



INTERNATIONAL YEAR OF
MILLETS
2023



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ONE EARTH • ONE FAMILY • ONE FUTURE



BASAI WEEKLY NEWS UPDATES

MARCH 12-18, 2023

ICAR makes pitch for MSP on millets

RAVINDER SOOD

PALAMPUR, MARCH 11

The Indian Council of Agricultural Research (ICAR) wants state governments, including Himachal, to provide the minimum support price (MSP) for millets to farmers to encourage them to grow these.

TR Sharma, Deputy Director General, ICAR, inaugurated a brainstorming session on mainstreaming native agro-biodiversity of north-western Himalayas with special emphasis on millets at CSK HP Agriculture University here.

Addressing scientists,



GRAINS TO BE PART OF MID-DAY MEALS

- Tech available to enhance production of millets by 225%
- Area under millets declined 75% in past 70 years
- Millets to be included in mid-day meals to provide nutritious food

farmers and other stakeholders, he said technology was available to enhance production of millets by 225 per cent

although the area under millets had declined by 75 per cent in the past 70 years. He said millets would be included in mid-day meals to provide nutritious food to students and enhance the income of farmers.

He said a major project of the ICAR on agro-biodiversity was yielding good results. Collection and conservation of landraces and wild species was crucial to developing climate-resilient crop varieties. He said besides underutilised crops, the ICAR was working on bio-fortification of varieties such as wheat, containing a high amount of zinc.

CONTINUED ON PAGE 6

ICAR makes pitch for..

HK Chaudhary, Vice-Chancellor, said awareness had been created among farmers about the importance of growing and using millets, but there was need for providing marketing facilities on the doorstep of farmers.

An MoU had been signed with the Indian Institute of Millets Research and the university was working on identifying traditional varieties of millets which gave high yields.

Chaudhary also dwelt on changing food habits, low cost of millet production, importance of indigenous knowledge, naturally bio-fortified crops and processing of millets.

JC Rana, country director, Alliance Biodiversity International, and Director,

International Centre for Tropical Agriculture (CIAT), said a Rs 1000-crore project had been initiated on mainstreaming agro-biodiversity. It would provide good results. He said a value chain had been developed to conserve traditional landraces.

SP Dixit, Director, Research, said efforts had been made to conserve biodiversity. The state had around 1 per cent biodiversity of the world.

RK Chahota, convener, said the programme was jointly organised by the university, Alliance of Bioversity International and CIAT. Around 150 persons, including Nek Ram Sharma, a Padam Shri awardee progressive farmer, took part in the programme.

Himachal's Millet Man



NEK RAM SHARMA

Forty to 50 of my associates were the first to join hands with me. We started working with indigenous seeds and have come a long way. But it was a path rife with challenges and confrontations. The Padma Shri is not just mine, it is as much theirs. This award celebrates all that we have collectively achieved, it celebrates traditional wisdom

THIS is International Year of Millets and I am in Karsog today, my hometown in Mandi district of Himachal Pradesh. Ever since I was awarded the Padma Shri, the locals have been asking me to come and celebrate the award with them but I have been busy with meetings, lectures and conferences. About 40-50 of my associates had gathered; we go back close to three decades. These were the people who first joined hands with me and we started working with indigenous seeds. We have come a long way but it was a path rife with challenges and confrontations. The Padma award is not just mine, it is as much theirs. This award celebrates all that we have collectively achieved. It celebrates traditional wisdom.

Like most Pahari families, we were into farming too, but since I had got myself an education, I tried to find a government job. But when things didn't work out, I turned towards farming.

Here, my education came handy. There was no culture of growing vegetables in our villages, but the books were singing paeans for spinach, carrot, radish and the like. We introduced these into our fields, depending heavily on chemical farming. This went on till the early 1990s. Meanwhile, my interest in farming took me to talks and seminars where I first heard people talking about organic farming. My foray into that direction was to take some time. Environmental concerns were my first step towards what you would call activism.

In the forest near our house in Nanj village of Karsog, overgrazing was leading to flooding during the monsoons. Entire crops would be washed away as there was no vegetation cover on the soil to stop the flow of rainwater rushing downwards. People would leave their cattle to graze in the forest meadows day and night. This would repeat year after year. It would hurt me to see the crops die that avoidable death. I began meeting people and telling them that they needed to stop grazing their cattle three to four months before the arrival of rains. Once they understood and followed, the results were there to see.

When you connect with your surroundings, you begin to see things clearly. We slowly started refusing to feed our cattle wheat straw from Punjab fields. We asserted our right over the forests nearby and began sowing seeds in the forests. We began making *halwa* for *van devta* (deity of the forest) and people, young and old, began joining us, some to sow seeds, some for the sake of *halwa*. Whatever their reasons, seeds were sown by everyone. That was the idea.

Soon, we realised how we were at fault with so many things. The seeds we were sowing in our fields were being stored along with celphos to protect from pests. On the other hand, our traditional grains never required pesticides. This marked



From village to block level, Nek Ram Sharma's passion for millets has seen a wave of support.

the beginning of my journey with millets.

Each Pahari home earlier had a wooden box for storing various grains. Somewhere around the end of the last century and beginning of the 21st century, I began asking elderly farmers if they had any traditional grains and they would oblige. The wooden boxes had housed traditional wisdom. It was now returning to the fields. We began planting various kinds of millets — finger millet (*ragi*), foxtail millet (*kangni* or *kauni*), barnyard millet (*saava*), proso (*chena*)...

We roped in the Deccan Development Society from Hyderabad, who gave us technical knowledge and shared with us the nutrient value of each millet. From village to panchayat to block level, we went on distributing seeds: two handfuls to each farmer with the promise of the farmer returning two handfuls to us and distributing seeds to five more persons.

For years, we have been eating just wheat and rice. It has wreaked havoc on our health. *Sab gadbad ho gaya hai*. Everything has gone haywire. No one tells us *amaranth* is good for bone health and finger millet for diabetes. The latter is fibre-rich and releases glucose slowly. There is no chance you can get diabetes.

Some years ago, I did a biodiversity conservation study across the state, meeting the elderly and old-time *vaid*s. People recalled how when they had an upset stomach, they would have a certain *ragi* soup. The younger generation needs to know this. We have tried to revive some of these and introduced some dishes to people at various

fairs and events over the years.

Earlier, the departments concerned wouldn't support us, but with Prime Minister Narendra Modi himself advocating millets, we have received an overwhelming response. Then Governor Acharya Devvrat encouraged us to buy dehusking machines for millets, and Rakesh Kanwar, Secretary, Agriculture, lent a lot of help. I was at a two-day national conference in Delhi recently, and it was heartening to see people discuss the strides we have made in promoting millets and the challenges that farmers are encountering. While the availability of seeds is a major concern, dehusking is a major deterrent. We have machines to take care of that, but small farmers who have just taken to millets don't have that facility. No one wants to use the *okhali* (mortar) these days. The entire ecosystem needs to be developed.

For the past one year, we have taken the idea of millets to people and introduced them to dishes made from millets at the Kullu Dasehra, Lavi fair at Rampur and Mandi Shivratri recently. People have appreciated our initiative. Our millet tea, made by roasting finger millet flour and dry fruits such as walnuts, peanuts and almonds, is a hit, and so is millet *khichdi*. At home, we make it slightly runny and my four-year-old grandson loves it. He also loves barnyard *kheer*. Tastes can be changed. Let this year be a start.

— The writer was recently awarded the Padma Shri for his contribution to agriculture (As told to Sarika Sharma)

3,300 MT of rotten wheat worth ₹6 crore lying in the open awaits auction

TRIBUNE NEWS SERVICE

KARNAL, MARCH 11

About 3,300 MT rotten wheat, worth Rs 6 crore, is lying in an open godown at Jundla, waiting for the auction process. The wheat was purchased in 2020-21 and stored in the open godown. In 2022, the authorities found it rotten.

After the Food Corporation of India (FCI) declared it non-issuable, the Food and Civil Supplies Department categorised it and wrote to the higher authorities in August 2022, seeking permission to auction it.

Nearly 7,488 MT of wheat, procured in 2019-20, was found rotten in seven open godowns at Jundla and Assandh in November 2022. It was then auctioned.

The sources said the delay in the lifting was the reason behind the loss.

When contacted, Pankaj Agarwal, Commissioner and

INQUIRY INITIATED

“The state govt has initiated a high-level inquiry to the case. Action will be taken against those found guilty. The government and the FCI had issued directions on not to store wheat in the open, which would be followed in the upcoming season.

