

ACFI NEWSLETTER

APRIL 2024

Exporters seek exemption from 45 days payment rule

PTI ■ NEW DELHI

Indian exporters have urged the government to exempt them from the 45-day payment rule for goods bought from micro and small enterprises (MSEs) as it will impact their businesses.

In a letter to Prime Minister Narendra Modi, chiefs of major export promotion councils and federation of Indian export organisations have appealed to waive the export companies from section 43B(h) of the Income Tax law. The new rule, Section 43B(h) of the Income Tax Act, introduced in the Finance Act 2023, is designed to make sure small businesses get paid on time. It allows companies to get tax breaks if they pay their small business suppliers within the time limits set by the MSMED (Micro, Small and Medium Enterprises Development) Act, 2006.

Especially, companies must pay within 45 days if there is an agreement, and within 15 days in the absence of such a pact. If they do not meet these deadlines, they can not deduct these expenses for tax purposes.

"Our humble request is to consider the export community separately for domestic supplies as our challenges and situations are



very different. Exporters who receive supplies from micro and small units have been affected as it has impacted their liquidity," according to the letter dated February 16.

It said that for exports, payment is received with an average time lag of 120 days, although the RBI allows a nine-month period to realise export proceeds as sometimes it takes even longer.

"The average lead time for an export consignment is about 90 days compared to a maximum of 14 days for domestic consignments within India. Buyers generally pay after receiving the goods, which, with an additional 30 days, makes it 120 days for exports," the exporting community argued.

Exporters generally maintain

larger inventories due to economic and demand factors in the destination market. This has increased further due to the current geopolitical uncertainties, according to the letter.

"In view of this, we humbly request that in order to provide a level playing field to our exporters compared to exporters from other countries, this provision should not apply to exports. Therefore, the supply of goods from the micro and small units to exporting units, either for manufacturing of export products or for the further exports, should be exempted from this..." it added.

If the government would not exempt them, the 45 days should be increased to 120 days, it noted.

Exporters said the exporting community supports the move, but the government should consider giving exemptions at least for a few years.

Sharing similar views, the economic think tank Global Trade Research Initiative (GTRI) said that Section 43B(h) is an effort on the part of the government to support MSE's financial stability and operational success, but the rule is likely to increase compliance efforts and financial strain for companies.

GTRI founder Ajay Srivastava suggested exempting exporters from the provision altogether. He said the RBI allows nine months for realising money from foreign buyers. China allows long credit lines to its buyers. The current provision will immediately start hurting India's exports from small firms and weaken India's export story and targets.

"GTRI requests a reconsideration of Section 43B(h), advocating for exemptions for exporters, a non-retrospective application from April 1, 2024, and an inclusive approach that encompasses medium enterprises. Let's ensure our tax policies promote growth, sustainability, and the global competitiveness of all Indian enterprises," Srivastava said.



Water crisis: Experts call for tackling the water-energy-food-ecosystem nexus

The World Water Day brought the spotlight on the global water crisis

VINCENT FERNANDES

TODAY, 2.4 billion people live in water-stressed countries, defined as nations that withdraw 25 per cent or more of their renewable freshwater resources to meet water demand.

Hard hit regions include Southern and Central Asia, and North Africa, where the situation is declared critical. Even countries with highly developed infrastructure, like the United States, are seeing water levels drop to record lows.

Along with climate change, the crisis is being fed by unchecked urbanization, rapid population growth, pollution and land development. Water shortfalls already affect everything from food security to biodiversity and in the coming years. They are poised to become more common.

By 2025, 1.8 billion people are likely to face what the Food and Agriculture Organization (FAO) calls "absolute water scarcity" and two-thirds of the global population is expected to be grappling with water stress.

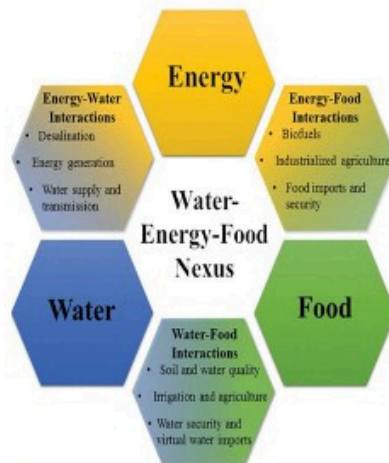
They are all symptoms of a world facing what experts call a water crisis. At least 50 per cent of the planet's population – four billion people – deals with water shortfalls, at least one month of the year.

The World Water Day on March 22 brought the spotlight on the global water crisis, which is being driven by a combination of factors, from climate change to leaky pipes.

Ahead of that international observance, here is a look at seven things countries and individuals can do to stem water shortfalls.

The ecosystems that supply humanity with fresh water are disappearing at an alarming rate. Wetlands, peat lands, forested catchment areas, lakes, rivers and groundwater aquifers are falling victim to climate change, overexploitation and pollution. This is undermining their ability to provide communities with water. These natural spaces urgently need to be protected and those that have been degraded, revived through large-scale restoration.

Countries would be well served to develop specific, measurable targets for this work. Nations should ideally weave



Often, water is plentiful but is too polluted to be useful for drinking, manufacturing or recreation. Measuring water quality can help policymakers prioritize actions to clean up water sources. This evaluation can be complemented by satellite data, artificial intelligence and even citizen science

those goals into national plans to counter climate change, protect biodiversity and avoid drought and desertification. This work is especially important for securing water supplies for cities, many of which are suffering from acute shortages.

Agriculture accounts for some 70 per cent of all fresh water used globally. Adopting water-saving food production methods, such as hydroponics, drip irrigation and agroforestry, can help water reserves stretch further. Also helpful: encouraging people to switch to plant-based diets, which generally require less water than those based around meat.

Being efficient also means reducing the amount of water lost through leaky municipal infrastructure and building piping. There is no global data for the amount of water lost this way but numbers suggest the total is massive. In the

United States of America alone, household leaks waste nearly one trillion gallons of water per year.

As supplies of lake, river and aquifer water dwindle, countries will need to get creative. This means taking advantage of undervalued water resources, such as by treating and reusing wastewater. Countries and communities can also implement rainwater harvesting, which involves collecting and storing water for use in dry spells. Desalinating saltwater is also an option in some places if done sustainably. The problem: the process often leads to the discharge of toxic brine into the ocean and increased greenhouse gas emissions from the energy required to fuel the process.

Often, water is plentiful but is too polluted to be useful for drinking, manufacturing or recreation. Measuring water quality can help policymakers prioritize actions to clean up water sources. This evaluation can be complemented by satellite data, artificial intelligence and even citizen science. UNEP's Freshwater Ecosystems Explorer provides decision-makers with water quality data, helping to spur action to protect and restore freshwater ecosystems.

Climate change is affecting rainfall patterns, aquatic habitats and the availability of good quality water. At the same time, peat-lands and other watery carbon warehouses are being degraded, causing planet-warming emissions to spike and compounding climate change. To manage this destructive feedback loop, countries must emphasize the protection and restoration of carbon sinks. They should also harmonize their strategies for managing water with their policies for limiting and adapting to climate change.

Decisions about water cannot be made in a vacuum. Water is a key component in everything from power generation to industrial manufacturing to farming.

So, countries must develop action plans that address water use and pollution across multiple sectors, tackling what experts call the water-energy-food-ecosystems nexus. This approach can help countries adopt coherent responses to water-related challenges while maximizing food production and energy generation.

Means for controlling plant pests



DR TAPAN KUMAR MAITRA

According to an estimate of experts of the United Nations Food and Agricultural Organization, at present the world's agriculture loses about one-third of what it produces every year as a result of the activities of harmful organisms, 13.8 per cent of all losses falling to the share of insects and mites. The harm produced by insects and mites is expressed in both the direct damage to plants and food products (the gnawing and eating of leaves and fruits, defoliation, the yellowing and dying off of plant parts) and in their indirect damage (the creation of conditions for the development of diseases, the vectoring of pathogens, spoiling of the quality of products, etc.). About 70,000 species of insects and mites attack all the parts of agricultural plants during their entire period of vegetation and in storage, and about 10 000 species of them cause substantial economic harm. Pests such as locusts are a real calamity to many agricultural countries, destroying crops completely in some years.

The diversity of the species and harmful forms of insects and mites, the features of their structure, biology and ecology (such as the thick protective integuments, the high vitality, fertility, and adaptability to new conditions, the large number of generations in a single season, and the diversity of their habitats) considerably hamper the control of insects and mites and the development of effective chemical means of

protection against them. Insecticides with a stomach action that are effective in controlling leaf-eating pests have no effect on sucking insects and mites, and, conversely, systemic insecticides intended for controlling the latter hardly affect leaf-eating insects. Compounds with contact action have a rather broad control spectrum, but harm the beneficial entomofauna to a great extent. All these circumstances determine the broad range of insecticides and acaricides used in agriculture and the large amounts in which they are applied.

Chemical substances are being used for controlling insects from time immemorial. Homer (1000 BC) mentioned the use of sulphur as a repellent of insects; Alinii (70 BC) reported the use of arsenic as a means for killing insects. In 1867, copper salts of arsenic acids were used in Europe to control the Colorado beetle. The beginning of the twentieth century was characterized by the development of fumigation and the manufacture of formulations based on nicotine, while 1925 saw the appearance of the first synthetic organic formulations from the group of nitrophenols. But these insecticides did not come into great favour for a number of reasons (the narrow specificity of their action, the high toxicity to humans and animals,

the high cost of protective measures, and so on).

A real revolution in the chemical protection of plants was made by the appearance in the early 1940's of contact insecticides from the HLD group of chlorinated hydrocarbons (DDT, HCH, aldrin, etc.) that were distinguished by their exceptionally broad spectrum of action, high activity, and cheapness of manufacture. In 1946, the commercial production commenced of insecticides and acaricides from the group of organic compounds of phosphorus, among which there were later discovered systemic toxicants having a sufficient selectivity.

Modern insecticides and acaricides belong to different classes of

chemical compounds and have a different mode of action. Synthetic organic compounds predominate among them, especially derivatives of phosphoric, phosphorothioic, and phosphorodithioic acids. Basically, the representatives of the same class are characterized by common specific properties and a single mechanism of their action on an organism. It is therefore more convenient to study the properties and features of these substances by classifying them according to their chemical structure.

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KisanKraft develops 12 direct-seeded rice varieties, to take up multi-location trials in 14 States this year

'Agri greenhouse gas emissions must drop 30% to align with Paris pact'

Our Bureau
Chennai

Greenhouse gas emissions due to agricultural production must decline 30 per cent by 2030 to align with the Paris Agreement's goal to limit global warming to 1.5°C by 2050, said the Future Fit Food and Agriculture report series.

