop at their own level. The situation has become difficult for the farmers as they are being compelled to return from the gates of cold storage units after being denied space for storage. Farmers are now moving to other far flung districts in a bid to store their crop at higher rates.

Notably, in this season, the potato growers had started fetching a good price for the crop due to the failure of potato crop in other states.

However, farmers say under pressure from the heavy demand from the rest of the country, the buyers and traders, who buy potato crop in the fields and trade in other states for maximum profit, are pressurising farmers to sell the crop at lower rates.

Jugraj Singh, a farmer from Madar village of Jalandhar, said this year, they sold the crop at a profitable rate of Rs 10-15 per kg. However, at the peak of the season, buyers started pressurising growers to sell the crop at lower rates of Rs 7-8 per kg, which the farmers refused.

“As the traders were aware that with the buyers pressuring farmers to accept lower rates, farmers would store the crop in cold stores, buyers also started advance bookings in cold stores so that farmers could not book sufficient space for their crop. Eyeing good profit from storage of the crop, the cold store owners have also started booking space to store the crop, which they never ever do,” said Prit Pal Singh Dhillon, secretary of Jalandhar Potato Growers Association.

The situation has worsened to such an extent for the farmers that few cold storage units are charging the farmers double the usual storage rate.

Usually, the farmers pay Rs 70 per 50kg per season to store the potato crop but now farmers have booked space for Rs 150 per 50kg per season.

Jaswinder Singh Sangha, general secretary of another potato growers association, said the mad rush for booking space in cold storage units had led to worsening of the situation.

The problem of shortage of space is worst in Jalandhar, Hoshiarpur and Kapurthala districts.

In a damage control mode after the matter reached the state government, the district administrations have started re-opening of many cold stores that were lying defunct from the last many years because of various reasons such as non-payment of power bill or operating loss.

Davinder Singh Dhariwal, secretary of Doaba Kisan Sangharsh Committee, told HT that after their delegation took up the matter with Jalandhar deputy commissioner, they were assured about making space available in the existing stores and directions were issued to horticulture and agriculture officials.

“However, results are yet to be seen on the ground as both the departments have failed to push the matter till now. It has come to our knowledge that the government has relaxed norms for those stores that were shut from the last

many years. I doubt if these defunct stores would provide better storage facility for the farmers,” said the farmer leader.

Punjab to engage 500 scouts to give alerts on whitefly attack on cotton



The department in the previous cotton season learnt the lesson the hard way as the whitefly pest attacked the crop, and the department was helpless in controlling and assessing magnitude of the attack. (HT Photo)

The Punjab agriculture department is in the process of recruiting 500 scouts on contractual basis, who would keep a round-the-clock vigil on the cotton crop and report to the department in case of a pest attack.

If everything goes well the crop would fetch farmers about Rs 3,200 crore this season. Sowing of cotton crop would begin from April 1 and surprisingly for the forthcoming season, the department has projected an increase of one lakh hectares under cotton cultivation from last season's 3.98 lakh hectares.

The department in the previous cotton season learnt the lesson the hard way as the whitefly pest attacked the crop, and the department was helpless in controlling and assessing magnitude of the attack. Due to utter mismanagement on the part of the agriculture department the hapless cotton farmers suffered 50% to 90% crop damage.

Scouts, being recruited for nine months of the cotton season from April to December, would get a monthly salary of Rs 4,000 and each scout will be in charge of two villages. “We are getting them trained from Punjab Agricultural University about the attack by different pests and weeds on

cotton and would make it mandatory for them to be in the field during the crop season,” agriculture director Gurdial Singh told HT.

These scouts will be drawn from farmers’ families of cotton-growing districts of Mansa, Muktsar, Bathinda, Barnala and Faridkot, who have been involved in growing cotton. The agriculture department has approached the village panchayats to suggest people who could work as scouts.

“They may not have any formal education in agriculture but should have agriculture acumen, understand things and have a strong connect with the village besides being willing to work,” the agriculture director said, speaking on the requisites to be an agriculture scout, who would report to the agriculture development officer in the district.

For 10 scouts the department will recruit a supervisor--a BSc in agriculture--for the same period who would be paid Rs 15,000 per month. The special exercise would cost government Rs 2.2 crore. “I am sure the government would not mind spending this amount. It is far better than giving hundreds of crores in compensation otherwise,” the agriculture director said, adding that due to damage to cotton last season the government had paid a compensation of Rs 644 crore.