Pankaj Agarwal, SECRETARY, FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Secretary of the Food, Civil Supplies and Consumer Affairs Department, said the rotten wheat would be auctioned soon. A committee led by the administrative secretary of the concerned district is inquiring into the issue of rotten wheat found in various godowns in 2019-20 and 2020-21 in different districts, he added

Farmers switch crops amid concerns over climate crisis

Zia Haq

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NEW DELHI: Farmers in India are alarmed by risks posed by the climate crisis and most have gotten into the practice of keeping some backup plan in view of increasingly extreme weather patterns, data from a national farm-advisory helpline and a major study show.

India is among countries most vulnerable to the impacts of climate change, which can roil its farm sector, still the biggest source of employment, according to the Intergovernmental Panel on Climate Change's Sixth Assessment Report. Farmlands have been called the frontlines of climate change because the most visible impacts of the crisis are often first apparent in crops.

Adaptation, or the process of adjusting to climate-change impacts, in some cases, is altering the country's farm landscape. For instance, farmers from Uttarakhand have been forced to convert "conventional apple fields into



In Tamil Nadu, a large number of cultivators are growing sesame instead of groundnut. HT

vegetables" due to "temperature warming", the study found.

Farmers' perception and response could be classified into three categories, showed the study by Pritha Dutta and Bhagirath Behara of the Indian Institute of Technology Kharagpur, along with Dil Bahadur Rahut of the Asian Development Bank Institute, Tokyo. The study was released in September last year.

Growers with better resources are going in for systemic as well as transformational changes, while others are adapting by introducing smaller, incremental steps. "Results show that majority of the Indian farmers have perceived a

rise in temperature, erratic and decreased rainfall, which is consistent with the meteorological data," Dutta said.

Examples of incremental changes include crop switching. In Tamil Nadu, a large number of cultivators are growing sesame instead of groundnut in the face of growing water scarcity. "Some farmers also increased the number of family labourers to avoid waged labourers, a cost-cutting move," Dutta said.

Others are taking drastic steps such as leasing out land, liquidating land and livestock and reducing farm size, pointing to a scaling down of farm operations due to climate crisis, the study found. "Main challenge in technology diffusion is that landholdings are so small that even using a tractor makes no sense. Secondly, all our technologies, like high yielding seeds, are for irrigated lands, although 48% of our sown area is dry land (those outside irrigation cover)," said Tamil Nadu Agricultural University's agricultural economics head K Mani.

Farmers begin march from Nashik to Mumbai as onion prices plunge

Faisal Malik

letters@hindustantimes.com

MUMBAI: Thousands of farmers began a nearly 170-km foot march from Maharashtra's Nashik to Mumbai on Sunday demanding that the government provide financial aid to onion producers and purchase their surplus yield.

The march comes against the backdrop of onion prices falling in different parts of the country, including Maharashtra, prompting protests by farmers who are facing mounting losses. Last week, the farmers from Lasalgaon, India's biggest onion market, blocked the Ahmednagar-

**THE AVERAGE
WHOLESALE PRICE
DROPPED FROM
₹1,850 A QUINTAL
ON DEC 26 TO
₹550 ON FEB 23**

Pune, demanding government intervention.

In Maharashtra, rates have plunged below the cost of production. While it costs a grower at least ₹10-15 to produce a kilo of onion, its wholesale price ranges between ₹2 and ₹5. Nashik, which is a bellwether market, has seen volumes double from

15,000 quintals a day in December to 30,000 quintals in recent days. The average wholesale price dropped from ₹1,850 a quintal on December 26 to ₹550 on February 23, as per market reports. "The farmers are not getting proper prices for their produce. The state government should intervene by providing financial aid of ₹600 per quintal to the onion producers and also directing Nafed to buy the onion produce at the rate of ₹2,000 per quintal," said Ajit Nawale, joint secretary, Akhil Bharatiya Kisan Sabha, under whose banner the march has started.

The farmers are expected to reach Mumbai on March 20.

Met predicts rain, hailstorm from today; worry for wheat growers

KARAM PRAKASH

TRIBUNE NEWS SERVICE

NEW DELHI, MARCH 12

Unseasonal rain, thunderstorms and hailstorms are likely to hit most parts of the country — including north-west India — from March 13.

These extreme weather activities are likely to cause havoc as the wheat crop is nearing harvest.

"Farmers are advised to delay light irrigation. In case of strong wind, irrigation should be stopped to avoid lodging that may cause yield loss," reads an advisory by ICAR-Indian Institute of Wheat and Barley Research, Karnal.

Farmers, who are already struggling with the impact of early summer on wheat yield, are worried because unseasonal rain will be accompanied by



DELAY IRRIGATION, FARMERS TOLD

“Farmers are advised to delay light irrigation. In case of strong wind, irrigation should be stopped to avoid lodging that may cause yield loss. ICAR-IIWBR advisory

gusty winds and hailstorms. The Indian Meteorological Department on Sunday said, “Isolated to scattered rain along with thunderstorm and light-

ning is likely over the western Himalayan region between March 12 and 14; over Punjab on March 12 and 13; west

CONTINUED ON PAGE 9

Met predicts rain, hailstorm from..

Rajasthan on March 12 and 13; and over east Rajasthan on March 13." The IMD further said that the wet spell was likely over south, central and east India

between March 15 and 17.

The extreme weather activities would peak between March 16 and 20, according to weatherman Navdeep

Dahiya. He said, "A very strong spell of unseasonal rain poses a risk to standing wheat crops due to hailstorms."

2.7 cr farmers left out of PM Nidhi scheme

TRIBUNE NEWS SERVICE

NEW DELHI, MARCH 12

In 2022-23, the number of beneficiaries of PM Kisan Samman Nidhi — the Union Government's flagship scheme — has drastically dropped.

According to the Union Government data, the latest instalment — the 13th — was transferred directly to bank accounts of 8.53 crore farmers on February 27. The scheme has lost as many as 2.73 crore beneficiaries when compared with the 11th instalment disbursed in May last year.

In the 12th instalment, which was released in December last year, nearly 9 crore farmers had received Rs 2,000 in their bank accounts as financial help.

The Union Government — in this year's Budget — had already cut the budget allocation to the scheme by Rs 6,000 crore.

As per the records, thousands of farmers in West Bengal, Meghalaya, Sikkim, Punjab, Tamil Nadu and Assam did not receive the 13th instalment.

Nahar Singh, a farmer from Longowal village in Sangrur district of Punjab, said, "Though I have already completed the requirements, including the KYC, I have not



DELAY IN e-KYC

Experts believe that the delay in the completion of e-KYC by eligible farmers and live land integration records of farmers can be the possible reasons for the drop in numbers.

received the instalment."

The Union Government had, this year, made e-KYC (Electronic — Know Your Customer), a process of electronically verifying the customer's credentials, mandatory to get the benefits of the scheme.

Experts believe that the delay in the completion of e-KYC and live land integration records of farmers could be possible reasons for the drop in the disbursement of instalment.

Meanwhile, sources in the Union Government are claiming that deceased and ineligible beneficiaries are being removed by the way of continuous verification and validation of beneficiaries' data. The Union Government claimed that a lot of data was being updated in the scheme.

Plunder of natural resources must be curbed

Natural or organic farming being advocated across the country may not prove to be effective in many areas, particularly in Punjab, where the benchmark for agricultural productivity is quite high. However, to sustain natural resources such as water, soil and air, it is important to move from purely chemical to integrated agriculture, including recycling of crop and animal residues. An agricultural policy focusing on resource conservation and climate resilience is the need of the hour.

SURINDER S KUKAL

AN agrarian state like Punjab needs a practical and doable agricultural policy. It is expected that the policy being framed will factor in all aspects of the agricultural production system. Till date, half-baked policies revolved around agricultural production, marketing, subsidies, etc. without much emphasis on climate resilience and conservation of natural resources. This resulted in depletion and degradation of natural resources, including water, soil and air, over the years. In the absence of any clear-cut policy, the water cycle, carbon cycle and nutrient cycle — responsible for the renewal of these resources — have got disturbed. The three resource components of the environment — air, soil and water — are most critical for agricultural sustainability. However, their increasing degradation is taking a toll not only on human and animal health but have also put a question mark on the sustainability of agriculture in Punjab.