This can be done through investments from the agri-food sector of up to \$205 billion per year between 2025 and 2030 to achieve up to 9 gigatonnes of carbon dioxide equivalent of mitigation annually to 2030, according to a series of reports launched on Tuesday from the Food and Land Use Coalition, the World Business Council for Sustainable Development and We Mean Business Coalition.

IMPLICATIONS

"The agri-food sector must play a crucial role in keeping 1.5°C within reach by urgently cutting greenhouse gas emissions and scaling up

nature protection solutions through their value chains," they said.

The first report in the series is aimed at helping agri-food companies understand the implications of current and emerging voluntary standards and the expected trajectory of regulation for climate and nature. The second report unpacks the financial costs and benefits of implementing mitigation solutions to tackle agriculture and land-use change emissions in company value chains, said a statement from the three organisations.

The climate strategies of most food and agriculture companies, from input providers and food producers, through to traders and multinational companies, are not comprehensive or ambitious enough.

FACING A CHOICE

"Food and agriculture companies are facing a choice. Those striving to deliver ambitious sustainability strategies today, in close col-



MORE WORK REQUIRED. According to reports, the climate strategies of most food and agriculture companies from food producers to multinational companies are not ambitious enough

laboration with farmers in their supply chain, will likely enjoy lower costs, stronger returns and greater agility in the face of advancing sustainability regulation. Those that stall won't just fail to deliver on climate and nature commitments, they will face higher costs and higher supply chain risks in the long term," said Morgan Gillespy, Executive Director, Food and Land Use Coalition.

Agricultural production and land-use change emis-

sions in company value chains account for nearly half of total food systems emissions (an estimated 10 GtCO₂e of a total 21 GtCO₂e in 2030).

The statement said analysis from the Future Fit Food and Agriculture reports series estimates that, to mitigate up to 90 per cent of their annual agricultural and land-use change emissions by 2030, food and agriculture companies should expect sector-wide costs of approximately \$205 billion per year (2025-2030).

While significant, such investments are manageable for the sector as a whole and they have associated co-benefits. The annual expenses represent less than 2 per cent of the sector's projected \$13 trillion average annual revenues for 2025-2030.

One-fifth of the investments will be in new and growing markets. "These investments, estimated to be \$40 billion per year (average annual from 2025-2030), could lead to potential additional returns of up to \$190 billion per year by 2030," it said.

Some on-farm solutions provide savings and/or increased yields worth up to \$30 billion per year.

Diane Holdorf, Executive Vice President, World Business Council for Sustainable Development, said: "To meet net-zero targets, businesses must take concerted and ambitious action to de-risk the transition for producers and ensure the costs and benefits of mitigation are shared equitably across the value chain."

Preparing the ground for precision farming

Sustainable agri-waste management can spur demand for cutting edge farm machinery and crop management solutions

S Chandramohan

Around the world, agriculture is shifting to more sustainable practices. The change is due to growing environmental concerns and preference for more sustainable foods. The regulations and the developments in Europe will affect India, given its position as a large and attractive market. The 'Farm to Fork' policy in the EU, even if not implemented intensively, would force all stakeholders — farmers, commodity processors and food producers — to redefine and reshape their value propositions. Recent reforms of the Common Agricultural policy have emphasized the integration of environmental and climate objectives into subsidy payments.

The global agri-machinery industry has evolved from precision farming before 2020 to smart farming now, which is the ability to generate and transmit data for efficiency, traceability and sustainability.

Abroad, there are several start-ups, apart from OEMs, which manage all farm operations, provide agronomic decision support as well as manage the

profits and losses of the farmer.

In India, most of the innovations in the past few years have been around supply chain, and largely involving last-mile connectivity between farmers and customers. There are only few instances where precision farming solutions are being offered, and due to cost considerations these are yet to take off.

FUNDING AGRI START-UPS

The government's recent announcement of a ₹750-crore blended fund for agri start-ups and rural enterprises would hopefully change the scenario in the years to come.

Annually, India generates 500 million tonnes of agricultural residue, offering a substantial business opportunity of around ₹50,000 crore. Nearly 200 million tonnes of this resource remain unused, often resulting in its being burnt.

This underscores the untapped potential for converting agricultural residue into biofuels. The Finance Minister's recent announcement of financial assistance for biomass aggregation machinery is a crucial



TECH. Must be scaled up in farming

initiative. Encouraging farmers to participate in the bioenergy supply chain not only promotes sustainable agricultural waste management but also opens new opportunities for income generation. This will catalyse the demand for cutting-edge farm machinery and crop management solutions.

At the ground level, India is far behind in the area of precision farming. Farm input manufacturers need to move from conventional products to sale of solutions that help farmers maximise output using lower chemicals per

hectare. New precision agricultural tools that enable consistent planting of seeds at optimal depth, pneumatic sprayers and spreaders that can deploy fertilizer more precisely than conventional implements are already being used abroad.

There are today several players abroad who provide software solutions to manage the entire crop life-cycle.

Leading global food companies require traceability, agronomic monitoring, yield forecasting, and improvements in agricultural practices across the supply chain of the product. Low-cost sensors are required to monitor soil nutrients, soil moisture, pest and diseases. Indigenous manufacture of such sensors needs to be encouraged. Our net sown area has almost stagnated at around 140 million hectares and there is little scope to increase it. Intensive agriculture has led to soil and water degradation. There is an urgent need to move towards sustainable farming practices to ensure food security.

The writer is Director & Group President Finance, TAFE Ltd. Views are personal

Carbon borders: A trade challenge



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MOLLSHREE GARG

Respectively, CEO, Indiatech.org and India managing partner, ERM

As negotiations and policy support continue, Indian businesses should prepare for the impact of the EU's Carbon Border Adjustment Mechanism

Europe is at the forefront of climate protection and is leading the global environmental agenda with the goal of becoming the first climate-neutral continent by 2050. In September 2020, the European Union (EU) declared its aim to reduce emissions by 55% by 2030 compared to 1990 levels.

As part of the Fit for 55 package, the EU is revising its Emissions Trading System, expanding its scope to include new sectors, reducing overall allowances, and phasing out free allowances. While this encourages industrial decarbonisation, it also raises carbon prices, posing a risk of carbon leakage. Carbon leakage could happen if consumers switch to non-EU goods with lower emission reduction requirements or if firms move production to countries with lower production costs and less stringent emission regulations.

To address these challenges and exert global influence on climate change, the EU is implementing the Carbon Border Adjustment Mechanism (CBAM). Its primary objective is to address greenhouse gas emissions in imported goods, preventing carbon leakage and supporting the Paris Agreement's goals. The secondary objective is to incentivise operators in non-EU countries to reduce carbon emissions. The CBAM aligns with World Trade Organization (WTO) rules and levels the playing field between non-EU and EU-based producers, ensuring fairness and reducing global carbon emissions.

The CBAM, effective from 2026 with a transitional phase from 2023 to 2026, initially applies to specific goods like cement, iron and steel, aluminium, fertilisers, electricity and hydrogen. The EU

plans to extend its scope to all sectors subject to EU emissions trading by 2030, impacting countries like Russia, Ukraine, Turkey, India, and China.

Internationally, there is a shared understanding of the necessity to establish sustainable development pathways and pursue a net-zero future to avert a catastrophe. However, this transition should be rapid, yet fair and inclusive, especially considering the Global South, which has endured the repercussions of industrialisation primarily driven by the Global North.

It is crucial to acknowledge that many nations in the Global South still have carbon-intensive production processes, and their shift to a green economy may extend beyond 2026. Presently, per capita carbon emissions in the US, Canada, Australia, and the EU are significantly higher than those in South Asian nations like India, Bangladesh, Nepal, and Myanmar.

The implementation of the CBAM presents difficulties for South Asian countries that have not yet shifted to low-carbon industrial practices. With the CBAM in place, these nations could encounter penalties, diminishing the competitiveness of their goods in the EU market and challenging the notion of a fair transition.

Furthermore, the CBAM creates an inequity by compelling developing nations to surpass their commitments under the Paris Agreement. While India has committed to reducing the emission

intensity of its gross domestic product, it has not committed to carbon emissions levels that are equivalent to the EU's. EU trading partners, including China, view the CBAM as a trade barrier, and some nations, like Turkey, have ratified the Paris Agreement due to CBAM pressure.

India is alarmed by the CBAM, and has been engaging in continuous discussions with the EU on its potential implications. India is among the top eight countries anticipated to be negatively impacted by the CBAM, particularly in core sectors like steel.

Concerns are raised that the EU plan could render obsolete India's free trade agreements and potential agreements with the EU, as prices of exported goods may rise significantly after the carbon tax. The Federation of Indian Export Organisations warns that nearly \$8 billion of exports, primarily steel, iron ore, and aluminium, could face tariffs initially, expanding to cover all goods exported to the EU by 2034.

Indian policymakers advocate alternative measures to address climate change and carbon emissions without unfairly penalising Indian industries. These measures may include proposing alternative policy frameworks, seeking exemptions for certain industries or products, and providing support, incentives, or subsidies to encourage the adoption of cleaner technologies by Indian industries.

In addition to engaging with the EU, India is exploring opportunities to

diversify export markets and reduce dependence on any single region. The country is also laying the groundwork for a domestic carbon market, as evidenced by the draft of the carbon credits trading scheme published by the ministry of power on March 27, 2023. India has formally approached the EU, seeking recognition of its domestic carbon credit trading programme once finalised.

India faces limited options within the CBAM framework. One approach is to challenge the practice as violative of the common but differentiated responsibilities principle under the Paris Agreement. Another option is for the EU to collect the tax and redirect funds to affected countries for investment in green technologies. Ongoing negotiations between India and the EU must be closely monitored, especially as the CBAM enters its definitive phase in 2026. India has already raised concerns at the WTO, invoking special and differential treatment provisions.

As negotiations and policy support continue, Indian businesses can take proactive steps to prepare for and mitigate the impact of the CBAM. This includes understanding CBAM regulations, assessing potential financial implications, conducting comprehensive assessments of carbon footprints, investing in clean and energy-efficient technologies, streamlining supply chains, exploring voluntary carbon offsetting options, and diversifying export markets beyond the EU. These measures can help Indian exporters navigate the challenges posed by the CBAM effectively.

The CBAM creates an inequity by compelling developing nations to surpass their commitments under the Paris Agreement

e-commerce can enable direct market linkages for farmers

Facilitating farmers' direct linkages with agricultural commodity value chains can increase their share in the consumer rupee through reduced market intermediaries and help them gain information about the changing consumer demand and quality preferences, thereby aligning their crop production practices accordingly. Adequate awareness needs to be raised among farmers about using e-commerce applications. There is enormous scope for farmers to directly sell their produce and receive better prices.

