

# ACFI NEWSLETTER

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## Why it is important for the farm sector to attain carbon neutrality

**Radheshyam Jadhav**  
Pune

With the world's largest crop-land area of 168.66 million hectares, constituting 10.8 per cent of the global share, India stands as a significant contributor to agriculture emissions. The country, producing the highest agriculture emissions, possesses substantial potential for reducing global emissions and generating carbon credits. While greenhouse gas (GHG) emissions from Indian agriculture are predominantly associated with crop and livestock production, experts emphasise the crucial requirement for political will to enable the agricultural sector to attain carbon neutrality.

### DATA FOCUS.

In the ICRIER's Agriculture Policy, Sustainability, and Innovation (APSI) quarterly publication, Reena Singh and Ashok Gulati highlighted that the estimated non-CO<sub>2</sub> GHG emissions from Indian agriculture reached about 500 mt CO<sub>2</sub>e/q in 2021-22.

This calculation excludes emissions from land use change, land use, and forestry activities. The authors specify that 54 per cent of India's agricultural GHG emissions arise from enteric fermentation, followed by 21 per cent from rice cultivation, 17 per cent from agricultural soils, 6 per cent from manure management, and 2 per cent from field burning of agricultural residues.

India has the world's largest bovine population (303 million) and it also produces the world's largest amount of methane emissions (such as burping) from enteric fermentation (263 MtCO<sub>2</sub>e/q).

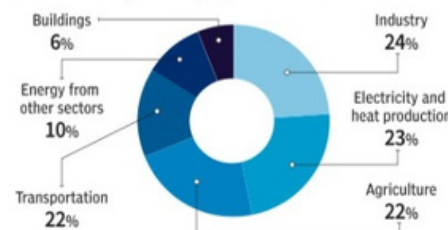
Experts propose that possessing the world's largest crop-land area provides the country with substantial potential to take the lead in car-

### GHG mitigation options for crop and livestock sector in India

| Crops<br>Mitigation potential (Kg CO <sub>2</sub> e/ha/year) | Livestock<br>Mitigation potential (Kg CO <sub>2</sub> e/head/year)     |
|--|--|
| Improved water management in rice<br><b>2,760</b>            | Green fodder supplement for large ruminants<br><b>32 to 39</b>         |
| Adoption of zero tillage<br><b>518 to 1,796</b>              | Increased concentrate feeding for large ruminants<br><b>117 to 140</b> |
| Stop residue burning<br><b>-3 to 522</b>                     | Monensin pre-mix for large ruminants<br><b>32 to 39</b>                |
| Fertilizer production<br><b>57 to 529</b>                    | Molasses Urea Product (MUP) for large ruminants<br><b>117 to 140</b>   |
| Fertilizer consumption<br><b>48 to 198</b>                   | High fibre diet for pigs<br><b>122</b>                                 |
| Laser Land levelling<br><b>1,284 to 3,055</b>                | Improved diet management for small ruminants<br><b>21</b>              |
| Increase NUE through fertigation<br><b>170 to 4,999</b>      | Improved manure management for large ruminants<br><b>31</b>            |
| Sprinkler/micro-sprinkler<br><b>163 to 1,276</b>             | Biogas from large ruminants' manure<br><b>500</b>                      |

Source: Sapkota et al. 2012 as reported in ICRIER's Agriculture Policy, Sustainability, and Innovation (APSI) quarterly publication, Agri-Food Trends and Analytics Bulletin (AF-TAB) titled "G20 to G21: One Earth, One Family, One Future."

### Global GHGs (per cent) by economic sectors



Source: IPCC 2023, ICRIER

bon markets within the agriculture sector.

### FINANCIAL SUPPORT

Currently, the agriculture sector benefits from significant financial support from both Central and State governments through various

schemes encompassing fertilizer, irrigation, power, equipment and credit. This support amounted to approximately ₹3-lakh crore in FY2021-22.

Singh and Gulati in their study reveal that Punjab emitted the highest GHG (5t CO<sub>2</sub> eq/ha) from rice cultiva-

tion on a per-hectare basis in 2021-22.

Punjab farmers received ₹30,804 as the total fertilizer and irrigation subsidies from both the State and Central governments specifically for rice cultivation. This amount represents 56 per cent of the overall agriculture subsidies allocated to Punjab farmers.

The provision of free electricity and the guaranteed procurement of paddy act as disincentives for farmers in Punjab to diversify from rice cultivation, despite it being a major GHG-intensive crop, authors said. Higher profits from paddy cultivation do not allow farmers to diversify to other crops. The authors suggested that to encourage farmers to do so subsidy needs to be diverted to other crops. Farmers should be incentivised through carbon credits.

### POLITICAL WILL

Every attempt at agricultural reform in India has faced resistance, with political parties swiftly intervening to align with and promote prevailing public sentiments. Leaders of the Shetkari Sanghatana in Maharashtra, advocating for significant changes in the agricultural market sector and the freedom to leverage technology, assert that political parties have prioritised their electoral support bases over implementing necessary reforms.

"Whether agriculture will ultimately achieve carbon neutrality depends on whether policies with that goal are adopted — and that is a question of political will, not a scientific one," said Singh and Gulati, recommending linking agri-input subsidies with GHG's mitigation targets, introducing procurement of produce with low GHG footprints at premium minimum support price (MSP) and crop diversification for regions with high GHG per unit area and per kg of crop produced.

# Most models indicate El Nino lasting till June 2024

**Subramani Ra Mancombu**  
Chennai

El Nino, which leads to drought and prolonged dry periods in Asia, will peak between November 2023 and January 2024 with the possibility of the warm ocean surface weather event continuing till April-June 2024, the Climate Prediction Center (CPC) of the US has said.

"The majority of models indicate El Niño will persist through April-June 2024 and then transition to ENSO-neutral," the CPC, a unit of the National Oceanic and Atmospheric Administration (NOAA) said in its latest status report.

It pegs a 62 per cent chance for the weather event to last until June 2024. The Australian Bureau of Meteorology said the ENSO (El Niño



**MATTER OF CONCERN.** The going could be tough for rabi crops, apart from the kharif crops output being already affected

Southern Oscillation) Outlook is at El Niño, having met all the four criteria.

#### FOUR CRITERIA

These criteria are sea surface temperatures (SSTs) in the Niño region of the Pacific Ocean being 0.8 °C warmer than average, trade winds weaker than average in the western or central equatorial Pacific Ocean during any three

of the last four months, the three-month average Southern Oscillation Index being -7 or lower and a majority of surveyed climate models showing sustained warming to at least 0.8 °C above average in the Niño regions of the Pacific until the end of the year.

The prediction should be of concern to India, in particular, as the going could be tough for the rabi crops apart from the

kharif crops production being already affected. El Niño prolonging until June 2024 will also mean that pre-monsoon rainfall will likely be impacted.

"Climate model outlooks suggest that El Niño is likely to continue into the early southern hemisphere autumn 2024. The ENSO Outlook will remain at El Niño until this event decays, or signs of a possible La Niña appear," the Australian weather agency said.

#### INDIA'S WOES

The CPC said since mid-July 2023, positive outgoing long-wave radiation anomalies have persisted over Indonesia — one reason for India experiencing different weather this year since August.

The US weather agency said over the past four weeks, equatorial SSTs were above average across the central and eastern Pacific Ocean, in the

western Indian Ocean, and across much of the Atlantic Ocean.

It said the tropical Pacific atmospheric anomalies are consistent with El Niño and Equatorial SSTs are above average across the central and eastern Pacific Ocean.

El Niño has resulted in at least 26 per cent of the country reeling under drought so far this year. In particular, September and October have been the hottest months on record globally.

NOAA and EU weather agency Copernicus have said until October, 2023 has been the warmest on record in the world. Both agencies have predicted that this year could turn out to be the warmest ever globally.

The "warmest" weather is due to the impact of El Niño, which is also seen as a severe event.

# Cotton pilot in 10 states to boost output

**Dhirendra Kumar**

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NEW DELHI

The government has started a pilot in 10 states involving 15,000 farmers to increase production of the best-quality cotton by adopting global agricultural practices, said textiles secretary Rachna Shah on Wednesday.

The project, which has been launched by the textile ministry in coordination with the agriculture ministry, comes amid a slump in cotton production.

"The outcome of the pilot project is expected in January next year. The data will be evaluated by the Indian Council of Agricultural Research (ICAR) and then we will be able to realise the impact of these technologies," the secretary said.

"We are working very closely with the agriculture ministry and other stakeholders to increase cotton productivity. We are using best agronomy practices like quality seeds and high density planting system that will help in enhancing productivity and other local innovations," Shah said at a press conference



Textiles secretary Rachna Shah said the outcome of the pilot project is expected in January..

called to announce the agenda of 81st plenary meeting of the International Cotton Advisory Committee (ICAC) starting 2 December in Mumbai.

The 10 cotton growing states where the pilot is going on are Uttar Pradesh, Haryana, Punjab, Rajasthan, Madhya Pradesh, Gujarat, Maharashtra, Tamil Nadu, Andhra Pradesh and Karnataka.

As of now, the government has procured around 250,000 bales (170 kg each) after the cotton season started in October.

A total 450 procurement centres are operational across 11 cotton growing states, the official said.

The government has fixed the minimum support price (MSP) for medium staple cotton at ₹6,620/quintal and for long staple cotton at ₹7,020/quintal.

"Cotton is one of the leading sectors for economic activity for livelihood and it plays a pivotal role in the growth of the Indian economy as around 6 million farmers are engaged in cotton production and 35 million farmers

grow cotton across the globe," the official said.

As per textile ministry data, cotton production came down from 37 million bales in 2017-18 to 33 million bales next year. After a significant growth in 2019-20 (36 million bales), output fell to 35 million bales in 2020-21 and 31 million bales in 2021-22. Total production of the white gold in 2022-23 was 34 million bales.

India will showcase its recent innovations, achievements and best practices at the global platform, she said, adding that the country will launch products made of Kasturi Cotton, a premier variety, before the international audience for the first time.

Around 400 delegates from 35 countries are expected to participate in the meeting.

The plenary meetings of the ICAC provide a forum for discussions on international issues of importance to the world cotton industry, and give an opportunity for the industry and government leaders from cotton producing, consuming and trading countries to deliberate on matters of mutual concern. The ICAC plenary is also very important for promotion of trade, industry and culture.

**The govt has fixed MSP for medium staple cotton at ₹6,620 per quintal and for long staple cotton at ₹7,020 a quintal**

# Centre to provide drones to 15,000 women's groups for use in agriculture

**The Hindu Bureau**

NEW DELHI

The Centre will provide drones to 15,000 progressive women self-help groups (SHG) to be rented out to farmers for agricultural purposes. The drone services are envisaged to be used by the farmers for nano fertilizer and pesticide applications.

The decision was taken at a meeting of the Union Cabinet, chaired by Prime Minister Narendra Modi, Union Information and Broadcasting Minister Anurag Thakur told presspersons on Wednesday.

The scheme will have a financial outlay of ₹1,261 crore for two years beginning 2024-25.

The groups would be identified from the total 89 lakh SHGs formed under the Deendayal Antyodaya Yojana, Mr. Thakur said adding that appropriate clus-



**New scheme:** They can be rented out to farmers for agricultural purposes such as fertilizer and pesticide applications. FILE PHOTO

ters where usage of drones is economically feasible will be identified.

The groups would get Central financial assistance at 80% of the cost of drone. The total expense of a drone and its accessories is about ₹10 lakh. About 80% of the cost or up to ₹8 lakh, will be provided by the Centre, he said. The drone pilot will get an honorarium of ₹15,000 and a co-pilot about ₹10,000.

A well-qualified member of the SHG, aged 18 and

above, will be elected for a 15-day training, comprising five-day mandatory drone pilot training and additional 10-day training for agriculture purpose of nutrient and pesticide application, while another member of the group will be selected for training as technician or assistant.

The approved initiatives under the scheme is expected to help these self-help groups earn an additional income of at least ₹1 lakh a year.

# Natural farming concept successful, experts told

**NAGABHUSHANAM  
HOSKOTE | DC  
ANANTAPUR,**

The global team of agriculture scientists and experts from eight countries was enthused over the success of the 'Natural Farming and ATM (Any Time Money)' concept to ensure an earning throughout the year for farmers from their cultivation.

A woman farmer, Sujatha, grew at least 25 varieties of vegetables, horticulture and agriculture products on a small portion of land at Parvathadevara Palli village in Satya Sai district on Tuesday.

The products harvested from Sujatha's natural farming process were used to prepare lunch for the global team of experts and agriculture scientists, who arrived in AP on a

● **THE EXPERTS** team visited fields in various parts of the district on the second day. The team was accompanied by APNCP officials while it visited the farm of woman farmer Sujatha who explained the concept of natural farming.

two-day study yesterday – and in Satya Sai district on Tuesday.

The team visited fields in several parts of the district on the second day. The team was accompanied by APNCP officials while it visited the farm of woman farmer Sujatha at Parvathadevara Palli village. During interaction with the global team, Sujatha explained her successive farming through natural farming under the concept of ATM ( Any Time Money) which gen-

erated income throughout the year, even during risky climatic conditions like hot summer. The area, she noted, is drought-hit and rain-deficit.

Sujatha took up 25 varieties of crops spanning vegetables, green leaves, fruits and other agricultural produce in a small portion of her land. "I am getting an income everyday throughout the year as the different crops were cultivated through the ATM concept.

The APNCF explained the global team through demonstration about the benefits of preparation of Jeevamrutham and other natural pesticides and fertilizers by avoiding harmful chemical pesticides and fertilizers. The officials also said government was encouraging the farmers to take up natural farming.



Members of a delegation of agriculture experts and scientists interact with farmers in Parvathadevarapalli in Satya Sai district.

– DC

# 'Potential of AI should be harnessed in agriculture'

## **The Hindu Bureau**

KALPETTA

Kota Harinarayana, the brain behind India's indigenous light combat aircraft (*Tejas*), said that the vast potential of Artificial Intelligence (AI) should be harnessed in the agriculture sector to revolutionise precision farming.

Speaking after inaugurating the 'Meet the Pioneers in Science and Technology' event, organised by the Government Engineering College at Mananthavady as a part of its silver jubilee celebrations, Dr. Harinarayana stressed the role of students in the endeavour.

He also highlighted the transformative power of AI technology, envisioning the possibility of a ten-fold increase in agricultural yield while concurrently reducing water usage, fertilisers, and pesticides.

The event served as a platform to advocate for AI's integration into agricultural practices, stimulating discussions and emphasising the vital role of

## **Dr. Kota Harinarayana stresses role of students in the farming sector**

technology in shaping the future of farming.

Dr B.N. Suresh, former director of Vikram Sarabhai Space Centre, interacted with students on the 'Chandrayaan 3' mission.

Dr. K. Sudhakar, retired Professor, Department of Aerospace Engineering, IIT Bombay, and aircraft design expert Raj Kanwar Jolly from Hindustan Aeronautics Limited shared their expertise with the students. College principal Dr. E.A. Jasmin welcomed the audience. Dr. K.K. Saijal, programme coordinator, proposed a vote of thanks.

## **Tech fest**

Various programmes, such as tech fest, exhibition, open house, entrepreneurs meet, and workshops would be held in connection with the silver jubilee celebrations, organisers said.

# No progress at WTO agri talks; stockholding issue eludes consensus

**RAVI DUTTA MISHRA**  
NEW DELHI,

THE NEGOTIATIONS at the World Trade Organization's (WTO's) mini-ministerial meeting on agriculture this month failed to make expected progress as politically sensitive issues such as public stockholding for food security and domestic support for farmers continue to divide the developed and developing nations such as India.

This assumes significance for New Delhi as its public stockholding (PSH) programme was challenged by large food grain exporters such as the US and Canada on the grounds that it is highly subsidised, especially for rice, and that this is distorting the global foodgrain market. India is the largest rice exporter in the world.

Arguing against this, India along with the G-33 grouping, a coalition of developing countries, and African nations is seeking a permanent solution for domestic food security that would give them the flexibility to give out higher farm support. As per WTO norms, agri subsidy should not exceed 10

per cent of the value of agricultural production for developing countries.

However, India's subsidy on rice has exceeded the threshold on multiple occasions forcing it to invoke the 'peace clause' agreed during the Bali ministerial in 2013 which allows developing countries to breach the 10 per cent ceiling without invoking legal action by members. Developing nations have questioned the subsidy calculation.

Earlier this year, Finance Minister Nirmala Sitharaman at the Asian Development Bank's annual general meeting said that WTO must revisit the prickly issue of food and fertilizer subsidies as both have become critical to developing economies which are not taken into account while deciding tariff and pricing rules.

As per a statement on Wednesday, WTO Director-General, Ngozi Okonjo-Iweala said "Senior Officials Meeting held at the WTO on 23-24 October clearly recognised that the ongoing agriculture negotiations have failed to achieve the progress members have called for."

**FULL REPORT ON**  
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# Fertilizer subsidy crosses 70% of Budget allocation in 7 months of FY24

**Prabhudatta Mishra**  
New Delhi

The government's fertilizer subsidy bill may exceed ₹2-lakh crore in current fiscal as it has crossed 70 per cent of the Budget allocation of ₹1.75-lakh crore in the last seven months.

But with rising subsidy level, the retail prices of non-urea fertilizers are likely to remain stable as the government has assured to take the burden.

"We had never allowed fertilizer shortages nor will allow ever. Globally, fertilizer prices rose everywhere but we did not allow it to rise in India," Information Broadcasting minister Anurag Singh Thakur said on Wednesday.

According to latest data, the total fertilizer subsidy during

April-October was ₹1,22,975.63 crore, of which ₹79,660.35 crore was spent on urea and ₹43,315.28 crore on phosphorus (P) and potash (K).

Of the total Budget allocation of ₹44,000 crore for P and K subsidy, 98.4 per cent has been exhausted until October. The government has allocated ₹22,303 crore subsidy during the current Rabi season (October-March) for P and K fertilisers.

The requirement of urea in current rabi season has been estimated at 185.41 lakh tonnes (lt), that of DAP at 54.99 lt, MoP at 12.60 lt, complex at 63.60 lt and SSP at 31.24 lt. However, as sales of fertilizers in October increased by 9 per cent, there is an apprehension that overall fertilizer usage will also be higher in this



**WELL SPENT.** Of the total Budget allocation of ₹44,000 crore for P and K subsidy, 98.4% has been exhausted until October

season from last year.

## SALES SURGE

According to official data, overall sales of four key group of fertilisers — urea, DAP, MOP

and complex (a combination of N, P, K and S nutrients) — have surged to 368.57 lt during April-October 2023 from 327.28 lt year-ago, up by 12.6 per cent.

The cumulative availability (including carryover stock from kharif season) in current rabi season (October-March) as on October 30 was 78.07 lt of urea, 30.24 lt DAP, 6.83 lt MoP, 42.33 lt complex and 19.85 lt of single super phosphate (SSP).

In 2022-23, the country's fertilizer subsidy reached a record ₹2.25-lakh crore after a global price surge. Prices have fallen from those highs. Imported urea has fallen to about \$360/tonne (FOB) from about \$665 in October 2022, that of DAP to \$595/tonne (CFR) from \$722 a year-ago and MoP to \$319/tonne from \$590 a year-ago.

# Agricultural conversion, afforestation degrading grassy vegetation & its biodiversity, study finds

**Anjali Jhangiani**  
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**Pune:** Home to rich endemic herbs, the fast-shrinking old-growth savanna needs immediate attention in the country amid haphazard plantation drives, a collaborative study undertaken by environment researchers in seven districts of Maharashtra, including Pune, has shown.

Environmentalists define old-growth savannas as ancient ecosystems with herbaceous and grassy vegetation. Indian savannas are grassy landscapes scattered with trees.

The study, titled 'Tillage agriculture and afforestation threaten tropical savanna plant communities across a broad rainfall gradient in India', was conducted by researchers from Fergusson College, department of ecology and conservation biology at A&M University in Texas, Brandenburg Technical University in Germany and Ashoka Trust for Research in Ecology and the Environment in Bengaluru.

Ashish Nerlekar from the

## RICH WITH ENDEMIC HERBS



department of ecology and conservation biology at A&M University Texas led the study. He said, "Common sense dictates that tillage agriculture is destroying our native plant species. But what seems to come as a surprise is that once the native plant species is destroyed, it does not recolonise in fallow land. There were 65 species found in the old-growth savannas, which were found missing in the current land uses."

The study showed that

**T**he study found that tree planting in old-growth savannas reduced native herbaceous species' richness and promoted the spread of invasive species, albeit to a lesser degree than agricultural conversion

► It stated that as a signatory to the Bonn Challenge, India's vow to restore millions of hectares wrongly targeted savannas for afforestation

plantations reduce native plant diversity by four species per square metre. "Usually, old-growth grasslands have 12 species per square meter. But in regions where tree plantations have been carried out, it reduced to eight per square meter," Nerlekar said.

The study was published in the Journal of Ecology by the British Ecological Society on November 22. It highlighted that plantation drives do more harm than good when native species are not planted, in ad-

## BUSTING THE MYTH

► The fact that ecosystems like grasslands and savannas are considered barren, degraded and mere succession stages is an issue of global concern

► Scientific evidence shows that this is not always the case, and savannas, like evergreen forests, are biodiverse, sustain some of the most iconic wildlife and rich with endemic herbs

dition to tillage. "Restoration policies for tropical savannas like ours need to move away from the notion that tree plantation is the way towards restoration," Nerlekar said.

The key motivation for the study was the lack of data from Indian regions. It started in 2021, for which 60 sites were selected across seven districts in Maharashtra, including Pune, Nashik, Kolhapur, Ahmednagar, Satara, Sangli and Solapur. "To broaden our spectrum, we allocated 15 sites per

category of land use, such as agricultural land, fallow land where agriculture has been stopped for a while, active tillage, and areas where tree plantations have been carried out [like on the hills surrounding Pune]. We also covered a huge annual rainfall gradient from dryer areas to wetter areas," Nerlekar said.

Ecologist Madhav Gadgil, who is also the founder of the Centre for Ecological Sciences, a research forum under the aegis of the Indian Institute of Science, said this brings forth a much-needed change of perspective in how "we think of nature conservation and biodiversity". "In India, there is much discourse around forests without understanding that there are other rich forms of ecosystems too," said Gadgil.

According to environmentalists, misapplication of tree-promoting land management strategies in historically grassy biomes can lead to the loss of pastoral livelihoods, reduced groundwater recharge, and decline in plant and animal diversity.

# 20 agro-based startups given ₹3.80-cr. funds

## The Hindu Bureau

MADURAI

Funds to the tune of ₹3.80 crore were disbursed to around 20 startups from across Tamil Nadu at an event organised by Tamil Nadu Agriculture University (TNAU), along with National Bank for Agriculture and Rural Development (NABARD), at Agricultural College and Research Institute here on Monday.

The startup companies have been travelling along with Madurai Agribusiness Incubation Forum (MABIF) since their inception.

### **Proposals**

“The companies which were recognised by the Department of Industry and Internal Trade (DPIIT) were selected by MABIF through their proposals for funding,” said MABIF CEO K. Ganesh Moorthy.

M.D. Vinod Kumar, a cardamom farmer of Theni and proprietor of E3 Agro Solutions, who was given ₹20 lakh, said he would utilise the fund to set up a cardamom drying unit in Idukki district of Kerala.

Speaking to *The Hindu*, Mr. Kumar said his company would sell heat pump machine to dry wet cardamoms.

“The older techniques like manual drying would not be perfect. But this automatic machine would do it perfectly in a time-efficient manner,” he added. He got the idea to set up a processing unit after witnessing the inability of small-scale farmers to bear the cost of the machine.

Another Madurai-based startup company, Maheesha Foods and Beverages, received ₹25 lakh to expand its beverages supply unit in Coimbatore.

Prabaharan Venugopal, the proprietor, through a website named Cuptime delivers tea and coffee to commercial establishments.

“Our beverages are made with products procured directly from farmers, which makes our company agro-based,” he added.

Around 15 products developed by seven MABIF Farmers Producers Organisation (FPO) and three star-

tups were launched at the event.

The value-added products of the FPOs include millet biscuits and snacks.

Out of the ₹3.80-crore funds, ₹3 crore was from Catalytic Capital Fund of NABARD and ₹80 lakh from Startup India Seed Fund Scheme (SISFS) of the Tamil Nadu government.

An enhanced website of MABIF was also launched at the event. This website would enable farmers and interested people across the country to reach the incubation service centre directly.

“It would bring together people with aspirations to promote their agro-based business and farmers wanting to market their produce,” said Mr. Moorthy.

V. Geethalakshmi, Vice-Chancellor, TNAU, and Chairman, MABIF; Shankar Narayan Ramanathan, Chief General Manager, NABARD RO, Chennai, and Director, MABIF; and P.P. Mahendran, Dean, AC&RI, Madurai, were also present.



# ‘Commerce Ministry working to remove trade barriers’

PTI ■ NEW DELHI

The Commerce Ministry is working to address issues related to non-tariff barriers and market access for domestic products in sub-Saharan African countries like Nigeria, Ethiopia, Ghana and Gulf nations to boost India's exports, an official said.

The official said meetings have been held with Indian missions of the sub-Saharan African countries with which India has significant bilateral trade.

The major trading partners of India in that region in 2022-23 were South Africa (total trade USD 18.9 billion, exports USD 8.5 billion); Nigeria (USD 11.85 billion, exports USD 5.15 billion); Togo (USD 6.6 billion, exports USD 6 billion), and Tanzania (USD 6.5 billion, exports USD 3.93 billion).

The other countries were Mozambique (USD 5 billion, exports USD 2.5 billion); Angola (USD 4.22 billion, exports USD 621 million); and Kenya (USD 3.4 billion, exports USD 3.2 billion).

“A virtual meeting with Indian Mission of top 10 countries (bilateral trade-wise) in sub-Saharan African region was held in September to discuss



the overall economic and commercial relations with those countries, export performance and non-tariff barriers which are acting as impediments to bilateral trade and enhance exports,” the official said.

A similar meeting was also held with Indian Missions in GCC countries. GCC is a union of six countries in the Gulf region — Saudi Arabia, the UAE, Qatar, Kuwait, Oman, and Bahrain. The council is the largest trading bloc of India.

The bilateral trade in 2022-23 with these countries stood at USD 52.76 billion with Saudi Arabia; USD 84.8 billion with the UAE; USD 18.77 billion with Qatar; USD 13.8 billion with Kuwait; and USD 12.4 billion with Oman.

The ministry has asked exporters to focus on potential key sectors such as food, electronics and engineering, and major markets to boost exports.