The intensive cropping, coupled with high-yielding varieties and non-recycling of crop residue in Punjab, has led to excessive mining of soil nutrients, leading to a stage where we cannot think of growing an ordinary crop without adding nutrients artificially in the form of chemical fertilisers. The organic carbon content, considered to be the lifeline of soil fertility, is quite low (0.51%) in soils of the state. The fertility of the soil has also degraded due to inten-

sive tillage, leading to surface and subsurface compaction. The ratio/percentage of groundwater extraction to recharge in major cities of the state is very high. The release of untreated industrial effluents, domestic sewage and animal waste in surface water bodies is a major issue of concern.

Over the past few years, every passing year is reported to have been warmer than the previous one. Heat stress during February and March is becoming a recurring phenomenon, thereby affecting wheat yields. The cropping year of 2021-22 witnessed heat stress, which resulted in loss of wheat grain yield to the extent of 25% in some districts. February this year has already been declared the

warmest month in several decades. Too much heat in February-March can sterilise the pollens, apart from shrinking the grains, thereby leading to loss of wheat productivity. The minimum temperatures are also showing an increasing trend over the years. Apart from affecting crop yields, heat stress is resulting in higher water demand in agricultural and other sectors.

Untimely rain or no rain is affecting agricultural production. Erratic rainfall distribution has been taking a toll on groundwater resources and crop productivity in many parts of the country.

The Punjab Government is keen to come out with a sustainable agricultural policy so as to handhold small and medium farmers, who are the worst sufferers of depleting natural resources and worsening climatic conditions.

However, to achieve this objective, natural resource conservation and climate resilience have to be the pivotal points of any such policy which could sustain farming for many years to come. Some key issues need to be addressed in the agricultural policy of the state:

- **Integrated agriculture:** Natural or organic farming being advocated across the country may not prove to be effective in many parts, particularly in Punjab, where the benchmark for agricultural productivity is quite high. However, to sustain natural resources like water, soil and air, it is important to move from purely chemical to integrated agriculture, including recycling of crop and animal residues.

- **Conservation agriculture:** To restore the natural carbon cycle, it is a must to revert to the prin-

ciple of nature that all biomass should become part of the soil. Thus, strategies for crop and animal residue management need to be chalked out, including the development of indigenously developed machinery and agronomic practices.

- **Crop diversification:** To successfully diversify the cropping pattern, plans need to be prepared at the block/cluster level based on water availability, niche area crops and a market chain, including value addition or at least grading of the produce.

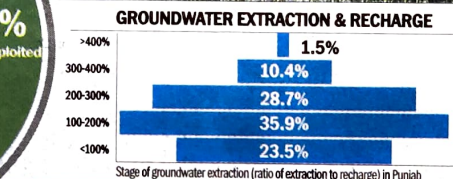
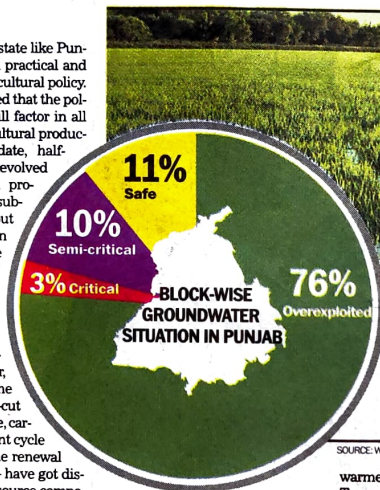
- **Reorienting research:** It's time for agricultural research organisations to shift their focus from production to resource conservation and climate resilience. As heatwaves and moisture stress are likely to intensify in the coming times, we need to focus on devel-

oping heat/moisture/salt stress-tolerant crop cultivars.

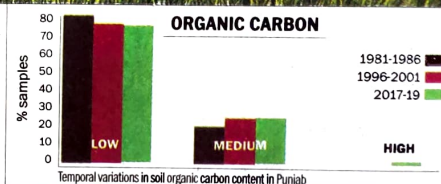
- **Life cycle assessment (LCA) of cropping system:** Crop cultivation strictly as per the state agricultural university's recommendations must be ensured, such as the judicious use of inputs, especially water, nutrients and pesticides. A brand of sustainably produced product (SPP) could be developed, based on LCA for its marketing for imports or for domestic use.

An agricultural policy focusing on resource conservation and climate resilience is the need of the hour; it can ensure sustaining profitable farming, apart from conservation of natural resources and climate mitigation.

The author is Member, Punjab Water Regulation & Development Authority



SOURCE: WATER RESOURCES & ENVIRONMENTAL DIRECTORATE, 2022



SOURCE: PUNJAB REMOTE SENSING CENTRE

Wiping away the onion tears



ROHIT KUMAR SINGH

Secretary, department of consumer affairs,
Government of India

Technology-backed strategies to counter perishability and develop storage solutions can help, along with market-integrated production planning

ONION IS OMNIPRESENT in cuisines within India. India is the second-largest onion producer globally, just behind China. Onion harvesting is through the year, except in peak summer months of May and June. The production is spread across Kharif, Late Kharif and Rabi, with the latter having a major share of around 65% of the total. While Rabi onion (harvesting between March and May) can be stored for a period of five to seven months, the Kharif onions are highly perishable and do not usually last for more than 30 days. Their perishable nature, combined with comparatively low processing penetration and sub-optimal storage infrastructure, results in post-harvest losses of about 25%. The combination of these factors often results in periodic spikes of gluts and shortages, adversely affecting the availability and affordability, hurting both farmers and consumers.

Onion prices tend to increase gradually from July and peak in the month of October. With Kharif and Later Kharif arrivals, the prices soften in November till mid-February. The short window between late Kharif and Rabi crop during second half of February triggers price rise in February which tapers with arrivals picking up in March. However, this year, the situation turned on its head for the farmers, where recently the prices of onion in the wholesale markets nosedived. Maharashtra, the leading producer and trade hub, witnessed a massive 25% decrease in prices in the last five months, where the wholesale average price dropped from

₹2,150/quintal in November 2022 to about ₹1,600/quintal in February 2023.

Uncertain weather saw prolonged rains that forced onion farmers to take up late sowing, even re-sowing in some cases, thus shifting part of Kharif production to Late kharif. On the other hand, a comparatively warmer February resulted in early harvest of Rabi crop, causing overlapping of Late kharif and Rabi arrivals. Due to increased market arrivals and a lack of primary storage facilities, wholesale onion prices dropped dramatically in the major producing states while prices ruled relatively higher in consuming states. NAFED and NCCF were tasked by the government to intervene and procure from the farmers in Maharashtra and Gujarat, which brought considerable solace to the farmers (the two agencies have procured a total of about 7,000 mt from the farmers in the last 10 days). However, the situation once again underscored the need to develop a robust onion value-chain in India.

The government deploys a multi-pronged strategy to protect the interests, often competing, of both the farmers and the consumers. It has been addressing the onion price situation on multiple fronts, including promoting an effective supply chain, innovative storage solutions and value-added product development. NAFED and NCCF were mandated to

develop a 250,000 tonne onion buffer last year through the Price Stabilization Fund (PSF); stocks were to be released into the open market as and when required. This has paid dividends resulting in stable onion price for the consumers across the country in 2022. The process to build the buffer in 2023 has already begun.

Overall, onion production exceeds domestic demand. However, there is high demand for value-added onion products in the European and North American markets. In recent months, the onion prices across the globe have increased significantly. Countries such as Turkey have seen price-increases of up to 700% because of the Russia-Ukraine conflict and the unfortunate earthquakes.

The disastrous floods in Pakistan and frost damage of onion crop in Central Asia has also impacted the global supply chain. However, due to increased demand and a liberal export policy, India exported \$523.8 million worth of onions in April-December 2022.

In line with PM Modi's clarion call to promote innovation and out-of-box solutions across the spectrum, the department of consumer affairs (DoCA) launched the "Grand Onion Challenge", a hackathon of sorts, which aims to find innovative ideas and solutions to improve onion storage, reducing post-harvest losses, and processing along with the valorisation of

excess and unconsumed onions. This challenge, carried out in association with the All India Council for Technical Education (AICTE), suitably provoked the stakeholders including scientists, professors, startups and students to partner with the government in addressing the perishable nature, storage and other associated challenges in the onion supply chain. Amongst hundreds of entries, 23 ideas, including Artificial Intelligence (AI) based assaying & grading, and IoT-backed storage structures, have been shortlisted for further mentoring by experts to help develop prototypes that have the potential of scaled up deployment. DoCA is also actively engaged with Bhabha Atomic Research Centre (BARC) and the department of atomic energy to use irradiation technology to extend onion's shelf life. Bureau of Indian Standards (BIS) has already developed a set of standards (IS 17912:2022) that includes guidelines to address curing, sorting, grading, packaging, procurement, handling, storage, transportation and distribution to assist stakeholders in reducing losses during post-harvest operations.