A. AMARENDER REDDY
AND TULSI LINGAREDDY

INDIA'S farmers, unlike producers in other sectors, lack direct market linkages and have no active role to play in agricultural commodity value chains despite their crucial contribution to the country's food and nutritional security. The majority of the farmers still sell their produce at the farmgate due to lack of access to markets, storage and logistics. The average density of regulated wholesale markets in the country is over 450 square kilometres (sq km) against the optimal density of around 80 sq km, as recommended by the National Commission on Farmers, 2004. As a result, most of the small and marginal farmers don't find it economical to transport their limited quantities of produce to distant regulated markets. Hence, they sell it at the farmgate to market intermediaries, thereby losing their bargaining power to demand a remunerative price. Consequently, farmers remain disconnected from the commodity value chains and continue to receive a low share of the consumer rupee.

The average share of farmer producers in the consumer rupee, even in commodities with limited processing requirement like foodgrains, is limited to the range of 45-60 per cent, according to a study published in the Reserve Bank of India Bulletin (January 2024). The share falls to 30-40 per cent in the case of perishable commodities like fruits and vegetables. Enabling

FARMER'S SHARE (% OF CONSUMER PRICE)

Farmer's Summary of Consumer Price		Pulses	69
Rice	45		
Groundnut	59		
Soyabean	50		
Turmeric	55		
Banana	61		
Onion	55		
Potato	46		
Tomato	36		
Brinjal	33		

SOURCE: RESERVE BANK OF INDIA
BIG LETTER, JANUARY 2024

farmers' direct linkages with agricultural commodity value chains can benefit them in two ways — increase their share in the consumer rupee through reduced market intermediaries, and help them gain information on the changing consumer demand and quality preferences, thereby aligning their crop production practices accordingly. The advances in digital or electronic commerce (e-commerce) can play a catalytic role by establishing direct market linkages between farmers and agricultural commodity value chain participants like processors, traders and exporters.

In simple terms, e-commerce is buying and selling of goods and services through electronic platforms or markets. The widespread penetration of the mobile network and the Internet across the country has enabled the outreach of e-commerce over the past two decades. The supply chain disruptions during the Covid-19 pandemic accelerated the use of e-commerce not only in India but also in global merchandise trade.

TRENDS AND PROJECTIONS IN E-COMMERCE PRODUCTS & SERVICES (IN \$BILLION) IN INDIA

	2021-22	2029-30
Groceries	4-5	50-55
Fashion and lifestyle	11-13	80-82
Electronics and durables	24-26	70-72
Pharmaceuticals	1-15	10-12
Hospitality	3-4	8-10
Food & beverages	5-6	30-32
Education	4-5	30-32
Mobility	3-5	9-12
Entertainment	3-5	17-19
Books and general merchandise	2-3	12-14
Total	60-70	320-340

less profitable for small and medium businesses to benefit from e-commerce due to lack of economies of scale. In order to provide a level playing field, the Open Network for Digital Commerce (ONDC), a not-for-profit company, was incorporated in December 2021. It was an initiative of the Department of Promotion of Industry and Internal Trade, with commitments from banks and other institutions in the financial services industry.

The ONDC is based on the open-source methodology and is different from the existing e-commerce models that are dependent on specific platform and technology. Similar to the Unified Payment Interface (UPI) for digital payments, the ONDC is expected to make digital commerce access equitable to all enterprises and individuals in the country, particularly to small and medium enterprises, including farmer producer organisations (FPOs). Apart from being sellers, farmers can also register as buyers for purchasing inputs, farm machinery, technology and information services, availing logistics

available only in a few markets, according to a policy paper by the National Bank for Agriculture and Rural Development (NABARD).

Another major challenge faced by farmers is the lack of adequate and affordable regulated warehousing facilities. The total warehousing capacity under various agencies in the country is about 201 million tonnes as of March 2023, according to data published by the Warehousing Development and Regulatory Authority. The demand for agricultural storage is projected to be 436 million tonnes by 2024-25.

Almost all these physical market challenges are also constraining participation in the electronic national agricultural market (eNAM). In order to ensure widespread participation of farmers in the ONDC or the eNAM network, it is a must to provide basic infrastructure and logistics. It is essential to develop and upgrade Gramin Agricultural Markets (GRAMs) in villages with adequate market infrastructure facilities for ensuring quality standards and certification along with requisite regulated storage. The Agricultural Market Infrastructure Fund, set up with NABARD to develop infrastructure and storage in 10,000 GRAMs and 585 APMCs in 2019 with a Rs 2,000-crore corpus, needs to be enhanced. Adequate awareness needs to be raised among farmers about using e-commerce applications.

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India, Oman conclude trade negotiations, will sign deal after elections

Chirendra Kumar & Rihik Kundu
NEW DELHI

Negotiations for a free trade agreement (FTA) between India and Oman have concluded, and it's likely to be signed after the formation of a new central government in the coming months, two people aware of the matter said.

The pact, officially known as the Comprehensive Economic Partnership Agreement (Cepa), will boost Indian exports to the West Asian country by eliminating duties, especially on petroleum products, textiles, electronics,

pharmaceuticals, machinery, and iron and steel.

"All issues have been sorted out. We are looking at good benefits in services. The deal with Oman will help us in building a holistic ecosystem for a green energy-efficient manufacturing base," said one of the persons mentioned above, who asked not to be named.

"Strategically, the deal is very important. It will allow Indian companies to set up manufacturing plants in Oman to export green products," the person added. Oman is India's third-largest export destination among Gulf Cooperation



Comprehensive Economic Partnership Agreement will boost Indian exports to Oman by eliminating duties. PANINDIA.GOV.IN

Council (GCC) countries with bilateral trade standing at \$12.39 billion in FY23, up from \$5 billion in FY19.

India's exports to Oman have

increased from \$2.25 billion in FY19 to \$4.48 billion in FY23.

However, at present, over 80% of Indian exports to Oman attract an average 5% import

duty.

Oman's import duties range from 0 to 100%, along with other specific duties. A 100% duty applies to specific meats, wines, and tobacco products.

After the signing of the deal, India aims to substantially increase its exports to the West Asian country.

Issues related to labour mobility have also been covered under the agreement.

"Investments will go both ways. We expect significant growth across 7,000 trade lines (products) that currently attract 5% duty in Oman," the person added.

There are plans for Indian

companies to process aluminium and steel in Oman, before exporting them to third countries, due to lower energy costs in that country. "After the FTA, Indian business conglomerates will set up their units and export green goods to European markets," the person mentioned above added.

"The presence of over 6,000 India-Oman joint ventures, with substantial Indian investment in Oman's Sohar and Salalah Free Zones, underscores the depth of economic engagement. Moreover, the FTA serves as a strategic lever for India to expand its influence and strengthen

relationships within the broader Middle Eastern region," said Ajay Srivastava, founder of the economic think tank Global Trade Research Initiative (GTRI). "This agreement will not only boost trade and investment opportunities but also contribute to India's geopolitical objectives, offering a balanced approach to its trade relations with Oman," Srivastava added.

Spokespersons of the commerce ministry, the commerce secretary and the Oman embassy didn't respond to emailed queries.

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Indian merchandise exports have European silver lining

Shipments to Europe saw 2% growth in 2023 against 4.8% decline overall

SHREYA NANDI
New Delhi, 7 April

Despite tough economic conditions, Europe provided a modest boost to Indian merchandise exports during the calendar year 2023, even as overall shipments from the country contracted.

Exports to Europe, comprising 27 European Union (EU) countries, four European Free Trade Association (EFTA) nations, and seven other countries, witnessed 2 per cent growth year-on-year (Y-o-Y) at \$98 billion during 2023, while merchandise exports saw a 4.8 per cent contraction in the year.

The increase, even though modest, came even as the region was nearly hit by recession and recorded tepid economic growth. "Indian exporters shouldn't shy away from exporting goods to Europe, which is India's largest export market region-wise," a government official told *Business Standard*.

Exports to the EU saw 2.05 per cent Y-o-Y growth at \$75.18 billion in 2023, while those to the EFTA came in at \$1.88 billion, up 2.8 per cent.

Other European countries, including large markets such as the United Kingdom (UK), Turkey, and five other countries, imported goods worth \$21.56 billion from India, up 0.59 per cent.

The increase in exports to the following countries was robust: The United Kingdom (10.72 per cent), Switzerland (3.09 per cent), the Netherlands (24.57 per cent), Romania (116.85 per cent), the Czech Republic (25.51 per cent), Austria (4.43 per cent), Hungary (0.43 per cent), Norway (1.87 per cent), among others.

This was driven by demand for products such as pharmaceuticals, textiles, petroleum products, engineering products, machinery, as well as chemicals, the government data showed.

The jump was the sharpest in the case of the Netherlands. Exports grew by a fourth to \$23.11 billion. The UK also saw growth of almost 11 per cent to \$12.42 bil-



lion. Ajay Sahai, director-general (DG) and chief executive officer (CEO), Federation of Indian Export Organisations (FIEO), said one of the reasons that drove the growth was the ongoing free-trade agreement (FTA) talks with the EU and UK.

"Because of the FTA talks, exporters are keen to look into the EU and the UK market. In the hope of the UK FTA, exporters have started building trade relationships with businesses in these countries and even started exporting. Secondly, we have been able to increase our petroleum exports to Europe in 2023. Otherwise, many economies are in depression. Considering that, growth has

been encouraging," Sahai.

However, India's otherwise big markets in the EU, such as Belgium, France, Germany, and Spain witnessed a contraction, indicating that growth was uneven.

The contraction can be attributed to the overall trend in most of the advanced economies of tepid demand largely due to inflation triggered by high interest rates. Exports to Belgium contracted 18.13 per cent at \$7.97 billion, while those to Germany fell 7.58 per cent to \$9.67 billion. In the case of France, the dip was 10.8 per cent at \$7.12 billion, with a contraction in exports to Spain at 3.88 per cent at \$4.62 billion.

PMO for changes to model bilateral **investment** treaty

The exercise assumes significance as only 7 countries have accepted the existing model text treaty

BITs Promote Investments

- BIT is subject matter of Fin Min, but Comm Min will try to elicit 3rd party views
- Investment treaties help in protecting and promoting investments
- Investment facilitation is one of the chapters in FTA being negotiated
- India has cancelled 77 of 80 BITs by 2016, as they didn't align with its interests
- Model BIT demands investors seek local solutions for 5 years before arbitration

NEW DELHI

THE Prime Minister's Office (PMO) has asked the commerce ministry to examine the model text of the bilateral investment treaty (BIT) and suggest modifications to further improve the ease of doing business, according to sources.

The exercise assumes significance as only seven countries have accepted the existing model text treaty, and most of the developed nations have expressed their reservations on the text with regard to provisions like the resolution of disputes. These investment treaties help in protecting and promoting

investments in each other's countries. These pacts are important as India has earlier lost two international arbitration cases against British telecom giant Vodafone and Cairn Energy plc of the UK over the retrospective levy of taxes. Sources said an internal discussion will be held on the model text of the treaty on Monday in the commerce ministry with experts and lawyers. "There will be a presentation in the meeting. We are having an internal discussion on the issue.