“Monitoring and surveillance are important for any crop to give good results. One of the important reasons for crop failure last season was the lack of monitoring,” Gurdial Singh said, adding that the department would ensure that spurious pesticides were not sold to the farmers and they got best-quality seeds.

Centre extends 25% duty on wheat imports till June



Move to protect farmers during harvest and arrest downtrend in prices

The Centre has extended the basic customs duty of 25 per cent on wheat imports for three months to protect farmers during harvesting season and prevent domestic prices from crashing.

The basic customs duty, which was raised to 25 per cent from 10 per cent last October, will be applicable till June 30, according to a Finance Ministry notification.

Earlier this month, Agriculture Minister Radha Mohan Singh had indicated that the Centre may not allow the import duty on wheat to lapse when he rejected a study done by industry body Assocham that estimated crop damage of 13 million tonnes (mt) due to the unseasonal rains and accused it of trying to compel the government to lower duties.

Singh argued that while the freak weather had done some damage to the wheat crop, production would still be higher by seven per cent at around 92-93 mt.

Reduction in import duties on wheat would lead to lowering of domestic wheat prices that would add to farmer distress. Farmers in the country, specifically in several districts of Maharashtra and Tamil Nadu, have been hit by severe drought and are suffering huge crop losses.

Bloomberg adds: It will not make any sense to import wheat at this duty, said P Gunasekaran, President of the Tamil Nadu Roller Flour Mills Association. “We will have to manage with local wheat for the next three months before planning our imports. As such the quality of Indian wheat is good this year.”

Australian wheat

The landed cost of Australian wheat in Tamil Nadu will be ₹21.50 a kg(\$323 a tonne) compared with about ₹19.50 for good quality wheat from north India, said Gunasekaran.

Overseas purchases are seen at 500,000 tonnes in the year ending March, compared with 52,000 tonnes a year earlier, according to the US Department of Agriculture.

Lower import duty on wheat would lead to a fall in wheat prices in the domestic market and farmers will incur heavy loss while traders will purchase from farmers at lowered price, Agriculture Minister Singh said on March 19.

The import duty will help growers get better prices during the harvest and is in line with Prime Minister Narendra Modi’s target to double farmers’ income in five years, Gunasekaran said.

Wheat futures in Mumbai have fallen 6.6 per cent this year, compared with 0.3 per cent gain in prices on the Chicago Board of Trade.

Cotton blooms on weaker supplies, shrinking stocks

Cotton prices in the domestic market are likely to move higher during the coming “off-season months” on reports of lower production forecast and anticipation of lesser carryover stocks for the next season on improved consumption and exports.

Price movement

In 2016, prices have come down due to sluggish demand from ginners and textile mills amid sufficient availability of stocks.

Moreover, the decision by government agencies to stop procurement of seed cotton at the Minimum Support Price (MSP) too increased supplies in the physical market.



However, prices have started moving higher after bottoming out in March. *Kapas* prices increased by 4 per cent and cotton bales prices by about 1.3 per cent.

Production, arrival decline

Cotton output is seen lower by over 10 per cent at 345 lakh bales compared to last season, according to the Cotton Association of India (CAI).

Output estimates are being cut for the third time in three months by the CAI after assessing arrivals and amid reports of heavy losses due to a pest attack and the forecast for an irregular monsoon. Arrival of cotton during the current season declined by 11.3 per cent to 245 lakh bales (of 170 kg) until February 2016, compared to 276.2 lakh bales last year.

Higher exports, lower stocks

Exports of the fibre during 2015-16 are expected to be higher by about 20 per cent compared to last year.

Exports to Pakistan more than doubled this year as a flood and a pest attack trimmed their output by about 35 per cent.

Government data reveals that India exported around 41 lakh bales during cotton year 2015-16 (season beginning August).

Pakistan is the biggest importer of cotton from India, followed by Bangladesh, China and Vietnam.

According to cotton industry and USDA projections, India will export close to 70 lakh bales this year.

The total availability this season may be over 430 lakh bales as the opening stock is estimated at around 70 lakh bales. Thus, the total domestic consumption and exports are expected to be around 380 lakh bales. Therefore, closing stocks expected to be around 28 per cent lower, at 50 lakh bales, compared to the previous season.

Global cues

Cotlook predicted global cotton stocks to fall in 2015-16 and 2016-17 as global consumption will outpace production.