It has suggested focus on organising fairs and exhibitions at global scale.

India's merchandise exports rose 6.21 per cent to USD 33.57 billion in October this year, even as the trade deficit touched a record high of USD 31.46 billion during the month.

Imports increased 12.3 per cent to USD 65.03 billion during the month due to a jump in gold imports.

Cumulatively, exports during the April-October period this fiscal contracted 7 per cent to USD 244.89 billion, while imports fell 8.95 per cent to

USD 391.96 billion.

The trade deficit during the seven-month period was USD 147.07 billion against USD 167.14 billion in the corresponding period last year.

Think-tank Global Trade Research Initiative (GTRI) in its report, released in August, has said India needs to act in a fast-track manner for removal of Non-Tariff Barriers (NTBs) being faced by domestic exporters in different countries to achieve one trillion dollar outbound shipment target for goods by 2030.

Key Indian exports that face high barriers include ceramic tiles in Egypt; and microbiological regents in Saudi Arabia, the report added.

Most Non-Tariff Measures (NTMs) are domestic rules created by countries with an aim to protect human, animal or plant health and environment. NTM may be technical measures like regulations, standards, testing, certification, pre-shipment inspection or non-technical measures like quotas, import licensing, subsidies, government procurement restrictions.

When NTMs become arbitrary, beyond scientific justification, they create hurdles for trade and are called NTBs.

## ‘Extend deadline or remit premium for crop insurance’

The Hindu Bureau  
THANJAVUR

Delta farmers have demanded that the last date for paying their share of the crop insurance premium be extended till November. Else the farmers' contribution to the crop insurance scheme should be

remitted by the State government along with its share to ensure insurance cover for *samba* crop.

In separate representations addressed to the government, G. Srinivasan, a progressive farmer of Ganapathi Agharam in Thanjavur district, and N.V. Kannan, district secretary,

Tamil Nadu Vivasayigal Sangam (affiliated to the CPI-M), Thanjavur, said the continuous holidays in view of Deepavali and Internet connectivity problems at several pockets stood in the way of farmers completing the registration process by uploading the required documents

and as well as making the online payment of their share of premium amount.

Citing the bad experience of the delta farmers during *kuruvai* cultivation, Mr. Srinivasan said they were not able to comprehend what prevented the State government from sticking to its statement

that it would take care of the loss, if any, sustained by the farmers in *kuruvai* cultivation when it had expressed its intention of not to implement the Prime Minister Fasal Bima Yojana for *kuruvai* this year.

Now with the farmers finding it difficult to meet the deadline of November

15 for applying for crop insurance cover, the State government should ensure that the last date was extended till month-end or should come forward to remit the farmers' share of the premium in addition to its share in the implementation of PMFBY scheme along with the Centre.

# Farm to fork: Conscious eating can cut emissions

*Aiming for net zero, the UN's FAO wants people in the rich world to eat less meat. We need to discuss this sticky aspect of climate change without any guilt or stigma slapped onto diets*

As the next Conference of the Parties (CoP) to the United Nations Framework Convention on Climate Change approaches, news has emerged that the UN's Food and Agriculture Organization (FAO) is set to present a plan on emission reduction that will include dietary advice for the rich world, asking its people to curb their meat intake. The average American consumes about 127kg of it annually, although under 16kg is considered healthy and people in some poor countries average less than 4kg. As CoP-28 begins in Dubai later this week, a restraint advisory for heavy consumers is likely to be part of an FAO roadmap for the global agrifood industry to align itself with the Paris pact's goal of keeping our planet no warmer than 1.5° Celsius above its pre-industrial level. The FAO has said that about 14% of all greenhouse gas emissions on account of human activity come from meat and dairy production. That's quite a chunk. As it involves people's diets, discussion of it has been sparse. But no major source of emissions can be left out in the race to arrest global warming.

Not all of the food sector's emissions are from animal food chains. According to one study, these account for about 57% (including livestock feed), while 29% can be traced to plant-based foods and 14% to other related activities. What makes livestock stand out, especially cattle, is the methane generated by farms that rear these animals. This is a gas that gets far less attention than carbon dioxide does, but it too adds to the crisis of an atmospheric heat-trap (fluorinated gases and nitrous oxide are even less known as culprits). Methane is a relatively short-lived gas with an atmospheric lifetime of around a decade, whereas carbon dioxide

affects the climate for hundreds of years. But the former does its damage swiftly. Going by what's known of its 'global warming potential,' a metric used by the Intergovernmental Panel on Climate Change (IPCC), one tonne of methane exhaust is likely to be the equivalent of over 25 tonnes of carbon dioxide over the course of a century. There is also an estimate of the heat caused by the gas. The 2021 Sixth IPCC Assessment Report says that anthropogenic methane accounts for almost a third of the planet's warming observed so far. Among livestock, these emissions are the gaseous waste product of digestion. A 2018 study found sheep, goats, beef cattle and buffaloes to be big emitters.

Among the solutions proposed are methane mitigation paths for large-scale cattle farms, which could opt for dietary and rumen manipulation of animals, manure intervention and other practices. Laboratories and food chains in the West have also begun churning out all kinds of synthetic meat. Proposed substitutes include cultured meat, which uses technology to produce animal muscle cells through tissue culture in a laboratory. Food innovation in the West looks increasingly likely to explore ways of retaining high-meat diets without the world's gaseous heat trap worsening. If cattle rearing to feed the West can be scaled down, sustainability could well come within sight for this sector. In India, the methane story differs, as livestock rearing is small and unorganized, with red meat eaten in low quantities per capita. While the rich world must move, there's no justification for such diet advice aimed at Indians. What's crucial, globally, as the FAO campaign rolls out, is that nobody's diet preferences are trampled. There should be no reproach, let alone stigma, directed at those who consume red meat.

# Agricultural conversion, afforestation degrading grassy vegetation & its biodiversity, study finds

Anjali Jhangiani  
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**Pune:** Home to rich endemic herbs, the fast-shrinking old-growth savanna needs immediate attention in the country amid haphazard plantation drives, a collaborative study undertaken by environment researchers in seven districts of Maharashtra, including Pune, has shown.

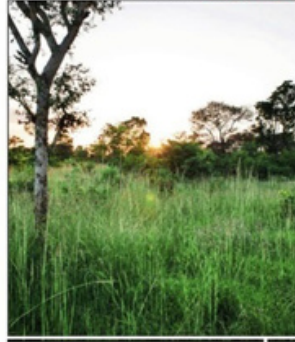
Environmentalists define old-growth savannas as ancient ecosystems with herbaceous and grassy vegetation. Indian savannas are grassy landscapes scattered with trees.

The study, titled 'Tillage agriculture and afforestation threaten tropical savanna plant communities across a broad rainfall gradient in India', was conducted by researchers from Fergusson College, department of ecology and conservation biology at A&M University in Texas, Brandenburg Technical University in Germany and Ashoka Trust for Research in Ecology and the Environment in Bengaluru.

Ashish Nerlekar from the

## RICH WITH ENDEMIC HERBS

File photo



**T**he study found that tree planting in old-growth savannas reduced native herbaceous species' richness and promoted the spread of invasive species, albeit to a lesser degree than agricultural conversion

► It stated that as a signatory to the Bonn Challenge, India's vow to restore millions of hectares wrongly targeted savannas for afforestation

### BUSTING THE MYTH

► The fact that ecosystems like grasslands and savannas are considered barren, degraded and mere succession stages is an issue of global concern

► Scientific evidence shows that this is not always the case, and savannas, like evergreen forests, are biodiverse, sustain some of the most iconic wildlife and rich with endemic herbs

department of ecology and conservation biology at A&M University Texas led the study. He said, "Common sense dictates that tillage agriculture is destroying our native plant species. But what seems to come as a surprise is that once the native plant species is destroyed, it does not recolonise in fallow land. There were 65 species found in the old-growth savannas, which were found missing in the current land uses."

The study showed that

plantations reduce native plant diversity by four species per square metre. "Usually, old-growth grasslands have 12 species per square meter. But in regions where tree plantations have been carried out, it reduced to eight per square meter," Nerlekar said.

The study was published in the Journal of Ecology by the British Ecological Society on November 22. It highlighted that plantation drives do more harm than good when native species are not planted, in ad-

dition to tillage. "Restoration policies for tropical savannas like ours need to move away from the notion that tree plantation is the way towards restoration," Nerlekar said.

The key motivation for the study was the lack of data from Indian regions. It started in 2021, for which 60 sites were selected across seven districts in Maharashtra, including Pune, Nashik, Kolhapur, Ahmednagar, Satara, Sangli and Solapur. "To broaden our spectrum, we allocated 15 sites per

category of land use, such as agricultural land, fallow land where agriculture has been stopped for a while, active tillage, and areas where tree plantations have been carried out [like on the hills surrounding Pune]. We also covered a huge annual rainfall gradient from dryer areas to wetter areas," Nerlekar said.

Ecologist Madhav Gadgil, who is also the founder of the Centre for Ecological Sciences, a research forum under the aegis of the Indian Institute of Science, said this brings forth a much-needed change of perspective in how "we think of nature conservation and biodiversity". "In India, there is much discourse around forests without understanding that there are other rich forms of ecosystems too," said Gadgil.

According to environmentalists, misapplication of tree-promoting land management strategies in historically grassy biomes can lead to the loss of pastoral livelihoods, reduced groundwater recharge, and decline in plant and animal diversity.

# State govt. clears ₹30-crore proposal for integrated hub for Agriculture department

The hub will bring the department and allied agencies under one umbrella in a modernised office environment and facilitate prompt service to the farming community, say dept. officials

**The Hindu Bureau**  
THIRUVANANTHAPURAM

The State government has cleared a ₹30-crore proposal for constructing an Integrated Administrative Hub for the Agriculture department and allied farm sector agencies.

The government, through a November 24 order, has accorded administrative sanction for spending an amount "not exceeding ₹30 crore" for building the hub and a Farmers' Service Centre on

Agricultural Urban Wholesale Market at Anayara.

Envisaged as a common administrative facility, the hub would bring the department and allied agencies under one umbrella in a modernised office environment.

Such a facility would also guarantee prompt and efficient services to the farming community, according to the department.

### In 24 months

The November 24 government order also says that

**The Nov. 24 GO also says that the construction should be completed in 24 months**

Director, Agriculture department, in September this year.

A nine-member panel with the Agriculture Production Commissioner as convener has been tasked with overseeing the implementation of the multi-crore project.

financial crisis and the departments of Civil Supplies and Agriculture had drawn flak over the delay in payment of the paddy procurement price to farmers.

More recently, citing the troubling financial situation, the Finance department had extended the curbs on government spending in certain areas by another year.

### Curbs

The curbs, which first came into effect during the COVID-19 pandemic, apply

## ● FROM PLATE TO PLOUGH

THE PRE-POLL FARM DOLE COMPETITION PORTENDS A DRAG ON THE ECONOMY IN THE COMING YEARS

# Dole danger ahead

**A**TTHE OUTSET, let me say that I feel proud of our democracy no matter how imperfect it is. Election time is a time to celebrate our democracy. And, right now, as we are going through some state elections—a prelude to the 2024 parliamentary elections—the pitch is high when it comes to political rivals blaming each other. From 'panauti and pick-pocket' to 'maha gyani', all sorts of vocabulary is being flung at rivals. Simultaneously, however, many promises are being made to the electorate. How far these promises can be termed doles or development is difficult to distinguish as there is always a thin line that separates the two.

It is difficult to list here all the promises that political parties are making in their election manifestos. But it would be good to discuss at least some prominent ones made to the farming community. The latest one is in Rajasthan, where the ruling Congress party is promising to make a law to implement minimum support prices (MSPs) in line with the Swaminathan formula. While the BJP maintains that they have already implemented the Swaminathan formula when, at the Centre, they made MSP equal to Cost A2 + FL plus 50% margin on that. So, what is new that the Congress is promising in Rajasthan? Do they want to replace Cost A2 + FL with Cost C2, where C2 is the comprehensive cost, including imputed land rent on self-owned land and imputed interest on owned capital, while Cost A2 + FL refers to paid out costs plus imputed cost of family labour? If so, the MSP for various crops will go up anywhere by 25-33% over their existing levels.

The simple question that arises is why did the Congress not implement this at the Centre when it was in power during 2004 to 2013, as the Swaminathan Committee report had already

been submitted to them? The obvious answer is that it was not considered economically prudent for the adverse consequences it will have on the economy. Then, why now?

Similarly, in Chhattisgarh, the Congress party is promising to raise the MSP for paddy to ₹3,000/quintal, while the BJP has gone a step further promising ₹3,100/quintal—as against the present MSP of ₹2,183/quintal. Any party that comes to power in Chhattisgarh will have to face the situation of having to redeem the promises on giving the highest MSP for paddy in the country. If the BJP is promising paddy MSP of ₹3,100/quintal in Chhattisgarh, why will it not be forced to give this in other states? Pressure over this would obviously mount before the parliamentary elections. Raising MSP for paddy to that level—a 42% jump from the current level—will have severe repercussions for the economy. Has anyone in the BJP thought about this before promising the Moon? Where will food inflation go, and what will happen to interest rates, and overall growth of the economy?

If the BJP truly feels that the current MSP for paddy is too low, which is 50% higher than the Cost A2 + FL, why did it

ban exports of non-basmati white rice, and put all sorts of export restrictions on other rice, including basmati rice? And why is it that the Food Corporation of India (FCI) is unloading its rice stocks at a price lower than ₹3,000/quintal (equivalent to paddy MSP of almost ₹4,500/quintal) against its own economic cost of ₹3,900/quintal? It seems the right

hand does not talk to left in the policy-making circles.

But, in the Madhya Pradesh elections, the prime minister himself announced that free ration (5kg/person/month) will continue for next 5 years under PM Garib Kalyan Yojana. I presume this promise was not just for Madhya Pradesh but for the entire country.

Already, the food subsidy bill is more than ₹2 trillion per annum, and as the MSPs will be raised for paddy and wheat in the next five years, this bill is surely going to bloat further. And if the MSP for paddy is raised to ₹3,100/quintal, as the BJP is promising in Chhattisgarh, where will the food subsidy bill reach? Has anyone in the finance ministry given it a serious thought?

So, there are doles galore in an election year, without much thought given

to the consequences these will have on the economy. The only silver lining that I see in these dole promises is that it will lead to temporary increase in the incomes of those who have been left behind in this process of economic liberalisation. This may raise their expenditures, especially in rural areas, and create a business opportunity for some to serve the rural demand better.

But the flip-side is that it will create major distortions in the agri-markets, and give rise to a significant pressure on the fiscal balance of the relevant state or the Centre. This will have multiplier effects in the economy that may not be very palatable to the party in power.

Hence, there is a need to exercise restraint and caution before promising the Moon to the electorate in the heat of elections. It can cause long-term damage to the development story of India. If the hearts of political parties bleed for the poor, let them give an income/investment support within the budgetary constraints. Income/investment support is much better than higher price support for some crops, as income/investment support is crop neutral. Something on the lines of PM-KISAN at the Centre or Rythu Bandhu in Telangana or KALIA in Odisha.

Investments are always better than even income support, but investments take time to fructify while political parties need quick quid pro quo for the dole announcements in terms of votes. Can the Election Commission of India or the Supreme Court form a taxpayers' committees in poll-bound states to evaluate how much of the promises made by major political parties are rational welfare measures, and how much are simply 'bribes for votes' to educate the electorate? Ultimately, it is taxpayers' money, and they are being relegated to the background in this race to distribute revidis (doles)!

### ASHOK GULATI

Distinguished professor at ICRIER  
Views are personal



**If the BJP is promising paddy MSP of ₹3,100/quintal in Chhattisgarh, why will it not be forced to give this in other states? Such pressure would obviously mount before the parliamentary elections**

## Analysts see robust yield from agrochem stocks

**READY TO REAP GAINS.** Tough first half, but industry is expected to grow with market size projected to touch \$12.5 billion by 2028

Gayathri G  
Chennai

Stocks that cater to agrochemical space are slowly gaining traction, according to market analysts. Shrinking arable land and loss of crops due to pest attacks lead to wastage, posing a critical challenge to ensuring food and nutritional security. This is where the agrochemicals industry comes into the picture. Despite a tough H1, the industry is expected to continue its growth with the market size projected to grow from \$7.90 billion in 2023 to \$12.58 billion by 2028.

But as the horticulture and floriculture industries continue to grow, there will be an increase in demand for agrochemicals, especially fungicides. Favourable domestic policies, a supportive investment environment, and increased production capacities

and infrastructure development by domestic majors too aid the trend, said experts tracking the sector.

During the past six months, most of the biggies such as Bayer Cropscience (up 28 per cent), Gujarat State Fertilizer & Chemicals Ltd (12.60 per cent) and Deepak Fertilizers (10.48 per cent), yielded decent returns though the quarterly numbers are not stellar. However, it was a mixed show at the bourses on Thursday. While Bayer slipped 0.75 per cent at ₹5,272 on the BSE, GSFC was up 1 per cent at ₹182.65 and Deepak Fert gained 0.86 per cent at ₹605.45.

### GROWTH DRIVERS

One key driver of the sector's growth lies in the backward integration of production processes. Domestic companies have been investing in the production of off-patent mo-

### Bayer Cropscience



lecules and reducing their dependence on China. They have also focused on registering off-patent products and boosting distribution networks to push volumes at affordable prices.

The World Bank Commodity Outlook said fertilizer prices are expected to decrease as more supplies come online, but they are likely to stay above historical averages due to some supply constraints and China's ongoing fertilizer export restrictions.

According to Kotak Institutional Equities, Q2-FY24

### Gujarat State Fertilizers



marked another quarter of sharp declines in revenues across most of the agrochemical industry, both in India and internationally, amid continued destocking by customers.

Abhishek Jain, Head of research at Arihant Capital Markets, told *businessline*, "The outlook for the fertilizer and agrochemical industry appears positive, buoyed by improvements in the agricultural sector. With the reduction in channel inventories and a decline in raw material prices, the sector is likely to see a favour-

able impact. Formulation companies, in particular, are expected to benefit significantly from these developments."

### BRIGHT SPOTS

The recent easing of destocking-related pressures and a decline in raw material prices bode well for the agriculture sector. "With lower financial pressures, there's potential for increased investment in essential agricultural inputs and technologies, leading to enhanced productivity and efficiency," says Amit Sinha, co-founder of Unnati Agri. Shashank Kumar, Co-founder and CEO of DeHaat, said, "We are seeing a very good rabi season. The harvesting has been delayed because of rains a few weeks ago and as a result the soil moisture is absolutely fantastic which means there will be demand for agri inputs."

But, the sector has its own

set of challenges such as the impending El Nino threat, lower water levels in the South, lack of mega production facilities like those in China, regulating the import of agrochemical formulations, exclusion of the sector from the government's PLI scheme, etc.

But Jain is optimistic and said the overall situation seems to be improving on a quarter-on-quarter basis. "The challenges may affect sector performance and listed players, but the impact could be mitigated. The water requirement for rabi crops is generally lower, which might offset some of the difficulties caused by reduced water availability and El Nino effects."

Overall, the combination of government support, manageable seasonal challenges, and improving market conditions points to a positive outlook for the agriculture and fertilizer industry.

# Delegates from 8 countries to study natural farming in AP

PNS ■ VIJAYAWADA

In a significant development, the officials of Rythu Sadhikara Samstha (RySS) announced that a delegation comprising more than 60 scientists, researchers, policymakers, and partners from the Consultative Group for International Agricultural Research (CGIAR) will be visiting Andhra Pradesh to witness the Community-managed Natural Farming initiative on November 27 and 28.

The group, representing eight countries including Burkina Faso, Kenya, Laos, Peru, Senegal, Tunisia, and Zimbabwe, will include senior representatives from leading international partners of CGIAR, such as CIMMYT, CIRAD, INERA, ISRA, IWMI, Alliance Bioversity, OEP, and World Fish.

RySS officials highlighted their organisation's role in implementing the APCNF programme since 2016, noting that it has gained substantial traction with 8,50,000 families across 3730 Gram Panchayats in the state actively practising natural farming. This makes it the world's largest program of its kind in terms of scale, with 14% of farm families in the state engaged in natural farm-



**The delegation is scheduled to meet natural farming practitioners, tour their farms, and explore models on the ground in Anantapur, Satyasai, Chittoor, and Annamayya districts in the Rayalaseema dry zone.**

ing—a significant contrast to the global average of 0.5%.

The CGIAR team's visit to APCNF, recognized as one of the largest agroecology programs globally, aims to comprehend the nuances of natural farming and gain insights as part of CGIAR's 'bi-yearly pause and reflect' exercise. The delegation is scheduled to meet natural farming practitioners, tour their farms, and explore models on the ground in Anantapur, Satyasai, Chittoor, and Annamayya districts in the Rayalaseema dry zone.

Emphasizing the universal principles of natural farming, RySS officials outlined key tenets such as the exclusion of synthetic chemicals, maintain-

ing a 365-day green cover of soil, cultivating multi-layered diverse crops, utilizing organic residues on soil, promoting indigenous seeds, employing bio-stimulants/inoculants (jeevamruthams, bijamrutham), minimising soil disturbance, adopting plant-pest management without chemicals, and integrating animals.

During the field visit, the CGIAR team plans to observe natural farming practices and closely examine methods, models, and practices, including farm/crop design and crop, soil, and water management practices.

CGIAR, the world's largest global agricultural innovation network, comprises 9000 scientists operating through 15

international agricultural research centers. The organization's focus is on providing evidence to policymakers, offering innovation to partners, and developing new tools to create sustainable and resilient food, land, and water systems. CGIAR aims to manage natural resources sustainably, reduce rural poverty, increase food security, improve human health and nutrition, and contribute to meeting Sustainable Development Goals (SDGs).

Rythu Sadhikara Samstha officials affirmed that all necessary arrangements have been made for field visits, facilitating interactions with farmers and concerned officials during the CGIAR team's visit.

## Modi releases ₹18,000-cr 15<sup>th</sup> instalment of PM Kisan

**DRAWS FLAK.** Congress leader Jairam Ramesh questioned the timing of PM-Kisan payment ahead of the upcoming Assembly elections

Our Bureau  
New Delhi

Prime Minister Narendra Modi on Wednesday launched PM PVTG (Particularly Vulnerable Tribal Groups) Development Mission, a ₹24,000-crore scheme to ensure holistic development of an estimated 28 lakh tribal population. Modi also released the 15<sup>th</sup> PM-Kisan instalment of ₹2,000 each to over 9 crore farmers across the country.

At a function in Jharkhand on the occasion of Jan Jatiya Gaurav Divas, Modi released ₹18,610 crore, including ₹16,220 crore towards 8.11 crore farmers, as the 15<sup>th</sup> instalment for the August-November period, which was due since August 1. Sources said that about ₹2,390 crore arrears from previous instalments were also released on Wednesday. "If a farmer applies for inclusion under PM-

Kisan, his first instalment is counted on the date of application even if it is verified late, and there are instances where some farmers have received three instalments at one go," said a source.

### RELEASE TIMING

Congress leader Jairam Ramesh has questioned the timing of the release of PM Kisan instalment, two days before the next phase of polling in Chhattisgarh and Madhya Pradesh. In a post on social media platform X, Ramesh queried whether the delayed release of payment was deliberate.

He also cited previous release dates for the August-November period, namely August 1 in 2020, August 9 in 2021, and October 17 in 2022.

"It is being released two days before polling in Chhattisgarh, Madhya Pradesh, 10 days before in Rajasthan and 15 days before in Telangana,"



**SLEW OF PROJECTS** Prime Minister Narendra Modi with Jharkhand Governor CP Radhakrishnan (left), and Chief Minister Hemant Soren inaugurate various development projects during 'Jan Jatiya Guary Divas' and Jharkhand Foundation Day celebrations, in Khunti, Jharkhand

Ramesh posted. In August 2019, the PM-Kisan instalment of ₹15,310 crore for the August-November period was released to 7,65,48,863 farmers.

After releasing the instalment on Wednesday, Modi said the government has so far released over ₹2.75-lakh crore since the scheme's launch in

February 2019. He said "Modi has made a direct link with farmers without any intermediary" and farmers in agriculture and allied sectors are benefiting from the scheme.

**PM JANMAN** Announcing the PM PVTG Development Mission, the Prime Minister said under the

PM Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN), the government would reach out to tribal groups and primitive tribes most of whom still dwell in the forests.

He said that 75 such tribal communities and primitive tribes with lakhs of population who reside in more than

### TRIBAL UPLIFTMENT

Prime Minister Narendra Modi also launched PM PVTG (Particularly Vulnerable Tribal Groups) Development Mission, a ₹24,000-crore scheme to ensure holistic development of about 28 lakh tribals

date. "Today, a special announcement has been made for the primitive tribes. The upliftment of primitive tribes is the responsibility of all of us. If primitive tribes do not survive, our existence will be at stake," he said. Soren also appealed to Modi to come up with an action plan for the tribal people who get displaced when projects are undertaken in their habitat.

The Prime Minister also announced that four pillars — women power or Nari Shakti, farmers, youth and neo-middle class and poor are to be strengthened if India is to be made a developed country by 2047.

Launching the 'Viksit Bharat Sankalp Yatra', which culminates on January 26 next year, he said the government will go to every village of the country in mission mode and will make every poor person a beneficiary of government schemes.


22,000 villages in the country have already been identified. "Earlier governments did the work of connecting the figures, but I want to connect the lives, not the figures. With this goal, PM JANMAN has started today," Modi said.

Speaking at the same event, Jharkhand Chief Minister Hemant Soren said it is unfortunate that historians have not given a place to tribals till

# Agro processing at farm level for more jobs, better income

Value addition via agro-processing at the production catchment itself is a tactic that can raise the farmers' income and employment opportunities. Along with creating employment in rural areas, agro-processing can also help in lowering post-harvest losses of agri produce. A study by NABARD Consultancy Service Pvt. Ltd (2022) estimated the average post-harvest losses to the tune of 4.87-11.61% in vegetables, 6-15% in fruits, 3.9-5.9% in cereals, 5.6-6.7% in pulses and 2.9-7.5% in oil seeds. Agro-processing is a technique by which suitable products are produced from farm produce as per demand of the consumers. In the present scenario, the produce is procured by the public agencies or private traders in the mandis from which various products are manufactured in the agro-industries. After adding the profit margin of various intermediaries like wholesalers, dealers, retailers, etc. the products are made available to the consumers at exorbitant prices. The

## AGRIWEATHER

 The Chandigarh regional centre of the India Meteorological Department (IMD) has forecast isolated rainfall in both Majha, Doaba and east Malwa regions of Punjab on Monday. Isolated rainfall is also forecast in Haryana on Monday and Tuesday. There is no adverse weather warning for both the states till November 30.

farmer's share in the price paid by the consumer remains very small.