By focusing on institutionalising technology-backed strategies for the storage infrastructure, price data analysis-backed solutions for supply chain, having a robust buffer stock and an associated liquidation strategy for price stabilisation—along with market-integrated production planning to reduce the production concentration—the government is committed to reduce price volatility and foster a stable, profitable onion ecosystem.

Twenty-three DoCA 'hackathon' entries, including AI-based assaying & grading, have been selected for prototype development

25% area under Rabi crops hit by dry spell; ₹100 cr loss estimated

SUBHASH RAJTA

TRIBUNE NEWS SERVICE

SHIMLA, MARCH 13

The enduring dry spell has affected around 25 per cent of the area under Rabi crops in the state. As per the crop loss review done by the Department of Agriculture around 10 days ago, a loss of around Rs 100 crore has been suffered. Out of the total cropped area of 4,01,843 hectares, 1,04,920 hectares have been affected in varying degrees.

“While around 25 per cent cropped area has been affected by the dry spell, the loss in production was estimated to be around 10 to 15 per cent,” said Rajesh Kaushik, Director, Department of Agriculture. “The monetary loss has been pegged at

March sees 86% less rain, most districts record 90% deficit

around Rs 94 crore,” he said.

Considering that these estimates were till March 2 and the dry spell has continued unabated since then, the affected area and the loss of production must have increased. Till today, the month of March has seen 86 per cent deficit rainfall with most districts recording over 90 per cent deficit.

“We are hoping that occasional thunderstorms and cloudy skies in the last two weeks would keep the damage down as moisture is not lost. We will know the exact

status in our next review,” said Kaushik, adding that wheat is the most affected crop by the dry spell.

Himachal Kisan Sabha president Kuldeep Tanwar feels the actual situation on the ground could be worse than estimated. “Apart from Rabi crops, the dry spell has affected off-season vegetables like peas, cabbage, cauliflower, etc, and spices like garlic in different areas of the state,” said Tanwar.

“The patwaris should be directed to do ‘gardawaris’ in their areas to understand the actual impact of the dry spell,” Tanwar added.

The Weather Department is expecting thunderstorms and light rain over the next five-six days.



Golden Opportunity to Invest in Punjab

E-Auction

of Built up Shops in
Modern Fruit & Vegetables
Market, Sector 65-A, Mohali

From
15/03/2023
to
05/04/2023

Salient Features:-

- Situated in the heart of the Tricity in Sector 65-A Mohali within 1 KM from Railway Station, 3 KM from Airport and 5 Km from Bus Stand Mohali.
- Connected by main highways from Himachal Pradesh, Delhi, Punjab, Haryana.
- Covered Auction Platforms, Office, Canteen and other Utilities.

Detail of Shops:

| Built up Shops | Size | Shop Number | Reserve Price For Auction |
|---|-----------|--|---------------------------|
| Wholesale Fruit & Sabzi Shop (Double Storey) | 16.9 X 40 | 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34 | ₹1,53,96,000/- |
| Wholesale Fruit & Sabzi Shop (Corner) (Double Storey) | 16.9 X 40 | 9, 10, 17, 25, 26, | ₹1,69,36,000/- |

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New Delhi

Relief for farmers as Hafed starts procurement of mustard seeds

NITISH SHARMA
TRIBUNE NEWS SERVICE

KURUKSHETRA, MARCH 14

In a relief to the mustard farmers who had been waiting to sell their produce, the Hafed today started the procurement of oil seeds. On Tuesday, the government procurement agency procured about 110 quintal stock at the Ladwa grain market, which was declared as the purchase centre for Kurukshetra.

In the absence of the government purchase and lukewarm demand, the farmers were forced to sell their mustard crop below the MSP this year. While the MSP for the season is Rs 5,450/quintal, the oilseeds were fetching 4,600 to 5,400 a quintal in open market.

In a direction to district managers, issued on Monday, Hafed stated that in order to stabilise the market and in the interest of the farmers, Hafed will start the commercial procurement of mustard seeds conforming to the fair average quality specifications of the government at Rs 5,450/quintal with effect from March 14.

Pawan Garg, a private trader, said: "With the government agency entering the

Demand to increase purchase centres



A market committee official checks moisture during oil seed procurement at the Ladwa grain market in Kurukshetra.

MERI FASAL MERA BYORA

- Over 5,300 mustard farmers have got their 13,415 acres registered in Ambala and over 4,000 mustard farmers in Kurukshetra have got 9,484 acres registered on 'Meri Fasal Mera Byora' portal
- The government has declared 92 grain markets as purchase centres across the state for the procurement for rabi marketing season

market, an increase of around Rs 200-300 a quintal is being observed in the prices being offered in the open market, but it is unlikely to see any major uptrend in the mustard prices due to lukewarm demand and lower oil prices. The farmers are being offered Rs 4,800 to

5,100 a quintal for black mustard and Rs 5,500 to 5,700 a quintal for yellow mustard."

Shamsher Singh, Hafed district manager in Kurukshetra, said: "The agency has procured 110 quintal stock as per the government specifications. The agency has started commercial procurement

today and it will continue till the start of the procurement under the price support system from March 20."

The government has declared 92 grain markets as purchase centres across the state for the procurement for rabi marketing season 2023-24. However, the farmer unions have demanded that the number of purchase centres should be increased to facilitate farmers.

BKU (SBS) president Amarjeet Singh said: "Only two grain markets have been declared as purchase centres in Ambala and Kurukshetra, which means the farmers have to burn extra fuel to sell their produce. The government should increase the centres."

BKU (Charuni) spokesman Rakesh Bains said: "If the government really wants the farmers to adopt crop diversification and motivate the farmers to increase oilseed areas, it had to facilitate farmers by providing procurement facilities at all grain markets. The government should advance the procurement process in future as a huge quantity was already sold before the procurement agencies enter the market."

ension, why are they being asked for proof or certificate

and many don't even have such papers. After years of contribut-

from employers and employ-

nassie-free mechanism to help subscribers.

its feet," the NEERI said in its detailed order.

Govt to procure 1.5 MT mustard as prices fall

9.8% deflation in mustard oil in February

SANDIP DAS
New Delhi, March 13

WITH MANDI PRICES of mustard falling below the Minimum Support Price (MSP) of ₹5,450/quintal after staying far above the threshold for over two years, the government has decided to procure 1.5 million tonne (MT) of the oilseed from farmers in Rajasthan, the biggest producer in the country.

Sources said the Rajasthan state co-operative marketing federation (Rajfed) is likely to procure mustard at MSP from April 1 under the price support scheme for oilseeds of the agriculture ministry. The procurement will be carried out after a gap of two years. In 2020, against a target of 1 MT, Rajfed

purchased 0.34 MT of mustard. Meanwhile, the Haryana state cooperative supply and marketing federation (Hafed) will enter the mandis for commercial purchase of around 20,000 tonne of mustard at the MSP starting Wednesday.

Mandi prices of mustard at Bharatpur (Rajasthan), the hub of oilseeds trade, is currently ruling around ₹100/quintal to ₹150/quintal below the MSP on the prospects of a bumper harvest. Such prices are the lowest in two years. The mandis prices in November last year was around ₹7,500/quintal. "Procurement by government agencies is likely to push mandi prices above MSP," an official said.

Currently mustard is being harvested by farmers and the oilseeds variety will start arriving in the mandi in large scale by the end of this month.

According to Roop Singh, CEO, Uttan Mustard Producers Company, a FPO based in Asta-

SEED PRODUCTION

(in million tonne)

| | |
|---------|------|
| 2018-19 | 9.2 |
| 2019-20 | 9.1 |
| 2020-21 | 10.2 |
| 2021-22 | 11.9 |
| 2022-23 | 12.8 |

Source: Estimate by agriculture ministry, crop year (July-June)



van village (Bharatpur), while in the last two years the farmers have received remunerative prices which is reasonably more than MSP, this year's record harvest is expected to hit farmers hard because of sharp fall in mandi prices.