The PMO is looking into it and has asked the commerce ministry to provide a third-party perspective on the model text," they said.



Although BIT is the subject matter of the finance ministry, the commerce ministry will try to elicit the views of the third party and suggest ways for consideration to higher authorities.

Investment facilitation is one of the chapters in the free trade agreement being negotiated by the commerce ministry. The treaty is a key sticking point between India and the UK, as both countries are negotiating a free trade agreement and BIT. According to experts, the four-European nation bloc EFTA (Iceland, Liechtenstein, Norway, and Switzerland) would also demand BIT. India and the European Free Trade Association (EFTA) on March 10 signed a free trade agreement

under which New Delhi received an investment commitment of \$100 billion in 15 years from the grouping while allowing several products, such as Swiss watches, chocolates and cut and polished diamonds at lower or zero duties.

Economic think tank GTRI (Global Trade Research Initiative) has stated that as India aims to become the third-largest economy, it needs to align its treaties with global investment practices, address the negative perception caused by the mass treaty cancellations and reflect on its negotiation skills. It has said India has cancelled 77 of its over 80 BITs by 2016, as they didn't align with its interests.

Fifth time in a row: India invokes peace clause for rice in WTO

IISR's innovative formulations help address soil pH issues, boost crop yields

Our Bureau
Kochi

Indian Institute of Spices Research (ICAR), Kozhikode, has developed three new microbial formulations based on granular lime and gypsum to help farmers improve agricultural productivity. The formulations developed using IISR's patent-applied technology can address soil pH issues and deliver beneficial microorganisms concurrently through a single formulation, a press release said.

Bactolime integrates beneficial bacteria or PGPRs (Plant Growth Promoting Rhizobacteria) with liming material into a single formulation. These beneficial bacteria, being a potential tool for sustainable agriculture, ensure the availability of essential nutrients to plants and help enhance nutrient use efficiency. Strains like *Bacillus* sp and *Pseudomonas* are com-



Bactogypsum ameliorates high pH soils and ensures simultaneous delivery of plant beneficial bacteria

monly used in agriculture as nutrient solubilisers/mobilisers as well as plant growth stimulants.

BACTOLIME

Recognising this potential of beneficial bacteria, scientists at IISR developed 'Bactolime', which integrates liming material and beneficial bacteria, performing the function of both ameliorating the soil's low pH and ensuring delivery of plant-

beneficial bacteria through a single product.

Around 6.73 million hectares of land in India is affected by salt. This saline/sodic soil adversely affects agriculture productivity, often making crop production activities economically unviable. To promote use of beneficial microorganisms, IISR developed two gypsum-based bacterial formulations: Bactogypsum and Trichogypsum.

Gypsum is traditionally used to counteract soil salinity/sodicity. While Bactogypsum ameliorates high pH soils and ensures simultaneous delivery of plant beneficial bacteria, Trichogypsum delivers Trichoderma – a fungal biocontrol agent and corrects the high pH levels of soil.

Both 'Bactogypsum' and 'Trichogypsum' buffer the soil pH to a near-neutral level, creating a favourable environment for establishing these beneficial microbes.

Will women bring about aerial transformation of agriculture?

Hundreds of women who have been promised agricultural drones believe they can change agriculture for the better in the State by reducing labour required for spraying of pesticide and fertilizers and improving the lives of farmers

Serish Naniseti
HYDERABAD

I have 10 acres, and it takes a whole day to spray pesticide. This drone can do the same task in an hour," says Sowmya, a resident of Varni in Nizamabad district who attended a drone show on a large open field surrounded by corn on the outskirts of Hyderabad.

She is among the hundreds of women in Telangana and the rest of the country who have been promised an agricultural drone, which, they say, they can use to serve the farming community.

"Moreover, it is difficult to find people to work in farms as many are moving to cities. I will use it [the drone] on my farm and then will help other farmers," Sowmya adds.

These women are confident that they can change



Women showing off their drone flying skills. While drones are often thought of as light objects that fly and perform various tasks, agriculture drones are cumbersome machines. SERISH NANISETTI

agriculture for the better in the State and improve the lives of farmers.

While drones are often thought of as light objects that fly and perform various tasks, the agriculture drones are cumbersome machines. In the air, however, one drone can complete in a matter of minutes what 10 people can do in a whole day.

The drone, manufac-

tured by Dhaksha Unmanned Systems Private Limited, is a battery-powered hexacopter with payload capacity of 10 kg and a range of 2 km.

A failsafe mechanism ensures that the drone returns home.

The saving in labour is not the only benefit of using drones to spray pesticides and fertilizers. Farmers across the country are

being exposed to high levels of pesticides owing to unscientific mixing of potent chemicals and an absence of safety equipment.

According to a paper in a scientific journal, there were 8,040 cases of pesticide poisoning in just one district of Warangal between 1997 and 2002. A similar disaster unfolded in Maharashtra's Yavatmal district in 2017 when 21 farmers and farmhands died after spraying pesticides in cotton fields.

Spraying pesticides using a drone, on the other hand, is easy. "I map the path of the drone on the cellphone and attach it to the remote control. Once the drone is airborne, it follows the coordinates to spray [the pesticides]. It stays in the air for 10 minutes, but the air time is dependent on the payload," says Rani, who hails from Chatlapalli in Siddipet district.

She is part of a self-help group. "I have learnt how to mix the pesticide. We have two acres where we grow cotton and paddy. If this technology is to be adopted, I will have to prepare the farmers to adopt this technology," she adds.

The drone show in the agricultural field was a mock drill meant as a photo-op coordinated by an event organiser. Minutes after showcasing her skills flying drones, Varalakshmi, another attendee, says she can fly the drones to shoot weddings as well if she was given training.

The 100-odd women who are likely to get the drones for free so that they can improve their livelihood are optimistic about the change the machines are likely to bring about. Will these women herald another agricultural revolution? That's the big question.

Dhanuka Agritech: Stable prospects

Strategic global partnerships, investment in technology and industry tailwinds to drive performance.

The agrochemical company is expected to report a revenue growth of 8.9% y-o-y in the March 2024 quarter, as per the consensus estimates of analysts compiled by Reuters-Refinitiv. The performance will be supported by a better product mix and strong traction in new products. However, analysts expect a rise in interest and depreciation costs, which is likely to reduce the net profit by 16% on a y-o-y basis.

The company's product range spans insecticides, fungicides and herbicides, distributed nationwide, with three manufacturing plants and 41 warehouses. Despite challenges like pricing pressure, high inventory and sluggish demand in agrochemicals, its resilience endures, buoyed by high-margin products, diverse range, and robust distribution network.

Analysts expect the performance of agrochemical players to improve in 2024, supported by the subsidizing effects of El-Nino, expectations of a normal monsoon and the likely normalisation in the inventory levels.

Dhanuka is a beneficiary of India's stable agricultural sector that is supported by rising demand for agrarian commodities and improved infrastructure (enhanced irrigation facilities and warehousing). The company's 2023 annual report expects the Indian agriculture market to reach \$580.8 billion in 2028, a growth of 4.9% CAGR between 2023 and 2028.

Additionally, robust demand for agrochemicals persists, crucial for enhancing crop productivity and agricultural output. The 'China plus one' strategy, global chemical supply chain disruptions and export prospects further bolster India's agrochemical sector.

The products launched by Dhanuka in the past few years (Decide, Cornex, Zanet, Terminal) are seeing a healthy demand. The management is focusing on a margin-accretive portfolio and aims to launch eight new products across all segments in the next two years. Also, the collaboration with Spain-based Kimitec will enhance its biologicals portfolio. A higher contribution of margin-accretive products and volume growth in existing products will drive profitability and return ratios in the future.

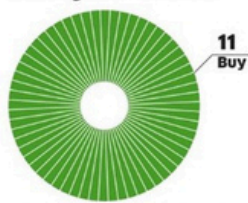
The company has capitalised on technology gained from key partnerships with global leaders in the US, Japan and Europe to develop tailored products for the local market. Strategic moves in 2022-23, including investing in a drone startup, launching a biological products division, and forming a new exports arm, aim to diversify revenue and foster medium- to long-term expansion. The commissioning of the Dahej plant also promises enhanced operational efficiency.

The stock has significantly outperformed the market benchmark in the past year, with 84.7% returns compared to the 24.4% returns by the BSE Sensex.

Selection methodology: We pick the stock that has shown the maximum increase in 'consensus analyst rating' during the past month. The consensus rating is arrived at by averaging all analyst recommendations after attributing weights to each of them (1 for strong buy, 2 for buy, 3 for hold, 4 for sell, 5 for strong sell). An improvement in consensus analyst rating indicates that the analysts are getting bullish on the stock. Only stocks with at least 10 analysts covering them are considered. You can see similar consensus analyst rating changes during the past week in ETW 50 table.

—Sameer Bhardwaj

Analysts' views



Dhanuka Agritech's 2023 annual report expects Indian agriculture market to reach \$581 billion in 2028 at CAGR growth of 4.9% during 2023-28.

Fundamentals

	ACTUAL		CONSENSUS ESTIMATE	
	2021-22	2022-23	2023-24	2024-25
Revenue (₹ cr)	1,477.80	1,700.20	1,776.80	2,016.20
EBITDA (₹ cr)	263.50	278.70	326.20	381.30
Net profit (₹ cr)	208.90	233.50	236.50	280.60
EPS (₹)	44.85	50.35	51.87	61.03

Valuations

	PBV	PE	DIVIDEND YIELD (%)
Dhanuka Agritech	5.06	21.88	0.17
PI Industries	8.13	36.77	0.26
UPL	1.29	-	1.94
Bayer Cropscience	8.96	30.26	2.40
Sumitomo Chemical India	8.47	60.77	0.30

Brokerage calls

RECO DATE	RESEARCH HOUSE	ADVICE	TARGET PRICE (₹)
9 Apr 2024	PhillipCapital	Buy	1,187
26 Mar 2024	HSBC	Buy	1,300
6 Feb 2024	DAM Capital	Buy	1,280
5 Feb 2024	Antique Stock Broking	Buy	1,280
3 Feb 2024	Edelweiss	Buy	1,243

Relative performance



10 APR 2023 DHANUKA AGRITECH ET FERTILISER 10 APR 2024
Dhanuka Agritech is compared with ET Fertiliser and Sensex. Stock price and index values normalised to a base of 100. Source: ETIG and Bloomberg

Now, AI-equipped system to detect crop disease, predict yield

DA-IICT Project Supported By DST Aims To Improve Yield Of State's Cash Crops

Parth.Shastri
@timesgroup.com

Ahmedabad: Good soil health and disease-free crops are crucial for agricultural productivity on which the economy depends as does global food security.