To reap the full benefits from the farming, it will be beneficial to sell the produce after processing and proper packing. Initially farmers can clean and pack their produce at their own level and then sell it directly to the consumers. For example, making flour from wheat, proper packing of corn maize, chickpeas, moong, etc. can earn 15-20 per cent more than selling the raw produce in the market. Similarly, selling of turmeric powder instead of raw turmeric nodes can fetch a price of about Rs. 150-200 per kg.

The PAU has developed some machines for turmeric processing. The turmeric washing and polishing machine costs about Rs 1 lakh and requires one HP motor. The turmeric boiling machine can be run by using crop residue and has a average capacity of 10-12 quintals per hour. It costs about Rs 5-6 lakh which can also be custom hired at a rent of about Rs 5,000 per day to process the produce. However, commercial boiling pan, usually used in sugarcane juice boiling for making jaggery, can also be used for this purpose which costs about Rs 3 lakh. Solar dryer and turmeric grinding machine are also available for drying turmeric.

### Agro-processing complex (APC)

The agro processing complexes in rural areas need to be developed to generate employment and income to the rural youth.

About 300 such APCs have already been running in the state successfully and more such units need to be installed. These can be set up individually or jointly by a group (SHG/FPO) which will help in cost sharing and marketing of the products and there will be a greater number of working hands. For processing at farm/village level, APCs may be started with two or more machines like mini rice mill, baby oil expeller, flour mill, grinder, pulse cleaner-cum-grader and feed mill.

### Income from agro-processing complex

A flour mill, oil expeller and grinder can be run smoothly with the help of only one helper. After meeting all expenses, one can earn up to Rs. 30-40 thousand per month. The net returns from the entire agro-processing complex can be between Rs. 50,000 and Rs. 1,25,000 per month depending upon the business. The farmers should make their products trustworthy by getting these certified from AGMARK/FS-SAI and remain in contact with wholesalers/retailers in the cities for bulk orders. They can also sell their produce at Kisan Melas, farmers' training camps, etc. The 'ATMA Huts' set up by the Department of Agriculture and Farmers' Welfare in almost each district as well as in 'Apni Mandi' can also be of great help for sale of the processed produce.

*(By Raj Kumar and Gurpreet Kaur, Department of Economics and Sociology, PAU, Ludhiana)*



KJS SATYASAI

**C**ome autumn, and the National Capital Region ends up discussing stubble burning and 'solutions' to the issue. The Punjab government has suggested phasing out paddy cultivation in the State by incentivising farmers to grow millets. This is expected to check stubble burning as well as overuse of groundwater, which has already sunk to precarious levels in most parts of the State.

The Supreme Court has asked the Centre to consider this suggestion seriously, while agreeing with the assertion of the Advocate General of Punjab (AGP) that paddy cultivation has played havoc with the water table in the State. The Court too has asked the Centre to explore giving MSP for alternative crops like millets.

The arguments in the Supreme Court and the solutions discussed were along familiar lines. The first among these is — since MSP has led to rising paddy cultivation in Punjab, withdrawing MSP on Punjab paddy can resolve the imbalances. Second, MSP for alternative crops can help phase out paddy.

It is a widely held belief that MSP is a potent policy tool to bring about a shift in crop pattern from paddy to millets. But for this shift to happen, cultivating millets must be as remunerative as paddy and wheat.

Here, I remember my three-decade old interaction with a farmer from Rayalaseema, Andhra Pradesh on why he cultivated groundnut instead of ragi. He explained the relative economics of the two crops and proved that he could get almost thrice the net income by switching to groundnut.

Clearly, millet area has declined over the years due to rational choice of farmers. Across the country farmers quickly replaced millets and pulses in their cropping pattern with remunerative crops. A favourable price policy and higher investment in R&D for rice and wheat to tackle the food problem encouraged this shift.

#### THE NUMBERS

What is the situation with respect to millets output and cost today? Data for Telangana (2019-20) showed that output value per hectare of jowar, bajra and paddy was ₹25,003, ₹53,777 and ₹1,10,708, respectively. In relative terms, jowar and bajra output value per hectare was 23 per cent and 49 per cent of paddy output value, respectively. That is, lower millet productivity per hectare which is hardly 50 per cent of what rice, wheat or sugarcane can produce is the major factor working against millets.

# Not easy to replace paddy with millets

**MILLET PUSH.** A higher MSP for millets will not work.

Promoting millets in resource-poor, water-scarce areas is the way ahead



and bajra was about 45 per cent and 53 per cent of that of paddy (see table for absolute values). Even so, profitability are lower for these two crops as the table shows.

Millets may give even negative net returns depending on the rainfall. Low resource (water and fertilisers) needs for millets cannot outweigh its low profitability.

What does it take to promote jowar in a hectare? Our estimates (presented in our paper on Crop 'Diversification in Telangana — A few Issues' presented during 7th Annual Conference of Telangana Economic Association in February 2023) provide some revealing insights.

Based on cost of cultivation data for Telangana in 2019-20, we have shown that, relative to paddy, there can be substantial savings in fertiliser use (259 per cent for bajra and 409 per cent for jowar) and moderate gains in employment (30 per cent for bajra and 20 per cent for jowar), but loss of output (77 per cent for jowar and 52 per cent for bajra) and labour productivity (81 per cent for jowar and 63 per cent for bajra)

**Jowar's productivity and profitability per hectare is far lower than that of paddy. A large scale shift to millets will hit both food security and**

## Telangana: Paddy vs Jowar & Bajra

2019-20

| Particulars                        | Paddy    | Jowar  | Bajra  |
|------------------------------------|----------|--------|--------|
| Cost A2 (₹/ha)                     | 61,875   | 27,751 | 32,561 |
| Ratio of cost wrt paddy            | 1        | 0.45   | 0.53   |
| Cost A2+FL (₹/ha)                  | 76,781   | 50,434 | 42,900 |
| Ratio of cost wrt paddy            | 1        | 0.66   | 0.56   |
| Output (₹/ha)                      | 1,10,708 | 25,033 | 53,777 |
| Ratio of output wrt paddy          | 1        | 0.23   | 0.49   |
| Fertiliser use, kg/ha              | 294      | 58     | 82     |
| Savings on shifting from paddy (%) | -        | 406.9  | 365.52 |
| Human labour use, hrs/ha           | 394      | 473    | 512    |
| Gains from shifting from paddy (%) | -        | 20.05  | 29.95  |

can be huge that can threaten food security and reduce incomes of farmers and agricultural labour.

Jowar gave an income of ₹25,033 per hectare during 2019-20. Its price per ha must be fixed almost five times the prevailing average price of ₹2,897 to match with paddy's income. That is, one must bring 4.42 ha of land under jowar to protect the present level of income, which is not feasible for a farmer.

In absolute terms, the government should transfer ₹85,657 to a paddy farmer per hectare of conversion to jowar. This sounds highly impractical.

of foodgrains for every hectare converted to jowar as the latter gives 7.88 quintals vs 60 quintals from paddy. These calculations hold good even for Punjab and other States where lucrative crops are being cultivated, for farmers are rational producers and choosing a cropping pattern is a zero-sum game.

#### WHAT IS THE WAY OUT?

We can promote millets, which are nutritious and eco-friendly, but only in resource-poor, water-scarce areas where there is no other choice. We suggest mapping resource-poor blocks within such areas for millet promotion (millet blocks) instead of blanket recommendation across the country.

Declaring higher minimum support prices may not be practical and effective in expanding area under these crops. Income support may help though its implementation is challenging.

In fact, we can justify income support based on the ecosystem services millet crops provide through climate proofing and saving scarce resources. However, we should target these measures only to millet blocks.

Other measures like running campaigns, demand creation by including millets in Poshan Mission Abhiyan and Public Distribution System and supply side initiatives like encouraging millet value chains through Farmer Producer Organisations should be part of the package.

The writer is an agricultural economist and former

## Need for climate-smart agriculture in India

The two most important issues facing humanity in the 21st century are climate change and food insecurity. Some of the ongoing effects of climate change, such as heat waves, flash floods, droughts, and cyclones, are negatively influencing lives and livelihoods. The world's southern continents are reportedly experiencing severe drought due to climate change, which negatively impacts agricultural production and farmers' livelihoods. Both population expansion and dietary changes are contributing to an increase in the demand for food. The effects of the environment on farm output only add to the difficulty. As a result of climate change, traditional farming practices are becoming less productive. Climate change is increasing the dangers faced by farmers, prompting them to re-evaluate their practices. Farmers are taking a variety of adaptation measures to reduce the negative effects of climate change. The need for a holistic strategy is driven by climate change's dual challenges of adaptation and mitigation, and the pressing need for agricultural production to rise by 60% by 2050 in order to fulfill food demand.

### A viable option

As a viable option, climate-smart agriculture (CSA) provides a holistic framework. The Food and Agriculture Organization said in 2019: "Climate-smart agriculture is an approach for transforming food and agriculture systems to support sustainable development and safeguard food security under climate change. CSA comprises three pillars or objectives: (1) sustainably increase agricultural productivity and incomes; (2) adapt and build resilience to climate change; and (3) reduce/remove GHG (greenhouse gases) emissions, where possible." Dimensions of climate-smart practices include water-smart, weather-smart, energy-smart, and carbon-smart practices. They improve productivity, deal with land degradation, and improve soil health.

The future impacts of climate change on agricultural productivity could be substantial. In India, crop yield decline owing to climate change (between 2010 and 2039) could be as high as 9%. In order to combat climate change and sustainably boost agricultural output and revenue, a radical reform of the agriculture industry is required. The United Nations' Sustainable Development Goals aim to end hunger and enhance environmental management; CSA's foundation is in achieving these goals through sustainable agriculture and rural development. The National Action Plan on Climate Change emphasises the role of



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Views are personal

Climate-smart agriculture has the potential to assure food security, empower farmers, and protect our delicate ecosystems

climate-resilient agriculture in India's adaptation measures. Programmes such as the Soil Health Card Scheme use precision nutrient management to optimise agricultural methods. The concept of precision farming is still somewhat novel in India. While certain private companies offer services, the scope of these initiatives is extremely limited.

### Community-supported efforts

CSA's value in minimising and adjusting to the effects of climate change on agriculture is becoming widely acknowledged on a global scale. There has been a worldwide uptick in community-supported agriculture efforts. These efforts are made in an attempt to create agricultural systems that are both resilient and environmentally friendly. Improvements in agroforestry, sustainable water management, and precision agriculture are all concrete examples of CSA ideas in action, and they are not limited by any one country. CSA promotes crop diversification, increases water efficiency, and integrates drought-resistant crop types, all of which help lessen the disruptive effects of climate change. The importance of CSA lies in its ability to increase agricultural output while maintaining ecological stability. This correlation is not only a desired consequence but rather essential for long-term food security and sustainable resource usage in a warming planet.

By reducing exposure to climate-related dangers and shocks, CSA increases resilience in the face of longer-term stressors like shorter seasons and erratic weather patterns. In addition to these benefits, a significant outcome of CSA implementation is the increasing economic autonomy of farmers. CSA causes a dramatic change in farming communities' economic and social structure by distributing information about and providing access to climate-resilient methods. As the climate changes, farmers, significantly those already disadvantaged, can gain enormously from adopting climate-smart techniques. The increasing popularity of CSA is a promising indicator for the future of biodiversity conservation. CSA's ecosystem-based approach and different crop varieties help cropland and wild regions coexist together. This collaborative effort helps to safeguard native plant species, keep pollinator populations stable, and mitigate the effects of habitat degradation.

The problem may also work in reverse directions. The agricultural sector also produces a large amount of GHGs. The sector's share in GHG's emissions in 2018 was 17%. Therefore, CSA implementation is crucial for lowering GHG emissions and protecting biodiversity.

Furthermore, it aids in enhancing farmland carbon storage. The Paris Agreement goal of limiting global warming by reducing GHG emissions is tied directly to the success of the CSA. Agroforestry and carbon sequestration are two examples of CSA measures that could help India meet its international obligations and contribute to the global fight against climate change. Rather than being a rigid set of rules, CSA is more of a flexible concept with a wide range of potential applications. However, the most challenging aspect of dealing with global warming is to create localised responses. Therefore, investing in capacity-building programmes and providing practical CSA tools and knowledge is essential.

Production resources are diminishing, and demand for agricultural products is increasing; thus, there is a need for resource-efficient farming to cope with climate variability. CSA substantially contributes to climate adaptation, mitigation, and food security. Studies from different climate-smart techniques used in India show that they improve agricultural production, make agriculture sustainable and reliable, and reduce GHG emissions. One study from the northwest Indo-Gangetic Plain for wheat production shows that site-specific no-tillage is advantageous for fertilizer management and can boost yield, nutrient usage efficiency, and profitability while lowering GHG emissions.

### A unique juncture

The majority of Indian farmers are small or marginal. Therefore, CSA can play a significant role in helping them increase their profits. The intersection of climate vulnerability and agricultural importance places India at a unique juncture where CSA adoption is not merely desirable but essential. The National Adaptation Fund for Climate Change, National Innovation on Climate Resilient Agriculture, Soil Health Mission, Pradhan Mantri Krishi Sinchayee Yojana, Paramparagat Krishi Vikas Yojana, Biotech-KISAN, and Climate Smart Village are a few examples of government initiatives in India focusing on CSA. Various public and private sector entities such as farmer-producer organisations and NGOs are also working towards the adoption of CSA.

CSA has the potential to assure food security, empower farmers, and protect our delicate ecosystems by merging innovation, resilience, and sustainability. In the face of a changing climate, the path of CSA stands out as a source of inspiration and transformation for a world working to ensure a sustainable future.

# Maha targets sericulture on 25k hectares to aid farmers; Marathwada to get lion's share

# CAI cuts cotton production estimate on pink bollworm infestation in Haryana



# Curtains on last harvest of now banned Pusa 44 paddy variety

Vibhor.Mohan  
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**Chandigarh:** Over the last few weeks, farmers in Punjab have been busy harvesting what is expected to be the last crop of the long-duration Pusa 44 paddy variety, which was sown over 17% area this season in the state. While the state government last month announced a ban on the water guzzling variety that also adds to the stubble burning menace, a growing number of farmers are open to switching to the recommended variety of PR-126.

Director, agriculture, Dr Jaswant Singh told TOI that farmers were being motivated to go for the short-duration PR-126 and it was sown over 29% area this time. "The state government never recommended Pusa 44 and farmers took to it on their own, getting seeds from the adjoining states. In kee-



**Punjab government has announced a ban on the water guzzling variety that also adds to the stubble burning menace. A number of farmers are open to switching to the recommended PR-126**

ping with the ban announced by the chief minister, the agriculture department would take steps next season to make farmers replace Pusa 44 with PR-126," he said.

"This year, PR-126 came in handy to help farmers tide over the effect of floods. Farmers who planned to cultivate Pusa 44, which takes 144 days to mature, opted for PR-126 to cover the lost ground and managed to harvest the crop after 93 days. Where the time lost due to floods was covered, even the yield of PR-126 was at par with Pusa 44," he added.

Developed by Delhi-based Indian Council of Agricultural Research (ICAR) in 1993, Pusa 44 gained popularity in Punjab, where farmers were drawn to its higher yield around 2010. At one stage, Pusa 44 was sown over 70-80%. The Punjab Agricultural University (PAU), which has never recommended Pusa 44, has been dissuading farmers from cultivating the variety. It had some impact as the area under the variety began to shrink over time.

Apart from its inherent disadvantage of more rounds of irrigation for being a long-duration variety,

Pusa 44 leaves farmers with a shorter window to get rid of paddy stubble before the next wheat crop. Also, the paddy variety generates slightly more straw per acre as compared to PR-126.

Some farm leaders' argument that Pusa 44 scores with a slightly higher yield of 1.5 to 2 quintals is rejected by experts at PAU, who cite the long-duration variety's overall higher input cost of up to Rs 4,000 per acre.

BKU (Kadian) president Nirmal Singh Manu-ke said most farmers were now convinced about the various benefits of PR-126 over Pusa 44 and its cultivation would be negligible in the next season. "There is not much difference in the per acre yield of the two varieties," he said.

The area under Pusa 44 has come down from 22% last year to 17% this season.

## ARRI developing high yielding aromatic Joha

Storage level continues to be below 70% of capacity

Govt reopens 213 mandis after paddy growers' protest

**SOUTH DINAJPUR: 4 TRADERS SENT NOTICES NOT TO SELL ANY FERTILISERS**

# About 62 traders show-caused for black marketing of fertilisers

## Shortage of fertilizers in M.P. sows seeds of discontent among farmers

## Further export ban on cattle feed input

Puja Das

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NEW DELHI

**T**he government may extend its ban on exports of de-oiled rice bran (DORB)—a key ingredient of cattle feed—until March next year to keep milk prices in check, a senior official said.

The move is likely, despite requests to not extend the export prohibition from oil industry bodies.

DORB, which is derived when crude oil is extracted from rice bran, is commonly used in animal nutrition products catering to cattle, poultry, horse, pet care, aquaculture (aquafeed), and swine industries, with approximately 80% used in cattle feed.

The fear is that higher exports may hit milk supplies in the domestic market, driving prices further up.

All-India average retail milk prices in November went up by 6% to ₹58.4 a litre from ₹55 a litre during the corresponding period last year.

The Solvent Extractors' Association of India (SEA) wrote to the animal husbandry and dairying department, requesting to not extend the ban as "it could have far-reach-



De-oiled rice bran is extracted from rice bran, and is commonly used in animal nutrition products.

BLOOMBERG

ing negative consequences for multiple sectors".

"Extension of restrictions could adversely affect paddy farmers, hindering them from

realizing better returns on their produce. Moreover, the industry benefits from the export of DORB through enhanced raw material availability for processing, leading to better capacity utilization, increased employment, and significant value addition,"

SEA wrote in the letter, a copy

of which is available with *Mint*.

Additionally, by exporting DORB, India gains a measure of self-sufficiency in oil production.

**The fear is that higher exports may hit milk supplies in the domestic market, driving prices further up**

"India, over the years' effort, has successfully developed an export market for DORB, primarily serving Vietnam, Thailand, Bangladesh and other Asian countries, positioning us as a

reliable supplier in the international market. An abrupt change in export policy risks damaging this hard-earned

market standing."

Since the export ban, rice bran processors in eastern India, a significant producer, have been contemplating shutting down operations, which would impact the rice milling industry and reduce rice bran oil production.

With the start of the new season, processing of rice bran has picked up and availability of de-oiled rice bran has improved, which can be seen from the price falling from ₹18,000 per tonne on 28 July to ₹13,500 per tonne now, said Ajay Jhunjhunwala, president of SEA.

"In view of these facts and the sharp fall in the price of DORB, we requested the government to lift the ban after 30 November."

Unpredictable weather conditions had also affected the availability of feed and fodder.

Queries sent to the animal husbandry and dairying department remained unanswered at press time.

The government banned exports of DORB in July, which is in effect till November-end, amid concerns over increasing exports of the cattle feed amid poor paddy crop prospect, pushing domestic prices up.

# Drone-spraying of pesticides poses threat to biodiversity of Nilgiris: conservationists

While ICAR-ISWC, the institute that has begun drone trials, said the technology would offset labour issues and save time, conservationists have warned that it could impact insects, birds and animals, causing irreparable damage to the district's fragile eco-system

**Roohan Premkumar**  
UDHAGAMUNDALAM

The Outy station of the Indian Institute of Soil and Water Conservation (ICAR-ISWC) on Tuesday, conducted drone based spray demonstrations of fungicides, on a 25-acre plot of land in Basavakkal village near Udhagamandalam. This move, warn conservationists, could lead to an increase in the use of insecticides, pesticides and chemical fertilizers and pose a huge threat to biodiversity in the ecologically-sensitive Nilgiris district.

Somasandaram Jayaraman, head of the research centre of the ICAR-ISWC in Udhagamandalam told The Hindu that trials are



Demonstration of an agricultural drone being conducted near Udhagamandalam on Tuesday. M. SATHISHKUMAR

going to be undertaken in Basavakkal and Doddanmi villages. On Tuesday, around 25 acres of agricultural land were sprayed with fungicides, Mr. Jayaraman said, adding that farmers can avail of subsidies to purchase drones that can be used to spray insecticides, herbicides,

fungicides or liquid fertilizers.

Mr. Jayaraman said the use of drones could offset the lack of labour available in tea estates and agricultural areas.

He said drones can be used to spray around one acre of an area in around 10 minutes, something that

would take more than an hour, if done manually. "The technology is also more cost-efficient and uses less water," he added.

However, conservationists and environmental activists across the Nilgiris have urged the district administration to intervene and stop the use of drones for aerial spraying.

According to V. Sivadas, founder of the Nilgiri Environment and Cultural Service Trust (NEST), the use of drones could lead to irreversible damage to the Nilgiris' fragile ecology and unique biodiversity.

"The link between harmful pesticides and chemicals impacting birds and pollinating insects is already well established. At a time when the district

administration is trying to convince the Nilgiris' farmers into going fully organic, it is paradoxical to see such efforts being undertaken, which could undermine their efforts," said Mr. Sivadas.

Mr. Sivadas said the Nilgiris' bee populations as well as the population of other pollinating insects, such as butterflies, have witnessed steady decline over the last few decades due to the use of harmful chemicals for agricultural purposes and for controlling pests.

"Aerial spraying will increase the impact of these chemicals and could also affect biodiversity in these areas as well as the surrounding reserve forests," he said.

He also pointed to the effects of the aerial spraying of Endosulfan in Kasargod, Kerala impacting human population, adding that residents too will be affected if approvals are given for the use of such technologies in the Nilgiris.

When asked, Mr. Jayaraman said the drones could also be used to spray organic fertilizers, and added that their use will be restricted to only agricultural areas and not near reserve forests. Users of the drones will also have to first approach the Collector for approval before they can be used, he added.

However conservationists say overseeing and monitoring the usage of the drones will prove to be an almost impossible task.

# Punjab targets to stop stubble burning in 2-3 years

Fire events down 52% this year; thrust on industrial use, compost

**SANDIP DAS**  
New Delhi,

**PUNJAB, THE BIGGEST** contributor to the stubble burning events in north India, aims to stop the farm practices in the next 2-3 years, with a sharp fall in paddy straw fire events reported this year, a senior official with Punjab Pollution Control Board (PPCB) said.

"We have initiated series of measures such as crop residue management in the soil, financial incentives to farmers, setting up biomass power plants to use the stubble and crop diversification and aim is to stop the practices of paddy stubble burning in the next two to

three years," Adarsh Pal Vij, chairman, Punjab Pollution Control Board, told FE.

Vij said that with more than half of the paddy harvesting in the state completed so far, stubble fire events will likely be much lower than previous year. During September 15-October 31, Punjab reported a 52% decline in stubble burning events at 7,673 compared to previous year, as per data by the Consortium of Research on Agro-ecosystem Monitoring and Modelling from Space, Indian Agricultural Research Institute, Delhi.

During September 15-November 30, 2022, Punjab reported a 30% decline in stubble burning events at 49,922 compared to the same period in 2021. Punjab had a share of 72% of total reports of paddy straw burning in northern India. During the same period, there



We have initiated series of measures such as crop residue management in the soil, financial incentives to farmers, setting up biomass power plants to use the stubble

**ADARSH PALVIJ**,  
CHAIRMAN, PUNJAB POLLUTION CONTROL BOARD

was a decline of 25% in stubble burning events at 69,615 across Punjab, Haryana, Uttar Pradesh, Delhi, Rajasthan and Madhya Pradesh compared to 2021.

An agriculture ministry said that stubble burning incidents usually

peaks during October 26-November 6 in the northern states as farmers clear the paddy field for preparing the field for the wheat sowing in the rabi season.

As per the action plan by Punjab for this year, out of 3.1 million



hectare (mh) of paddy area, the straw generation is likely to be around 20 million tonne (MT).

Out of these 16 MT of straw is generated from non-basmati rice crop which is not suitable for fodder use because of higher silica content

that animals can't digest.

Vij said that 11.5 MT of paddy this year being treated under 'in-situ' management (on field treatment through compost to boost soil health) and about 3.47 MT of paddy straw through ex-situ management (straw used for power generation and industrial use in paper, sugar and biogas plants).

Meanwhile, under the Confederation of Indian Industry's cleaner air better life initiative, 62,000 farmers in Punjab are encouraged to do mulching, straw incorporation, and baling of paddy straw, which has resulted in prevention of straw burning in 480,000 hectare this year.

Punjab has been focusing on the Ludhiana, Sangrur, Patiala and Barnala districts for encouraging farmers against paddy stubble farming through crop diversification.

# Govt making efforts to ensure consumers get out of mindset of 2 standards — local & export quality: Goyal

*Our effort is that every product that is made in India will be a high-quality product, the Commerce Minister said*

**NEW DELHI:** Agreeing that quality standards are a passport for trade, Commerce and Consumer Affairs Minister Piyush Goyal on Friday said India is making policy efforts to ensure consumers get out of the good-old day's mindset of two standards — local and export quality — of products.

Goyal, while addressing the G-20 Standards Dialogue here, recalled that in the good old days, every product had a mark for 'export quality' and consumers who could afford used to pick up export quality goods.

"Our effort is to move out of that mindset. Our effort is that every product that is made in India will be a high-quality product. When a consumer picks up a product will be reassured of high quality and will not have to look at other products for 'x' quality. Policymaking in India is moving in that direction," he said.

He also said that standards are like patents and he cannot but agree with what the chief of the Bureau of Indian Standards (BIS) Pramod Kumar Tiwari looks at standards as a pass-

port to trade. Those who control standards and have the ability to maintain high standards are the ones who will control the markets, prices and processes and become manufacturers and innovators of tomorrow, he added.

The minister mentioned that India is making rapid strides to encourage more consumers to become demanding consumers, asking for high-quality goods and services. At the same time, a reasonable time is being given for producers to adopt the new quality standards and ensure

India is recognised as a provider of good quality products.

"We in government only desire to act as a facilitator, not as a disruptor of your process. We don't want to be a cause of any pain or agony, but we want to handhold and support your efforts. We want India to compete with the rest of the world on equal terms," he noted. Further, the minister said that quality is not something that comes out of pressure or from quality control order. "It should come out of the personal conviction of each and every stakeholder,"

he said.