The agriculture ministry has estimated mustard seed production at a record 12.8 MT in the 2022-23 crop year (July-June). Area under mustard in the current rabi season has been

reported at a record 9.8 million hectare (MH) which is 64% more than last five years' average sown area of 6.4 MH. In the 2021-22 season, mustard sown areas stood at 9.1 MH. Currently, Rajasthan (40%), Madhya Pradesh (14%), Uttar Pradesh (9%) and Haryana (7%), have 70% share in the country's mustard seed production.

The Solvent Extractors Association of India (SEA) has urged the government to raise import

duties on edible oil, especially palm oil to a minimum of 20% immediately.

"Unbridled imports of palmolein is resulting in collapse of edible oil prices which is impacting marketing of mustard at peak harvest time and causing distress to farmers," Ajay Jhuunjhunwala, president, SEA, said in a communication to the food ministry.

The retail inflation in mustard oil declined by 9.8% in February, 2023 against a year ago period.

At present, crude palm, soyabean and sunflower oil imports attract only the 5% agri infra cess and a 10% education cess upon it, meaning a total tax incidence of 5.5%.

India imports about 56% of the total annual edible oil consumption of around 24 to 25 MT. Share of domestic edible oil includes mustard (40%), soyabean (24%) and groundnut (7%) and others.

Over 11,500 farmers lead by example in managing stubble

To get ₹10.86 cr as incentive for not burning crop residue

PARVEEN ARORA

TRIBUNE NEWS SERVICE

KARNAL, MARCH 14

A total of 11,574 farmers of the district have set an example by managing crop stubble without setting it on fire in the last paddy season. They will get Rs 10.86 crore as an incentive from the state government for not burning the crop residue.

The state government had announced an incentive of Rs 1,000 per acre for not burning stubble and working on ex-situ measures. To avail the benefit, farmers need to register on the portal of the Agriculture and Farmers Welfare Department. The department has verified the farmers' claims and their fields and sent a demand for



releasing the budget.

"We have verified the farmers who have registered themselves on the portal. We have sent a demand to release Rs 10.86 crore for the disbursement of incentive among these farmers," said Dr Aditya Dabas, Deputy Director Agriculture (DDA).

With the support of the farmers and active monitoring by the team members, the district

had witnessed a drastic fall in stubble burning cases during paddy harvesting season, he added. "Karnal district had recorded 301 stubble burning cases in the paddy season of 2022 in comparison to 1,067 in 2021," said Dr Dabas.

— They have imposed a fine on violators. "Our team members also motivated farmers not to burn crop residue and get incentive, after which farmers got themselves registered," said the DDA.

Farmers said they would not burn stubble in future and motivate others. Sukhwinder Singh, a farmer of Nissing, said he used to burn the crop residue, but last paddy season, he did not burn it in his 15 acres.

Gear up for wheat procurement, FCI directs agencies

TRIBUNE NEWS SERVICE

KAITHAL, MARCH 14

Ashok Kumar Meena, Chairman and Managing Director (CMD) of the Food Corporation of India (FCI), today directed the procurement agencies to make all arrangements for the procurement of wheat before the start of the season.

He told them to ensure the availability of gunny bags and other materials in the grain markets before the commencement of the wheat procurement. He was in Kaithal to review the wheat procurement and storage arrangements.

During his visit to the food security depot of the FCI, Meena said, "The procurement will be done as per the guidelines of the government. All procurement agencies should ensure the availability of gunny bags and other basic requirements in the grain markets. The storage would be done on the lines of the prescribed norms."

The CMD was told that the FCI had two such depots having the capacity of 6,000 MT and 9,000 MT, respectively. Besides, the FCI had taken godowns on lease. The CMD also directed the officials for the speedy lifting of the wheat.

He also told the officials to ensure the availability of water, electricity and cleanliness at farmers' rest houses, moisture-measuring machines and other facilities. Deputy Commissioner Shantanu Sharma said he had already issued directions to the officials in this regard.

Meanwhile, the CMD and DC planted saplings on the godown premises of the FCI.

Will ensure MSP, says Hooda

Alleges outsiders being preferred to local youth in govt jobs

ROHTAK, MARCH 14

Former CM and Leader of the Opposition Bhupinder Singh Hooda said the farmers would get the minimum support price (MSP) for their produce when the Congress forms the government in the state.

Addressing a news conference in Rohtak today, Hooda maintained that the Congress was constantly engaged in an interactive 'Haath se Haath Jodo' campaign and would certainly form the next government. "People of the state are completely fed up with the present government. Haryana, which was on top in

per capita income and investment during the Congress regime's tenure till 2014, has now become number one in unemployment, crime and scams," he remarked.

Hooda pointed out that about 2 lakh posts were lying vacant in various government departments. "Instead of filling these posts in a transparent manner, jobs are being sold like goods at a grocery store. About 30 papers have been leaked so far," he said.

Hooda alleged that the state government was constantly changing the rules of recruitment to benefit the candi-

dates from other states over the local youth. "The government has decided to give five marks for socio-economic status to the candidates of other states. This will make it more difficult for the local applicants to get jobs," he said.

The Congress leader stated that the farmers were forced to sell mustard Rs 1,000-1,500 lower than the MSP as the government was deliberately delaying the purchase to benefit the middlemen. "The MSP guarantee law will be implemented after the Congress government is formed," he asserted. — TNS

High-yielding indigenous bulls being developed for quality semen at 30 centres: Expert

TRIBUNE NEWS SERVICE

KARNAL, MARCH 14

Dr MS Chauhan, Vice-Chancellor, GB Pant University of Agriculture and Technology, Pantnagar, said the Department of Animal Husbandry, Government of India, had initiated the production of high-yielding indigenous bulls at 30 locations in the country with the help of ovum-pickup technique to meet the demand of quality semen production.

Dr Chauhan was addressing scientists and students at the ICAR-NDRI here, while delivering the Dr KK Iya Memorial oration on the topic "Reproductive biotechnologies for addressing productivity challenges in dairy sector".

He highlighted the contribution of the Indian dairy industry and said it contributed around 23 per cent of the global milk production. The industry contributed 5 per cent to the national economy and directly supported more than

India contributes
23% to global milk
production, says VC

8 crore farmers. "India's dairy industry had grown significantly over the past 10 years," Dr Chauhan added.

Dr Chauhan highlighted various reproductive technologies starting from artificial insemination (AI), oestrus synchronisation, multiple ovulation induction and embryo transfer (ET), sperm and embryo sexing, and in-vitro embryo production and cloning by nuclear transfer. He emphasised that recent developments in molecular markers coupled with the use of bioinformatics had opened the possibility for identifying genomic variation and major genes for the genetic improvement of livestock. Dr Dheer Singh, Director, NDRI, highlighted the contribution of Dr Chauhan in the NDRI.



BUREAU OF INDIAN STANDARDS

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New trade policy to set ambitious \$2tn export target

Rajeev Jayaswal

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NEW DELHI: \$2 trillion by 2030 — that may be the new export target defined by India in its new Foreign Trade Policy (FTP), which will be released later this month, two officials said, asking not to be named.

With exports this year estimated to be at least \$750 billion, that needs a growth rate of 15%. This year, India's exports are expected to grow by at least 12%.

Commerce secretary Sunil Barthwal on Wednesday said the government is expected to release the FTP by the end of this financial year, which will have a five-year roadmap to enhance the country's trade.

After extension, the current FTP (2015-20) will expire on March 31, 2023. On September last year, the government extended the existing FTP for six months due to adverse global economic conditions. FTP, which provides guidelines for enhancing exports, driving economic growth and creating jobs, was first extended on March 31, 2020 for one year due to the outbreak of the Covid-19 pandemic.

One of the officials said the \$2 trillion exports will have equal share of goods and services. The focus of the new policy is expected to be on trade promo-

tion through Free Trade Agreements (FTAs), import substitution, import diversification, marketing via Indian missions, nudging every sector through respective ministries and involving states in promotion of exports.

"The \$2 trillion target by 2030 is achievable. Of course, there are global headwinds and situation is not very conducive, but India has certain advantages that it can leverage to its advantage," said Ajay Sahai, director general and chief executive of the Federation of Indian Export Organisations (FIEO).

He added that free trade agreements, the ₹20-lakh crore production-linked incentive (PLI) schemes, inclination of major economies such as the US to rely on India for friendshoring, diversion of Russian supplies from Europe to India and European supplies from Russia to India are favourable for the country.