A system developed at Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT) is harnessing the power of technology for disease detection in crops, productivity prediction and a lot more.

The System Design Lab (SDL) at DAIICT has developed internet-enabled sensor systems that can measure soil, leaf and environmental parameters that affect plant growth and development. Initial trials have shown 95% accuracy as experts are replicating the project for further data collection. It goes on to show how artificial intelligence and machine learning models can pave the way for developing innovative solutions for agricultural advancements and assuage worries of farmers who are financially constrained.

Vinay Palaparthi, associate professor with the SDL, said the research team has developed in-house soil moisture and soil temperature sensors to measure the soil parameters. "Sensors have been developed to observe the wetness on the leaves while commercial temperature and humidity sensors are being used to monitor the environmental parameters," he said. The project, supported by the department of science and technology (DST) of the state govt, aims to develop a predictive model

HOW THE SYSTEM WORKS



- Four sensors measuring different parameters are installed for each specified area where they measure humidity, temperature, soil health etc against set parameters

- Based on predictive models for plant and leaf health, the internet of things (IoT) calculates the time left before a likely disease onset

- The report alerts the user and suggests possible remedy including medicines and nutrients

- The system is currently calibrated for crops such as tobacco, cotton and groundnut and will be extended to cereals and fruits

- The device is designed to run on low power and is encased in a waterproof box to reduce wear and tear

- Rough estimates from India-based studies say around 10-12% of the yield is often lost due to disease and pest damage

for the cash crops of Gujarat that include tobacco, cotton and groundnut.

To test the system, the team has developed a greenhouse at DA-IICT campus where they have grown groundnut and cotton crops. "The initial objective was to identify leaf spot

disease in both the crops. The developed system is equipped with artificial intelligence and machine learning (AI/ML) technology and the objective is to predict the onset of diseases based on multiple parameters," said Prof Palaparthi. "Our aim is to make affordable, reliable

Next phase to understand impact of climate change

The extension of project is supported by the climate change department of the state govt to assess impact of climate change on major cash crops of Gujarat. The objective of the project is to understand shift in the climate change from last two decades and identify the shift in the plant disease patterns considering its intensity and shifts over the years. By the end of the project, the researchers are expected to come up with future projections and provide policy to mitigate the intensity of shift to reduce crop loss.

and easy-to-use technology for farmers." Prof Anil Roy, principal investigator at the Smart City Lab at DAIICT, said this is a predictive model based on data collected using sensors. "So far, agriculture decision support systems were based on image-analysis, where alerts would come in after a disease starts damaging the crop. Thus, a predictive model is of great help to farmers as it allows them to take remedial actions for a healthy harvest," he said. Researchers said Gujarat is among the top states of the country in terms of groundnut, cotton and tobacco yields. Reduction in damage due to pests and diseases can help achieve growth targets set by state and central govts.

Red Sea Crisis: RBI and IRDAI Asked to Help Limit Impact on Exports

Finmin asks regulators to monitor export credit availability and rise in insurance premium

Cultivating sustainability through urban farming



MANINDER SINGH

Urban farming, encompassing the cultivation of crops within cities, not only yields locally sourced produce but also has environmental benefits

Climate change is no longer a distant concern but a current reality demanding immediate attention. Its effects, from extreme weather to rising sea levels and resource scarcity, are being felt globally. However, within these challenges lies an opportunity for eco-conscious decisions. Urban farming, once viewed as niche, is now recognised as a practical response to mitigate climate change impacts. By converting urban spaces into sustainable ecosystems, urban farming has the potential to transform our environmental stewardship and build a more resilient future.

The need to address climate change is urgent. The WHO estimates that by the 2030s, there could be an additional 250,000 deaths annually due to climate-related diseases like malaria and coastal flooding. Rising temperatures, melting ice caps and more frequent extreme weather events are among the outcomes of unsustainable practices. The time to take action is now and urban farming offers a promising path forward.



Urban Farming:

Urban farming involves the cultivation of crops within and around cities. This practice not only provides fresh, locally grown produce but also has numerous environmental benefits. By reducing the need for long-distance transportation of food, urban farming helps to lower carbon emissions. In addition, the use of organic farming practices can improve soil health and biodiversity, further contributing to climate resilience.

Transforming City Spaces

One of the key advantages of urban farming is its ability to convert underutilised city spaces into organic food production centres. Vacant lots, rooftops, balconies and even vertical surfaces can be

repurposed for farming, creating green spaces in the heart of urban areas. This not only enhances the aesthetic appeal of cities but also helps to mitigate the urban heat island effect, which can exacerbate the impacts of climate change.

Community Engagement

Urban farming also promotes community engagement and social cohesion. By bringing people together to grow and share food, urban farms can strengthen social bonds and create a sense of belonging. This can be particularly important in densely populated urban areas where social isolation is a growing concern. Besides, urban farming can provide economic opportunities for local residents, especially in

underserved communities.

Policy Support

To fully realise the potential of urban farming, supportive policies and incentives are needed. While some state Governments have extended their support by providing subsidies and thus creating an enabling environment for urban farming, policy-makers can help to scale up this sustainable practice and make it accessible to more people.

Bottomline

Urban farming has the potential to be a game-changer in the fight against climate change. By transforming city spaces into sustainable havens, urban farming can help reduce carbon emissions, improve food security and enhance the resilience of urban areas. However, realising this potential will require concerted efforts from policy-makers, communities and individuals. It is time to embrace urban farming as a solution to climate change and work towards a more sustainable future.

(The writer is founder & CEO of CEF Group, views are personal)

TNAU assisting 112 adopted FPOs across State in formulating Business Development Plan

Empower farmers to strike the best bargain

In order to facilitate hassle-free, early and direct payment of farmers' produce into their bank accounts, procurement portals have been set up by the majority of the states with the help of the Department of Food and Civil Supplies. The system enables online registration of farmers by linking their digitised land records. The farmer has to get himself registered by mentioning his Aadhaar number and other details. After the completion of registration, he can access the portal with his username and password.

RAJ KUMAR

SINCE the mid-1960s, the Commission for Agricultural Costs and Prices (CACP) has been recommending the minimum support price (MSP) for 23 crops. The factors being considered for formulating the MSP include the cost of production; input-output price parity; trends in market prices; demand and supply; inter-crop price parity; the effect on the industrial cost structure, cost of living and the general price level; the international price situation; and the implications for subsidy. Supply-related factors like production, imports, exports, domestic availability and carry-over stocks are also considered. The MSP is recommended by providing a 50 per cent margin on the paid-out costs plus the imputed cost of family labour utilisation.

Farmers need to keep several aspects in mind to fetch remunerative prices for their produce during the ongoing rural marketing season. **Sale through online procurement portals:** To facilitate hassle-free, early and direct payment of farmers' produce into their bank accounts, procurement portals have been set up by the majority of the states of India with the help of the Department of Food and Civil Supplies. These portals go by different names: Ansaaj Khard portal in Punjab, e-khard portal in Haryana, HP Agriculture Produce Procurement Portal in Himachal Pradesh and e-khard portal in Uttarakhand. Farmers can access these portals through the Central Foodgrains Procurement Portal (www.cfpn.in). Farmers' registration on this portal is mandatory to avail this facility. The system enables online

WHEAT PRODUCTION IN PUNJAB AND CONTRIBUTION TO CENTRAL POOL

Crop year	Production (lakh tonnes)	Contribution (lakh tonnes)	% share in Central pool
1966-67	24.5	5.7	63.8
1970-71	51.5	29.4	57.6
1980-81	76.8	37.7	43
1990-91	121.6	55.4	71.5
2000-01	155.5	105.6	51.2
2005-06	144.8	69.5	75.3
2010-11	164.7	109.6	38.7
2018-19	182.6	129.1	37.8
2019-20	176.2	127.1	32.6
2020-21	171.9	132.2	30.5
2021-22	148.7	96.5	51.3
2022-23	165.7	121.2	46.2

PUNJAB PRODUCED 14.7% OF THE COUNTRY'S WHEAT IN 2022-23

MINIMUM SUPPORT PRICES (₹/QUINTAL)

	2023-24	2022-23	Hike
Wheat	2,275	2,125	7.06%
Barley	1,850	1,735	6.63%
Gram	5,440	5,335	1.97%
Lentil (Masur)	6,425	6,000	7.08%
Rapeseed & mustard	5,850	5,450	3.67%
Sunflower seed	6,760	6,400	5.63%

SOURCE: COMMISSION FOR AGRICULTURAL COSTS & PRICES

registration of farmers by linking their digitised land records, receipt of produce in designated markets and payments to farmers through the online mode. The farmer has to get himself registered by mentioning his Aadhaar number, mobile phone number, address, size of landholding, bank account, etc. After the completion of registration, he can access the portal using his username and password. **Market infrastructure:** Aimed at facilitating the marketing of farm produce, there are 7,085 regulated markets (including sub yards) in the country, of which Maharashtra has the highest number (929), followed by Uttar Pradesh (633), Karnataka (564), Madhya Pradesh (537), West Bengal (537), Odisha (535), Rajasthan (484), Punjab (437), Gujarat (405), Andhra Pradesh (318), Tamil Nadu (288) and Haryana (285). The market committees are represented by farmers, traders, labourers and officials of agriculture and cooperative departments. From 1970-71 to 2022-23,

the number of principal yards in Punjab has increased from 88 to 152; the average area served per regulated market has decreased from 573 to 331 sq km; and the number of villages served per regulated market has declined from 139 to 80.

During the current marketing season (as on April 11, 2024), 2,424 mandis are in operation in Punjab, including 152 principal yards, 285 sub-yards, 1,470 purchase centres and 517 temporary yards. Thus, the farmers do not have to travel more than 7-8 km to sell their produce. Grading facilities are available in all important markets. Grading tests are free for farmers, whereas a nominal fee is charged from traders. The prevailing prices of various crops are disseminated through radio, TV, newspapers, Agmarknet, display boards, etc. **Marketing tips:** The crop should be harvested at the proper stage as it affects the quality of grains. Before taking it to the market, clean and dry the produce prop-

erly to ensure smooth purchase. To remove the damaged/spoiled grains, proper grading/sorting is necessary. Farmers should be aware of the market arrivals, prevailing market prices and the date of entry of procurement agencies in the market. The MSP is applicable from the date at which the FCI enters the market for public procurement. Therefore, remaining updated about the prices prevailing in different markets can prove to be helpful. The produce can be sold in the markets where prices are higher, but the additional transportation costs should be taken into account. Farmers' presence at the time of the auction and weighment is a must. If the price offered by the buyer seems less, the farmer has the right not to accept that bid. In case of any doubt or malpractice in weighment, test weighment up to 10 per cent of the produce can be availed free of cost. If any discrepancy is found, the farmers are compensated accordingly. They must obtain Form J, which is necessary to avail the opportunity of getting bonus, etc., if any, announced by the government.