Stating that 8 billion consumers in the world have the right and desire to have a better quality of goods/services, the minister called for balancing local needs while moving towards the global standards which are acceptable around the world so that India gets out of the mindset of two standards of everything that it produces.

He also stressed on the need to progress towards world-class standards, particularly in less developed and developing countries in a calibrated

manner but certainly with a collective commitment to maintaining high standards in goods and services for the people of the world.

There are opportunities for countries that produce quality goods and services. "We have a lot to learn from the developed world, we have a lot to support other emerging economies and less developed countries," he said, adding that if everyone works as a team, standards will enable holistic development and a sustainable future of the world.

# Godrej Agrovet launches Nissan's chilli pesticide Rashinban

**KV Kurmanath**  
Hyderabad

Godrej Agrovet Limited (GAVL) has tied up with Japanese firm Nissan Chemical Corporation to launch an advanced pest control product, Rashinban, for chilli farmers.

NK Rajavelu, CEO of Godrej Agrovet, said that the product works against three pests — thrips, mites and caterpillars — which attack the crop most during the flowering stage (45-60 days). “The agri-chemical market for chilli crop is pegged at ₹5,000 crore. Of this, the market for pesticides that work against the three pests would be around ₹1,200-1,500 crore. We are targeting a market share of 10 per cent in the next three-four years,” he said.

Rajavelu, who was here in connection with the global launch of the product here, said the late sowings in chilli-



The product works against three pests — thrips, mites and caterpillars

growing areas helped the company register good traction for the product. The product is priced at ₹2,900 an acre (for a dose of 400 ml an acre).

## PEST MENACE

“With the patent chemistry discovered and developed by the Japanese company, Rashinban is being launched for the first time globally to protect the chilli crop during the

flowering stage,” a top GAVL executive said. Indian chilli growers, who account for 36 per cent of the total global production, face the challenge of pests and diseases. “About 80 per cent of the chilli crop gets damaged at the nascent stage because of pests (thrips, leps, hoppers and mites),” he said.

“There are as many as 51 species of pests, and two species of mites and caterpillars, forcing the farmers to use up to 45 different pesticides,” he said.

“The new product, Rashinban, provides quick knock-down of a wide range of pests in chilli in a single shot during the flowering stage,” Balram Singh Yadav, Managing Director, GAVL, said.

“Our new product, Rashinban, is recommended specifically for the active flowering stage of chilli plants to provide holistic efficacy,” he said on Tuesday after the product's launch.

# Modi lauds farmers, women

FROM PAGE 1

Talking about the PLI scheme in the food processing sector, Prime Minister said that it is providing huge assistance to the new players in the industry.

Modi said that work is underway on thousands of projects under the Agri-Infra Fund for post-harvest infrastructure with an approximate invest-

ment of more than ₹50,000 crore, while processing infrastructure in the fisheries and animal husbandry sectors is also being encouraged with an investment of thousands of crores.

Underscoring that there is no sector in the food processing industry where India has not shown unprecedented growth, he said that it is a

golden opportunity for every company and start-up associated with the food processing industry.

Modi credited the consistent and dedicated efforts by the government behind the speedy and rapid growth in India's food processing industry. He mentioned the creation of an agri-export policy for the first time in India, the development of nationwide

logistics and infrastructure, the creation of more than 100 district-level hubs connecting the district to global markets, an increase in number of mega food parks from two to more than 20 and India's food processing capacity increasing from 12-lakh metric tonnes to more than 200-lakh metric tonnes, which is a 15-time increase in the last nine years.

# Nilgiris farmers introduced to agriculture drone technology

**B. RAVICHANDRAN | DC OOTY,**

Thanks to the initiative taken by ICAR-Indian Institute of Soil and Water Conservation (IISWC) - Research Centre here, agriculture drone technology is to be introduced in the Nilgiris as farm technology is on the verge of moving to newer heights to improve farm productivity.

IISWC organised a field demonstration on agricultural drone spray technology on Tuesday under the project 'Demonstration of Agriculture Drone Technology in Different Regions of India', at Basavakkal village, near here, to kickstart the project in the hills.

The inaugural day of the demonstration focused on spraying fungicides, using a drone, over 25 acres covering carrot and beet-root crops in Basavakkal. The hill farmers in the village evinced keen interest in learning the technology.

Dr. Somasundaram Jayaraman, head of IISWC - Ooty, Dr.P. Sundarambal, principal scientist, Dr.S.M. Vanitha, senior scientist, Dr. Sudheer Kumar Annepu and other scientists and technocrats of IISWC here participated in the demonstration to instil confidence among the farmers to encourage them to



A demonstration was held at Basavakkal village near Ooty on the application of agriculture drone technology in farming. —DC

take to this new technology.

Dr. Somasundaram Jayaraman briefed about the importance of the use of drones in agriculture to farmers as it has distinct advantages such as high field capacity / area coverage, and high efficiency, less turnaround time, wastage reduction of pesticide and fertilisers due to high degree of atomisation and water-saving.

Dr. Sundarambal, addressing the farmers, emphasised the importance of adapting the latest technologies in agriculture

such as drone technology to solve the labour crisis in the Nilgiris.

Dr. Annepu, the project leader, mentioned that drone technology, the aerial aid in crop management, has tremendous potential in the future of agriculture. He said as per directions of ICAR, IISWC scientists are working simultaneously in the laboratory and fields to speed up the process of technology dissemination among farmers to make big strides using agriculture drone technology.

## Cotton output may be lowest in 15 years at 29.5 mn bales

# Manufacturing PMI slips to 8-month low

## FROM PAGE 1

from surveyed purchasing managers pointed to the deceleration of several measures," De Lima said.

The S&P survey pointed out that while business sentiment remained firmly inside positive territory, it slipped to a five-month low amid concerns surrounding the path for inflation and demand.

During October, growth eased to an eight-month low, weighed by competitive pressures and weak demand at some plants, the survey said, adding that the granular data highlighted a marked slowdown in the consumer goods sector.

"We saw a further indication of broadly stable inflationary forces across the man-



ufacturing industry. It appears that a moderate increase in input costs was simply passed on to clients," De Lima said. MINT

ufacturing industry. It appears that a moderate increase in input costs was simply passed on to clients," De Lima said.

"Nonetheless, qualitative evidence from the future output question revealed an interesting finding, as reports of rising inflation expectations were expected to dent demand and subsequently production growth over the course of the coming 12 months," she added.

# Fertilizer sales up 13% in H1 FY24; higher output leads to lower import

**Prabhudatta Mishra**

New Delhi

Fertilizer sales have increased by 13 per cent during the first half of the current financial year.

According to latest official data, overall sales of key fertilizers have surged to 319.86 lakh tonnes (lt) during April-September in 2023-24 from 282.64 lt in the year-ago period. Sales of urea, the largest used crop nutrient, have increased 6.9 per cent to 183.95 lt from 172.11 lt, Diammonium phosphate (DAP) by 24.2 per cent to 63.96 lt from 51.48 lt, Muriate of Potash (MOP) by 9 per cent to 7.72 lt from 7.08 lt and complex by 23.6 per cent to 64.23 lt from 51.97 lt year-ago.

Complex variety is a combination of nitrogen (N), phosphorous (P), potash (K) and sulphur (S) nutrients.

While launching the single 'Bharat' brand under 'one nation, one fertilizer' scheme, Prime Minister Narendra Modi had said that the step



**SURGE.** Sales of urea, the largest used crop nutrient, have increased 6.9 per cent to 183.95 lt from 172.11 lt in

would help cut unnecessary use of fertilizer, though experts were of the views that unless prices were rationalised, the balanced use of fertilizers would not be achieved. "It is surprising to see higher sales as monsoon was uneven and August had the highest monthly rainfall deficit since 1901. Since fertilizer use is directly related with rainfall, it was expected a decline," said S K Singh, an agriculture scientist.

But former vice-chancellor of Gwalior Agriculture Univer-

sity, A K Singh, said that as the irrigated areas, mostly from groundwater sources, are rising every year, so is the fertiliser consumption. Fertilizer Ministry data show that sales of all fertilisers surged 28 per cent to 66.8 lt only in September from year-ago period while a maximum 58 per cent rise was noticed in complex that recorded about 19 lt offtake.

## PM PRANAM

The government in June announced the Prime Minister Programme for Restoration, Awareness Generation, Nourishment and Amelioration of Mother — Earth (PM PRANAM) in order to encourage balanced use of chemical fertilisers and save ₹20,000 crore annually, of which States will get ₹10,000 crore as incentive for lowering chemical fertilizer usage.

Meanwhile, import of overall fertilizers dropped 5.9 per cent to 82.1 lt in April-September of this fiscal from 87.25 lt in the corresponding period last year.

## Godrej Agrovet launches insecticide for chilli crop

BB BUREAU  
HYDERABAD

GODREJ Agrovet Limited (GAVL) on Tuesday launched Rashinban, a pest control product, developed and patent chemistry discovered by Japan's Nissan Chemical Corporation. GAVL has the exclusive rights for the global launch of the insecticide, under its collaboration with Nissan. Currently, the product is being imported in bulk from Japan, to be packaged and supplied from GAVL's facility in India. The launch of Rashinban is right now limited to the South India market of chilli farmers.

Under a long-standing partnership with Nissan Chemical Corporation, GAVL had its first product launch in 2019. The second product, Gracia witnessed a sale of Rs 200 crore. Following these successful launches, the agri-business company is introducing Rashinban in India, to counter pest control of chilli crops in the flowering stage. Balram Singh Yadav, Managing Director, GAVL said: "One-third of the chilli crop produced in India comes from Andhra Pradesh. Of which, 75 per cent is exported. However, 80 per cent of Chilli crops get damaged at the nascent stage. We are certain that the launch of Rashinban will help aid India's contribution to global chilli market scale further."

## Bayer CropScience profit rises 37%

NEW DELHI: Bayer CropScience Ltd (BCSL) on Friday reported a 37 per cent increase in its net profit to Rs 222.9 crore for the second quarter of this fiscal on higher revenue. Its net profit stood at Rs 162.6 crore in the year-ago period. Total income rose to Rs 1,633.3 crore during the July-September period of 2023-24 fiscal year from Rs 1,465.7 crore in the corresponding period of the previous year. "In a difficult environment of delayed, deficient and erratic monsoons as well as elevated COGS (cost of goods sold), we delivered strong growth of 11 per cent in revenue from operations in Q2 of FY2023-24," Simon Wiebusch, Vice Chairman & Managing Director and CEO of BCSL, said. Bayer is into crop protection and seed businesses.

FOR POTATO CULTIVATION

## Ensure 'adequate supply' of fertilisers, state writes to Centre

## Carbon emissions: India may accept EU's default values

**PRACTICALITY TRIBUNE** This will give the country time to develop own system



## PESTICIDE USE ON THE RISE

Globally, almost **3 billion** tonnes of pesticides are deployed annually, with a total cost of approximately **\$40 billion**. More than half of these pesticides are utilised in Asia. India stands **third** in pesticide use in the continent.

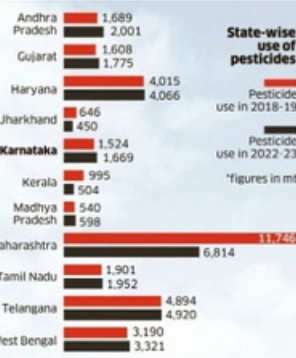
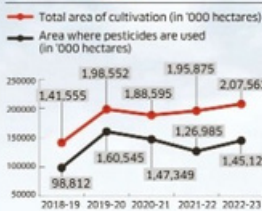
**35%** of total crop yield in India is lost due to pests.

The pesticide market in India is expected to touch **Rs 31,600 crore** in 2024, growing at an annual rate of 8.1%. The production of pesticides has grown by **19%** in the last five years. Import of pesticides has grown by **14.7%** since 2018.

Around **40%** of the total cultivated area is treated with pesticides. Insecticides form the highest share in total pesticide use in India.

During the last five years, the incidence of pesticide residues in various commodities has increased from 1.2 to 2.6%.

### Nearly half of all fruits and vegetables are grown using pesticides



### Sales of the most-used pesticides have risen in Karnataka

| Pesticide                | Sales in 2021 (in cr) | Sales in 2022 (in cr) |
|--------------------------|-----------------------|-----------------------|
| Glyphosate 41% SL        | 154                   | 162                   |
| Emamectin Benzoate 5% SG | 82                    | 91                    |
| Coragen 18.5% SC         | 54                    | 76                    |
| Glyphosate 71% SG        | 59.91                 | 64.01                 |
| Pexalon 10% SC           | 57                    | 62                    |

### Chronic exposure to pesticides has been linked to

- Respiratory disorders
- Cancer
- Congenital malformations
- Problems in the reproductive system
- Depression
- Anxiety
- Parkinson's and Alzheimer's diseases
- Respiratory disorders
- Neurodegenerative disorders

### Regulation

As of 2022, the Ministry of Agriculture and Farmers Welfare has banned or phased out **46 pesticides** and **4 pesticide** formulations for import, manufacture or use in the country.

In addition, **8 pesticide** registrations have been withdrawn. **9 pesticides** have been placed under restricted use.

# Ban spurious pesticides

## Pesticide use from P1

Close to 38 insecticides had immunotoxic effects and 81 caused disruption in endocrine and hormone function. "Children are especially vulnerable to the impacts of pesticides as they can affect brain development and cognitive functions," the report said.

Food contamination presents both immediate and long-term danger to consumers. It is vegetables, more than foodgrains and pulses, that contain more residue, reveal tests conducted by the Pesticide Residue & Food Quality Analysis Laboratory, University of Agricultural Sciences, Raichur.

### Residue monitoring

Prabhuraj A, professor of agricultural entomology, and the head of the lab, said that the results were sent to the Centre, which is involved in a national-level project to study residues. "We test about 100 samples every month, of which at least 40 are vegetables. Cereals and pulses make up the rest. About 30% of the vegetables contain residues. In a sample, the presence of one pesticide may be below the maximum residue level (MRL) but what is concerning is results that indicate the residues of multiple pesticides, sometimes four to six kinds," he said.

The professor said the most commonly found insecticides belong to the class of monocrotophos (acutely toxic to birds and humans, banned in September 2023), pyrethroids (which cause dizziness and convulsions among other serious health issues), as well as fungicides (affecting skin and eyes).

The reason behind the concurrent use of multiple pesticides, according to Sujay Hurali, an entomologist at UAS Raichur's research station at Gangavathi, owes to farmers' hope to better protect crops. "In rice samples, we are seeing an increased fungicide residue. Farmers, especially those in Andhra Pradesh's Godavari belt, spray it 10 to 15 days before the harvest. They believe it gives a polished look to the grain and helps in marketing," he said.

Though the Union government launched the Monitoring of Pesticide Residues at National Level programme in 2005-06, very little data is available to understand the depth of the problem. The scheme is steered by the All India Network Project on Pesticide Residue (AINP-PR) under the ICAR-Indian Agricultural Research Institute, Delhi.

2019 marked one of the first years that AINP-PR's work was made public after the Food Safety and Standards Authority of India (FSSAI) reported on the testing of the 23,660 samples of vegetables, fruits, spices, curry leaves, rice, wheat, pulses, egg, meat and water. About 20% of the samples (4,510) tested positive for pesticide residues. Of the 12,821 vegetable samples tested, 18.7% had residues. Of the 2,274 samples of fruits, 21.7% had residues.

The FSSAI claimed that pesticide residues exceeded the safety limits (MRL) in only 2.2% of the 23,660 samples. However, activists have long pointed out problems in India's MRL when compared with saf-

er limits set by countries like the United States of America and those in the European Union. The difference in standards for pesticide residue is one reason why many consignments originating in India are red-flagged as contaminated food.

Additionally, research has shown that the use of pesticides banned elsewhere but for India, even within 'recommended' or 'safety' levels, also contributes to biodiversity loss. Continued use was found to impact invertebrates and fungi that promote soil health. For farmers caught in uncertainty and battling inflation, climate change and a volatile agriculture market, the long-term importance of biodiversity has not yet hit home.

Opacity in proceedings related to the reporting and regulation of pesticide use has not helped matters. In January 2023, the FSSAI filed a report before the National Human Rights Commission in a matter pertaining to pesticide contamination in food crops. The statutory body had issued a notice to FSSAI to curb the excessive use of pesticides. An official in the FSSAI's head office told *DH* that the report was part of the NHRC proceedings and could not be shared.

In the absence of data regarding regular monitoring within the country, alerts sent out by bodies like the Rapid Alert System for Food and Feed (RASFF) or the Food and Drug Administration of the United States serve as regular reminders.

Chandra Bhusan, an expert who has studied the issue for years, noted that the products under testing in the EU and the US were supposed to be of superior, 'export quality'. "Unfortunately, within India, there is a lack of information about regular tests. Testing of random samples is key to understanding the quality of the food products we are consuming," he said.

The RASFF has raised more than 100 alerts annually on pesticide residue in rice, cereals, fruits and other food products from India. This year alone, 128 alerts were issued. Of the 802 alerts raised between 2020 and 2023, the RASFF classified 589 (73.4%) as serious, 22 as potentially serious and 15 as a 'potential risk'. Only 34 were 'non-serious' alerts.

### Legislation

It was accidental contamination of food samples in 1958 that resulted in over 100 deaths, that prompted the government to put the Insecticides Act 1968 in place. However, currently, the law has been found to be highly inadequate in dealing with the growing number of agrochemicals flooding the fields, as desperate farmers pin their hope on the toxic chemicals to protect their crops.

Based on the information obtained under RTI, activists from the PAN-India revealed that a whopping 62 pesticides that are used widely in India were only 'deemed to be registered' with no specified MRL.

Narasimha Reddy Donthi, policy expert and honorary director of PAN-India, said India is in urgent need of a pesticide bill which would address the challenges of the current situation. "The first draft of an updated bill came in 2008 but nothing happened. The latest one is the Pesticide Management Bill of 2020 which had some good provisions but it has been put aside

due to the pesticide industry lobby. So, we are not only accepting pesticides that were there before 1968 but also new ones which are only 'deemed to be registered' without the necessary safety precautions," he said.

Donthi said the proposed bill has been pending ever since it was referred to a standing committee. The bill still contains the provisions that allow deemed registration. "The new bill should clarify several legal matters to ensure hazardous agrochemicals are checked," he said. PAN-India has been highlighting India's poor record in regulating pesticides.

An expert committee set up in 2013 by the Union government to review 66 pesticides banned or restricted in other countries, but used in India, made recommendations in 2015 to check the serious health impacts caused by the use of pesticides. However, there has been little progress on the recommendations.

Bio-pesticides promoted as 'natural' alternatives to chemicals, have also posed a major challenge due to poor regulation. Parvataiah said a cocktail of chemicals is often sold under the tag of biopesticides and small and marginal farmers in villages often fall for the scam.

### Spurious pesticides

The farmer's claim is backed by the data from the Agriculture Department where the vigilance wing is seeing a steady increase in the number of use cases of spurious pesticides (illegal or non-genuine pesticides), including some sold as bio-pesticides.

In 2019-20, officials recorded three incidents and seized 629 litres and 886 kg of spurious pesticides. Until last month, the number of cases has increased to 70 with seizures going up to 9,119 litres and 14,534 kg. "Spurious pesticides are increasing because the demand continues to grow. We are creating awareness among farmers," a senior official told *DH*.

However, even this crackdown on spurious products, Donthi noted, spurious products was aimed more at protecting patented formulas of big companies. "We need a structural change and that has to begin with rules that prioritise health and safety. Implementation of such regulations will reveal the truth about the real quality of food products we are consuming," he said.

Some developed countries have woken up to the challenge, with the EU banning and the US restricting several neonicotinoids, a group of widely used insecticides found to be hazardous to pollinating bees. The EU went a step further, adopting a resolution in February 2023 to restrict the import of products that contain traces of neonicotinoids above a set MRL.

While the restriction will come into force after 36 months, India has already raised concerns at the World Trade Organisation and urged the EU to defer the matter to ensure that the export of agricultural and horticultural products is not affected.

### Have your say

To express your opinion, e-mail us at: [insight@deccanherald.co.in](mailto:insight@deccanherald.co.in)



# Danger looms as pesticides rule India's farms

**Deadly pesticides continue to be indiscriminately sold and used in the absence of legislation, regulatory processes and food testing mechanisms**

**CHIRANJEEVI KULKARNI**  
BENGALURU, DHNS

**O**n November 14, the European Commission sounded an alarm. The import of turmeric powder from India into the EU territories posed a 'serious' risk, it said. The notification came after residues of chlorpyrifos, a pesticide banned in several countries, were found in a sample tested in Germany. Chlorpyrifos was banned after scientific evidence found that it posed a direct threat to the health of children.

Interestingly, chlorpyrifos was one of 27 deadly pesticides that the Union government proposed to ban in 2020. However, it soon made a u-turn, choosing to limit the ban to four pesticides. The Centre's volte-face was the result of heavy lobbying from the agrochemical industry, activists who have worked on the issue for decades said.

The unmitigated and unregulated use of such toxic pesticides persists today. Data from the Union Ministry of Agriculture and Farmers Wel-



**A farmer spraying pesticides on groundnut and maize crops in Kondajji village, Davangere district. DH PHOTO/SATISH BADIGER**

## INSIGHT

fare shows about 60,000 tonnes of chemical pesticides were used annually between 2017-18 and 2021-22. Farmers are waging a multi-pronged war, forced to contend with new pests and diseases. For them, spraying more pesticides is a measure taken to "avoid the risk" of losing the crop.

Parvataiah, a paddy farmer from Hosahalli near Gangavathi of Koppal district, said the situation has changed drastically in the last few years. "We are advised by companies to spray chemicals even before planting. Seeds are coated with one chemical or the other before sowing. This started about four years ago. You have to understand that no farmer is in a position to take the risk of a lower yield," he said.

Paddy farmers more or less engage in a gamble when they begin cultivation due to the high input costs, Parvataiah

explained. The situation of those who cultivate RNR 15048, a variety dubbed 'sugar-free rice' by marketers from Tamil Nadu, illustrates the monumental change in the use of pesticides.

"While the department issues correct information, companies come to the village and hold a camp where pesticide usage is promoted on an LCD screen. The screen shows images of rich green crops. Regardless of what officials recommend, farmers are convinced by the advertisements or shops selling pesticides. So, in the place of 60 gram fungicide or pesticide, more than double is sprayed just to make sure that they get the best crops," he said.

The consequence is that consuming food contaminated with pesticides has devastating short-term and long-term impacts. In fact, a study by Pesticides Action Network-India (PAN-India) found that 56 pesticides used in India were carcinogenic.

► **Pesticide use, Page 2**



SARITHAK CHOUDHURY  
New Delhi, 16 November

**T**he track to ballot boxes runs through fields. And political parties know it if they are to win the race to those boxes, they need the owners of those fields on their side.

The parties, it seems, have figured out that farmers are going to be the kingmakers this time," quips Sunder Baxda, a farm leader from Narayanpur, a district in Chhattisgarh.

Baxda's state is among the five that are in election season. These are all states where a significant percentage of households are directly reliant on agriculture: Rajasthan (63.3 per cent), Madhya Pradesh (57.7 per cent), Telangana (47.3 per cent), Chhattisgarh (55 per cent) and Mizoram (60 per cent).

For all of them, minimum support price (MSP), the minimum floor price farmers must get from the government for their crops, is a make-or-break issue. Cognisant of the mood and of the Lok Sabha election next year, last month, the Bharatiya Janata Party (BJP)-led government at the Centre increased the MSP for rabi crops. Wheat, the primary rabi crop, saw the highest increase since 2007-08—a jump of ₹150, taking the MSP to ₹2,275 per quintal.

Not to be left behind, opposition-led Chhattisgarh, Rajasthan and Telangana

# POLITICAL HARVEST

## Promises galore, but what is the mood in the fields? The second and concluding part of the MSP series looks at farmer sentiment in poll-bound states

are also promising higher MSP. Farmers, meanwhile, have adopted a wait-and-watch approach.

**Madhya Pradesh**

The scene at the bustling Chhatrapur mandi, where sale of wheat is on, hints at a lack of enthusiasm ahead of the state polls. Many farmers express discontent over the BJP state government's wheat procurement plans. Some say the misery brought upon by the unseasonal rains forced farmers to sell their produce at distressingly low prices.

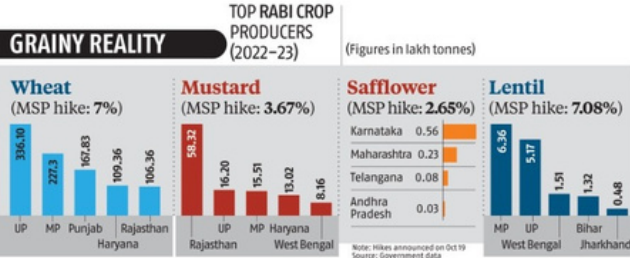
Similar grievances emerged in Sehore district a few months ago. Kamal Jogi, a farmer from Chauki village in the district, says his crops fetched a mere

₹1,900 per quintal against the state-designated price of ₹2,125. "It's hard to cover the sowing cost if the produce doesn't sell," he says.

With nearly 76 million farmers, Madhya Pradesh is a crucial wheat producer. In its election manifesto, the Congress promised an MSP of ₹2,600 per quintal for wheat.

Some farmers contend that the Centre's ₹150 increase in wheat MSP, too, falls short. Alankana Tomar, a farmer from Chhatrapur, says the input cost of farming is a lot more than the MSP offered. "Fertilisers and diesel prices have increased. Moreover, the MSP hike is futile without adequate procurement."

The Food Corporation of India (FCI)



slashed its procurement target by 22 per cent in 2023, forcing some farmers to sell their produce to private players at lower MSP, Tomar says.

The Centre's decision to release 50 lakh metric tonnes (MT) of wheat in the open market also hasn't resonated well with farmers. Many of them were forced to sell at ₹1,800-2,000 per quintal across Malwa, Bhopal and Narmadapuram mandis, Tomar says.

There is also discontent due to the ban on wheat exports in force since May 2022.

**Chhattisgarh**

Baxda, the farm leader from Narayanpur, grows paddy on about 5 acres of land with his brother. He says that the ruling Congress party's policies have worked.

"The existing crop prices are fine. The government even waived off loans for some farmers," he says. Congress has promised to increase the MSP for the state only because the BJP has offered higher prices, he believes.

For the farmers of Chhattisgarh, the price of paddy has been a key issue since the state was created 23 years ago.

Congress has promised to increase it to ₹3,200 per quintal from ₹2,660, and the BJP is offering to buy 21 quintals per acre at ₹3,100 in a single instalment.

Farmers, however, view these promises with scepticism, citing historical disparities between assurances and actions.