"FTP should have two-pronged strategy — encouraging sunrise sectors (such as electronics, pharmaceuticals, automobiles) and incentivising labour-intensive sectors such as textiles and leather. Services exports are doing exceedingly well. There is a need to also focus beyond IT and ITES," he said.

Farmers receiving PM Kisan benefits decrease by 24mn

Zia Haq

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NEW DELHI: The number of farmers receiving income transfers under the flagship PM Kisan programme has dropped from 104 million at its peak in 2021-22 to 80 million in the current financial year, a decline of nearly 23%, replies by the agriculture ministry in response to questions asked in Parliament show.

Payouts to cultivators under the scheme accordingly saw a reduction of 14% from ₹67,032 crore in 2021-22 to ₹57,646 crore in 2022-23, according to a written reply in the Lok Sabha on February 14.

Several Opposition MPs have sought data on PM Kisan, one of the largest federal direct benefit transfer programmes, inquiring to know the reasons behind a fall in the number of eligible farm households.

Since the scheme's launch in 2019, nearly 110 million farmers have received ₹2.50 lakh crore in all, spread over 13 instalments. Almost 3 million women beneficiaries have received nearly ₹53,600 crore, the ministry has stated. An official involved in administering the scheme, requesting anonymity, said identification of beneficiaries according to the scheme's eligibility criteria was solely the responsibility of states. The Centre routinely reviews its implementation with states to bring "efficiency and



ensure only eligible farm households are enrolled".

Under PM-Kisan, the Centre provides income support of ₹6,000 a year to farmers with a valid enrolment, paid in three equal cash transfers of ₹2,000 – one every four months. It was launched on February 24, 2019.

"The States/UTs have been provided with the option to mark beneficiaries as eligible to ineligible and vice versa, after due verification," the ministry said.

Assam, for instance, launched a probe in 2020 after a large number of ineligible people were

found to have enrolled themselves.

"Payouts are transferred only after due verifications and validation," the ministry said. Checks on enrolment have been made stringent by Aadhaar authentication, along with bank account validation by a public finance management system and matching of income tax records. Under the scheme, any land-holding farm household is eligible for cash transfers, provided they don't pay income tax, hold government posts, or are retirees who receive pensions above ₹10,000.

Foreign law firms can practise in India: BCI

Abraham Thomas

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NEW DELHI: Foreign lawyers and law firms will now be allowed to practise in India in areas such as foreign law, international legal issues and arbitration matters, the Bar Council of India (BCI) decided on Wednesday, a move that drew a positive response from Indian legal firms.

Foreign law firms and lawyers will have to register themselves with the bar council under the BCI Rules for Registration and Regulation of Foreign Lawyers and Foreign Law Firms in India, 2022, notified on March 10.

“Opening up of law practice in India to foreign lawyers in the field of practice of foreign law, diverse international legal issues in non-litigious matters and in international arbitration cases would go a long way in helping the legal profession/domain grow in India to the benefit of lawyers in India too,” the BCI said in a statement.

This is the first time that foreign law firms and lawyers have been permitted registration under the Advocates Act, 1961, which until now was confined exclusively to Indian citizens.

Under the new arrangement, foreign law firms and lawyers can give legal advice to their clients in India regarding foreign law and on diverse international

THE FOREIGN LAW FIRMS, LAWYERS CAN PRACTISE IN AREAS SUCH AS FOREIGN LAW, INTERNATIONAL LEGAL ISSUES AND ARBITRATION

legal issues but shall not be permitted to appear before any court, tribunal or any statutory or regulatory authority.

“The registration shall be permitted by the BCI based on the principle of reciprocity, i.e., similar facility should be in vogue for Indian lawyers/law firms in the country where the foreign law firm is primarily registered with,” according to the newly notified regulation. “Once registered in India, the foreign law firm/lawyer must renew the registration after five years.”

The cost of registration has been fixed at \$25,000 for lawyers and \$50,000 for law firms while renewal will incur \$10,000 and \$20,000, respectively under the two heads, it said.

The legal fraternity in India is not likely to suffer any disadvantage due to a “restricted and well controlled and regulated” opening of legal sector to foreign firms/lawyers as the standards of Indian lawyers in proficiency in

law is comparable with the international standards, the BCI said.

Indian legal firms welcomed the BCI’s move.

“Opening up law practice in India to foreign lawyers will create opportunities for tie-ups and partnerships,” said advocate Vinayak Burman, managing partner of Vertices Partners law firm. “It is likely to pave the way for potential consolidation, especially for firms dealing in the cross-border mergers and acquisitions practice in particular.”

Adding another insight to the move, advocate Rajesh Narain Gupta, managing partner of SNG & Partners law firm, said, “Entry of foreign law firms will support in a big way the ambition of India to be more visible and valuable in a global context, especially on international trade and commerce. This will be a game changer for mid-size firms and will help the law firms in India to achieve more efficiency in talent management, IA, technology, domain knowledge in a global context, and management.”

The areas of practice of law by a foreign lawyer or firm shall be laid down by BCI, which may consult the ministry of law in this regard, the new rules said. “The BCI also reserves the right to deny registration and to suspend/cancel registration in the wake of professional misconduct or misrepresentation,” it said.



OPINION

How to climate-proof the agriculture sector

An inter-ministerial and time-bound programme on de-risking agriculture is needed. It should look at seven aspects

A spell of spring heat in northern India has once again put the spotlight on the climate crisis and the vulnerability of our food security and livelihoods to climate risks. Last year also, episodes of prolonged and unusually intense heat in February–April impacted wheat production. For now, day temperatures are higher than average, but night temperatures are still within a favourable range. Thunderstorms and rainfall in some states have helped. Therefore, as things stand, wheat production is unlikely to be significantly affected, but if the temperatures soar later this month, we could suffer considerable losses. Such risks are only likely to rise due to the increasing intensity, frequency and duration of climate extremes.

Over the years, India has taken several steps to de-risk agriculture. Several large-scale climate extremes — such as droughts or deficient rainfall periods in 2002, 2009, 2014, and 2015 — didn't engender significant hunger on an aggregated scale. Thanks to the efforts of our farmers, researchers, and industry, and the support of several government schemes, such as crop insurance, farm inputs and markets, India maintains a large buffer stock of food grains

for the public distribution system, and this helped support nearly 800 million people during Covid-19. The Indian Council for Agricultural Research, with its CGIAR partners and BISA, developed several high-yielding crop varieties, and invested in understanding the magnitude of the climate crisis, identifying adaptation and mitigation strategies, and realistic measurements of greenhouse gas emissions from agriculture. Wheat varieties with early heat tolerance enabled farmers in Punjab and Haryana to plant wheat in late October/early November and escape terminal heat stress. We have had reasonable success with minimum tillage and laser-levelling practices in north-western India.

But the pace and complexity of evolving climate risks are much more than research and development efforts. We now see multiple stresses of different intensities and duration in one crop season. For example, heat, drought, and even floods occur in the same places, one after the other. Considering this increasing complexity of climate risks, it is time to revisit our research and development. We believe a time-bound, inter-ministerial programme on de-risking Indian agriculture is needed. It should look at seven aspects.

One, risk zoning. India's agro-ecological mapping should urgently factor in the dynamic risk profile of a region, based on the frequency and intensity of

hazards and yield losses. Research and development strategies will differ greatly for low, medium or high-risk zones. For example, diversification from agriculture would be preferred in very high-risk areas. In contrast, growth-promoting options should be the priority in low-risk zones and climate adaptation in medium-risk zones.

Given the pace of changing hazard patterns, such profiling needs to be updated every three years.

Two, land-use plans and technology targeting. Alternative land-use plans considering market demand, agroecological potential, climate risk profile, and socioeconomic constraints of the region need to be developed. Policy support, incentives, and disincentives to farmers can enforce such land use plans. To begin with, such plans need to be developed and implemented for 100 backward districts.

Three, managing water resources in rainfall excess or deficit hotspots. Changing climate results in intensifying very heavy or no rainfall episodes. Identifying such hotspots, developing and demonstrating innovative harvesting systems for managing floods or waterlogging at a panchayat scale, and later using this water for irrigation in water-deficit periods, will be rewarding, although expensive.

Four, new genetic technology deployment. Enhanced trait-based breeding, using precision phenotyping and molecular approaches, including



The G20 leadership is an excellent platform for India to mobilise member-countries to address climate risk-management solutions

PTI

genome editing, is increasingly being used to realise the full potential of genetics in different crops. Strategies are needed to deploy these for managing biological and climate stresses.