Uniform grade specifications: For wheat, the maximum prescribed limit of moisture content, foreign matter, admixture of other grains, damaged grains, slightly damaged grains and shrivelled/broken grains is 12, 0.75, 2, 4 and 6 per cent, respectively. The maximum prescribed limit of moisture content is 12 per cent for barley, gram, lentil and 8 per cent for rapeseed & mustard.

The author is Principal Extension Scientist (Agricultural Economics), Department of Economics & Sociology, PAU, Ludhiana

BIZZ BUZZ

Unless contained, inorganic carbon in soil can cause climate change and industrial pollution

Soil in India and China is becoming more acidic due to acid rain, industrial pollution and intense farming

YUANYUAN HUANG/
YINGPING WANG

WE all know about carbon in earth's atmosphere, in plants and bodies of animals. But a substantial fraction of the carbon in the planet's land-based ecosystems is held in something so obvious we might overlook it: soil. Even if we do think about carbon in soil, we are usually thinking of carbon in soil's organic matter like such as plant litter, bacteria and animal waste. However, the inorganic, mineral component of soil also contains carbon.

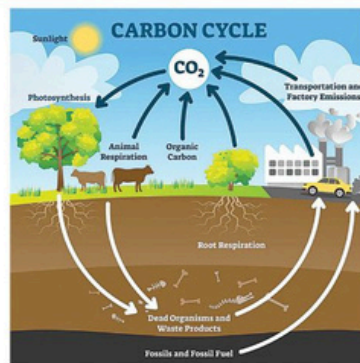
In a new study recently published in 'Science', we show that there is much more soil inorganic carbon than anybody realised – and that it may be a surprisingly big player in earth's carbon cycle. We analysed over two lakh soil measurements from around the world to calculate that the top two metres of soil globally holds about 2.3 trillion tonnes of inorganic carbon. This is about five times more carbon than found across the world's terrestrial vegetation. We estimate some 23 billion tonnes (one per cent) of this carbon may be released over the next 30 years, with poorly understood effects on earth's lands, waters and atmosphere.

Inorganic carbon: Inorganic carbon exists in soils in various forms. It can be trapped carbon dioxide gas, dissolved in water or other liquids, or it can be in solid form as carbonate minerals. Most of the inorganic carbon by weight is solid carbonates, often calcium carbonate (a common substance found in materials such as limestone, marble and chalk).

They give soil a whitish look, while organic carbon makes it dark. Soil carbonates can come either from weathering of rocks or from the reaction of soil minerals with atmospheric carbon dioxide. Inorganic carbon tends to build up more in soil in arid and semi-arid environments such as Australia. That's because when water runs through soil it tends to carry away some of the carbonates with it. Our estimates show the top two metres of Australia's soil harbours some 160 billion tonnes (seven per cent) of the world's inorganic carbon. This makes Australia home to the fifth-largest pool of soil inorganic carbon in the world. In wetter regions, soil carbonates may also be found along rivers and around lakes and coastal areas, in the form of calcium-rich alluvial deposits or calcareous rocks. Soils in karst regions – areas rich in rocks like limestone and often characterised by caves and sinkholes – typically contain carbonate in rocks. In areas such as central Asia large deposits of wind-blown sediments (loess) contribute to the accumulation of carbonate minerals.

Why should we care?

This huge pool of carbon is affected by changes in the environment, especially soil acidification. Acids dissolve calcium carbonate, meaning the carbon dissolves in water or is released as carbon dioxide gas. Soil in many regions of the globe (such as India and China) is becoming more acidic due to acid rain and other pollution from industrial activities and intense farming. Scientists have viewed carbonates in



Irrigation and fertilisation of farmland speed up the rate at which soil inorganic carbon is dissolved and leaches out of the soil. Inorganic carbon has accumulated in soil over vast periods of earth's history. Disturbances to this carbon will have a profound impact on soil health

soil as a relatively stable pool of carbon that changes only slowly over time. However, human activities have made soil inorganic carbon more mobile. Irrigation and fertilisation of farmland speed up the rate at which soil inorganic carbon is dissolved and leaches out of the soil. Inorganic carbon has accumulated in soil over vast periods of earth's history. Disturbances to this carbon will have a profound impact on soil health. This compromises soil's ability to neutralise acidity, regulate nutrient levels, foster plant growth and stabilise organic carbon. Not only does soil inorganic carbon act as a store of car-

bon, it also supports soil's many crucial functions in ecosystems.

In our research, we found that 1.13 billion tonnes of inorganic carbon are lost from soils each year to inland waters. This loss has profound yet often overlooked effects on carbon transport between the land, freshwater bodies, the atmosphere and the oceans.

How to go about it?

There is a growing recognition of the importance of soil carbon as a fundamental part of nature-based solutions to combat climate change. However, much of the focus so far has been on organic carbon. Our research

shows inorganic carbon warrants equal attention. Improved land practices can reduce disturbance to the global pool of soil inorganic carbon, and may even be able to make it bigger. In agriculture, making irrigation and fertilisation better adjusted to plant growth needs can reduce impact on inorganic carbon. In some soils, organic amendments such as compost and manure can protect against acidification, improve calcium levels and increase soil inorganic carbon.

Our research shows efforts to mitigate climate change by sequestering carbon in soil must incorporate inorganic carbon as well as organic. Inorganic carbon in soil is linked to global changes such as climate change, industrial pollution and soil overuse in different ways from those of organic carbon. However, some strategies to lock up more carbon in soil – such as enhanced rock weathering, afforestation, and trapping organic carbon in soil minerals – might also serve to increase levels of inorganic carbon.

There are already international soil carbon programs like the four per mille initiative, which aims to increase soil carbon storage by 0.4% annually across the globe. These efforts could further increase their ambition by considering the critical role of inorganic carbon in achieving sustainable soil management and reaching climate targets.

(Yuanyuan Huang is associated with the Chinese Academy of Sciences and Yingping Wang is with CSIRO)

'Farm sector can grow over 6% in FY25 on good monsoon'

Prabhudatta Mishra
New Delhi

The agriculture and allied sectors may register over 6 per cent growth in 2024-25 going by the predictions of a favourable monsoon and the low base of the previous year, NITI Aayog member Ramesh Chand told *businessline*.

"This year (2024-25) will be highly favourable for agriculture, mainly due to two factors. One, the monsoon rainfall will be normal or above normal, per reports by various agencies. Even in terms of regional distribution, the forecasts are encouraging. Two, the agriculture growth in 2023-24 was 0.67 per cent, which means the base (for 2024-25) is low," Chand said.

Whenever such a combination has happened in the past, farm sector growth



Ramesh Chand, Member, NITI Aayog

has topped 6 per cent, he observed. "There is no reason this past pattern will not be repeated this year if the monsoon rainfall turns out as predicted," Chand added.

The India Meteorological Department (IMD) has predicted an "above normal" monsoon, at 106 per cent of the long-period average (LPA) of 87 cm, while private weather forecaster Skymer has said the mon-

soon is likely to be "normal" at 102 per cent of the LPA.

The NITI Aayog member pointed out that "real prices" of agriculture have been rising for several years. "If you take the wholesale prices of agriculture relative to non-agriculture, farm prices are rising. The wholesale price index (WPI) of agri-commodities is rising faster than non-agri-commodities," Chand said, adding that stability in maintaining prices is required due to this aspect.

The government's action to maintain stability is seen by some as a move to bring down prices, he pointed out, adding that such was not the case. "Stability means to prevent an abnormal or unusually high level rise in the price of a commodity."

BOOSTING EXPORTS

Chand also favoured allowing increased exports in

case of surplus production of certain crops during the kharif season.

Currently, the government has restricted export of non-Basmati rice, wheat, sugar, and onion. The curbs

on non-Basmati rice may be revisited in September-October when the government will have made an assessment on rice production, official sources had said earlier.

Drought-causing El Nino has ended, says Australian weather body

El Nino, which emerged in June, 2023 resulting in deficient rainfall in India and leading to water shortage in some parts, has ended and the El Niño-Southern Oscillation (ENSO) has returned to neutral, Australia's Bureau of Meteorology (BoM) has said.

Climate models indicate ENSO will continue to be neutral until at least July, the Australian weather agency said in its weather update on Tuesday. Three of seven

international models are predicting central Pacific SSTs to reach La Niña thresholds in July.

However, El Niño and La Niña predictions made in mid-autumn tend to have lower accuracy than predictions made at other times of the year. This means that current forecasts of the ENSO state beyond July should be seen with caution, the Australian weather agency said.

[Read more on p10](#)

El Nino has ended, La Nina likely in July: Oz weather body

FALLOUT. It affected Indian agriculture with production of paddy and onion taking a hit

Subramani Ra Mancombu
Chennai

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25% OF INDIA HIT

It said international climate models suggest ENSO will likely continue to be neutral at least till July 2024. Three of seven international models are predicting central Pacific SSTs to reach La Niña thresholds in July. However, El Niño and La Niña predictions made in mid-autumn tend to have lower accuracy than predictions made at



BONE DRY. El Nino's emergence resulted in at least a fourth of India being affected by drought and over 40 per cent of the country receiving deficient rainfall NAGARA GOPAL

other times of the year. This means that current forecasts of the ENSO state beyond July should be used with caution, the Australian weather agency said.

El Nino's emergence resulted in at least a fourth of India being affected by drought and over 40 per cent of the country receiving deficient rainfall. This, in turn, led to water shortage in reservoirs and a sharp drop in groundwater in States such as Telan-

gana, Andhra Pradesh, Maharashtra and Karnataka.

El Nino affected agriculture with production of crops such as paddy, pulses, coarse cereals, especially maize, groundnut and horticulture crops such as onion declining this crop year to June.

SUBSTANTIAL COOLING

Over the last fortnight, there has been substantial cooling and within the historical

thresholds for neutral ENSO, it said. The cooling has been supported by a significant amount of sub-surface cooling beneath the central and eastern Pacific Ocean — a typical characteristic of the El Nino phase leading to ENSO.

In addition, global sea surface temperatures (SSTs) have been the warmest on record for each month between April, 2023 and March, 2024. Month-to-date data for April, 2024 indicates this month is tracking warmer than April, 2023.

The global pattern of warmth is affecting the typical historical global pattern of sea surface temperatures associated with ENSO variability.

On the other hand, the Indian Ocean Dipole (IOD) is neutral. Despite the positive IOD values being mostly from record warmth in the north-west Indian Ocean, atmospheric indicators in the eastern Indian Ocean may be consistent with a developing positive IOD.

LIKELY FIRST 100-DAY AGENDA

New govt may kick off pesticide, seed reforms

SANJEEB MUKHERJEE
New Delhi, 17 April

With farm Acts out of the picture, the government may look at reforming the input side of the agriculture sector — regulations and rules that govern seeds, fertilisers and plant chemicals.