"The BJP's paddy procurement policy fell short of expectations. We received only ₹1,900 per quintal. Despite 'Chawal-waala babu' (as former Chief

Minister Raman Singh is called) spearheading numerous procurement and PDS (public distribution system) policies, his administration overlooked the MSP matter," says a farmer who does not want to be named.

Before the 2013 polls, BJP pledged a ₹500 bonus on every quintal of paddy, which was fulfilled but for just two years," he adds.

**Rajasthan**

In October, the Centre increased the MSP of rapeseed-mustard by ₹200, to ₹5,650 per quintal for the 2024-25 marketing season. Rajasthan is the largest producer of rapeseed-mustard and the fifth-largest producer of wheat. Earlier this year, numerous farmers had protested in Delhi over a drastic price plunge exceeding ₹1,000 per quintal, and had blamed the procurement policy for it.

Rampal Jat, chairman of Kisan Mahapanchayat, highlighted that under PM-Aasha, the government's decision to procure only 25 per cent of total mustard production at the MSP of ₹5,450 per quintal is a problem. "The rest is being sold in the market at ₹4,500 per quintal," he says. "Rajasthan produces about 50 per cent of the country's mustard. We have decided not to sell it below the MSP."

Mustard prices at the Bharatpur mandi, the hub of oilseeds trade, plummeted to approximately ₹5,100-5,200 per quintal in May, marking a two-year low. The mandi prices in November last year were around ₹7,500 per quintal.

"We will vote for the party that guarantees us MSP. We are keeping our options open," says Jat, making a case for

a law on MSP. As farmers, their biggest mistake, he says, has been that "we have always looked at caste, religion etc. while voting. This time we will vote on issues related to farming."

**Telangana**

In Nizamabad, India's largest turmeric market, the mood is that of optimism. The Centre's promise in October to set up a turmeric board has brought cheer.

Muthyala Teja, a farmer from Ramchandrapally village, says some people in his village were so buoyed by the decision that, for the first time, they travelled nearly 200 km to hear the prime minister speak in a rally.

"Ten years ago, turmeric prices were nearly ₹4,000 per quintal. Over time, it fell to ₹700 despite our output going up. We expect things to change now," he says. He remembers the stories elders in the village would tell, of a time when one tola of gold was exchanged for one quintal of turmeric. "Let's see if we can revive those days," he says with a grin.

Not everyone shares his optimism. Some perceive this announcement as a mere election ploy, citing the lack of a clear road map, both for the turmeric board and the MSP.

Earlier this year, Telangana's farmers protested for turmeric's inclusion in the list of MSP-supported crops. For five years, prices have remained flat at ₹4,500-5,000 per quintal. They demand an MSP of ₹15,000 per quintal.

Congress leader Rahul Gandhi has promised ₹12,000-15,000 as support price. Meanwhile, the ruling Bharat Rashtra Samithi is banking on its flagship scheme, Rythu Bandhu, to counter anti-incumbency sentiments.

The fields are clearly where all the action is.



## AS YOU SOW PART - II

# Roadmap for spurring agriculture towards sustainability



SUBIR ROY  
SENIOR ECONOMIC ANALYST

**I**NDIA needs to radically re-examine its agricultural policy so that it serves current national imperatives and also looks after its farmers. The contribution made by the late MS Swaminathan, father of the Green Revolution, to bring about a turnaround in the agriculture sector reminds us that if the country's leadership knows where it wants to go and has the vision to set out a path, it will get there and do itself proud. From having to lead a 'ship-to-mouth' existence, dependent on the whims of the US leadership, India is today a significant exporter of agricultural produce.

The foremost current goal needed is to set out a 'post-Green Revolution' strategy by moving away from raising output by simply using more and more inputs. While the country needs to remain self-sufficient in food, it needs to be examined if it should remain a food exporter. It also needs to figure out how it can do well by its farmers and change farm practices and techniques so that agri-

culture can make do with fewer farmhands. By raising farm productivity, fewer hands can deliver the same output and, in the process, raise farmers' incomes.

The new policy will have to also serve two emerging needs. Agriculture must do its bit to fight climate change by reducing greenhouse gas emissions. The country also has to serve a special need—make agriculture less water-intensive to address depletion of water resources.

Indian agricultural export earnings have fallen by over 10 per cent in the first quarter of the current financial year compared to last year. This is due to two reasons: actions taken to rein in domestic prices and a fall in international prices.

International prices are not in India's hands and they cut both ways. Poorer earnings from exports usually go hand in hand with having to pay less for essential imports like edible oils. But is India handling domestic prices, which are in its hands, the right way? Through last year and into the current year, the government has banned the export of wheat and certain categories of rice and also imposed new export duties. Additionally, sugar exports have been restricted.

Restrictions on farm exports have been introduced to ensure that domestic food prices do not go up in an election year. But this does not



CHALLENGE: Persuading farmers to shift from water-guzzling crops like paddy to millets. FILE PHOTO

good to the farmer who sees mandi prices being adversely affected, with traders going easy in view of the likely fall in export earnings.

If farming is to become more scientific, farmers should be able to plan their planting with a view on what demand and prices their output is likely to fetch. There needs to be a price stabilisation policy and a fund. Over time, draws and inflows can be made to even out so that there is negligible impact on the exchequer, if at all. So, the first imperative is: don't look at elections to fix farm prices and regulations. This is bad for both the health of Indian agriculture and the well-being of its farmers.

This brings us to the issue of devising a strategy for farmers to engage in sustainable agriculture, which is

There needs to be a price stabilisation policy and a fund. Over time, draws and inflows can be made to even out.

able to withstand shocks delivered by extreme weather conditions. This can be done cost-effectively if the focus is kept on raising the efficiency and resilience of agri-value chains and digitisation is extensively used as a catalyst for agricultural transformation. Sensor-equipped drips, drones and low-earth orbits can be deployed to use resources better. Drip irrigation, for example, addresses the issue of scarce water resources and also removes the need for flooding of fields, which causes methane (greenhouse gas) to be generated. This, and promoting food and nutritional security, cannot, of course, happen unless more investment is made in R&D. Plus, something can be done to better handle international prices. A multilateral trading

platform, using the WTO (World Trade Organisation) platform, can help anticipate prices better and boost the confidence of business interests engaged in agriculture.

The policy which needs to go is open-ended and assured procurement at minimum support prices for staples like paddy and wheat. Also, the massive subsidies for fertiliser, power and irrigation, which were introduced to bring about the Green Revolution, have to go. These have done damage not just to government finances but also to soil, water and biodiversity.

India is the world's biggest rice exporter, accounting for 40 per cent of the global rice shipments, and putting the brakes on them will affect countries like Saudi Arabia, Bangladesh and Nepal. India is also the world's second largest exporter of wheat, whose exports have been stopped since earlier in the year. India was also the second largest sugar exporter until the government imposed curbs. India has been cultivating the image of a global enabler through its leadership of G20. Abruptly stopping or restricting food exports which have caused global prices to rise goes against this attempt at image-building.

Rice, wheat and sugarcane are big water-guzzlers. India is seriously depleting its water resources, which have

and will be affected by erratic monsoons and changes in glacial melting. The worst possible thing is groundwater reserves getting depleted faster than they are replenished during the rains as agricultural pump sets, powered by free or subsidised electricity, pump out water to grow crops like paddy, wheat and sugarcane. A major challenge before the government is to persuade farmers to shift from the cultivation of water-guzzlers to crops like millets and oilseeds (India is a major importer of edible oils).

A water-scarce country exporting water-guzzling crops amounts to exporting water. The desirable scenario that should lie ahead is cutting down, in fact eliminating, the cultivation of water-guzzling crops. This will result in a fall in foreign currency earnings, which the country will have to get around, possibly by raising services exports. Countries like Taiwan and Israel are keen to recruit a large number of Indian workers, whose remittances back home will boost the country's foreign exchange earnings.

In sum, the policies that are needed to set agriculture right should focus on helping farmers modernise farming, boosting R&D investment to produce better seeds and working for the sunset for the export of water-guzzling crops.

# ‘One Health’ approach, ‘key to sustainable growth of man, plants’

**KV Kurmanath**

Hyderabad

Food safety will be the primary goal of agricultural scientists and industry, said M Raghunandan Rao, Secretary, (Dept. of Agriculture and Cooperation, Government of Telangana) and Vice-Chancellor, PJTSAU, said.

Addressing the inaugural session of a four-day International conference on Plant Health management, here today, he said: “The coming 50 years are crucial from plant health management perspective,” he said.

Farmers should be trained in precision agriculture to ensure the targeted use of pesticides and fertilizers.

The conference is being organised by the Plant Protection Association of India at the PJTSAU.



Sarada Jayalakshmi Devi, Vice-Chancellor, Acharya NG Ranga Agricultural University, said there was a need to identify resistant genes for various pests and diseases to develop high-yielding varieties.

## INCLUSIVE APPROACH

“Excessive use of chemicals to control various pests and diseases is leading to minor pests becoming major ones. The focus should be on bio-control agents, natural enemies and eco-friendly ap-

plications towards attaining sustainability,” she said.

In their presentations, agriculture experts from India and abroad called for a ‘One Health’ approach to achieve a well-rounded and sustainable growth of humans, plants, animals, soil and the environment.

P Sarath Babu, Chair of the International Conference on Plant Health Management 2023, said the One Health approach is inclusive, taking care of all the crucial aspects of agriculture, including plant health, soil health, animal health and the environment.

Sasirekha Rajendran and Ravi Khetrpal of APAARI (Asia Pacific Association of Agricultural Research Institutions), said there were certain deficiencies in geographical distribution and and partnerships as One Health initiatives were rolled out.

## PREPARING ACTION PLAN TO COMBAT POLLUTION AS OUTLINED BY SC ORDER

# Air Emergency: Cab Secy Discusses Funds, MSP With States

Anubhuti.Vishnoi  
@timesgroup.com

New Delhi: The Union Cabinet Secretary called an urgent meeting on Wednesday with stakeholder ministries and state governments to discuss the steps needed for implementation of the directions issued by the Supreme Court this week on the air emergency in Delhi-NCR.

ET gathers that the Cabinet Secretary held a full-scale review of the air pollution scenario in Delhi-NCR and called for strong action on all fronts outlined by the SC order. The meeting is learnt to have held detailed deliberations on each of the directions issued for the Central ministries and depart-



Stubble burning in progress at a village in Sultanpur Lodhi on Wednesday

ments and state governments and the need for early implementation.

Recognising the predominance of paddy cultivation in Punjab and Haryana leading to burning of huge amounts of paddy straw every year, the Centre will closely be looking at exploring a Minimum Support Price for crops other than paddy. States have also been asked to examine ways to phase out

paddy cultivation and start the switch to alternative crops from next year.

The Centre also discussed ways to promote maize cultivation by incentivising ethanol production for paddy cultivation replacement.

On stubble management, the Cabinet Secretary held discussions on the issue of joint funding models. The apex court has suggested that

while the Centre should fund 50% of the cost of paddy stubble management, the government of Punjab — the state which generates maximum paddy straw — is expected to pitch in 25% funding and the remaining 25% by the Delhi government.

Greater use of PUSA bio decomposer was also discussed with the agriculture ministry. Senior officials from the Ministry of Environment, Forests and Climate Change, Ministry of Power, Ministry of Agriculture and Farmers' Welfare and Ministry of Housing and Urban Affairs were at the meeting besides chief secretaries and senior officials of Delhi, Punjab, Haryana, Uttar Pradesh and Rajasthan.

Data shared at the meet showed that

the AQI has stayed in the ‘severe’ category in Delhi-NCR since November 3 and was also higher than in 2022, even as the number of stubble fires reported were 36% lesser than last year.

Farm fire data from September 15 to November 7 shows 42,550 fire counts reported from Punjab, Haryana and Uttar Pradesh NCR districts in 2021, 35,146 in 2022 and 22,644 in 2023.

While Punjab reported 32,486 fire counts in 2022, the number is at 20,978 this year — a 35% reduction. Uttar Pradesh NCR districts have, on the other hand, shown an increase of 49% vis a vis 2022, with fire counts rising from 37 in the former to 49 this year.

**DELHI PLANS TO INDUCE ARTIFICIAL RAINS** ▶▶ 22

**DEEPAK NITRITE**

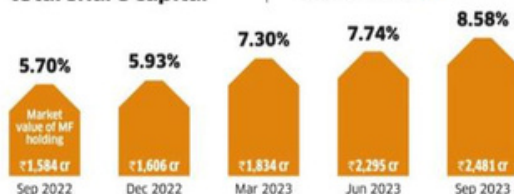
**Targets pole position in segment despite near-term concerns**

| CMP (₹) | MCAP (₹CR) | PE    | PBV  | DIV YIELD (%) | 3-YEAR AVG ROE (%) |
|---------|------------|-------|------|---------------|--------------------|
| 1,960   | 26,734     | 34.84 | 6.54 | 0.38          | 21.40              |

CMP, MCAP, PE, PBV and dividend yield data as on 1 Nov 2023.

**MF holding as % of total share capital**

Schemes that hold the stock **>> 21**



**Top 5 funds holding Deepak Nitrite**

| SCHEME                           | HOLDING (AS % OF CORPUS) | AMOUNT INVESTED (₹ CR) |
|----------------------------------|--------------------------|------------------------|
| Motilal Oswal Midcap             | 6.5                      | 387                    |
| Motilal Oswal Flexicap           | 4.03                     | 329                    |
| Franklin India Smaller Companies | 3.03                     | 294                    |
| Franklin India Prima             | 2.54                     | 223                    |
| Canara Robeco Mid Cap            | 1.82                     | 29                     |

Only diversified funds in which value of holding is more than ₹10 crore considered. Sectoral and thematic funds not included.

Chemicals maker Deepak Nitrite is also witnessing some near-term concerns. The glut in global supply of phenol, the primary contributor to the company's earnings, is putting pressure on its margins. China appears to keep on adding phenol capacities as it moves towards self-sufficiency.

Despite operating at a record utilisation (~135%), DN's phenol business witnessed some 20% drop in revenue in the previous quarter. Its advanced intermediates business has also suffered

from high inflation and slow-down in the Euro zone.

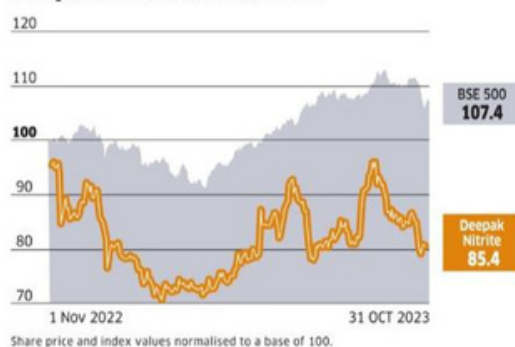
Despite this, the company has not lost market share in any of the products. Its capex plans are on track, which would be funded through a mix of internal accruals and debt. Its production volumes are expected to rise, not least because of enhanced capacity after debottlenecking and rolling out of downstream

products some time in the next fiscal year. DN is aggressively pursuing both backward and forward integrations. The company aims to become the largest player in solvents, with a play on import substitution. It has already stated its intent to venture into manufacturing of polycarbonate, a high value polymer. This would put the company in the league of the chosen few globally.

**Analyst recommendations**



**Deepak Nitrite and BSE 500**



**"Deepak Nitrite has not lost market share in any of the products. Its capex plans are on track, which would be funded through a mix of internal accruals and debt."**

**MOTILAL OSWAL SECURITIES**

# Investor-friendly policies have taken food sector to new heights: PM Modi



**STATESMAN NEWS SERVICE**  
NEW DELHI,

India's food sector has seen significant growth due to investor-friendly policies, with the processed food industry receiving Rs 50,000 crore in FDI in the last nine years, said Prime Minister Narendra Modi on Friday. Modi inaugurated the second

edition of World Food India 2023.

Disbursing seed capital assistance for over one lakh Self Help Groups (SHG) members, the Prime Minister said the high levels of investments in the food sector were the results of the government's pro-farmer and pro-industry policies. "We have started a PLI (produc-

tivity-linked incentive) for the food processing sector. Under this, industry and new players are getting special assistance," he said. Investments of thousands of crores of rupees are being encouraged in processing infrastructure for fisheries and animal husbandry.

In the last nine years, Mr Modi said the share of processed foods in agri-exports has increased from 13 percent to 23 percent. The rise in processed food exports was 150 per cent during the period. India is globally at No. 7 by making over 50,000 million USD in agro-exports, he said. India got its first-ever agri-export policy during his government's tenure, along with a network of nationwide logistics and infrastructure, the Prime Minister said.

More than 100 district-level hubs, connecting districts to global markets, have been set up.

SANJEEV MEHROTRA  
New Delhi, 15 November

# MAXIMISING THE MINIMUM

In the first of a two-part series, we look at MSP promises in poll-bound states

PHOTO: JAY MEHNTA

This election season has seen political parties take interesting positions through their promises, one of the more novel ones being the promise of an Indian Premier League team for Madhya Pradesh. However, once you look beyond the novelty, the promise of a substantial rise in the minimum support price (MSP) stands out, particularly when seen against the extension of the free food grain programme by five years.

The hikes in wheat and paddy MSP in the key states that contribute a significant amount to the central pool would mean the Centre might find it difficult to replicate the same increases nationally. MSPs are announced for the entire country, and states can only give a bonus on top of them.

But, ensuring central procurement of surplus grains purchased by announcing hefty bonuses over the MSP is tricky. The National Democratic Alliance (NDA) government at the Centre, ever since it came to power in 2014, has been wary of buying wheat and rice from states that declare bonuses over MSP over and above what is required for meeting their public distribution system (PDS) needs.

It had even issued an order desisting states from doing so.

Not only that, the Commission for Agriculture Costs and Prices (CACP), in several of its reports had advocated limiting paddy procurement from states that announce bonuses over MSP or levy additional cess and surcharges. CACP is the main body that fixes MSPs for more than 20 crops every year.

"Arbitrary hikes in MSP could have a negative impact on the fiscal deficit both for the states as well as the central government. The announcements grossly undermine the role of bodies like the CACP, which do elaborate calculations to arrive at the MSP. Agreed, from the farmer's point of view, the MSP hikes might be good, as at the state level the production cost is different for different states, but it hampers diversification," S Mahabendra Dev, former CACP chairman and former director of Mumbai-based Indira Gandhi Institute of Development Research, told *Business Standard*.

The Centre prohibits states from not arbitrarily declaring bonuses over MSPs, as it invariably leads to excess procurement and production.



Central agencies are saddled with stocks far in excess of what is required for PDS operations. This, in turn, leads to a spike in the storage and transportation of grains, further burdening the national exchequer.

If poll-bound states have to fall in line with the MSPs declared by parties, they will have to do so in violation of the central order or bear the full expense of the surplus procured at rates higher than MSP. Else, the raised MSPs announced will have to be implemented nationally by the central government.

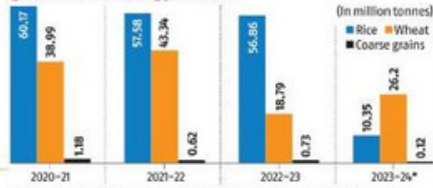
From the farmers' point of view, we not only want a higher MSP but also a law made nationally that prohibits any purchase of farm goods either by private

players or government agencies below the MSP. Just announcing the MSP is not enough and this (the law) was one of main demands of the agitating farmers against the now repealed three farm Acts," said farmer leader Abhinav Kumar, a leading voice of the Sanyukt Kisan Morcha (SKM).

**Minimum to maximum**  
For the 2024-25 season, the MSP for wheat just announced is ₹2,225 per quintal. The MSP for wheat announced by the Bharatiya Janata Party (BJP) in its manifesto, at ₹2,700 per quintal, is 38.68 per cent higher. The Congress manifesto promises MSP for wheat that is 44.29 per cent more than the current one. For paddy, the promises are more ambitious. The current MSP of common-grade paddy is ₹2,183 per quintal. The

## STRAW IN THE WIND

All-India procurement of rice, wheat and coarse grains on a marketing year basis



\*Till October 11, 2023. Note: The marketing year for wheat runs from April to March and that of paddy runs from October to September. Source: Food ministry

## MSPs/bonus/minimum sale promised by parties in poll-bound states

| State          | Crop    | BJP   | Congress | Actual MSP* |
|----------------|---------|-------|----------|-------------|
| Madhya Pradesh | Wheat** | 2,700 | 2,600    | 2,275       |
| Madhya Pradesh | Paddy** | 3,100 | 2,500    | 2,183       |
| Chhattisgarh   | Paddy   | 3,100 | 3,200    | 2,183       |
| Telangana      | Paddy   | NA    | 2,683*** | 2,183       |
| Rajasthan      | NA      | NA    | NA       | NA          |

\*For wheat, the actual MSP is for 2024-25 marketing year (Apr-Mar); for paddy, it is for 2023-24 marketing year (Oct-Sep); the paddy MSP is for common grade paddy. \*\*As per the Congress manifesto does not talk about MSP or bonus, but it says that crops won't be purchased at rates below what has been mentioned. \*\*\*In Telangana, the Congress party announced an MSP of ₹500 per quintal over the prevailing MSP. States don't announce MSP but can give bonus over them. Manifesto available in Rajasthan. Source: Manifesto and news reports

MSP announced by the BJP for Chhattisgarh is nearly 42 per cent higher, and that by the Congress is nearly 46.59 per cent more than the prevailing MSP.

For neighbouring Madhya Pradesh, the hikes proposed by the BJP and Congress for paddy are 42 and 44.52 per cent more than the current figure. The Madhya Pradesh Congress manifesto says that once in power it will not buy at prices less than what has been mentioned in the document, though it does not say whether the rates will be MSP or not.

In Rajasthan, the third poll-bound state, both parties are yet to announce their manifestos, but they might not be able to back the trend. In Telangana, a major paddy producer, the Congress has announced a 500 per cent bonus over the MSP, while the ruling Bharat Rashtra Samithi has also promised benefits. The BJP is yet to release its manifesto for the state.

If the government wants to reach the targeted MSP in the first year itself, there will be a significant drain on the national exchequer in terms of rising economic costs. The inflationary impact of that could be immense for crops like paddy, and hurt India's export competitiveness, even if full exports were allowed.

Some traders say if paddy prices are around ₹32-33 a kg, it would mean that rice won't sell much below ₹50 in the domestic market.

The problem on the procurement front is worse. Sukhpal Singh, professor at Indian Institute of Management (IIM) Ahmedabad and former chairperson of its Centre for Management in Agriculture, said the tall promises acknowledge that MSPs need to align with the C2-50 per cent norm, as laid down by the Swaminathan Commission, as against the A2+FL cost matrix currently practised.

"If you see the MSPs promised, they are close to the C2+FL cost of production, which Dr Swaminathan advocated. So, maybe the governments are now veering towards the fact that they need to give an MSP equal to or slightly higher than the C2+FL cost," Singh told *Business Standard*.

However, he questioned whether states can give MSPs independent of concurrence by the Centre.

**Procurement conundrum**  
In the last three marketing seasons, India procured more than 60 million tonnes of rice and around 90 million tonnes of wheat, against an annual requirement of 55 to 60 million tonnes of both wheat and rice for operating the National Food Security Act. It was only in the 2022-23 marketing season that the procurement dropped to 75.27 million tonnes of both grains, mainly due to a dip in wheat procurement.

The marketing season for paddy runs from October to September and for wheat from April to March. The distribution is done all through the financial year.

Such high levels of procurement at high prices push up the economic costs, leading to an increase in the subsidy burden for the government. The economic cost is the combination of the procurement price, storage and other incidentals, and the expenses on distribution.

CACP, in one of its latest policy reports, said the economic cost of rice and wheat is 25 to 30 per cent more than MSP, and excess stocks cause economic losses and constraints on storage facilities. The Commission also said the open-ended procurement policy had led to over-exploitation of groundwater and distorted crop patterns. In another report, CACP said assured procurement of rice and wheat had led to the very high share of paddy and wheat in the total cropped area in Punjab and Haryana, coinciding with a decline in the shares of pulses, oilseeds, maize and baobab.

"One of the major causes for the decline in groundwater levels is the introduction of water-intensive crops such as paddy and sugarcane into cropping patterns in certain areas of the country," the commission said.

Singh of IIM Ahmedabad said diversification requires not just a high MSP but also procurement at such MSPs.

"If the government seriously wants farmers to diversify from wheat and rice to oilseeds and pulses, it should announce similarly high MSPs for them and also procure these crops at a price in case of wheat and rice," he said. Only then could minimum prices create maximum impact.



AS YOU SOW  
PART - I

# Efforts on to promote non-GM cotton

**BACK TO BASICS.** Field trials in Maharashtra, Odisha, Madhya Pradesh, AP and Telangana show promise

KV Kurmanath  
Hyderabad

Almost 98 per cent of the 12 million-odd hectares of cotton grown in India is under Bt cotton. The genetically modified cotton technology, which was introduced in the early 2000s, has engulfed the whole of the country's cotton acreage and made traditional non-GM cotton varieties disappear.

Farmers saw hope in GM cotton as it offered protection from pink bollworm, which sucked life out of the bolls, and other such pests causing enormous losses.

All, however, is not lost. Though farmers here and there have been growing non-GM cotton, it is limited to barely 2 per cent of the total cotton area in the country. Dwindling yields (which fell from 542 kg/ha

in 2016-17 to 460 kg/ha in 2019-20) and the pink bollworm developing resistance made a group of organisations to consider bringing back the traditional varieties and hybrids devoid of the GM technology.

GV Ramanjaneyulu, Chief Executive Officer of the Centre for Sustainable Agriculture (CSA), said the demand for organically-grown cotton is increasing with niche clothes makers looking for such fibre as there was a huge interest among the consumers.

**POSITIVE FIELD TRIALS**  
"We have been doing field trials over the last two years and the results showed promise. We have collated the data and we are ready with seeds that can be used for commercial cultivation," Ramanjaneyulu told *businessline*.

Besides CSA, there are a



**PLAN B.** Dwindling yields and the pink bollworm developing resistance have made organisations consider going back to traditional varieties and hybrids

few other organisations in the country have joined the field trials in States such as Maharashtra, Odisha, Madhya Pradesh, Andhra Pradesh and Telangana to develop new varieties and hybrids that are primarily non-GM. They are doing these trials in association with FiBL (Research Insti-

tute of Organic Agriculture), the European Union based institute promotes organic agriculture in different countries. "We are getting yields to the tune of 6-7 quintals. Seeds are being multiplied. The idea is to bring cotton farmers back to non-GM," he said.