Recently, China announced an auction to reduce its cotton stockpile. Moreover, in the US, unfavourable weather expected during the sowing season may limit cotton sowing.

There are reports of declining stocks and the expectation of a fall in cotton acreage on apprehensions about the quality of Bt cottonseed due to its vulnerability to pest attack.

Price outlook

This might trigger a price rise as stockists and textile mills hasten their procurement before the start of the monsoon season.

Thus, for a three-month perspective, we expect *kapas* prices on the NCDEX (CMP: ₹763/20 kg) to trend higher towards ₹820 while MCX cotton (CMP: ₹16,200/bale) can go higher towards ₹16,800.

Disclaimer: The writer is Associate Director – Commodities & Currencies Business, Equity Research & Advisory - Angel Broking. Views are personal.

Edible oils in bull grip



Edible oils market shot up on back of firm overseas futures amid higher physical demand. On the BCE, groundnut, sunflower, cotton and rapeseed oil jumped by ₹30, ₹10, ₹2 and ₹10 per 10 kg each.

Imported palmolein and soya oil increased by ₹5 and ₹3 each. Liberty was quoting palmolein at ₹582, super palmolein ₹591, soyabean refined oil ₹640.

Ruchi's rates: palmolein ₹587, soyabean refined oil ₹640 and sunflower refined oil ₹730.

Spot pepper up on limited supplies



The spot pepper prices moved up further on good demand amid limited supply.

Outside the terminal market, 30 tonnes of exchange released pepper were traded at ₹658 a kg. On the terminal market, 30 tonnes were traded at ₹650-665 a kg. Spot prices gained by ₹100 a quintal to ₹64,900 (ungarbled) and ₹67,900 (garbled).

April contract on the IPSTA remained steady at ₹67,000 while May and June went up by ₹500 each to ₹66,000 and ₹65,000 a quintal.

Export prices were at \$10,400 a tonne c&f for Europe and \$10,650 for the US.

Thunderstorms fan out into parts of South TN, Kerala, Karnataka

Parts of South Tamil Nadu and adjoining Kerala have been receiving thundershowers as a sea-based weather-making system made its presence felt in the region.

A trough of low pressure (not amounting to conventional low-pressure area) is persisting over Equatorial Indian Ocean and adjoining South-West Bay of Bengal off South Sri Lanka.

Oriented south

Contrary to forecasts, Coastal Tamil Nadu did not gain much from the trough since it was oriented more to the South than expected and had dipped into the southern parts of Sri Lanka and to further South.

Still, it inspired south-easterly winds to blow in from the Bay of Bengal and bring light to moderate rain or thundershowers at isolated places over Kerala, Tamil Nadu and North Interior Karnataka.

An India Met Department update said that isolated rainfall occurred over Kerala, Tamil Nadu and North Interior Karnataka during the 24 hours ending Tuesday morning. In Tamil Nadu, Cheranmahadevi in Tirunelveli district and Nagercoil in Kanyakumari district recorded 4 cm each and Periyakulam (Theni), Tuticorin and Thoothukudi port (Thoothukudi), 3 cm each.

Western disturbance

Manimutharu (Tirunelveli) and Bhoothapandy (Kanyakumari) received 2 cm each while Sivagiri and Ambasamudram, and Papanasam (Tirunelveli) and Kalugumalai (Toothukudi) recorded 1 each.

In Kerala, Punalur (Kollam) received 3 cm of rainfall and Aryankavu (Kollam) and Myladumpara (Idukki) 1 each. Belagavi Airport in Karnataka received 2 cm of rainfall during the period.

Occasional thundershowers may break out over parts of the South Peninsula during the next five to seven days, according to a forecast. Kerala would likely be the maximum gainer from this wet session.

Meanwhile in the North, a western disturbance checking into the West Himalayas from April 1 would be the next big weather maker over North-West India, adjoining Central India and East and North-East India.

Thundershowers seen

In fact, this system will be main trigger for the expected round of thundershowers over a region extending as far into the South as Kerala during the first week of April.

The rain heads are forecast to farm out from Gujarat into Central India (Madhya Pradesh and parts of Maharashtra) before entering East-Central India (Chhattisgarh, Odisha and Jharkhand).

Later, they would set off a flare-up over the rugged hills of North-East India, with Assam and Meghalaya likely receiving the maximum showers.