Sources said such a blueprint, which is aimed at making the life of farmers easier, with quicker approvals but not compromising on quality, is in the works as part of the 100-day agenda of Modi 3.0. Also, ways to administer fertiliser subsidy more effectively and cutting down on leakages and diversions to build on the success of neem-coated urea are being thought of.

Few years back, a proposal was mooted in some quarters to conduct a pilot in a few districts of the country on a modified version of the direct benefit transfer (DBT) that would establish some sort of linkage between land holding and the nutrient's consumption.

Currently, the version of DBT in place involves farmers purchasing their fertilisers through point of sale (POS) devices after undergoing Aadhaar authentication. This ensures that the identity of the person, who purchases fertiliser bags, is well established.

However, there is no restriction on the number of bags that each farmer can purchase. This sometimes leads to excess usage and chances of misuse.

In case of seeds and plant chemicals, sources said lots of reforms are urgently needed as the regulatory and app-



AGROCHEMICAL INC SNAPSHOT

- ▶ **The Indian agrochemicals industry has a production capacity** of 0.32 million tonnes
- ▶ **In terms of trade**, India is a major exporter and importer of agrochemicals
- ▶ **India was the 4th largest exporter** of agrochemicals in 2020
- ▶ **In 2020, it exported pesticides worth \$3.4 billion** (9.4 per cent of global exports)
- ▶ **The Indian agrochemical industry is highly reliant** on import of raw materials and technical intermediates
- ▶ **In FY20, China alone contributed to around 49 per cent** of India's total pesticide imports (valued at ₹9,096 crore)
- ▶ **Agrochemical industry is expected to grow** at a compound annual growth rate of 8–10 per cent until 2025

Source: Trade and industry bodies

roval process in India takes a long time. This is because it involves multiple layers.

They said the government could look at creating a favourable policy environment for the agrochemicals sector. This would facilitate an increase in agrochemical exports and position India as an attractive destination for foreign investments. It would also safeguard the interests

of small and regional players operating in the industry.

The current process for registration of a new agrochemical molecule in India is often perceived as time-consuming, costly, and a complex procedure by the industry. Only a few large multinational companies and leading domestic players can afford to invest in research and development

(R&D) to develop new molecules and get them registered for manufacture and sale.

As a result, only around 280 molecules and 800 formulations (including combinations) are registered in India. Compared to India, this number is double in the European Union (EU) and triple in Japan.

The industry wants reforms in the Central Insecticides Laboratory (CIL) as well to cut down on pending lists and time taken for clearance of new applications.

One of the major challenges faced by Indian agricultural exporters is the stringent rules related to pesticide residues in regions like the EU.

"Registering molecules deemed safe by major importers to abide by maximum residue limit (MRL) norms is a policy change that may boost agricultural exports in the longer term. MRL testing infrastructure may also be improved to provide increased access to testing at lower costs," a senior industry player said.

Also, the problem of spurious seeds and the need for proper regulations to check their proliferation could form part of the possible reforms.

"CIL facilities, infrastructure and manpower need to be upgraded. Industry has offered to support the government to review and develop infrastructure and capability building. The industry has also offered to collaborate for sharing best practices for capacity building in CIL," Kalyan Goswami, director general, Agro Chem Federation of India (ACFI), told *Business Standard*.

Sorting out WTO disputes with India helped our farmers: USTR to Senate

Amiti Sen
New Delhi

US Trade Representative (USTR) Katherine Tai has highlighted sorting out WTO disputes with India as a win for the agriculture and rural communities, in her testimony before the Senate Committee on Finance on President Joe Biden's 2024 Trade Policy Agenda, where some concerns were raised on India's wheat subsidies allegedly hurting American farmers.

"Last June, India and the US States terminated six WTO disputes, and India agreed to remove retaliatory tariffs on several US products. This means improved access for chickpeas, lentils, almonds, walnuts and apples benefiting farmers

across the country, including in Michigan, Oregon and Washington," Tai said in her written testimony to the Senate Committee on Wednesday.

Additionally, in September, India and the US resolved their final outstanding WTO dispute, and India agreed to reduce tariffs on several US products, the USTR added.

"This means more market access for turkey, duck, blueberries and cranberries benefiting farmers in North Carolina, Pennsylvania, Virginia and Wisconsin," she said.

TRADE RESOLUTIONS

The WTO disputes settled between India and the US include India's appeal against the US' imposition of tariffs on imports of steel and aluminium products from India;



RESOLVING ISSUES. Last June, India and the US terminated six WTO disputes, and India agreed to remove retaliatory tariffs on several products from America. ISTOCK.COM/SHANTY

the US' appeal against India's retaliatory tariffs; India's renewable energy subsidies for solar cells and modules under Jawaharlal Nehru National Solar Mission; India's appeal over similar subsidies for solar cells and solar modules by eight US State governments; US' appeal against India's export subsidy programmes; India's imposition of countervailing duties on

imports of certain hot-rolled carbon steel flat products from the US.

The last dispute between the two, which was settled in September 2023, was on poultry import from Washington, as part of which India agreed to cut import duties on some farm items.

In his remarks at the hearing, Senator Ron Wyden, Chairman of the Senate Com-

mittee on Finance, alleged that India's wheat subsidies were distorting prices and directly hurting American farmers.

"Without trade enforcement, our trade laws aren't worth the paper they are written on... India's wheat subsidies are distorting prices and making it harder for Oregon's farmers to compete in the Asian market," Wyden said.

UNFAIR PRACTICES

Wyden also mentioned Mexico's "illegal fishing practices" and China's "rap sheet of unfair subsidies and trade practices", adding that these "unfair trading practices" were hurting workers in America. In discussions around its wheat subsidies under the MSP programme at the WTO, India has been maintaining

that its subsidies were well within the range prescribed by the WTO, and its food security programmes were necessary to support vulnerable farmers and feed the poor.

Giving her account of how the settlement of WTO disputes with India had helped US farmers, the USTR gave an example of a family growing almonds in the Central Valley of California visited by her team.

"This family was impacted by India's retaliatory tariffs imposed in 2019, limiting their access to a vital market for their operation. We removed those tariffs and provided more economic certainty for this family and many others," she said.

The US was India's largest trading partner in 2022-23, with bilateral trade rising 7.65 per cent to \$128.55 billion.

Farm growth at 5-year high, to help ease rural pressure

Above normal rainfall forecast is good news for Indian agriculture, says Ramesh Chand

Puja Das & Gireesh Chandra Prasad
NEW DELHI

Agricultural output growth in FY25 is likely to come in at a five-year high of over 6%, aided by normal monsoon and a low-base effect, and may help ease demand for guaranteed rural jobs, said Niti Aayog member Ramesh Chand.

In the FY25 interim budget, the government has allocated ₹86,000 crore for the state-run rural job scheme, the same as the revised estimates for FY24.

"Monsoon is a major factor, which influences output of agriculture much more strongly for the crop sector. So, the monsoon forecast that we will have La Nina effect and rainfall will be 2% above normal is very good news for Indian agriculture. This news came when we have low growth. Production of oilseeds, rice, sugar and wheat came down last year due to erratic monsoon and patchy winter rains and a long dry spell," Chand told *Mint*.

Farm output in FY24 is estimated to have grown by a mere 0.7%, compared with an upwardly revised 4.7% growth in FY23, as per the statistics ministry's second advance estimates.

"Taking the base effect impact and the positive effect of monsoon into consideration, past trends and past patterns suggest that we can expect more than 6% growth in agriculture this year,"



Niti Aayog member Ramesh Chand.

Chand said.

After El Niño caused insufficient rainfall, leading to water scarcity in some regions besides droughts and prolonged dry spells across Asia, the India Meteorological Department earlier this week forecast above-normal monsoon rainfall at 106% of the long-period average (87 cm) this year. With the El Niño weather phenomenon having turned neutral, benign La Nina conditions are likely to set in by August-September, signalling relief across sectors, especially agriculture.

In FY24, agriculture and allied sectors' GVA growth was 0.7% after it contracted 0.8% in the October-December

quarter—for the first time in 19 quarters. GVA growth was 1.6% in the previous quarter, and 4.7% in FY23.

In FY17, FY18 and FY20, the sector recorded growth rates of 6.8%, 6.6% and 6.2%, respectively. Chand further said that farm output growth is one of the factors affecting demand for guaranteed rural jobs under the National Rural Employment Guarantee Act (Nrega), which benefits the rural poor. Nrega demand is a result of a couple of factors—monsoon and good growth rate, Chand said.

"But the growth rate which is high because of good rainfall, has another positive side—it is more favourable for

rain-fed crops like pulses and oilseeds. It is also favourable for millers."

Inflation is very high in pulses and vegetables while that in edible oil, it is in the negative. But overall crop sector growth in 2023-24 is negative, which is reflected in food prices. That number is not yet reported for crop and livestock separately. The overall growth rate being 0.68% in FY24 means that it is positive because of the growth rate in livestock sectors, Chand said, indicating that prices of food commodities may ease on expectations of good monsoon precipitation. "We have more area under pulses and if we have more production of pulses, we certainly can expect inflation in pulses to cool down."

This comes at a time when food inflation remains high though it eased slightly in March. Food inflation fell to 6.88% last month from 6.95% a month earlier due to the easing of prices of pulses, vegetables and milk. However, the prices of other food products like paddy, cereals, onion, potatoes, fruits and meat rose during the month.

Prices of pulses, especially tur remained high for several months due to lower production in the past two years. As per the agriculture ministry's second advance estimate, tur production is pegged at 3.33 million tonnes in 2023-24 (July-June) crop year against domestic consumption of nearly 4.3-4.4 mt.

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~6%
agricultural output
growth likely
in FY25

₹86,000 cr
allocated for
state-run rural job
scheme in FY25

Dhanuka launches insecticide LaNevo

NEW DELHI: Agrochemical firm DhanukaAgritech on Monday said it has launched new insecticide 'LaNevo' and bio-fertiliser 'MYCORE Super'. "LaNevo, specifically designed to help vegetable farmers. This powerful broad-spectrum insecticide effectively controls a wide range of pests, including Jassid, Thrips, Whiteflies, and Leaf Miners," the company's Joint Managing Director Rahul Dhanuka said. By targeting both sucking and chewing pests, LaNevo offers farmers better control over crop damage, he said in a statement. 'LaNevo' -- developed through a strategic collaboration with Nissan Chemical Corporation, Japan -- is being launched for the first time in India and is poised for a global launch. The product along with 'MYCORE Super' was recently introduced in Tirupati (Andhra Pradesh), Bengaluru (Karnataka) and Nashik (Maharashtra).

Centre planning cluster-based approach for agricultural crops

Prabhudatta Mishra
New Delhi

The Centre is planning to modify its farm sector schemes suitably so that the country can have different clusters for different crops, potentially benefiting farmers allowing them to sell their produce at the doorstep when industry and processors will be tempted to reach to the grassroots for sourcing raw materials.