Outside of this experi-

ment, CSA is also working on Malkha, a brand specialising in naturally dyed, handwoven handloom cotton fabric in the country. "We are growing organic cotton on about 200 acres in Telangana," he said.

A senior scientist at the Prof. Jayashankar Telangana State Agricultural University, however, felt that isolated efforts might happen but it can't substitute Bt cotton, which was still offering some protection against pink bollworm.

"We have developed a few varieties and hybrids in non-GM. They are being used in a few pockets in Adilabad district," he said.

The development is crucial as this year, the cotton crop in the northern parts has been affected by the pink bollworm menace. Besides, the per hectare yield has begun to shrink.

# Icrisat joins hands with Assam Millet Mission

**KV Kurmanath**  
Hyderabad

The International Crop Research Institute for Semi-Arid Tropics (Icrisat) and the Government of Assam have joined hands to collaborate on climate-resilient and nutritionally enhanced food systems through the Assam Millet Mission.

The collaboration would focus on the State's target to boost the cultivation, production and consumption of three native millet crops – finger millet, foxtail millet, and proso millet.

Presently, millets are only cultivated across 6,000 hectares in 15 districts of the north-eastern State, contributing 97 per cent of the State's millet production.

"As the world's largest millet producer and a driving force behind the International Year of Millets 2023, India stands at the



**MIGHTY MILLETS.** The collaboration would focus on the State's target to boost the cultivation, production and consumption of finger millet, foxtail millet and proso millet.

forefront of the resurgence of millets. Icrisat will complement Assam's approach and ambitious millet consumption targets," Director General of Icrisat Jacqueline Hughes said.

## EXTENSIVE TRAINING

The collaboration will include empowering stakeholders through extensive

training in various areas such as farming practices, seed production, and food safety management; and developing and implementing a strategic plan to promote the marketing and export of millets and millet-based products from Assam.

They will also develop and promote scientifically

validated nutritious millet-based recipes, ready-to-eat (RTE) and ready-to-cook (RTC) food products, adapted to local taste preferences and distributed through various government schemes.

## SEED SYSTEMS

Icrisat will also work with the Assam Agriculture University (AAU), private seed companies, and more than 7,000 smallholder farmers to enhance millet seed and associated production systems.

The Assam Millet Mission (AMM) is part of the World Bank-funded Assam Agribusiness and Rural Transformation Project (APART).

The Assam Rural Infrastructure and Agricultural Services (ARIAS) Society is overseeing the project, while Icrisat is providing technical consultancy services to support AMM under APART for about 18 months.

# NIT-C, ICAR-IISR ink pact to promote research in agriculture sector

**The Hindu Bureau**  
KOZHIKODE

The National Institute of Technology - Calicut (NITC) has inked a memorandum of understanding (MoU) with the Indian Council for Agriculture Research (ICAR) - Indian Institute of Spices Research (IISR) to promote research in the agriculture sector.

A press release said the MoU would promote collaboration between the two premier institutions located in Kozhikode district.

The collaboration aims at joint educational, train-

ing and research activities. The initiative is to ensure mutual benefit by exchanging knowledge of technological domains and agriculture domains. The MoU between two institutions located close to each other will have many advantages, Prof. Prasad Krishna, Director, NITC. Proper interaction, exchange programmes, and campus visits will help both partners understand issues and identify solutions, he added.

The MoU also stresses the need for exchange of invitations to scholars including faculty members,

research personnel, and graduate students for lectures and campus visits. Sharing of domain expertise for the mutual benefit of research initiatives is also planned as part of the collaboration.

## Modern research

"The collaboration is expected to help us focus on modernised research activities setting aside traditional research," said R. Dinesh, Director, ICAR-IISR. He also stressed the significance of collaboration in fostering mentorship in entrepreneurship and research in the spices sector.

The two institutions will now exchange scholars for participation in conferences, symposia, and seminars. Besides, the exchange of information in fields of interest to both parties is expected to benefit the academia at NITC and the research fraternity at ICAR-IISR. Expert participation and practical training in pre-identified or selected field sites also will become a reality with the MoU. Researchers from both institutions have long been collaborating. However, it is for the first time that the institutes are signing an MoU.

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# Seeding clouds of smog

**WITH THE AIR** quality index (AQI) for PM 2.5 breaching the 400 mark in Delhi for most of the days of this week, the Supreme Court bench came down heavily on the adjoining states of Punjab, Haryana, Rajasthan and Uttar Pradesh. The bench has asked them to stop burning in paddy stubble in the fields forthwith, and then find long-term solutions. It also suggested making the local Station House Office (SHO) responsible for its implementation. How far this will be implemented remains to be seen.

But the fact that, in Punjab, when some government officials went to the villages to stop stubble-burning, there are reports that they were forced to light up farm fires! It speaks of a major breakdown of law and order. Could the Supreme Court also suggest what punishment be given to the local SHO or even the chief secretary who fail to do use farm fires?

Containing farm fires is critical if Delhiites have to breathe without serious harm to their health. On November 7, as per the Decision Support System for air quality management in Delhi, biomass burning (mainly stubble burning) accounted for 37.85% of pollution, followed by other polluting items in the National Capital Region (22.64%).

Notably, Delhi's transport accounted for just 12.67%, and Delhi's construction and dust accounted for less than 3%. Clearly, the first and foremost action has to be in controlling stubble burning from neighbouring states, most notably Punjab, where it is most rampant.

If farm fires are not controlled, Delhiites are likely to lose 11.9 years of their life, as per the Air Quality Life Index report (2023) of the University

of Chicago's Energy Policy Institute. Given that our life expectancy hovers around 71 years, losing 11.9 years of life for a population of about 22 million people in the National Capital Territory, is like killing 3.7 million people through polluted air. And this stretches to many other cities in northern India, even beyond Delhi.

How can we stop stubble burning? Many schemes have been tried to help the farmers in uprooting the entire stubble after harvesting paddy, from making bales for boilers to using it for mulching, etc. Smart Happy Seeders showed a little promise, but have not checked stubble burning at scale.

The ultimate answer is that paddy in the Punjab-Haryana belt needs to be drastically cut to almost half its current area under cultivation—from 4.7 million hectares (m ha) to just 2.5 m ha. The Supreme Court judges rightly pointed out that it is not a suitable crop for this region and is depleting the water table fast. In a district like Sangrur—the constituency of the current chief minister of Punjab—the water table has fallen by 25 metres in the last 20 years. And, it is in this district that the farm fires number the most!

What is still not counted is how much greenhouse gas (GHG) paddy is

emitting in Punjab. In a forthcoming study from ICRIER on Low Carbon Agriculture by Reena Singh and this author, paddy cultivation in Punjab is estimated to produce at least 5 tonnes of CO<sub>2</sub> eq/ha. This is also a silent killer. In this study, Punjab farmers are estimated to get a subsidy on paddy cultivation to the tune of almost ₹30,000/ha,

through free power and highly subsidised urea and other chemical fertilisers. This subsidy constitutes roughly one-third of the profits from paddy cultivation in Punjab—the root cause behind farmers sticking to paddy even when they know they are damaging aquifers. This gets reinforced with the open-ended procurement of paddy by state agencies for the Food Corporation of India (FCI).

How do we wean farmers in the Punjab-Haryana belt away from paddy? Here are some suggestions:

- Give a subsidy of, say, ₹25,000/ha to farmers switching from paddy to pulses, oilseeds and millets, or even maize. This will help create a crop-neutral incentive structure and will not cost the government as it will save that subsidy from the current paddy cultivation.

- Incentivise the private sector to set up ethanol plants based on maize,

starting from Sangrur, where the water table depletion needs to be arrested as soon as possible. This will help create a market for ethanol blending with fossil fuels, and help in lowering the air pollution through vehicular traffic.

- State agencies should reduce the paddy procurement from those farmers burning crop stubble, and also in those blocks where water table is depleting fast.

- FCI should make it clear that they will not pay more than 3% on top of the MSP for any *mandi* fee, commissions for *arthiyas*, etc. This should be uniform across states.

- Lastly, the prime minister needs to sit down with the chief ministers of the states adjoining Delhi and offer a package to move towards more nutritious crops such as millets, oilseeds, and pulses, by assuring a procurement of these at MSP. We are short of all these crops that are more nutritious, and more nature-friendly. Our reliance on rice and wheat for the Public Distribution System is excessive, causing diabetes and harming environment. Of more than 500,000 fair price shops, at least 10% (50,000) can be made 'nutrition hubs' where these nutritious crops will also be supplied along with wheat and rice. The consumers should be given a choice whether they want rice and wheat or other crops costing the same money through food vouchers. This will create a market that is more diversified, save water, minimise GHG emissions from crop sector, and reduce pollution in Delhi coming from stubble burning.

Delhi's pollution will also have to be tackled by replacing modes of transport, from fossil-fuel based vehicles to electric vehicles, or at least 20% ethanol blending in all of Delhi's petrol pumps. Hope Delhi's policymakers can rise to this challenge and save us from the deadly pollution.

## ASHOK GULATI

Distinguished professor, ICRIER  
Views are personal



**The government must incentivise the farmers to move away from paddy, to more nutritious and less-resource-intensive crops such as oilseeds, pulses, etc**

## Formulate strategy to move away from paddy



DEVINDER SHARMA  
FOOD & AGRICULTURE SPECIALIST

**EVEN** as Delhi has deferred the implementation of the odd-even scheme, there is no end to the political slugfest over air pollution in the national capital. Farmers have been caught in the crossfire. "There cannot be a political battle every time... Delhi cannot be made to go through this year after year," the Supreme Court observed.

While the anger is justified in view of the high level of air toxicity in the National Capital Region, the vexed problem cannot be addressed simply by strict policing and deployment of flying squads to check farm fires. It requires a better understanding of the reasons behind the farm crisis and appropriate steps that need to be taken to tackle the menace of stubble burning. Considering that Punjab alone produces 220 lakh tonnes of paddy stubble every year, which is too huge a volume to be taken care of either by the government or the private sector or both, there is no way to avert the

public health crisis created by farm fires without involving the farming community. Farmers are not the villains of the story, as shrieking TV anchors have tried to convey; instead, they can be partners in extinguishing the fires.

In this openly played-out tug of war, with political accusations intensifying, the biggest casualty is the sidelining of crop diversification. Despite all the talk and efforts being made for crop diversification, the area under paddy in Punjab has, in fact, expanded, reaching almost 32 lakh hectares.

At this critical juncture, as several experts advocate for a shift away from paddy in the long run, it requires an effective policy design that outlines the diversification roadmap. Casually demanding the cessation of paddy procurement in Punjab, with the thought that farmers will be compelled to stop paddy cultivation if they don't receive the minimum support price (MSP), is myopic. Those who make such statements have little idea that an anticipated decrease in rice production this year by 3-4 million tonnes has already compelled the Centre to ban the export of non-basmati rice and impose duties on basmati exports. The phase-out strategy must, therefore, be carefully considered.

Unlike the industry, it



**MENACE:** The issue of farm fires cannot be resolved solely through strict policing. (PI)

should be clear that agriculture cannot be expected to close its operations one day and start afresh after a few months. It requires a well-thought-out policy mix and an action plan that the Centre and the state governments have to collectively implement. It isn't as easy as saying: stop paddy procurement and provide MSP for millets. Agriculture doesn't operate that way. Let it also be clear that farmers are not opposed to any move to diversify from the existing cropping pattern. Give them a viable alternative and they will surely adopt it.

Meanwhile, the management of crop residue through industrial consumption has

**Farmers are not opposed to any move to diversify from the cropping pattern. Give them a viable alternative and they will surely adopt it.**

already led to the establishment of a significant number of biomass and fuel plants. Approximately 50 per cent of the total crop residue, roughly about 110 lakh tonnes, is claimed to be taken care of by ex-situ management. Further, the Punjab Pollution Control Board is under pressure to set up more fuel-based industries to incorporate available biomass. The planning of more such industries in the years to come implies an increasing dependence on paddy straw.

Similarly, Punjab already has 1.37 lakh machines for stubble management. On an average, for every 24 hectares under paddy, a machine is available. The plan is to make available

one machine for every hectare. A number of machines that were supplied earlier on subsidy have now become redundant. Now, the demand is for the baler, which costs at least Rs 18 lakh. This begs the question: Why were the balers not promoted earlier? After all, this machine is not a new invention.

With more than 5 lakh tractors, along with their accessory implements, in operation, against the actual need for 1 lakh tractors, the introduction of new farm machinery for stubble management has added to the machine load. This has already transformed Punjab into a junkyard for machines, and in the years to come, the state may face another problem. Farm manufacturers as well as the biomass-driven fuel and energy units will need a continuous flow of raw material. No industry would like the raw material to be in short supply. Simply put, stubble management practices do pose a setback to crop diversification.

Going beyond politics, I think the time has come to devise a two-point strategy to stop farm fires in the immediate future and draw out an environmentally sustainable, diversified crop plan for the long run.

Firstly, although the number of farm fires is decreasing, farmers themselves

have been saying that they would be able to manage stubble in situ if a small incentive covering the additional costs is provided to them, and that too well in time. The request by Chief Minister Bhagwant Mann to provide farmers with an incentive of Rs 2,500 per acre—with the Centre contributing Rs 1,500, and Rs 1,000 to be borne together by the Punjab and Delhi governments—makes economic sense. If the incentive is distributed among farmers in advance in August and implemented effectively, it can put a stop to farm fires from the next year.

If Rs 15 lakh crore of bad corporate loans in the past 10 years can be written off, and another Rs 345 lakh crore outstanding with 16,000 wilful defaulters (people who have the money but don't pay back) can be practically waived under a compromise formula with the banks, there is no reason why financial constraints should come in the way of helping the farming community.

Secondly, the Centre and the state should formulate a time-bound strategy to move away from paddy. This strategy must include an economic design, procurement policy and adequate infrastructure to make it not only sustainable but also profitable and economically viable for farmers.

# Food security with a farmer-centric approach

How schemes like 'One Nation One Fertiliser' can reduce freight costs and shape India's future

**Ashwin Muthiah**

The upliftment and growth of farmers has remained a national priority for 70 years. The Centre's 'One Nation One Fertiliser' (ONOF) scheme is a step forward in this direction — in the farming sector's collective aim to build farmers' self-sufficiency and improve India's food security.

Under 'One Nation One Fertiliser', all types of fertilisers, including Di-ammonium Phosphate (DAP), Nitrogen, Phosphorus, Potassium (NPK), and urea, will be sold under the brand name 'Bharat'. Experience has taught us that farmers are brand loyalists regarding pesticides and seeds but are open to using more than one fertiliser.

After food subsidy, the fertiliser subsidy is a major expenditure for the exchequer. The agricultural sector thus stands to gain not just from the lowered spending on freight subsidy — through reduced transport costs — but also the improved availability of products, especially urea. The single name 'Bharat' will help minimise the fertiliser's

cross-country movement, saving large freight subsidies.

According to the Ministry of Fertilisers and Chemicals, 'One Nation One Fertiliser' is being introduced as a 'Single Brand for Fertilisers and Logo' under the fertiliser subsidy scheme named 'Pradhanmantri Bhartiya Janurvarak Pariyojna' (PMBJP). The memorandum says, "the single brand name for urea, DAP, MOP, and NPK, etc. would be Bharat Urea, Bharat DAP, Bharat MOP and Bharat NPK, etc. respectively for all fertiliser companies, state trading entities (STEs) and fertiliser marketing entities (FMEs)".

The proper implementation of the scheme will ensure uniformity and standardisation, and help in savings for the exchequer.

## KISAN KALYAN

This scheme is part of the 'Kisan Kalyan' vision, which empowers farmers at the grassroots level through simple but effective initiatives, such as the availability of seeds and fertilisers under one roof and one quality.

The fertiliser industry participants both in manufacturing and distribution are always taking inspiration from



**BHARAT FERTILISER.** Farmer friendly

progressive interventions. Over the years, fertiliser production in India has increased drastically, from an annual production of 22.23 mt (million tonnes) in 1990-91 to 43.66 mt in 2021-22.

Consider, for example, how linkages to custom hiring centres have enabled farmers to use drones in their weekly tasks. In recent years, female farmers' contributions have been recognised, and public-private partnerships are leveraging the power of Farmer Producer Organisations (FPOs).

By investing in processes like soil fertility mapping, crop advisories and farmer education programmes and

setting up consultations with experts for farmers in need, we are investing in a promising future.

Empowered farmers, and maximised farm production in their fields, are the building blocks of India's food security and prosperity. In working towards this goal, we will ensure that our fellow compatriots have access to a healthy diet, not just three meals a day.

As stakeholders in the agrarian sector, we should consider the roles we can play in increasing yields — an essential intervention for the supply side to ensure that food prices remain stable. Our source of inspiration lies in our own history books, the Green Revolution.

Since Independence, India's foresight in envisioning food security goals has supported young children, pregnant women, and lactating mothers to receive nourishment.

In the years ahead, our capacity building will have far-reaching consequences — supporting vulnerable populations in their sustenance and ushering in a new era of economic development.

The writer is the Chairman of SPIC. Views expressed are personal

# Kerala forms organic farming mission to boost climate-smart agri practices

**Our Bureau**

Kochi

The Kerala Government has formed Organic Farming Mission to encourage the adoption of sustainable organic and climate-smart farming practices in the State.

The objective of the mission is to expand organic farming to 5,000 hectares in the State in the next five years through an annual target of 1,000 hectares.

Kerala Agriculture Minister P Prasad said the government had formally issued orders related to the mission on October 26.

In farms run by the State Agriculture Department, at least 10 per cent of the area will be set aside for organic farming.

Another mandate of the



**KEY AREAS.** Mission to focus on certification, branding, marketing, value addition and formulation of organic farming schemes in every Assembly constituency

mission is to make sure that selected beneficiaries or farms of organic farming schemes pursue the system at least for five years.

In 2010, the Kerala Government had announced the Organic Farming Policy. In its election manifesto, the Left Democratic Front had

promised an institutionalised mechanism for promoting organic farming.

## AIM OF THE SCHEME

The mission will take steps to expand the system for certification, branding and marketing of organic agricultural products from Kerala.

An organic farming protocol, which is in sync with protocols prevalent at the national and international levels, will be implemented as part of the activities for improving the marketing potential.

The mission will also focus on value addition of organic products.

The mission will also take the initiative to formulate organic farming schemes in every Assembly constituency in Kerala in collaboration with the Krishikoottam collectives and farmer producer organisations.

A governing council chaired by the Agriculture Minister and an executive committee with members drawn from the heads of government departments and farm sector institutions will manage the affairs of the mission.

# India vulnerable to recurring food price shocks, says Das

ABHIJIT LELE & AGENCIES  
Mumbai, 9 November

**R**eserve Bank of India (RBI) Governor Shaktikanta Das on Thursday said India remains vulnerable to "recurring and overlapping" food price shocks despite the recent moderation in inflation.

In these circumstances, monetary policy remains watchful and actively disinflationary to progressively align inflation to the target, while supporting growth, Das said at a symposium on the Indian economy organised by the Institute of Indian Economic Studies in Tokyo in Japan.

The Consumer Price Index-based retail inflation eased to a three-month low of 5.02 per cent in September on the back of softer vegetable prices, but remained above the RBI's 4 per cent target. The retail inflation was 6.83 per cent in August.

The RBI's rate-setting panel has raised the repo rate by 250 basis points cumulatively between May 2022 and February 2023 to manage inflation expectations. The central bank has kept the key rate unchanged over the last four meetings. The panel has projected inflation to average at 5.4 per cent in 2023-24, a moderation from 6.7 per cent in 2022-23.

Thanks to a confluence of factors, including to a large extent the steps taken by the RBI, the Indian economy has emerged as an epitome of stability and opportunity, Das said. "We have not only kept our house in order against large and overlapping global shocks, but also improved our macroeconomic fundamentals and buffers."

While growth remains on track, inflation is on a path of moderation, though it is still above the target. The balance sheets of banks and corporates are healthiest in a long time and with the government's push for public investment, they create favourable conditions for a sustained revival in investment, he said.

Consumer confidence, as evident from RBI surveys, was on a rising trajectory since the pandemic lows. "India's external sector inspires confidence as we are reaping export opportunities in the services sector; our current account deficit remains eminently manageable; and we have bolstered our forex reserves to deal with potential eventualities," Das said.



## Kharif crop prices will guide inflation fight in coming mths

SANJEEB MUKHERJEE  
New Delhi, 9 November

The Centre recently released the first advance estimates of kharif crops that, barring tur dal, showed a dip in production due to uneven monsoon and other natural calamities including pest attacks in cotton.

The first Advance Estimates, released a few weeks back, are usually initial projections on the crop size and, more often than not, are revised as more inputs come from the fields. But, the findings have rung alarm bells in several quarters.

The Centre, along with many others, is confident that as more details come, the estimates will be revised upwards. But if the numbers stay around their projections, it could spell trouble for inflation, particularly in crops such as rice, pulses, edible oils, and cotton to some extent.

This should be of concern to the government as it enters the crucial election year. The polls in the three states of Madhya Pradesh, Rajasthan, and Chhattisgarh could also be influenced if inflation remains high.

A recent analysis by rating agency CRISIL showed that the price of an average vegetarian thali might go up in November if higher prices of onion — which accounts for around 10 per cent of the total cost of a veg thali — persist. In October, too, it said prices could not moderate by much as the price of pulses, which accounts for a 9 per cent share in the cost of a veg thali, increased 19 per cent on-year.

CRISIL's veg thali comprises roti, vegetables (onion, tomato, and potato), rice, dal, curd, and salad. For non-veg thali, the constituents remain the same as in veg thali, except dal is replaced by broiler chicken. The prices are on a raw material basis.

An analysis by SilkRoute.ag, a global agritrade firm based in Dubai, shows that among major kharif crops, cotton prices are expected to remain bearish due to weak demand and new crop arrivals, though output is likely to be down this year to around 27-28 million bales, while pulses prices are projected to remain strong.

### CROP NUMBERS

PRODUCTION IN 2023-24 (FIRST ESTIMATE)

| CROPS            | 2022-23* | 2023-24** | % CHANGE |
|------------------|----------|-----------|----------|
| Rice             | 110.5    | 106.31    | -3.79    |
| Maize            | 23.67    | 22.48     | -5.03    |
| Tur              | 3.31     | 3.42      | 3.32     |
| Moong            | 1.71     | 1.4       | -18.13   |
| Urad             | 1.76     | 1.5       | -14.77   |
| Total foodgrains | 155.71   | 148.56    | -4.59    |
| Groundnut        | 8.56     | 7.82      | -8.64    |
| Soybean          | 14.98    | 11.52     | -23.10   |
| Sugarcane        | 490.53   | 434.79    | -11.36   |
| Cotton           | 33.66    | 31.65     | -5.97    |
| Jute             | 8.98     | 9.19      | 2.34     |

\*According to final estimate for 2022-23; \*\*According to first Advanced Estimate released on October 27  
Source: Ministry of Agriculture

Within pulses, moong rates are expected to bounce back after a slight correction, while pigeon peas (arhar dal) rates are also likely to remain firm. Chana and urad prices, according to the weekly analysis, are likely to push up in the days to come after a brief lull. Another commodity whose prices are of interest to many is soybean, particularly in the context of Madhya Pradesh polls, where it is one of the main kharif crops.

The SilkRoute analysis shows prices will remain firm despite steady crop arrivals and could reach ₹6,000 per quintal, which would be much higher than the MSP of ₹4,600 a quintal for 2023-24.

Wheat prices are expected to stay firm as there is minimal crop with the millers, though there has been a slight moderation in the past few days due to excess liquidation by the government, but the underlying sentiment remains bullish. In rice and maize, too, analysts said prices would remain firm, mirroring wheat and other cereals. In veggies, onion prices could drop from their current elevated levels and trade sideways in the days to come after the new late kharif harvest starts hitting the market, the

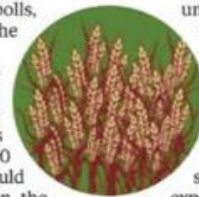
analysis showed.

Sandeep Sabharwal, chief executive officer of Sohan Lal Commodity Management Group, said in a note that an analysis of this year's kharif crop production shows an increase in rice cultivation leading to a marginal improvement in rice output. Conversely, the production of pulses is anticipated to decline, given the unlikely significant change in the sowing area.

For oilseeds and cash crops like sugarcane, the output estimate is slightly higher than the previous year. This has influenced domestic prices, with most significant commodities experiencing an upward trend.

On paddy and maize, which accounts for more than 85 per cent of the total kharif cereal production, the production of this kharif is expected to remain above average levels, according to Sabharwal. On cotton, he feels, the demand from both domestic mills and international markets is expected to remain low, mainly due to the decrease in fiber and yarn prices from the peak levels observed last year.

On the whole, the coming few months might remain challenging for a lot of commodities and their prices.



# The rice of the matter

To resolve stubble burning in states adjoining Delhi, area under paddy cultivation must be drastically reduced



FROM PLATE TO PLOUGH

BY ASHOK GULATI

WITH THE AIR quality index (AQI) (PM 2.5) breaching the 400 mark in Delhi for most days this week, the Supreme Court (SC) bench has come down heavily on the adjoining states of Punjab, Haryana, Rajasthan and Uttar Pradesh. The bench has asked them to stop stubble burning in paddy fields forthwith, and then find long-term solutions. It also suggested making the local Station House Office (SHO) responsible for its implementation. How far this will be implemented is yet to be seen. However, according to reports from Punjab, when officials went to the villages to stop stubble burning, they were forced to light farm fires. This speaks of a breakdown in law and order.

Containing farm fires is critical if people in Delhi have to breathe without serious harm to their health. On November 7, as per the Decision Support System for air quality management in Delhi, biomass burning (mainly stubble burning) accounted for 37.85 per cent of pollution. Notably, Delhi's transport accounted for just 12.67 per cent, and Delhi's construction and dust accounted for less than 3 per cent. Clearly, the most urgent action needed is controlling stubble burning in neighbouring states, notably Punjab.

If Delhi's pollution — stubble burning is a big culprit for that — is not controlled, people in the city are likely to lose 11.9 years of their life, as per the Air Quality Life Index report (2023) of the University of Chicago's Energy Policy Institute. Given that our life expectancy hovers around 71 years, losing 11.9 years of life for a population of about 22 million people in the National Capital Territory, is like killing 3.7 million people through polluted air. And this stretches to many other cities in northern India.