According to the US National Centres for Environmental Prediction, western parts of Peninsular India (including Marathawada, Madhya Maharashtra, North Interior Karnataka and Kerala) would witness thunderstorms even into the second week of April. The eastern parts (Tamil Nadu, Rayalaseema and Coastal Andhra Pradesh) are likely to stay dry.

France's Labruyere Family invests in Grover Zampa Vineyards



Indian winemaker Grover Zampa Vineyards has received an investment from French winemaker Labruyere Family. The seventh-generation old-wine-maker Labruyere Family has made the investment through Visvires Capital. The details of the investment have not been disclosed.

Ravi Vishwanathan-led Visvere Capital holds around 30 per cent share in Grover Zampa Vineyards Ltd. In a board meeting in Mumbai, Grover Zampa Vineyard has announced the addition of Edouard Labruyere to its board of members.

This association will bring Labruyere family's expertise in wine making and knowledge of international markets.

Grover Zampa Vineyard sells close to 35 different products at price ranging from ₹1,000 to ₹1,800.

Sumedh Singh Mandla, CEO, Grover Zampa Vineyards, told BusinessLine that, "This association will bring in the heritage and experience of Labruyere Family in vineyard management and wine production. We are looking at technical collaboration through this investment."

Mandla refused to give any revenue number. He, however, said that the company is close to selling two lakh cases by the end of this fiscal year.

Edouard Labruyere said that the company has been looking to invest in the wine sector outside of the Europe. "We have vineyards in Bordeaux,

Champagne and Burgundy. We were keenly looking for projects outside Europe. India is a lucrative market with huge potential,” Labruyere said.

In 2012, Bengaluru-based Grover Vineyards merged with Nashik-based Vallee de Vin to form Grover Zampa Vineyards, the third largest Indian vintner.

In 2014, Ravi Vishwanathan’s Visvere Capital acquired about 30 per cent in Nashik Vintners (owners of Sula Wines) along with Anil Ambani-owned Reliance Capital.

As per the industry data, wine consumption in India is likely to increase 73 per cent to 2.1 million cases by 2017 from 1.21 million in 2013.

Spot rubber stays flat



Spot rubber was almost unchanged on Tuesday.

RSS 4 closed steady at ₹114 a kg, according to traders. The grade firmed up to ₹114.50 (₹114) and ₹111.50 (₹111) respectively, according to the Rubber Board and the dealers. The trend was partially mixed as latex improved on better demand amidst low supplies.

April futures improved to ₹118.50 (₹117.66) and May to ₹119.65 (₹119.01) while the June futures slid to ₹ 120.25 (₹119.39) on the National Multi Commodity Exchange.

RSS 3 (spot) firmed up to ₹101.07 (₹101) at Bangkok. The April futures closed at ¥169 (₹98.96) on the Tokyo Commodity Exchange. Spot rubber rates (₹/kg): RSS-4: 114 (114); RSS-5: 112 (112); Ungraded: 108 (108); ISNR 20: 108 (108) and Latex (60% drc): 82.50 (81.50).

Wheat import tax extended by 3 months to June 30: Govt order



India has extended a 25 per cent import tax on wheat by three months to June 30, a government order said on Tuesday.

The move is aimed at shielding domestic farmers from cheap imports particularly as wheat from the new-season harvest will become available by the end of this month, government sources told Reuters last week.

India is the world's biggest wheat producer after China, raised the import tax to 25 per cent from 10 per cent in October.

Business Standard

Why Jaitley will find it hard to double farmers' income by 2022

Increasing input costs, lack of cold supply chain, lack of insurance benefits, and irrelevance of MSP are obstacles in agricultural growth levels

Paddy procurement center in Raipur, Chhattisgarh, India.

“We are grateful to our farmers for being the backbone of the country’s food security. We need to think beyond food security and give back to our farmers a sense of income security. Government will, therefore, reorient its interventions in the farm and non-farm sectors to double the income of the farmers by 2022.” —Finance Minister Arun Jaitley, budget speech, February 29, 2016.

After adjusting for rising costs, an Indian farmer’s income effectively rose 5% per year over a decade (2003-2013), according to an **IndiaSpend** analysis of various government data, calling into question Jaitley’s declaration of doubling income over the next five years.

Doubling of real incomes would be “a miracle of miracles”, as it would imply a compound growth rate of 12% per annum, Ashok Gulati, former chairman of Commission for Agricultural Costs and Prices and Professor, Indian Council for Research on International Economic Relations, wrote in *Indian Express*.