Five, digital agriculture and early-warning systems (EWS). There has been great progress in modelling, remote sensing, and machine learning worldwide, including in India. Coupling these tools with digital agricultural technologies can provide farmers and other stakeholders with value-added actionable knowledge to manage climate risks. These tools also need to develop state-of-the-art EWS for weather, food insecurity hotspot mapping at a granular scale, early identification of global trade opportunities, and tracing the movement of transboundary pests and diseases.

Six, efficient and inclusive insurance solutions. The importance of insurance in managing climate risks will only grow due to the continued unpredictability of hazards. Integrating satellite data, crop modelling, machine learning, and risk profiles of panchayats can greatly increase the efficiency and efficacy of insurance schemes. These technologies can also support universal insurance coverage for all farmers, providing them with a much-needed

safety net.

Seven, managing business risks. Both food demand and supply are dynamically linked to climate risks. Innovative partnerships for agriculture produce aggregation, warehousing, distribution, and marketing models can help. Several banks and money-lending agencies are investing in understanding the climate-risk profile to reduce their risk exposure. While this secures banks, poor farmers face pressure while purchasing agricultural inputs and could potentially fall into a poverty trap. Social safety needs to be streamlined to support such farmers.

The experience over the last two decades has shown that the Green Revolution model of creating a symbiotic relationship between technology, policy, institutions, and stakeholders' capacity remains relevant for strengthening climate resilience. The G20 leadership is an excellent platform for India to mobilise member-countries to address the problems of the Global South on climate-risk management solutions.

Pramod Aggarwal, Arun Joshi and Parsh Shirsath are with the Borlaug Institute for South Asia-CIMMYT

The views expressed are personal



Pramod Aggarwal



Arun Joshi

{ OUR TAKE }

What the Bhopal verdict entails

The Union's plea was always a long shot. For the victims, it is yet another setback in a long saga

It was always going to be a long shot, but the Union government's unsuccessful curative petition asking for additional compensation for the victims of the 1984 Bhopal Gas Tragedy is yet another blow in a long saga of setbacks battled by the victims of the world's worst industrial disaster in their quest for justice and rightful compensation. A Constitution bench of the Supreme Court (SC) on Tuesday dismissed the petition filed by the Union government in 2010, demanding an additional compensation of more than ₹7,400 crore from Union Carbide Corporation, now owned by Dow Chemicals, and reproached the Centre for "gross negligence" in providing insurance cover to those affected by the accident that claimed 5,000 lives.

During the hearing of the curative petition — the last legal recourse available in the SC — three factors weighed against the Centre's argument. First, the petition was filed more than two decades after the original award of compensation was finalised. When the \$470-million settlement was negotiated in 1989, the Centre's highest law officer signed off on the agreement, effectively closing the issue before the top court. Dow's acquisition of Union Carbide happened well after this. The second was the failure of the Centre to file any review petition after the original decision in 1989. The government argued that an enhancement of damages was needed because the compensation decided was on the basis of a preliminary assessment of 3,000 deaths, 20,000 major injuries and 50,000 minor ones, which had risen to 5,295, 35,000 and 527,000, respectively. But the SC found no foundation in any legal principle for such an enhancement. The Centre's arguments were weakened by past admissions that the settlement amount was not just sufficient but in surplus of the compensation required to be paid to claimants. The third was the lack of an insurance scheme for the victims as mandated by the court in 1991, which further damaged the Union's case, and prompted the SC to reproach the Centre for negligence.

Since that night of December 3, 1984, when 40 tonnes of toxic gas spewed out of the Union Carbide factory and choked thousands of residents, the case has been shrouded in a miasma of institutional neglect and administrative missteps. The dismissal of the petition brings the curtain down on the legal proceedings. But for those affected by the tragedy, it is yet another reminder of what went wrong, and what could have been done, but wasn't.

Foreign delegates agree on sharing research data, promoting innovation

TRIBUNE NEWS SERVICE

AMRITSAR, MARCH 15

The discussion under the second G20 Presidency Working Group meet on education here reached a consensus that research collaboration was the need of the hour. Countries needed to break down silo mentality and create a unified vision to promote research collaboration for achieving sustainable development goals as was done during the Covid pandemic.

It was also stressed that there was a need to establish frameworks for sharing research data and outputs.

The meet commenced at the historic Khalsa College here with a panel deliberat-



G20 delegates at Khalsa College in Amritsar on Wednesday. VISHAL KUMAR

FOCUS ON BRIDGING THE GAP

The seminar focused on bridging the gap among government-academia-industry linkages for designing solutions to addressing global challenges in the education sector

ing on innovative teaching methods that could help formulate better practices globally and policies in education. The seminar titled

'Strengthening Research and Promoting Innovation through Richer Collaboration', hosted by Indian

CONTINUED ON PAGE 9

Foreign delegates agree on sharing research...

Institute of Technology (IIT), Ropar, under the auspices of Ministry of Education, focused on bridging the gap among government-academia-industry linkages for designing solutions for addressing global challenges as there is a need for bringing 'multi-disciplinarity' in education. Prof Rajeev Ahuja, Director of IIT Ropar, highlighted India's opportunity to establish itself as a leader in research and innovation globally.

CM Bhagwant Mann and Secretary, Higher Education,

K Sanjay Murthy were present. Prof Govind Rangarajan, Director, IISC, highlighted India's frugal innovations, which have the potential to solve problems of the developed world and the need to acknowledge and use grassroots innovation.

Prof BS Murty, Director, IIT Hyderabad, apprised that the National Education Policy 2020 has brought in path-breaking reforms in education in India and various programmes are helping promote cross-institutional collaboration in the country.

The first panel discussion titled 'Research in Emerging and Disruptive Technologies, Industry-4.0', moderated by Prof Anil Gupta and chaired by Prof Rajeev Ahuja, brought together panelists from Australia, France, India and UK who shared insights on the role of various stakeholders to promote research on the emerging innovations, their impact on education systems and society in general.

The second discussion on 'Research in Sustainable Development Goals' chaired

by Prof Shalini Bharat with panelists representing China, Oman, South Africa, UAE and UNICEF laid importance on enhancing the capacities of universities as these are the core of research.

One of the panelists, Alison Dell, Assistant Secretary, Australian Government Department of Education, discussed the national collaborative infrastructure scheme in her country and highlighted the successful partnerships between Australian and Indian institutions in the past.

Need strong agri policy

Apropos of 'Plunder of natural resources must be curbed'; a strong agriculture policy covering all aspects like depletion of natural resources, soil health and environmental changes affecting food production, is the need of the hour. Farmers, especially with small landholdings, who stick to traditional farming of wheat and paddy because of assured remuneration, should be convinced to practise diversified farming. Production of crops like millets, maize and barley can help conserve groundwater. With assured price mechanism and purchase system, small farmers can switch over to vegetable production. The Department of Agriculture and institutions involved in research should come out with climate-resilient varieties to help the farmers. Besides, the government should come out with a strong sale-purchase mechanism policy conducive to farmers' needs.

DARSHAN SINGH BHATHAL, NANGAL



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Azadi Ka
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Harness Waste to Generate Power



3P's

PELLET TO POWER TO PROSPERITY

(One-Day National Level Conference)

Date: 24th March, 2023

Venue: New Delhi

Organised by:

SAMARTH

(National Mission
on Use of Biomass in TPPs)

In association with NPTI

Objectives

Promote and facilitate ex-situ utilization of agri-residue with focus on developing an eco-system for aggregation, transportation, manufacture, supply and cofiring of biomass in thermal power plants (TPPs)

Benefits

An ideal platform for all the stakeholders to share their knowledge and experience for gainful use of agri-residue and also address the issue of stubble burning.

Participants

Representatives from Ministries, Central and State Government, CPSUs, GENCOs, Pellet manufacturers, Entrepreneurs, OEMs, Financial Institutions, Farmer organisations, etc.

Contact us:

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Phone No.: 0120-2356584 / 576 • E-mail: md-biomass-power@gov.in

Build a new global agency to push climate financing

India's G20 theme — One Earth, One Family, One Future — centre-stages today's two key challenges: The climate crisis and sustainable development. Financing will be a critical requirement for meeting the economy-wide climate and sustainability challenges. The developed world promised \$100 billion in climate finance, but that has not materialised. Besides, the requirement today is much more. At the Glasgow climate meeting in 2021, Prime Minister (PM) Narendra Modi called for \$1 trillion from developed countries to finance their mitigation and adaptation measures.