What are the ways to stop stubble burning? Many schemes have been tried to help the farmers in uprooting the entire stubble af-

ter harvesting paddy, from making bales for boilers to using the stubble for mulching. Smart Happy Seeders showed some promise but they have not checked stubble burning at scale. Ultimately, the area under paddy in the Punjab-Haryana belt needs to be drastically cut from 4.7 million hectares (m ha) to just 2.5 m ha.

ter harvesting paddy, from making bales for boilers to using the stubble for mulching. Smart Happy Seeders showed some promise but they have not checked stubble burning at scale. Ultimately, the area under paddy in the Punjab-Haryana belt needs to be drastically cut from 4.7 million hectares (m ha) to just 2.5 m ha. The SC rightly pointed out that it is not a suitable crop for this region and is depleting the water table fast. In a district like Sangrur, the constituency of the present Chief Minister of Punjab, the water table has gone down by 25 meters in the last 20 years. And it is in this district that there are the most farm fires.

The quantum of greenhouse gas (GHG) emissions from paddy in Punjab is still not counted. In a forthcoming study from ICRIER on Low Carbon Agriculture this writer has co-authored with Reena Singh, we have estimated that paddy cultivation in Punjab produces at least 5 tonnes of CO<sub>2</sub> eq/ha. This is also a silent killer. We also estimate that Punjab farmers get a subsidy on paddy cultivation to the tune of almost Rs 30,000/ha, which comes through free power and highly subsidised urea and other chemical fertilisers. This subsidy constitutes roughly one-third of the profits in Punjab's paddy cultivation; this is the root cause of farmers sticking to paddy even when they know they are damaging water aquifers. This is reinforced by the open-ended procurement of paddy by state agencies for the Food Corporation of India (FCI).

How do we wean farmers in the Punjab-Haryana belt away from paddy? Here are some suggestions: One, give a subsidy of say Rs 25,000/ha to farmers switching from paddy to pulses, oilseeds and millets, or even maize. This will help create a crop-neutral incentive structure and will not cost the government as it will save that subsidy from paddy cultivation. Two, incentivise the private sector to set up ethanol plants based on maize, starting

from Sangrur, where water table depletion needs to be arrested as soon as possible. This will help create a market for ethanol blending with fossil fuels, and help in lowering air pollution from vehicular traffic. Three, state agencies should reduce paddy procurement from those farmers burning stubble, and also in those blocks where the water table is depleting fast. Four, FCI should make it clear that they will not pay more than 3 per cent on top of MSP for any mandi fee and commissions for arhatias. This should be uniform across states. Lastly, the PM needs to sit down with chief ministers of the states adjoining Delhi and offer a package to move towards more nutritious crops, millets, oilseeds, and pulses by assuring a procurement of these at MSP. We are short of all these crops that are more nutritious, and more nature-friendly.

Our reliance on rice and wheat in the Public Distribution System is excessive, causing diabetes and harming the environment. Of more than 5 lakh fair price shops, at least 10 per cent (50,000) can be made nutrition hubs where these nutritious crops will also be supplied along with wheat and rice. The consumers should be given a choice whether they want rice and wheat or other crops costing the same money through food vouchers. This will create a more diversified market, save water, minimise GHG emissions from the crop sector, and reduce pollution in Delhi coming from stubble burning.

But Delhi's pollution will also have to be tackled by replacing modes of transport, from fossil-fuel-based vehicles to electric vehicles, or at least 20 per cent ethanol blending in all Delhi's petrol pumps. We hope Delhi's policymakers can rise to this challenge and save us from choking deaths.

Gulati is Distinguished Professor at ICRIER. Views are personal

## Indian organic revolution takes on global markets

ARCHANA JYOTI ■ NEW DELHI

On the lines of the prominent Amul brand in the milk sector, India launched the 'Bharat Organics' brand for organic items produced by cooperative societies to compete in the global and domestic market. Six products — tur dal, chana dal, sugar, rajma, basmati rice, and sonamasoori rice — have already been identified to be sold under the Bharat Organics brand through Mother Dairy's Safal outlets and online platforms. They will soon be available in the open market, said Union Home and Cooperation Minister Amit Shah at an event here after launching the logo of the National Cooperative Organics Ltd (NCOL), which has been entrusted to act as an umbrella organisation managing the entire supply chain of organic products produced by various cooperative societies

and related institutions across the country. It is hoped that with access to national and international markets under a strong brand, the members will get better returns for their organic produce. According to the data, the total size of the world organic food market in 2020 was around ₹10 lakh crore, of which India's organic product exports accounted for a meagre ₹7,000 crore. Currently, the certified Indian organic product retail sales market is around ₹27,000 crore, and it is expected to reach ₹1 lakh crore in the next five years. Therefore, the Government wants to ensure that the benefits of this growth reach farmers. Addressing the 'National Symposium on Promotion of Organic Products through Cooperatives' here, Shah said that under the 'Bharat Organics' brand, 20 more



Union Home Minister and Minister of Cooperation Amit Shah, with Union Minister of State BI Verma, launches 'Bharat Organics' products during the National Symposium on 'Promoting Organic Products through Cooperatives' organised by National Cooperative Organics Limited (NCOL), in New Delhi on Wednesday

"Bharat Organics" branded products will be in the market by December. "These products under the brand will emerge as the most 'trusted' brand in India and abroad. Initially, the NCOL will sell the organic products in India and later will market them in other countries," he added. On the occasion, the Minister also launched NCOL's website and brochure, and presented NCOL membership certificates to five cooperative societies at the event. "It has been decided to ensure that 50 per cent of the price received above the Minimum Support Price (MSP) will be directly deposited into the farmer's bank account on a per kilogram basis," said the Minister, in an effort to encourage farmers associated with the cooperative sector to participate in organic farming. This practice is not only eco-friendly but also in high

demand among health-conscious consumers. He said that till now, it has more than 950 members in Madhya Pradesh, Gujarat, Uttar Pradesh, Andhra Pradesh, Maharashtra, and Nagaland, and membership applications from more than 2,000 cooperative institutions have been received. Shah said the Government has decided that by the year 2024, more than 25,000 members will join NCOL while the work of creating a database of organic farmers has also started. The Minister expressed confidence that after the launch of the 'Bharat Brand', India will stand very strongly in the world organic market in the next 10 years. The Minister of State for Cooperation, BI Verma, Cooperation Secretary Gnanesh Kumar, Consumer Affairs Secretary Rohit Kumar Singh, Commerce Secretary

Sunil Barthwal, NDDBI chairman and NCOL chief Mitesh C. Shah, and FSSAI CEO G. Kamala Vardhana Rao were present at the event. The NCOL is jointly promoted by the National Cooperative Consumers' Federation of India Ltd (NCCCF), Gujarat Cooperative Milk Marketing Federation Ltd (GCMMF), and the National Agricultural Cooperative Marketing Federation of India Ltd (NAFED), along with two major statutory central bodies, the National Dairy Development Board (NDDB) and the National Cooperative Development Corporation (NCDC). A senior official from the NCDC, an apex lending institute to the sector, said that the NCOL aims at increasing the return on produce while giving organic farmers and producer organisations direct access to the market.

## India's impressive strides in value addition to farm products

Helped by positive policies and regular strengthening of supply chain infrastructure linking farms with ultimate consumers, eliminating food wastage in the process, the country's food processing sector continues to record high annual growth rates, says Minister for Food Processing Industries, Pashupati Kumar Paras in an interview with Kunal Bose and Rakhi Mazumdar

Your reflections on India first attaining self-sufficiency and then surpluses in rice and wheat from food deficit and import dependence in the 1960s. The challenges and steps taken to transform this surplus in value added products. Your thoughts.

The government led by the vision of hon'ble Prime Minister, Shri Narendra Modi is committed on strengthening agriculture and allied sectors and thus enhancing farmer's income. Government is annually spending over Rs. 63 lakh crore for the farm sector and welfare of farmers. Among the notable steps taken to help farmers are supply of fertilizers at cheaper rates compared to other countries, procuring large quantities of foodgrains directly from farmers and pay huge amounts directly into bank accounts of farmers under PM-KISAN scheme. Because supportive steps of the government, the country's foodgrain production rose from 257.1 million tonnes in 2012-13 to a record 329.68 million tonnes in 2022-23.

However, value chain strengthening of agricultural and horticulture crops is key to dealing with the surplus production and enabling farmers to receive remunerative prices of their produce. Food processing sector plays a key role in creation of off-farm jobs, reducing harvest and post-harvest losses of agricultural and allied sector produce through investments in preservation and processing infrastructure for value addition in the country and has a vital role to play in doubling farmers' income. Also, in years of bumper crops, storage, preservation of surplus and value addition has been contributing immensely in stabilizing the prices of agricultural products in the country.

Keeping this importance in view, Ministry of Food Processing Industries has been taking every possible steps to create a congenial environment for large scale investment in food processing/value addition. Government, particularly MoFPI, has been providing active support to promote robust and modern food processing/testing infrastructure

Global and domestic investors have committed an investment of Rs. 33,129 crore in India's sunrise food processing sector during the second edition of World Food India.

Companies such as Amul, ITC, Mondelez, Kellogg's, AB InBev, JB Group, Balaji Wafers, Ananda Dairy, Ferti, and Bikanerwala were among the signatories.

The event was inaugurated by the Prime Minister Shri Narendra Modi on November 3, 2023 disbursing Seed Capital Assistance for over one lakh SHG members.

Recognizing the food processing sector as a 'sunrise sector', the Prime Minister highlighted how the sector had attracted over Rs. 50,000 crore in foreign direct investment over nine years.

Among the event's highlights was the Technology and Sustainability Pavilion, which spotlighted cutting-edge innovations in the food industry, signaling a shift toward more eco-friendly and resilient food production practices.

(Source: PIB statement)

facilities from the farm gate to consumers with increased emphasis on perishables for government assistance.

Please elaborate on the assistance provided by Government to promote Food Processing Industries. Has this assistance increased since 2014-15 i.e. in present Government era?

Ministry of Food Processing Industries was established in 1988 to accord undivided policy and schematic

thrust to the sector. Government interventions and support to the sector have exponentially increased over the years since then. The total budget of the Ministry has undergone about 4 times increase since 2014-15. It has increased from Rs. 758.86 crore in 2014-15 to Rs. 3,267.65 crore in year 2023-24.

Since 2014-15, Government has

creation including quality adherence through Central Sector umbrella scheme of PMKSY (since 2016-17 with 10,600 Cr outlay) to integration of unorganized micro food enterprises with global food value chain through PMFME scheme (since 2019-20 with Rs. 10,000 Cr outlay) to measures for expanded Indian footprint in global market through creation of global champion under PLISFPI (Since 2021-22 with Rs. 10,900 Cr outlay).

Food Processing Sector is predominantly unorganized and unregistered. Has Government taken any steps focussed on this segment of very small enterprises?

Keeping in view the highly fragmented nature of food processing sector dominated by micro, small and medium enterprises (95%) and manufacture of food products largely concentrated in the lower end of the value chain, MoFPI is implementing Pradhan Mantri Formalisation of Micro Food Enterprises (PM-FME) scheme, launched under Aatma Nirbhar Bharat Abhiyan with a total outlay of Rs. 10,000 Crore. It is aimed at assisting 2 lakh existing micro food processing units of the country through credit linked subsidy to upgrade to enhanced levels of technology compliances, branding and marketing. Under the scheme, more than 50,000 micro food processing enterprises have already been assisted and seed capital has been made available to more than 2.25 lakh Self Help Group Members. This will go a long way in strengthening value chain at grass root level closer to farms and integrate farmers with processing chain.

Continued on Page 2 >>



## Paddy phase-out doubts in Punjab: Major producer, crores in earnings

KANCHAN VASDEV  
CHANDIGARH,

THE SUPREME Court's observation on phasing out paddy from Punjab may be easier said than done as the state contributes a large chunk to the central pool and earns a significant amount of revenue from the crop every year, according to a noted economist and a top state government source.

On Tuesday, during a hearing on air pollution in Delhi-NCR and stubble burning, the top court had said that the growth of paddy, a crop not native to Punjab, is causing the water table to decline. "...paddy cultivation must be phased out to be substituted with other crops and the Central government should explore the aspect of giving a minimum support price for alternative crops," it said.

Punjab Advocate General Gurminder Singh Kharbanda had suggested to the court that paddy cultivation must be replaced by millets and MSP should be given for other crops.

The state government source mentioned above, requesting anonymity, said it was unlikely that the Centre would provide so



Farmers burn paddy stubble at a village in Kapurthala in Punjab on Wednesday. PTI

much money to Punjab for any other crop, even for millets. "Also, we do not have any such crop. The Centre already wants to phase out paddy from Punjab.... they have to pay so much MSP. Last year, we received Rs 43,000 crore for paddy procurement. This year, the state government has already received Rs 37,000 crore. This is a huge amount of money that helps the rural Punjab economy hugely," said this source.

Although the order didn't name the variety, the reference was basically to Pusa-44. In the current kharif season, Punjab farmers have planted 5.48 lakh hectares under Pusa-44, which is over 17 per cent of the state's total 31.99 lh area under paddy.

Economist Kesar Singh Bhangoo said phasing out paddy was not the solution. "I agree paddy is not native to the state and it is a water guzzler. But imagine that

last year when the wheat yield reduced due to extraordinarily hot February, the Centre banned the exports of wheat. When white rice vanished from shelves in the US, Iran and Iraq due to the Ukraine war, India banned the export of rice. Punjab produces 18 to 20 per cent rice for the central pool. How can the Centre do without this crop?" he asked.

He added that the government had spent millions on machinery for paddy and stubble. "Now, if they phase out paddy, what will they do with so much investment that has gone into the machinery? Everything has to be thought through. There cannot be knee-jerk reactions," he said.

Bhangoo added that the only solution was that the government needs to look at the reduced window between paddy harvesting and wheat sowing. Pusa-44 takes 155-160 days to mature. The crop transplanted in mid-June after nursery sowing a month earlier is ready for harvesting only towards late-October. And since that leaves very little time for sowing the next wheat crop, ideally before mid-November, farmers burn the standing stubble and loose straw remaining after harvesting.

## Kerala forms Organic Farming Mission to boost agriculture

**The Hindu Bureau**  
THIRUVANANTHAPURAM

The Kerala government has created an Organic Farming Mission to encourage the adoption of sustainable organic and climate-smart farming practices in the State. The mission aims at expanding organic farming to 5,000 hectares in the next five years through an annual target of 1,000 ha.

Agriculture Minister P. Prasad announced the formation of the mission here on Wednesday. The government had formally issued orders related to the mission on October 26.

In farms run by the Agriculture Department, at least 10% of the area will be



Kerala Agriculture Minister announces the formation of Organic Farming Mission in Thiruvananthapuram on Wednesday. FILE PHOTO

set aside for organic farming. Another mandate of the mission is to make sure that selected beneficiaries/farms of organic farming schemes pursue the system at least for five years.

The mission will take steps to expand the system for certification, branding, and marketing of organic

agricultural products from Kerala. An organic farming protocol, which is in sync with protocols prevalent at the national and international levels, will be implemented as part of the activities.

The mission will also focus on value addition of organic products.

## CTCRI, IISR develop three biocapsules for farm sector

**The Hindu Bureau**  
THIRUVANANTHAPURAM

The ICAR-Central Tuber Crops Research Institute (CTCRI), Thiruvananthapuram, and the Kozhikode-based ICAR-Indian Institute of Spices Research (IISR) have jointly developed three new biocapsules for farmers.

The CTCRI has identified the three new bioagents – one strain of Trichoderma, an endophyte and a plant growth-promoting rhizobacterium (PGPR). They were developed into capsule form using an IISR-patented encapsulation technology.

Trichoderma is a biocontrol agent, besides having beneficial effects on plant growth promotion, improvement in root structure and condition, enhancement of seed germination and increased crop yield, the CTCRI said. “The endophyte is a harmless microbe present inside plants which promotes growth besides suppressing many plant diseases. The PGPR identified is very

effective in improving nutrient acquisition besides producing phytohormones and controlling many plant pathogens,” S.S. Veena and M. L. Jeeva, principal scientists at CTCRI, who identified the three new microbial strains, said in a statement.

One capsule of Trichoderma weighing 1 g has about 100 billion colony forming units (CFU). A single capsule can be mixed with 100 litres of water and applied to the soil. The biocapsule technology helps in smart and precise microbial delivery, has low production cost, is easy to handle and store, has longer shelf life and can be produced and stored at room temperature, said R. Dinesh, director, IISR, and one of the inventors of the encapsulation technology along with M. Anandaraj and Y. K. Bini.

CTCRI plans to produce the biocapsules on a large scale in view of the Kerala government’s decision to create an organic farming mission, said G. Byju, director, CTCRI.

## Fertilizer subsidy bill may spike to ₹2 trillion

**Puja Das**

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NEW DELHI

India’s fertilizer subsidy bill may touch ₹2 trillion this financial year as higher consumption and costlier natural gas drive it past initial estimates of ₹1.75 trillion, experts at rating agencies said. In the first six months of FY24, fertilizer subsidies have already crossed 63% of the full-year allocation.

Out of the ₹1.12 trillion fertilizer subsidy spent this year, about ₹67,926 crore went into urea and ₹42,200 crore into P&K (phosphatic and potassic) fertilizers. The war in West Asia may keep natural gas prices elevated, driving fertilizer prices higher, and an expected increase in rabi acreage may lead to higher consumption of fertilizers.

“The overall fertilizer subsidy for FY24 is to be higher by 13-14% over the budgeted estimates as an increase in consumption is expected to continue in the rabi season owing to the anticipated increase in acreage under crops like wheat, mustard and potato, to name a few,” said Pushan Sharma, director, research, Crisil Market Intelligence and Analytics.

# Local products can boost exports



AS MITTAL

States can enhance their exports by making their districts as export hubs and marketing the local products with geotags, to enhance their appeal



**G**eographical location is a pivotal factor in making trade competitive which is crucial for overall economic growth. Haryana, a state that was born out of Punjab 57 years ago, was once a barren land with minimal development. However, today, it ranks among the top ten states in terms of export values, mainly due to its geographical advantage of being close to the National Capital Region (NCR). It has five times more exports than Punjab. Similarly, coastline states that have access to ports are better equipped to engage in international trade, while landlocked regions like Punjab face higher trade costs and challenges in transit from the seas. Unfortunately, policymakers have not prioritized overcoming geographical challenges and regional disparities, the focus must shift towards developing each district of such states as an export hub to ensure balanced economic growth.

In the era of the fourth digital industrial revolution and e-commerce channels, developing countries have been able to meet the increasing demand for goods and services from developed countries, thereby exploring new opportunities in international trade. India's goal of making each district an export hub highlights the need for active participation from all districts to promote exports of goods and services produced or manufactured there. It is high time to work actively to overcome the trade challenges faced by landlocked states like Punjab.

To achieve the goal of 'Atmanirbhar Bharat', it is imperative to promote export growth of local goods and services and increase local production, for which export promotion activities must be decentralised. India has already signed several Free Trade Agreements and is currently signing more, which will provide greater access to export markets and raise India's exports to GDP ratio from the present 22.74%.



**TO ACHIEVE THE GOAL OF 'ATMANIRBHAR BHARAT', IT IS IMPERATIVE TO PROMOTE EXPORT GROWTH OF LOCAL GOODS AND SERVICES AND INCREASE LOCAL PRODUCTION**

*(The Author is Vice-Chairman of Sonalika Group, Vice-Chairman of the Punjab Economic Policy and Planning Board; views expressed are strictly personal)*

However, in the latest ranking of states based on the Export Preparedness Index (EPI), Punjab is positioned at a low 10th with a score of 58.95, whereas Haryana takes the lead at 5th with a score of 63.65. It is noteworthy that Gujarat has the highest number of 8 districts among the top 25 districts of the country in terms of export share (54%), followed by Maharashtra with 5 districts, Haryana with one, and Punjab with none. To increase exports significantly, states must actively participate in export promotion activities in each district.

Punjab, in particular, has untapped potential in the form of unique products in each district. Identification of these districts as export hubs would unlock their local potential and fuel economic growth, generate employment, boost rural entrepreneurship, and enhance exports. It's high time that Punjab takes the necessary steps to actively participate and promote export operations in each district, in tandem with 'Vocal for Local' and 'Make in India' initiatives.

The Foreign Trade Policy (FTP) 2023-28 is determined to boost India's foreign trade through decentralized export promotion. As a part of this policy, the Districts as Export Hubs initiative has been introduced as a crucial strategy. This initiative aims to identify potential export products and services in all districts and create institutional mechanisms to promote them, which is a significant step towards achieving the policy's objectives.

To make this initiative a grand success, the Districts as Export Hubs Initiative proposes several strategies. These include creating a robust institutional framework,

identifying potential export products, building the capacity of new exporters, conducting outreach programs for export promotion, addressing bottlenecks related to infrastructure and logistics, and converging ongoing government schemes to support these initiatives. These strategies will ensure that India's potential for foreign trade is fully realized, and the country becomes a major player in the global market.

Permission must be granted for the flow of bilateral trade from Punjab through Pakistan Territory to Middle-East Countries, CIS Nations to Europe and the US to further boost competitive trade. To synchronize the state and centre policy of exports and act as the nodal coordination point for exporters between the state and centre, the establishment of a Directorate of Exports in the state is of utmost importance.

Given that most trade is shifting to global value chains that require timely deliveries, exporters must be allowed to choose the shipment mode as per their business requirements. China has already created an efficient and seamless logistics system to ship goods to global customers, and we must take action now to ensure that we do not fall behind.

The government must create a separate customs code for e-commerce shipments to match the emerging channels. This will not only reduce costs but also expedite the delivery of merchandise by exempting import duties on rejects and treating re-imports as duty-exempt imports in line with global practices. It's high time that the exporters should be allowed to claim GST refunds.

To boost export orders for high-potential product categories like engineering goods, chemicals, telecom equipment, and processed food items, we must focus on developing market intelligence, organizing training for MSMEs, and facilitating the fulfilment of export orders. This is a must-do to stay ahead of the competition.

The Districts as Export Hubs Initiative should be prioritized with the objectives of enabling farmers and MSMEs to benefit from export opportunities in foreign markets. To achieve this, we need to create a district-level ecosystem for innovation and technology utilization to increase export competitiveness and reduce transit and transaction costs for the exporter at various stages of the export cycle. Platforms should also be provided for wide and global reach of products and services from the district, which in turn, will promote local farmers and small entrepreneurs. This is a win-win situation for all.

To create a competitive space in the export market, it is essential to implement the initiative effectively. State and District Export Promotion Committees have been formed, but they are not functioning effectively to meet key target areas such as disseminating market intelligence, improving quality standards, and providing access to international certification industries, as well as monitoring export performance at the district level. The District Export Action Plans aim to identify goods and services for export promotion, employment and revenue generation to drive the local economic growth.

**STOCKS OF SELECT COS** with diversified portfolios, clear strategies can give positive surprises, says firm; a move away from agrochem to new sectors to also benefit industry players

# Under-pressure Speciality Chem Cos Rally on Positive MS Report

Rajesh Mascarenhas  
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**Mumbai:** Shares of speciality chemical companies, which remained under pressure in recent months, saw a rally on Monday following a positive Morgan Stanley report. The brokerage said investors could experience positive surprises in select stocks, particularly companies with diversified portfolios and clearly defined organic volume strategies.

"We believe 2024 will beckon a shift in investment direction away from agrochemicals. Incumbents will explore new products and markets as the industry retools beyond crop solutions, including, but not limited to, opportunities within the clean energy ecosystem," said the brokerage.

While upgrading SRF and Aarti Industries to overweight from equal weight, Morgan Stanley said earnings are bottoming in the first half of calendar year 2024, and the current multiples are seen as more in line with three-year averages, making the stocks appear more reasonably valued.

Aarti Industries saw its shares surge 11%, and Deepak Nitrate also expe-

## Growth Catalysts



| Stock                   | LTP (₹)  | % Chg | YTD Returns (%) | % Chg in EPS Estimates for FY24* |
|-------------------------|----------|-------|-----------------|----------------------------------|
| Aarti Industries        | 510.00   | 10.74 | -16.41          | -4.89                            |
| Deepak Nitrite          | 2,138.35 | 5.77  | 7.71            | -6.37                            |
| Atul                    | 6,708.70 | 4.01  | -18.76          | -17.02                           |
| SRF                     | 2,337.20 | 3.72  | 2.05            | -19.46                           |
| Clean Science           | 1,387.35 | 3.42  | -6.89           | -10.75                           |
| Navin Fluorine          | 3,636.05 | 2.75  | -10.65          | -17.20                           |
| Tata Chemicals          | 973.35   | 1.54  | 3.86            | -1.88                            |
| Vinati Organics         | 1,752.85 | 1.51  | -12.13          | -7.33                            |
| Sumitomo Chemical       | 376.45   | 1.14  | -22.89          | -15.03                           |
| Fine Organic Industries | 4,267.55 | 0.58  | -25.66          | -8.09                            |

\* Change over last three months

Source: Bloomberg

rienced a 6% gain. Additionally, SRF, Navin Fluorine, Clean Science, Neogen Chemicals, PCBL, and others registered gains exceeding 3%.

However, the brokerage has downgraded Navin Fluorine to equal weight and issued a double downgrade for PI Industries, now rating it as relative underweight.

Earnings in India's speciality chemical sector have recalibrated, dropping by 35-50% from their FY23

peaks after enjoying nearly two years of exceptionally high earnings.

In the current year, the Indian chemicals sector has trailed the Nifty index by 12-15 percentage points and has experienced a 25-30% reduction in Street estimates. Speciality chemical stocks continue to face challenges due to the impact of rising global interest rates and an oversupply in production.

Stocks such as Aarti Industries,

Atul, Fine Organic Industries, Sumitomo Chemical, and Gujarat Fluorochemicals fell 10-25% this year compared with a 7% gain in the Nifty index.

Except for PI industries, most chemical companies have seen a downgrade in the earnings estimate in the last three months. For instance, the estimated EPS of Gujarat Fluorochemicals for FY24 has been reduced by 34% in the last three months. In contrast, Deepak Nitrite, SRF, Aarti Industries, and Sumitomo Chemical EPS have been downgraded by over 17%.

Due to continued pricing pressure and low demand, analysts expect chemical companies to deliver a drop in year-on-year profits for the September 2023 quarter by 10% to 20%.

While current valuations may appear high, Indian chemical companies are expected to benefit in the long run, said analysts.

"In the long term, the industry benefits from robust domestic demand, global production diversification, and high-growth segments like pharmaceuticals and speciality chemicals," said Anil R, analyst at Geojit Financial Services.