The average monthly income from raising crops and rearing animals increased from Rs 1,060 in 2003 to Rs 3,844 in 2013, according to the report *Situational Assessment of Agricultural Households* by the National Sample Survey Organisation, a compounded annual income growth rate of 13.7%.

The 2003 report considered only land-owning farmers, while the 2013 report considered all agricultural households, including landless labourers, we will consider only incomes from cultivation and rearing animals.

To double the income of farmers by 2022, in nominal (numerical) terms—which do not take inflation into account—would require a 15% annual income growth rate (compounded), according to our estimates.

So, the government would seemingly have to ensure a marginal increase in the rate of income growth—keeping business as usual—from 13.7 % to 15% per year to deliver on the promise of doubling farmer income.

However, there are four hurdles: increasing input costs, such as seeds, fertilisers and irrigation

- * irrelevance of minimum support price, which the government pays farmers when it buys their crops

- * absence of market infrastructure, such as warehouses and cold storages, and

- * the fact that 85% of farmers do not benefit from insurance.

Unless these issues are addressed, a farmer's income will only double nominally. Real income in 2022, adjusted for inflation and increased expenditure, will still be close to 2016 income, according to this report by Devinder Sharma, an eminent food and trade policy analyst.

Rising input costs, declining profits

Profit margins of farmers are declining because of dropping farm productivity and a rise in input costs.

While income from cultivation in 2013 became 3.6 times that in 2003, input costs tripled in the same period, almost nullifying the effect of tripling income.

Does it help any longer that government buys harvests?

Started in 1965, the Minimum Support Price (MSP) is a system of artificial pricing that attempts to ensure just remuneration to farmers. The Commission for Agricultural Costs and Prices (CACAP) fixes the MSP of procurement for 23 agricultural items produced in India.

While the announcement of increases in MSP should act as an encouragement to farmers when they sow, three factors do not let this happen:

1. There is very low awareness about MSP — less than 25% of farmers on an average, while for some crops, less than 5% — know about MSP.

2. Over the last three years, the MSP for all crops increased from up to 12% per year, compared with up to 42% in 2012-13, up to 53% in 2011-12, and up to 39% in 2010-11.
3. MSP increases can fuel inflation—and, so, higher monthly expenses—in urban areas.
4. The MSP for *ragi* (finger millet) was hiked 52% in 2008-09, for tur dal (pigeon pea) 52% in 2010-11, for rapeseed/mustard 35% in 2011-12, and for *jowar* 53% in 2012-13.
5. **Farmers get as little as 10% of final price**
6. Efficient agricultural markets can also be a potent tool for poverty reduction, noted this 2012 Reserve Bank of India report.
7. Farmers do not get remunerative prices due to the limited reach of MSP—less than 25% farmers know about MSP—and an agricultural marketing system that delivers only a small fraction (10 to 30% of the retail price, according to this *Business Standard* report) of the price to the farmer, said this NITI Aayog report.
8. Regulatory barriers have constrained investments in agriculture markets and lowered capacity of farmers to be domestically and internationally competitive.
9. Multiplicity of taxes under Agriculture Produce and Marketing Committee laws in various states have undermined interests of farmers and benefitted middlemen, said the NITI Aayog report.
10. **Only 15% farmers benefited from crop insurance**
11. Only 19 million — or 15% — Indian farmers benefitted from crop insurance schemes announced by the government in 2014-15.
12. As many as 37.2 million farmers were covered under the three schemes—National Agricultural Insurance Scheme, Modified National Agricultural Insurance Scheme and Weather Based Crop Insurance Scheme — but only half of them benefitted from it.

Half of those who did not use insurance were unaware of crop insurance, the NSS report said.

Pradhan Mantri Fasal Bima Yojana (Prime Minister's Crop Insurance Scheme), the latest government initiative, merges existing insurance schemes, reduces the premium to be paid by farmers and removes the limit on government subsidy to insurance.

“China started off reforms with agriculture in 1978, and during 1978-84, agriculture GDP (gross domestic product) increased by more than 7% per year and farm incomes by more than 14% per year due to deregulation of prices, halving poverty in just six years,” Ashok Gulati wrote in this research paper.

With agricultural GDP in India growing 1% in 2015-16 (advance estimate), it will not be easy to increase individual farm incomes 14% per year.