"What we are thinking is to start cluster-based development of agricultural crops on the same pattern as done in the horticulture crops," a source said.

The only way farmers will be encouraged to adopt the cluster approach is when they are incentivised, the source said.

INCENTIVISING

There are two ways to incentivise — either by linking the existing schemes, as much as feasible, to the condition of cluster development or to link the cluster with processing industries. It could also be both, he said, adding nothing has been finalised as it is currently at the discussion stage.

When a cluster is formed, farmers within a certain geography grow the same crop and it helps them to market as buyers reach the cluster because of easy availability of a particular commodity in high volume.

CROP PLANNING

Wherever States have allowed direct buying from farmers with license, the private companies prefer to buy from a particular area if they are assured of getting any produce in large quantity, officials said.

The introduction of

When a cluster is formed, farmers within a certain geography grow the same crop, attracting buyers because of easy availability and higher volume

cluster approach will also help the government to start crop planning in the country, which was a recommendation of the committee on doubling farmers' income under Ashok Dalwai.

Pointing out that balancing inflation and the need for ensuring fair and remunerative prices on the farmers' produce is a challenge, the DFI committee had said that it needs to be addressed on priority for sustaining higher production. "Such a balance will come from increasing the market network, improved crop planning, reducing production where markets are depressed and shifting towards high value commodities," it said.

The committee had also recommended the Agriculture Ministry to "delineate Rainfed Agro-Economic Zones (RAEZ) and develop agro-ecology specific potential rainfed crop zoning for bridging yield gaps by developing commodity/crop-centric value chains, providing safety nets (weather-based crop insurance), crop intensification/diversification/substitution, contingency plan implementation on real-time basis, crop planning based on market intelligence, crop zoning or alignment to regulate cropped area and production to realise higher commodity prices."

Sale of PUSA 44 seeds banned

This water-guzzling variety leaves behind high quantity of stubble

The Tribune IMPACT

RUCHIKA M KHANNA
TRIBUNE NEWS SERVICE

CHANDIGARH, APRIL 23

The state government has banned the sale of PUSA 44 variety with immediate effect.

The Department of Agriculture and Farmers' Welfare has instructed its field staff to ensure that no seed shops sell this variety in the state.

The ban comes following a story carried in the news columns of *The Tribune* on Monday, highlighting how the seeds were readily available in market, in spite of a ban imposed by Chief Minister Bhagwant Mann in October 2023.

The reason why the government wanted to ban this variety is because it consumes high quantity of



Farmers complain that the directions have come a bit too late. FILE

water, has a long duration of maturity and leaves high quantity of stubble after harvest, which is often burnt by farmers.

According to information, a virtual meeting was held by Jaswant Singh, Director, Agriculture and Farmers' Welfare, with the field staff, asking them to check all seed

shops in their respective jurisdiction and ensure that no one sells this variety.

The field staff has also been instructed to create awareness among farmers against sowing this variety. All block-level officers have been asked to send certificates after checking the shops, saying that the vari-

ety is no longer being sold in the shops.

Farmers said the directions to ban the sale of PUSA 44 variety had come a bit late, as many farmers had already purchased it. Several farmers said they would use the seeds from the last year's produce. *The Tribune* had reported that the seeds were not being sold at government run shops and Krishi Vigyan Kendras, but at private shops.

Meanwhile, owners of several rice shellers have been asking farmers to sow PUSA 44, instead of the PAU-recommended PR 126.

The millers complain that grain of PUSA 44 is much better than PR 126 (as its grain breaks during shelling and its outturn ratio of rice is less than government specified ratio of 67 per cent).

Tropical Agro to introduce 16 new farming solutions from kharif season

Our Bureau
Chennai

Chennai-based Tropical Agrosystem (India), a crop protection and plant nutrition firm, will introduce 16 new farming solutions from seed treatment to post-harvest care during the upcoming kharif cropping season starting June.

The solutions include four fungicides, four herbicides, seven insecticides and a fertilizer — magnesium hydroxide and zinc phosphate — that can be used on all crops to improve flowering and fruit setting, a company press release said.

VK Jhaver, Founder of Tropical Agrosystem (India), said his company was committed to its mission to equip farmers with advanced technological formulations to effectively manage crop-related



ALL-IN-ONE. The solutions include four fungicides, four herbicides, seven insecticides and a fertilizer that can be used on all crops to improve flowering and fruit setting

issues such as pests, diseases and soil deficiencies. Mohan Kumar, President of Tropical Agrosystem (India), the company's products are engineered to cover challenges across diverse crop ranges from black matpe (urad), chillies, cumin, potato, paddy, tomato, wheat, maize, cotton, bengal gram, cabbage, ground-

nut, pigeon pea, soyabean, sugarcane to tea and more.

EVOLVING NEEDS

The newly unveiled range comprises a diverse array of insecticides, herbicides, fungicides, and biological products, catering to the evolving needs of the farming community, the company said.

The fungicides will tackle powdery mildew, rust, fruit rot (anthracnose), alternaria blight, early and late blight, sheath blight, stem rot, leaf spot, fruit spot, yellow rust in crops such as black gram, chillies, cumin, potato, paddy, tomato, wheat.

The insecticides help prevent the impact of jassids, white fly, brown plant hopper, thrips, leaf hopper, aphids, pod borer, *Spodoptera litura*, diamondback moth, fruit borer, American bollworm, stem borer, leaf folder, semi looper, *helioverpa armigera*, early shoot borer, mites, *chloris barbata*, parthenium and carpet weed, besides others.

Cotton, paddy, chilli, cabbage, sugarcane, Bengal gram, black matpe, groundnut, pigeon pea, soyabean, tea and tomato among other crops will benefit from these insecticides.

Bayer partners CSC, Gram Unnati for last mile delivery of agri inputs

Our Bureau

Bengaluru

Bayer has partnered with the Government's Common Service Centre (CSC-SPV) and agritech start-up Gram Unnati to facilitate last mile delivery of agri inputs to small holder farmers in the country.

The partnership will support farmers in Telangana, Andhra Pradesh, Karnataka, Tamil Nadu and Kerala in the first phase of execution.

Besides access to the entire range of Bayer's agri-solutions from seed to harvest, farmers can also avail of crop-specific agronomic advisory through CSC's online platform, Bayer said in a statement.

As part of the MoU,

smallholder farmers will be able to access timely crop advisory, transfer of good agricultural practices and access to premium Bayer products through CSC's online portal.

Gram Unnati will facilitate farmer mobilisation and ensure market linkages.

Together, Bayer and CSC-SPV aim to empower over half a million smallholder farmers over the next two years.

To facilitate easy access to quality inputs, agronomic support, and encourage agri-technology knowledge transfer based on the latest practices, Bayer will also nurture agri-entrepreneurs by leveraging village-level entrepreneurs of CSCs from within the local communities.

Friday, 27 April 2024

AMID BAN ON CERTAIN SPICES

India Calls for Norms to Fix Default Maximum Pesticides Residue Limit

Tells WTO frequent changes in residue limits add to negative impacts on trade

Kirtika.Suneja @timesgroup.com

New Delhi: India has made a strong pitch at the World Trade Organization (WTO) for the formulation of guidelines to determine default maximum residue limits (MRL) in the absence of international standards.

The traces pesticides leave in treated products are called residues and MRL is the highest level of a pesticide residue that is legally tolerated in food or feed.

In a submission to the WTO last week, India said that stringent MRLs can be trade-restrictive and act as non-tariff barriers to international trade, disproportionately affecting exporters from developing countries.

At present there are no uniform international standards.

The proposal comes amid certain exports by India's two major spice brands—MDH and Everest—getting rejected by Singapore and Hong Kong. India's exports of basmati rice, chillies, tea and sesame seeds are subject to MRLs which have been touted as unreasonable. "These trends are trade-restrictive... and act as barriers to international trade, particularly impacting exporters from developing countries," India said. Frequent changes in MRL requirements exacerbate the negative impacts on trade, especially when the transition period is not sufficient for compliance by developing countries, it said.

The guidelines should be developed in collaboration with the Food and Agriculture Organiza-

tion and Codex, and countries shouldn't rely on a "hazard-based approach", according to the submission.

India also suggested that countries inform the Sanitary and Phytosanitary Measures (SPS) Committee of the WTO periodically about the measures they take to collect the additional information after implementation of a provisional MRL. "Also, any restriction on approval or non-renewal of any active substances should be based on risk-assessment and rely on scientific evidence," India said.

For smoother trade, it said, the SPS Committee should develop a mechanism for monitoring the harmonisation of the standards to protect human, animal and plant life and health, called SPS measures, with the available Codex texts.

Citing a "concerning trend" in the movement towards stringent MRL thresholds for pesticides, India said that these might hinder agricultural trade. "Further, the unilateral measures based on considerations other than food safety disregard the local circumstances of agricultural practices," India said.

India also cautioned that expanding the scope of MRL regulations without comprehensive scientific assessments raises concerns about product coverage and safety.

Setting Limits

India seeks WTO norms on pesticide residue levels where global rules absent

Max residue limits on exports a non-tariff barrier

Risk-assessment, scientific evidence should be basis of restrictions

Hazard-based approach limits access to global markets

Longer time frames for compliance for products from poorer nations



ZAHID

Coromandel setting up ₹1k crore plant in Andhra's Kakinada

TIMES NEWS NETWORK

Hyderabad: Agri solutions provider Coromandel International Limited is setting up a phosphoric acid and sulphuric acid complex at an investment of Rs 1000 crore in Kakinada in Andhra Pradesh. The project is expected to be commissioned over a period of two years.

Phosphoric acid and sulphuric acid are used as key intermediates for manufacturing phosphatic fertilisers such as DAP and NPKs.

The proposed 650 tonnes per day (tpd) phosphoric acid facility, equipped with advanced DA-HF (Dihydrate Attack-Hemihydrate Filtration) process technology and automated DCS system, will enhance the company's backward integration capacities.

The new plant will provide stable supplies of phosphoric acid for its fertiliser manufacturing by replacing more than 50% of the Kakinada plant's imported acid requirement, the company said.

The company will also be



The a phosphoric acid and sulphuric acid complex is expected to be commissioned over a period of 2 years

setting up an 1800 TPD sulphuric acid plant to meet its captive needs in phosphoric acid manufacturing besides augmenting power from waste heat generation.

Currently, the company's fertiliser plants at Vizag and Ennore are fully integrated with captive sulphuric and phosphoric acid facilities and the proposed expansion plan at Kakinada will make this unit also an integrated complex. With a capacity of around two million tonnes, Coromandel's Kakinada plant is India's second largest phosphatic fertiliser facility contributing 15% of the country's NPK fertiliser output, the firm added.

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