## 'Export of processed foods, agri products rose to 27%'

DHIRENDRA KUMAR

**NEW DELHI:** Expressing confidence over the rise in export activities in the last nine years, Commerce Secretary Sunil Barthwal on Saturday said that India has witnessed a significant growth in the food processing sector after 2014 as the export of processed food and agricultural products has increased to 27 per cent from 14 per cent in the last few years.

While talking to *Millennium Post*, the Commerce Secretary said, "We have a huge growth potential in the export of processed as well as agricultural products. We need to focus on export of value-added products as there are several countries that import raw agricultural produce from India and export to potential international markets after adding value to it."

The second edition of WFI-2023 is being organised by the



Commerce Secretary Sunil Barthwal, along with APEDA Chairman Abhishek Dev, interacts with international importers at WFI-2023 in New Delhi on Saturday

Ministry of Food Processing Industries at Bharat Mandapam, where over 1,000 international importers from 80 countries participated. The mega food show is scheduled to conclude on Sunday.

"In India, there are different varieties of peanuts and each variety has specific protein

content. So instead of exporting raw peanut, there is a need to extract protein from peanuts and export it to potential international market after adding value to it as it has huge export potential," Barthwal said on the sidelines of his visit to some of the pavilions, including APEDA and MPEDA, at

'As per estimates, the processed food industry is expected to reach \$470 billion in the next couple of years,' Commerce Secretary Sunil Barthwal said

the World Food India -2023. "Similarly, the export potential of processed crab meat is huge. The processed food industry is growing rapidly. As per estimates, it is expected to reach \$470 billion in the next couple of years," said Barthwal, who is 1989-batch IAS officer of Bihar cadre.

On the occasion, the Commerce Secretary also interacted with international importers.

The interaction was facilitated by APEDA at its pavilion at the WFI-2023 in the presence of apex export promotion body's chairman Abhishek Dev.

Furthermore, APEDA has inked MoUs with global retail giant LuLu Hypermarket LLC to boost exports of agricultural products to the Gulf Cooperation Countries (GCCs).

Besides, the apex body for agricultural export promotion has inked an agreement with Saudi Food and Drug Authority (SFDA) to encourage export of agricultural products to Saudi Arabia by ensuring health and technical requirements of the importing country.

According to APEDA chairman Abhishek Dev, the MoU is aimed at promoting Brand India globally as both the groups have forged an alliance to promote APEDA scheduled Indian agricultural products in the international market.



# Activists bat for better **crop** insurance coverage for farmers at low premium

Says the PMFBY scheme has been plagued by fraud, inadequate coverage, and an ineffective claim settlement process

## Taming the Risks of Agri

- Agri is risky due to weather vagaries, pest attacks, plant diseases, unpredictable prices
- Investment in irrigation, water control, research, and extension is crucial to help farmers
- A statutory guarantee of MSP can help farmers deal with price risk
- Insurance is another instrument that can be used to mitigate risk in agriculture

SANTOSH PATNAIK  
VISAKHAPATNAM

AGRICULTURE in pan India has turned risky with the farmers being subjected to face challenges on account of vagaries of weather, pest attacks and plant diseases, and variability and unpredictability of prices. These risks can be mitigated in different ways, felt speakers at a seminar organised by Vizag Insurance Educational Society here on Sunday.

Representatives from various fields attended the semi-



Participants at a seminar organised by Vizag Insurance Educational Society on Sunday

nar addressed by Prof Vikas Rawal, Jawaharlal Nehru University. Sarada Prasad Dash, Senior Divisional Manager, LIC of India and others called for steps to help the farming community to ensure remunerative prices for their products. Institute's honorary secretary AVRK presided over the meeting. Committee members and social activists N Ramakrishna, SS Moorthy, Subba Rao, SS Ganesh, Ch V Ramana and Venkata Kumar spoke.

The participants stated that investment in agriculture, in particular, in irrigation and water control, and in research and extension should be increased substantially to help farmers deal with diseases and pests. They echoed the voice that statutory guarantee of minimum support prices to farmers can help deal with price risk. The framework for providing a price guarantee was created in the 1960s and 1970s on the

basis of recommendations of the Jha Committee (1964). However, this system has been limited to wheat and rice, and over the years has ceased to provide an effective guarantee of price, they bemoaned.

Only a tiny fraction of farmers today have an assurance that their produce will fetch them at least the Minimum Support Price (MSP). In fact, in most years, a vast majority of farmers sell their produce at prices well below the MSP, Prof Rawal pointed out.

Insurance is another instrument that can be used for mitigating risk in agriculture. While this may be important on the margins, until the 1980s, insurance was not considered as the centrepiece of the government's strategy to mitigate risk in agriculture. The first major scheme for agricultural insurance was the Comprehensive Crop Insurance Scheme

which was initiated in 1985, the speakers stated.

This was further expanded in 1999 through the National Agricultural Insurance Scheme. Between 2007-08 and 2015-16, the government also experimented with a weather-based crop insurance scheme, which was, apart from being a weather-based (rather than yield-based) scheme, the first major scheme that involved private insurance companies as insurance providers.

In 2016, the government moved to the Pradhan Mantri Fasal Bima Yojana, which opened crop insurance to the private sector at the national level. The evidence shows that there was an initial expansion of coverage under PMFBY but this has stagnated after that. The expansion of insurance coverage under PMFBY was mainly by way of providing cover to non-loanee farmers.

The speakers opined that PMFBY suffers from a serious problem of lack of regulation and oversight. There is no independent mechanism of verifying validity of data provided by insurance companies. Non-loanee farmers are particularly out of the coverage of regulation. The fact that bulk of the expansion has happened in the category of non-loanee farmers points to the problem, they said.

{ PIYUSH GOYAL } UNION MINISTER

# 'Our market has grown, Canada will bear loss of stalled FTA talks'

HT Correspondent

letters@hindustantimes.com

**NEW DELHI:** The world is looking at India as the global growth engine because of its robust economy, vibrant democracy and demographic advantages, triggering a race among countries to forge bilateral trade deals with New Delhi, commerce and industry minister Piyush Goyal said on Saturday, adding that the suspension of talks for a free trade agreement (FTA) with Ottawa is a loss to the Canadian economy.

Referring to his recent visits to Saudi Arabia and Japan, where he also met captains of industries from across the world, Goyal said the recent geopolitical developments in West Asia has not hit the global enthusiasm about India.

"The enthusiasm about India is absolutely undiminished. They look up to India as the growth engine of the future," he said at the 21st edition of the Hindustan Times Leadership Summit. The minister attended the 7th edition of Future Investment Initiative (FII) in Riyadh from October 24-25, and later went to Osaka (Japan) to participate in the G7 Trade Ministers meeting on October 28.

During these visits, he said, many foreign officials complained that New Delhi was not giving "enough time" to them to expeditiously conclude their respective FTA negotiations. "I'm not boastful, and I'm not being arrogant. I'm only stating the real situation to you," he said in a conversation with Network 18's Anand Narasimhan.

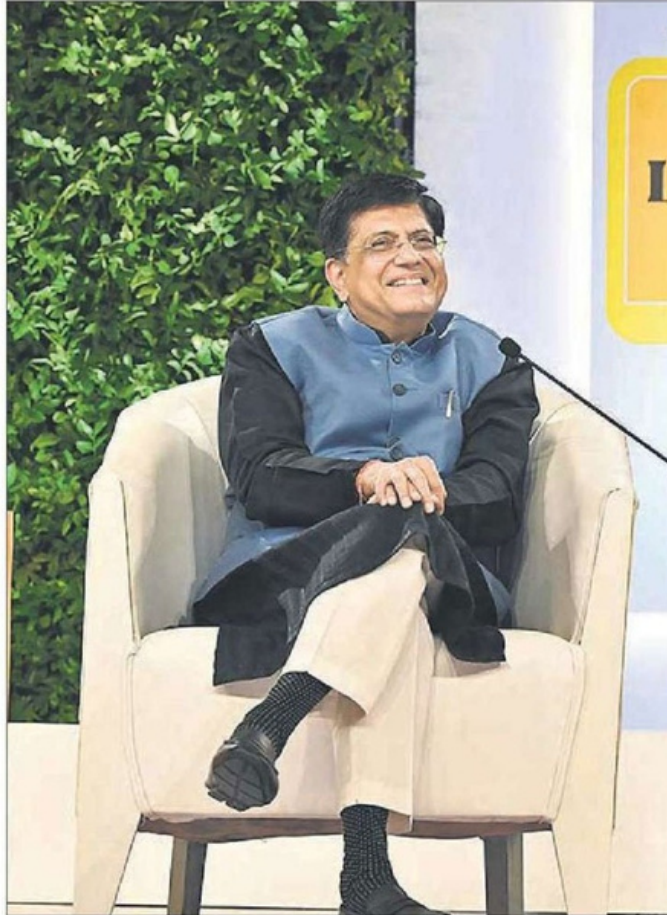
India, which concluded two major FTAs last year – one with the United Arab Emirates (UAE) and the other with Australia – is currently negotiating such bilateral deals with several countries and groups, including the United Kingdom (UK), the European Union (EU), and the Gulf Cooperation Council (GCC).

The FTA negotiations between India and Canada are suspended due to political reasons after the ninth round was held from July 12 to July 21 in a virtual format. The talks were halted after Canada alleged New Delhi's involvement in the alleged killing of a citizen accused of being involved with the secessionist Khalistani movement. India protested Ottawa's allegations.

"Look, with Canada, we have not suspended talks, but they have. There, some leaders [who] have some unfounded misgivings, which would harm them, and not India," Goyal said. "Our market has grown. We have opportunities. The loss will be borne by Canada and Canada's economy," he added.

On FTA negotiations with the UK, the minister said, talks are "progressing well".

Praising external affairs minister S Jaishankar in strengthening India's position in global diplomacy, which helped in favourable trade deals, Goyal said: "Dr Jaishankar is my senior colleague, my very close friend, and I'm a big fan of him. He is our rockstar. He has truly made India proud across the world. We are



Union minister Piyush Goyal at the Hindustan Times Leadership Summit in Delhi on Saturday.

KESHAV SINGH/HT PHOTO

united under the leadership of Modi ji to keep the country safe and secure and day and night working in that direction."

"We all, including Jaishankar ji, Nirmala ji [finance minister Nirmala Sitharaman], together take decisions in the interest of the nation... after consulting stakeholders," Goyal said, referring to coordinated affairs to conclude trade deals for the long-term benefit of the country. Trade deals require extensive consultations among ministries of commerce, finance and external affairs to balance economic and political interests.

Taking a dig at the erstwhile Congress-led UPA government, Goyal said: "These are not the old FTAs that took place during the Congress

regime, which are denounced by the trade and industry on a daily basis. They complain every day that we didn't get a fair deal... There are no criticisms of FTAs that were concluded in our time," he said.

Speaking at the 20th Hindustan Times Leadership Summit (HTLS) on November 11, 2022, Goyal had said that the Modi government does not sign trade agreements indiscriminately. He had citing the example of the Regional Comprehensive Economic Partnership (RCEP) to prove the point. India had decided to quit the RCEP deal, initiated during the Congress-led UPA government, at the eleventh hour because it was not good for India and a major beneficiary instead would have been China.

## MODI GOVT ENSURED EQUAL DISTRIBUTION OF SOCIAL BENEFITS, SAYS UNION MINISTER

HT Correspondent

letters@hindustantimes.com

**NEW DELHI:** The Narendra Modi government at the Centre has ensured unbiased implementation of social welfare schemes in the last nine-and-a-half years, and no eligible family has lost out on benefits offered by the government, said Union minister Piyush Goyal on Saturday.

Speaking at the 21st edition of the Hindustan Times Leadership Summit, the minister said saturation of schemes has ensured that while no family is left out, some of the families have got benefits from "multiple schemes" worth lakhs of rupees, and refuted that these amounted to the "revadis" or freebies that his party has accused the Congress of doling out.

The minister also said that the BJP does not politicise the issue of Ram Janmabhoomi and that the Ram Temple is not an election issue but a matter of faith for the party.

It is the implementation of various social schemes that have created a new vote bank — that of beneficiaries, said Goyal, who holds the portfolios of commerce and industry and textiles. "This faith that people have on BJP team, and the PM is our calling card," he said, and added: "Our strength lies in that the party has leaders who are rooted, connected to the people, have ethics and honesty in their work... People are conscious of the fact that an honest government can give a better life and future."

The BJP, in power at the Centre since 2014, has made being against "corruption, appeasement and dynastic politics" as its core promise, and cites the implementation of its social schemes as the reason for a new set of supporters — which it is banking on for the assembly polls due to begin on November 7. Goyal said he was confident the party will retain power in Madhya Pradesh and defeat the Congress in Rajasthan and Chhattisgarh. "In all states, there will be BJP. In Telangana it [polls] are a long way off, will have to wait for how it pans out," he said.

While he attacked the Congress for not being a united house, citing rifts such as the one between Rajasthan chief minister Ashok Gehlot and Sachin Pilot, Goyal said the BJP had its house in order.

To a question over the construction of the Ram Temple in Ayodhya, he said: "Hamare liye ye aasha ka vishay hai (It is a matter of faith for us). We are satisfied that the dream of building a grand temple is nearing completion. We have not politicised it."

# Wheat sowing on, govt supply of heat-tolerant seeds run dry

{ PIYUSH GOYAL } UNION MINISTER

# 'Our market has grown, Canada will bear loss of stalled FTA talks'

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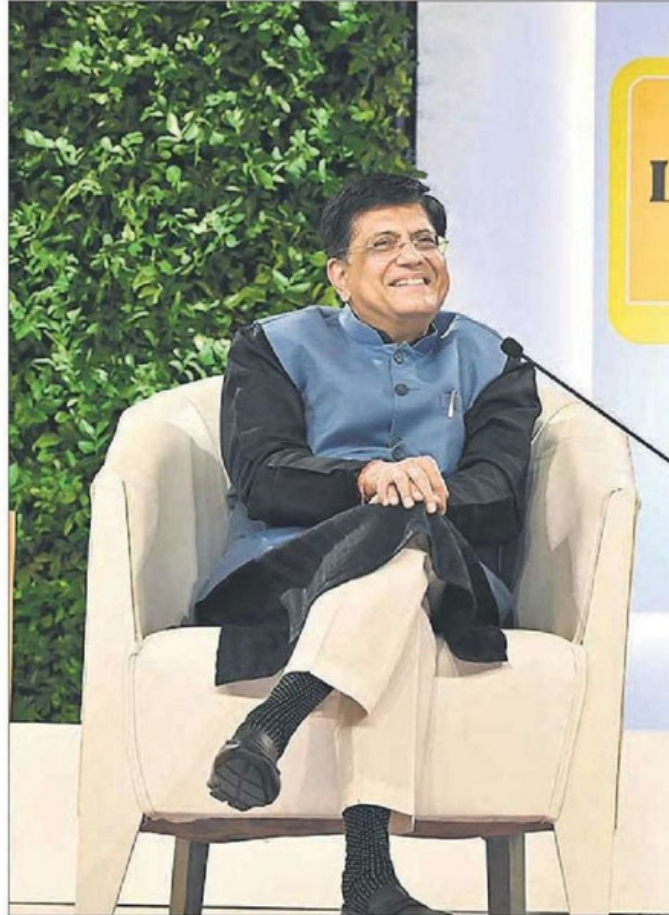
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regime, which are denounced by the trade and industry on a daily basis. They complain every day that we didn't get a fair deal... There are no criticisms of FTAs that were concluded in our time," he said.

Speaking at the 20th Hindustan Times Leadership Summit (HTLS) on November 11, 2022, Goyal had said that the Modi government does not sign trade agreements indiscriminately. He had citing the example of the Regional Comprehensive Economic Partnership (RCEP) to prove the point. India had decided to quit the RCEP deal, initiated during the Congress-led UPA government, at the eleventh hour because it was not good for India and a major beneficiary instead would have been China.

## MODI GOVT ENSURED EQUAL DISTRIBUTION OF SOCIAL BENEFITS, SAYS UNION MINISTER

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**NEW DELHI:** The Narendra Modi government at the Centre has ensured unbiased implementation of social welfare schemes in the last nine-and-a-half years, and no eligible family has lost out on benefits offered by the government, said Union minister Piyush Goyal on Saturday.

Speaking at the 21st edition of the Hindustan Times Leadership Summit, the minister said saturation of schemes has ensured that while no family is left out, some of the families have got benefits from "multiple schemes" worth lakhs of rupees, and refuted that these amounted to the "revadis" or freebies that his party has accused the Congress of doling out.

The minister also said that the BJP does not politicise the issue of Ram Janmabhoomi and that the Ram Temple is not an election issue but a matter of faith for the party.

It is the implementation of various social schemes that have created a new vote bank — that of beneficiaries, said Goyal, who holds the portfolios of commerce and industry and textiles. "This faith that people have on BJP team, and the PM is our calling card," he said, and added: "Our strength lies in that the party has leaders who are rooted, connected to the people, have ethics and honesty in their work... People are conscious of the fact that an honest government can give a better life and future."

The BJP, in power at the Centre since 2014, has made being against "corruption, appeasement and dynastic politics" as its core promise, and cites the implementation of its social schemes as the reason for a new set of supporters — which it is banking on for the assembly polls due to begin on November 7. Goyal said he was confident the party will retain power in Madhya Pradesh and defeat the Congress in Rajasthan and Chhattisgarh. "In all states, there will be BJP. In Telangana it [polls] are a long way off, will have to wait for how it pans out," he said.

While he attacked the Congress for not being a united house, citing rifts such as the one between Rajasthan chief minister Ashok Gehlot and Sachin Pilot, Goyal said the BJP had its house in order.

To a question over the construction of the Ram Temple in Ayodhya, he said: "Hamare liye ye aasha ka vishay hai (It is a matter of faith for us). We are satisfied that the dream of building a grand temple is nearing completion. We have not politicised it."

# Wheat sowing on, govt supply of heat-tolerant seeds run dry

# Falling farm exports: concerns

While the effects of bans and restrictions on rice, wheat and sugar shipments are being felt in declining agri exports from India, imports are continuing unhindered. This is hurting farmers



HARISH DAMODARAN

INDIA'S AGRICULTURAL exports have fallen 11.6% year-on-year in April-September. This comes on the back of the Narendra Modi government imposing bans/restrictions on the shipments of various commodities — from wheat and rice to sugar — and global prices easing from their peaks scaled immediately after Russia's invasion of Ukraine.

According to department of commerce data, exports of farm commodities, at \$23.6 billion in April-September 2023, were below \$26.7 billion for April-September 2022. Imports fell too, from \$19.3 billion to \$16.2 billion, resulting in a marginal dip in the agricultural trade surplus (exports minus imports) from \$7.4 billion in April-September 2022 to \$7.2 billion in 2023.

The country's farm exports touched all-time-highs of \$50.2 billion in 2021-22 (April-March) and \$53.2 billion in 2022-23, reversing a declining trend from 2013-14 to 2020-21. The years 2021-22 and 2022-23 also saw record imports of \$32.4 billion and \$35.7 billion respectively (chart). The current fiscal, in a sense, marks a return to normal with both exports and imports contracting.

## The impact of global prices

India's farm trade, especially exports, is strongly correlated with world prices.

The UN Food and Agriculture Organization's (FAO) Food Price Index (FPI) rose from an average of 96.5 points in 2019-20 and 102.5 points in 2020-21 to 133 points in 2021-22 and 139.5 points in 2022-23. In the current fiscal (from April till October 2023), the FPI has averaged 123.2 points.

India's agricultural exports fell from \$43.3 billion in 2013-14 to \$35.6 billion in 2019-20 along with the FPI, and rose thereafter with the index soaring to unprecedented levels in 2022-23.

With world prices since coming down, the value of both exports and imports of farm commodities are set to decline in 2023-24. This comes even as supply disruptions from the Russia-Ukraine war have eased. In its latest supply and demand brief, the FAO has projected global ending cereal stocks for 2023-24 at an all-time-high of 881.1 million tonnes (mt) and the stocks-to-use ratio at



30.7%, "a comfortable supply situation from a historical perspective".

## The impact of export curbs

Easing global prices apart, a second reason for falling farm exports has to do with government restrictions, in response to domestic availability and inflation concerns.

In May 2022, the government banned exports of wheat. In September 2022, exports of broken rice were prohibited and a 20% duty levied on all white (non-parboiled) non-basmati grain shipments. In July 2023, exports of white non-basmati rice were banned altogether.

In August 2023, a 20% duty was clamped

on exports of parboiled non-basmati rice too, while basmati shipments were subjected to minimum export price (MEP) curbs.

In May 2022, the government moved sugar exports from the "free" to the "restricted" category, capping the quantity of the sweetener that could go out. Since May 2023, exports have stopped completely, with no fresh quotas for shipments being issued.

The effects of these measures can be seen in table 1. In 2021-22, India exported an all-time-high 7.24 mt of wheat valued at \$2.1 billion. In 2022-23, exports of rice (non-basmati plus basmati) rose to a record 22.35 mt worth a whopping \$11.1 billion. In the current fiscal (April-September), wheat exports have plunged to negligible levels, while non-basmati rice posted a 15.9% year-on-year decline. Sugar exports have more than halved, after fetching \$4.6 billion and \$5.8 billion in 2021-22 and 2022-23 respectively.

## Concerns for farmers

Declining international prices not only lower the cost competitiveness of the country's agricultural exports, but also make its farmers more vulnerable to imports. This is being witnessed in cotton and edible oils.

The benchmark global Cotlook 'A' Index price for cotton is currently quoting at 91.80 cents per pound, from the high of 173.45 cents attained on May 5, 2022. The price crash has led to India's cotton exports not only plummeting, from \$2.8 billion in 2021-22 to \$781.4 million in 2022-23, but also imports surging 2.5 times from \$559.6 million to \$1.4 billion (table 2). This transformation from a net exporter to net importer is reflected in the prices of *kapas* (raw un-ginned cotton): Rs 7,000-7,100 per quintal in Gujarat's Rajkot market now, as against Rs 9,000-9,100 a year ago and Rs 12,000-plus in May 2022.

The value of India's edible oil imports more than doubled from \$9.7 billion to \$20.8 billion between 2019-20 and 2022-23. This was primarily due to skyrocketing global prices, particularly post the war in Ukraine. Prices have since collapsed, but imports of crude palm, soyabean and sunflower oil are still coming in at a low 5.5% duty.

Soyabean is trading at Rs 4,700-4,800 per quintal in the *mandis* of Madhya Pradesh, compared with Rs 5,300-5,400 at this time last year. However, the Modi government's focus on controlling food inflation ahead of national elections — and privileging the interests of consumers over producers — means that imports of edible oil and pulses will continue unhindered, alongside restrictions on exports of cereals, sugar and even onion.

For farmers, that would be a double whammy.

# Cotton hit by pink bollworm, farmers seek compensation

# Cooling commodities boost India Inc Q2

**MISSING PIECE.** However, volume growth is still on anticipatory mode

Sai Prabhakar Yadavalli  
bl. research bureau

For the 787 companies that had reported second quarter results till last Thursday, revenue growth was flat at 0.3 per cent y-o-y (excluding BFSI), with high PAT growth (55 per cent y-o-y). Higher margins delivered robust PAT growth. The first quarter had showed the first signs of commodity cool-off, which delivered fully this quarter.

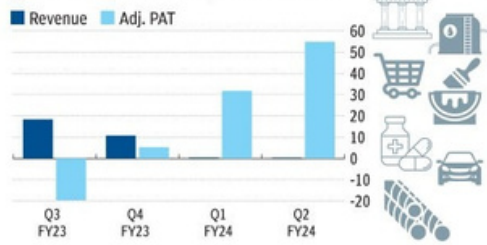
However, weak volume growth was evident from margins. EBITDA margin grew 432 bps y-o-y in Q2 considerably trailing gross margin expansion of 635 bps. Without volume expansion, normal inflation in overheads has impacted.

## SECTORAL SHOW

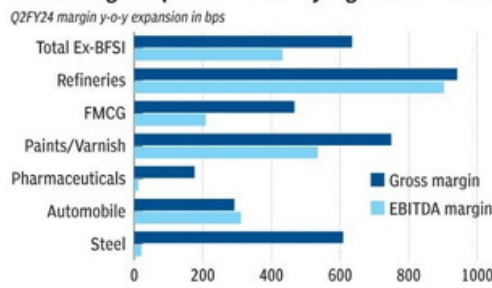
Much of the manufacturing sectors gained from margin expansion. With a 46 per cent y-o-y growth in PAT, the auto sector continues to take the lead with bumper festival season still underway. Cooling off in commodities including steel and alloys, too, helped.

With cost declining in ed-

## Earnings growth outpaces revenue growth (Ex-BFSI)



## Gross margin expansion offset by higher overheads



ible oils, chemicals, copra and logistics, FMCG and paint companies reported significant margin expansion this quarter (460/750 bps y-o-y gross margin expansion). However, tepid volume growth was reported.

Cement and steel sector are in the midst of expansion, in anticipation of strong infra push. Commodity and energy costs have deflated padding their margins, even as cement price held firm and steel prices de-

clined this quarter. However, the picture isn't rosy for some others such as pharma and IT.

In the pharmaceutical sector, strong domestic growth over the past five years has given way to a recent quarter of weakness due to pricing restrictions and slower base business growth. The Indian market growth (IPM), typically in double digits, slowed to seven per cent this quarter.

In the IT sector, deal wins are making progress, but companies are now focusing on cost optimisation. However, digital, discretionary, and other high-margin businesses are contracting and are expected to remain weak.

## MIXED OUTLOOK

Banks and automobiles continue to be top picks for investments. But credit growth, which has trended above 20 per cent in FY23, has slowed to mid-teens starting with retail credit. The spreads (between lending and deposits) will decline going forward as last leg deposit repricing gets done in H2FY24. In the auto industry, the tougher compar-

isons stemming from the higher base during and after the Covid-19 period will pose a challenge. FMCG and consumer facing sectors will face increased competition from price pass throughs.

Overall, earnings growth may likely continue in H2FY24 at a similar pace, riding on unwinding of commodity cost inflation across markets. A pick-up in volume growth can also help. But with trouble in West Asia and spike in crude oil prices, a hard bet on continued commodity deflation maybe premature. Coal and energy prices for steel and cement companies have increased towards end of the quarter.

Farm commodities also need to be monitored considering the damp kharif estimates. On the demand front, volume growth is still in anticipatory mode for high frequency sectors (FMCG, paints and pharma). Besides, with muted growth expectations in developed world, export economy will face headwinds. On the other hand, energy, power and refineries can expect continued growth on higher energy costs making a comeback and lower processing capacity globally.

## Black marketeers create fertiliser crisis, hike prices

# 'Promote bio-fortified crops to deal with malnutrition in India'

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