The reality is that most financing needs of developing countries are unlikely to be met by developed countries and or multilateral institutions. Moreover, raising finances domestically in developing countries remains limited. So, it is vital that green financing for developing countries emerges as a risk-mitigated opportunity for financiers from the developed world.

India is an excellent example of the scale of climate financing required. Thanks to a massive governmental push in the last eight years, India's solar and wind projects attracted \$66 billion in investment. Going forward, this is expected to reach \$1.15 trillion in the next eight years to realise India's climate ambitions of 450 GW of renewables by 2030, infrastructure for transmission and storage, and the Green Hydrogen Mission. Out of a total required investment of \$1.15 trillion, the debt requirement will be around \$850 billion, and the equity requirement will be about \$300 billion. The domestic debt markets will find it hard to realise these amounts. As a result, India will have to rely on foreign sources for 40%-60% of the debt requirement.

On a global scale, climate financing may not be a macroeconomic problem because a fair amount of funds is available in developed countries, whereas the requirements are growing exponentially in developing countries. Indeed, the estimated annual investment requirement of \$4-5 trillion to reduce emissions in developing countries is significantly smaller than the global annual savings of over \$22 trillion and the global Gross Domestic Product of \$94 trillion.

Borrowers in developing countries can borrow foreign funds at a cheap rate but the key issue is that their landed cost is not competitive. There are many reasons for this, including liquidity and convertibility risks that can't be easily mitigated over a long period. The high costs of hedging (usage of financial instru-

ments or market strategies to offset the risk of adverse price movements) and the absence of a long-term hedging market exposes projects to currency risks in the medium-to-long term.

The problem is exacerbated if the money is borrowed in a currency other than the US dollar or Euro as it requires two-pronged hedging.

The need for help with the costs of foreign exchange hedging for developing countries is well recognised with some international mechanisms also in place. But these are generally restricted to only a limited number of currencies. The need is for an institutional way forward at the global level so that large-scale actions can significantly reduce premiums over and above the currency depreciation rate, making green projects funded by offshore financiers less risky and more cost competitive for both the lender and the borrower.

This can, perhaps best done through an International Foreign Exchange Agency for Climate Change, which could operate an international platform to lower the cost of foreign exchange hedging in developing countries for green projects. Such a global agency could encompass many currencies, allowing for the financing to be structured as a global pool wherein exposure in various currencies would provide a natural hedge.

The key questions relate to pricing and residual risks. The former would need to factor in pay-outs, including in the long run, but kept at a level that eases and facilitates flows to green projects in developing countries. Given geopolitical realities and global economic weightages, such an agency should be created as part of the Bretton Woods Institutions system (BWIs), linked to the World Bank or the International Monetary Fund (IMF). The United Nations and its agencies could also be roped in. The developed world will have a certain comfort with BWIs, given the history of their control over the institutions' governance structures. The developing world would have a say, and the agency would be able to leverage systems developed by them.

In 1944, the Indian delegation at the Bretton Woods Conference ensured that the mandate of the global financial institutions included development finance. This was, perhaps, the most significant global action to push the development agenda. As G20 president, New Delhi must consider laying the groundwork for an international institutional arrangement to help in climate financing and sustainability in developing countries. It would also be a lasting legacy of PM Modi, a recognised climate champion. Further, with Ajay Banga, the likely new head of the World Bank also showing interest in the climate, his appointment could institutionalise this arrangement.

Though the world appears to be divided, there also appears a certain willingness to work towards mitigating the great climate and sustainability challenges of the day. When the first summit-level G20 was convened in the wake of the global financial crisis of 2008-09, it used its leverage through the IMF to fix the global economy. It's time to do the same for the climate crisis and sustainability.



Manjeev Singh Puri



India must consider laying the groundwork for an international arrangement to help in climate financing and sustainability in developing countries

SHUTTERSTOCK

Manjeev Singh Puri is former ambassador, lead negotiator, UNFCCC, and distinguished fellow, TERI. Manish Chourasia, MD, Tata Cleantech, contributed to this piece. They were supported by senior colleagues at TERI and the TATA group

The views expressed are personal

Hafed procures mustard on MSP with riders

Says produce must have at least 38% oil content and not more than 8% moisture

DEEPENDER DESWAL
TRIBUNE NEWS SERVICE

HISAR, MARCH 17

The condition of at least 38 per cent oil content and not more than 8 per cent moisture in mustard fixed by the Haryana State Cooperative Supply and Marketing Federation Limited (HAFED) for its purchase has left the mustard farmers high and dry.

Hafed has put a condition that the mustard seed must conform to the fair average quality (FAQ) specifications of the Centre and additionally it should have a minimum of 38 per cent oil content as per the lab test.

Hafed has decided to start the commercial procurement of mustard at the MSP of Rs 5,450 per quintal from March 14, following a drastic fall in the prices of the mustard in the open market. As a result, the farmers were forced to resort to distress sale of mustard to traders in the open market.

Hafed officials stated that to stabilise the market and



Farmers with their mustard produce at the Hisar grain market on Friday. ASHOK KUNDU

in the economic interests of the farmers, they decided to procure the mustard at the MSP, but subject to the conditions of the FAQ specifications of the Centre.

Sources said in Hisar district, 33,793 quintals of mustard was purchased by private traders below the MSP this season. Hafed had purchased only 8,071 quintals of mustard on the MSP while 1,250 quintals mustard was unsold. The Haryana State Agriculture

Marketing Board office details revealed that the market prices continued to be between Rs 4,300 and Rs 5,260 per quintal today. The arrival of mustard is also lower as compared to the last year. Till now, 45,848 quintals of mustard had arrived in seven grain markets in Hisar district while 60,227 quintals of mustard had arrived in the mandis of the district last year.

A farmer, Mahender of Mingnikhera village in His-

ar, said he had to sell his mustard at a rate of Rs 4,920 to private arhtiyas. "Hafed offers the MSP to only those farmers with select heaps of mustard that have been tested in the lab. A large number of farmers are still forced to sell mustard below the MSP," he stated.

Pawan Garg, a trader in Hisar mandi, stated that Hafed had put stringent conditions, including 38 per cent oil content, which had

Only lab tested crop
fetching high price

“I had to sell my mustard at a rate of ₹4,920 to private arhtiyas. Hafed offers the MSP to only those farmers with select heaps of mustard that have been tested in the lab. A large number of farmers are still forced to sell mustard below the MSP. Mahender,

FARMER OF MINGNIKHERA VILLAGE IN HISAR

been introduced for the first time for the purchase of mustard on the MSP.

"Even the traders are ready to purchase such good quality mustard on the MSP. But why will the traders purchase the mustard rejected by Hafed at the MSP?", he quipped.

However, the MSP officials said they were purchasing the mustard as per the specifications fixed by the government on the MSP.

India's fertiliser imports from Russia highest in three years

TRIBUNE NEWS SERVICE

NEW DELHI, MARCH 17

India imported 34.19 lakh tonnes of fertilisers, including urea and diammonium phosphate (DAP), from Russia during April-February of the current fiscal, highest in the past three years, according to the data placed before Parliament.

The imports have risen notwithstanding the Russia-Ukraine war. "...import of urea in the current year up to February (during the ongoing Ukraine war) is more than double as compared to the previous year," Minister of State for Fertilisers Bhagwanth Khuba said in his written reply to the Lok Sabha.

The import of DAP increased by almost four times, and that of NPK (nitrogen, phosphorus and potassi-



34.19L TONNES

of fertilisers imported during April 2022 to February 2023

19.85L TONNES

of NPK (nitrogen, phosphorus and potassium) imported

6.26L TONNES

of urea

7.65L TONNES

of DAP

um) soared by three times in 2022-23 as compared to the previous financial year.

Out of total fertiliser import of 34.19 lakh tonnes, about 6.26 lakh tonnes of urea was

imported till February of the ongoing 2022-23 financial year, as against 2.8 lakh tonnes imported during the entire previous fiscal, he said.

DAP imports stood at 7.65 lakh tonnes, Muriate of Potash (MoP) at 0.43 lakh tonnes and NPK at 19.85 lakh tonnes during April-February period of the current fiscal, the data showed.

The minister said the government had taken several measures to boost the domestic urea production. Six new urea units have been set up under the New Investment Policy. In a separate reply, he said the availability of fertilisers had remained comfortable in the country during the 2022-23 rabi season. The gap between demand and production of urea and other fertiliser is met through imports.

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