PM promises 500,000 ponds for agriculture

Calls for construction of small reservoirs to conserve rainwater

Given the prospects of drought in several parts of the country and the looming water scarcity because of depleting water table, Prime Minister Narendra Modi said on Sunday that the government would help construct 500,000 khet talab (farming ponds) as part of the Mahatma Gandhi National Employment Guarantee Scheme (MNREGS) to augment water for irrigation.

In the past month, the PM has focused his public speeches on farmers' issues and youth of the country as well as remembering B R Ambedkar. His monthly radio broadcast 'Mann ki Baat' on Sunday was no different.

The PM stressed the need to popularise sports as youngsters constitute 65 per cent of India's population. He said India hosting the FIFA youth world cup in 2017 was a great opportunity to take football to all corners of the country. Incidentally, football is quite popular among the youth in some of the states going to the polls in April - Assam, Kerala and West Bengal.

During the 30-minute broadcast on Sunday, the PM's intent to connect with the country's youth was apparent as he spoke of the Indian cricket team's wins against Pakistan and Bangladesh in the ongoing T20 cricket world cup.

Modi also appealed to students to pick up at least one skill during their holidays.

Referring to the agriculture sector, he said water table was falling in parts of the country. He said small reservoirs should be made to conserve rainwater.

In western Maharashtra, the crisis has deepened even triggering a law and order problem. According to the Groundwater Surveys and Development

Agency (GSDA), the water table level has dropped to one metre in about 540 villages across 13 talukas in Pune district.

The PM also asked farmers to make use of the Kisan Suvidha app to get information on farming, weather conditions and prices in wholesale markets. He also advised farmers to reduce the use of fertilisers, saying "It will also reduce costs and increase output."

Modi noted that he would be in Mhow (Madhya Pradesh), the birthplace of Ambedkar, on the occasion of his 125th birth anniversary on April 14. The PM, whose government has come under attack for being anti-Dalit after the suicide of Hyderabad University student Rohith Vemula, highlighted the government's efforts to develop five places associated with Ambedkar's life.



THE TIMES OF INDIA

‘Our unique urban-agricultural identity must be protected’

City-based mechanical engineer, Naresh Bhadakwade, is fascinated by the city's unique identity in which agriculture thrives in urban areas and works towards preserving it through his construction business. In an interview with TOI's Abhilash Botekar, Bhadakwade talks about sustainable development in the construction industry

What must be kept in mind when considering construction in the city?

The growing needs of city are putting the natural resources in the rural areas under pressure. It is time that the citizens pay attention to this situation. The city's water shortage this year is an unprecedented event. The city's infrastructure development should now focus on sustainable development in real sense. This means groundwater recharging activities should be carried out on a very large scale. Jalyukta Shivar campaign should not be limited only to rural areas where there are less resources, instead they should be carried out in the city and even be made compulsory.

Aren't such measures usually expensive?

If executed well the cost of ensuring better water, solid waste management and other measures would at the increase the budget by a mere two percent

at the most - a very negligible price for the continued benefits these measures offer. Generally, sustainable development is termed as an costly affair, however, it is nothing but commercial remuneration of the idea or concept. The citizens should value the conservation appropriately.

What do you think the city needs most?

For me sustainable development is the top priority. I had the privilege of access to greener places in the city, to visit wells in the vicinity, to aim at mangoes, tamrinds and other fruits on the trees for seasonal fruits and having them at my will. My children and probably the future generations will not have these simple joys. Therefore, our unique urban-agricultural identity must be protected.

Why did you choose Nashik for your career?

Ever since I was a child, I have been fascinated with the fact that the urban city like Nashik has agriculture amidst the (then) tall buildings. I loved it and wanted to be part of such a city despite my chances for career abroad or even in Mumbai for 12 years, I returned to Nashik to be closer to the nature.

Farmers trained in new technologies

A training programme was held in Dharwad to help farmers understand the latest technologies in chilli cultivation. The programme, which discussed the effective methods of cost-cutting and profitable cultivation, was organized by Krishi Vijnana Kendra (KVK) in collaboration with the Directorate of Arecanut and Spice, Kozhikode, Kerala and the ministry of agriculture. The session was led by Umesh Mirji, project coordinator and deputy director, centre of excellence (vegetables).

In the keynote speech, Mirji urged the farmers to be in touch with Spice Development Board and other agencies regularly to understand the latest technologies in cultivation. "Practical training is being given to farmers on growing different kinds of crops. Currently, healthy chilli seedlings are available which are grown without soil media. These are developed in sterilized conditions using coco peat. It costs Re 1 per seedling. Efforts are also being taken to collaborate with the Spice Development Board, Navanagar, Hubballi, so that seedling costs can be cut down further," he

said. Training on different types of structures for high-tech horticulture is also given to the farmers based on their economic condition, Mirji added.

K V Natikar, associate director of extension, UAS, Dharwad, in his presidential address, said his department is playing a major role in transferring the new technologies to the farmers.

"Different activities like training, demonstration, field visits, campaigns, exhibitions etc are being carried out for the efficient transfer of technologies from university to the farming community," he said. Natikar also spoke about the effect of climate change on agriculture in the recent past.

Experts N B Gadagimath, Anuraj, Dr R V Hegde, Ramesh Babu, J B Gopali, Ramesh Bhat, B C Kamanna, B M Radder and Sripad Kulkarni trained the farmers on new technologies. Different aspects of chilli production, protection, post-harvest technologies, organic cultivation, seed production and role of biotechnology in the development of plant varieties were also discussed in the training programme. S M Mantur, senior scientist and head, KVK, Dharwad, also spoke. More than 100 farmers participated in the programme. A field visit was arranged to vegetable demonstration block at high-tech horticulture unit of UAS, Dharwad, where more than 12 exotic and native vegetables are being grown using drip irrigation and mulching technologies.

THE ECONOMIC TIMES

2015/16 sugar output seen at 25.64 mn tonnes

NEW DELHI: India is expected to produce 25.64 million tonnes of sugar in the 2015/16 cane crushing season that began in October, a government source said on Tuesday, lower than the previous official forecast of 26 million tonnes.

The government arrived at the output of 25.64 million tonnes after a meeting of officials from key producing states, the source added.



India is expected to produce 25.64 million tonnes of sugar in the 2015/16 cane crushing season that began in October, a government source said on Tuesday, lower than the previous official forecast of 26 million tonnes.

The second straight drought has cut cane yields and is likely to hit sugar output in India, the world's biggest producer of the sweetener after Brazil.

Nabard refinances Rs 2,500-crore NBFC-MFI loans in first year



National Bank of Agriculture and Rural Development (Nabard) today said it has disbursed Rs 2,500 crore in refinance to non-banking lenders in the first year of starting the facility.

MUMBAI: National Bank of Agriculture and Rural Development (Nabard) today said it has disbursed Rs 2,500 crore in refinance to non-banking lenders in the first year of starting the facility.

"We started refinance for NBFCs only this year and have disbursed Rs 2,500 crore within one year. Most of the support is to NBFC-MFIs," Nabard chairman HK Bhanwala told reporters here.

He said the body is "very satisfied" with the book and wishes to grow its exposure to NBFCs in FY17, but declined to give a target.

Many NBFCs supported by Nabard have received in-principle nods from Reserve Bank to work as a small finance bank, he said.

Bhanwala said Nabard will continue supporting such entities and added it has an outstanding of Rs 700 crore from Bandhan Bank, which transformed itself into a universal bank from being a micro-lender last year.

He said Nabard exercises full caution and supports only better rated NBFCs with the refinance facility.

Nabard is slated to close the year with an overall outstanding of over Rs 85,000 crore on long-term refinance, of which Rs 2,000 crore is the one for NBFCs.

He, however, declined to give any additional numbers saying those will be made available only after the end of the fiscal.

Agriculture ministry cautions Punjab, Haryana, Rajasthan to avoid white fly on cotton

PUNE: The Union Ministry of Agriculture has advised Punjab, Haryana and Rajasthan to emphasise on timely sowing of cotton to save the crop from the menace of white fly, which had caused huge crop loss in these states in the previous year.

Union Agriculture Ministry gave extensive pieces of advice to the states of Punjab, Haryana as well as Rajasthan. The officers and agriculture scientists related to Ministry of Agriculture reviewed and formed a strategy.

A statement issued by the ministry stated: "The states producing cotton are supposed to be cautious about the adverse effect of white fly."

The Government of India has forwarded extensive directives to the States of Punjab, Haryana and Rajasthan comprised of the instructions that the sowing process may be carried out within the precincts of scheduled time frame, only recommended seeds might be utilised, close watch might be encertained on the movement of pests as well as the sprinkling of pest etc. at the required time.



The Union Ministry of Agriculture has advised Punjab, Haryana and Rajasthan to emphasise on timely sowing of cotton to save the crop from the menace of white fly.