Agro-Economic Alerts

Aiding the future of India's farmers and agriculture

Source: https://www.skymetweather.com/content/wp-content/uploads/2020/02/PMFBY-1-952x500.jpg

For kind attention of:

The Hon'ble Prime Minister's Office,
the Ministry of Agriculture and Farmers' Welfare,
and all others interested

Emerging Critical Situations and Threats in India's Agricultural Economy

Issue 27, July 2024

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Based on Research & Contributions of 15 Agro-Economic Research Centres and Units, supported by Ministry of Agriculture & Farmers' Welfare

Status of Pradhan Mantri Fasal Bima Yojana (PMFBY) in Uttar Pradesh

Figure 1: Focused Group Discussion in Uttar Pradesh

Source: AERC Prayagraj.

Key Highlights

- PMFBY is one of the most ambitious projects launched by the Government of India, as a strategy to stabilize the income of the farmers and motivate them to adopt innovative and modern agricultural practices.
- The scheme was launched during Kharif 2016 at all India level for all kinds of crops (foodgrains, oilseeds, annual commercial & horticultural crops), where the premium paid by the farmers was to be subsidized by the state government as well as the central government.
- One of the most important differentiating factors of PMFBY compared to earlier existing crop insurance schemes was that the premium rates for farmers was kept very low i.e., 2 percent for the Kharif crops, 1.5 percent for the Rabi crops, and 5 percent for commercial and horticultural crops.
- As per the revised Operational Guidelines of the PMFBY 2020, "The scheme is optional for all farmers including farmers who have been sanctioned short-term Seasonal Agricultural Operations (SAO) loans or Kisan Credit Card (KCC) for the notified crops from defined Financial Institutions (hereinafter referred to as Loanee farmers). Existing farmer loan applicants who do not wish to be covered under the scheme have the option to opt out by submitting a required declaration to the bank branch sanctioning their loan, no later than seven days before the cut-off date for enrolling farmers for the upcoming season. All those farmers who do not submit the declaration would be essentially covered."
- For the estimation of crop loss or damage the Operational Guidelines suggest for Crop Cutting Experiments (CCEs). The Insurance Corporations shall compulsorily use technology or mobile applications for monitoring of crop health or Crop (CCEs) or reporting of crop losses, crop survey etc. in coordination with the concerned States.
- The farmers are now expected to report crop loss within 72 hours of the occurrence of any event through the crop loss insurance app, Community

Service Centre (CSC), or the nearest agriculture officer. Claim benefits are then transferred electronically to the bank account of the eligible farmer. "**Meri policy mere hath" -** a doorstep distribution drive is launched to reach out to the farmers.

Observations

- Ironically, the interest of farmers (especially for the state of Uttar Pradesh) has exhibited a consistent declining trend for both the Kharif and Rabi seasons. Table 1 shows that the number of farmers enrolled for the Kharif crop significantly fell by slightly more than 40.94 percent from 2016-17 to 2023-24. During the same period the enrolment for the Rabi season fell by 52.12 percent.

Table 1: Farmers insured under PMFBY in the Kharif & Rabi Seasons (Uttar Pradesh)

Year	Farmers insured under kharif season (in lakh)	Farmers insured under Rabi season (in lakh)
2016-17	39.86	32.96
2017-18	25.81	28.39
2018-19	31.69	29.66
2019-20	23.89	23.32
2020-21	22.18	19.73
2021-22	21.57	19.9
2022-23	21.67	20.01
2023-24	23.54	15.78

Source: *Directorate of Agriculture, Department of Statistics, Uttar Pradesh*

- Table 2 shows that, accordingly, the area under the insurance for both the seasons declined. In the Kharif season it declined by 57.60 percent during 2016-17 to 2023-24. Similarly, during the same period the crop area under Rabi declined by 83.19 percent. Thus, it can be deduced that the decline in farmer enrollment, as well as the area insured, is more pronounced for the Rabi season compared to the Kharif season, as vulnerability during the Kharif season is greater than during the Rabi season.

Table 2: Area insured during Kharif and Rabi seasons under PMFBY (Uttar Pradesh)

Year	The insured area under Kharif season (in lakh Ha)	The insured area under Rabi season (in lakh Ha)
2016-17	39.86	28.86
2017-18	23.83	23.24
2018-19	27.41	24.26
2019-20	18.89	18.09
2020-21	16.88	14.69
2021-22	15.6	14.21
2022-23	15.43	13.52
2023-24	16.9	4.85

Source: *Directorate of Agriculture, Department of Statistics, Uttar Pradesh.*

- From the above Table 2, it may be inferred that the condition of one of the flagship programmes of the government of India i.e., PMFBY has shown a deteriorating trend. The issue becomes even more crucial in the context of the state of Uttar Pradesh which is among the major agrarian states of the nation and is one of the dominant contributors to the total gene pool of foodgrains. A very plausible reason for this could be overdependence of the scheme on loanee farmers, though the mandatory clause has been omitted in the revised Operational Guidelines of the Scheme in 2020.

Table 3: Number of loanee and non-loanee Farmers insured under PMFBY (Uttar Pradesh)

Year	Number of Loanee Farmers (in lakh)	Number of Non-Loanee Farmers (in Lakh)
2016-17	72.51	0.31
2017-18	53.45	0.75
2018-19	59.82	1.53
2019-20	45.41	1.8
2020-21	41.01	0.9
2021-22	38.92	2.55
2022-23	37.86	3.82
2023-24	35.34	3.98

Source: *Directorate of Agriculture, Department of Statistics, Uttar Pradesh.*

- As seen from the Table 3, the share of non-loanee farmers is almost negligible. The inclusion of loanee farmers is primarily due to pursuance by the bank officials. Bank officials persuade the farmers to opt the scheme when they approach the banks to avail crop loans or other loans, especially through the Kisan Credit Cards. But in the last few seasons, one can observe that the share of the non-loanee farmers has slightly increased indicating the acceptance of the scheme among the non-loanee farmers. This could be because of the increasing expenditure of the government on awareness programmes.

- Many states opted to move out of the scheme including both developed and developing states like Gujarat, Andhra Pradesh, Jharkhand, West Bengal, Telangana, and Bihar, though Andhra Pradesh rejoined in 2019-20. Farmers as well as the states are losing interest in the scheme as there is a huge difference between the premium collected and the premium disbursed (See Table 4).

Table 4: Total premium collected and total disbursement in Uttar Pradesh

Year	Total Premium collected (in crore Rs.)	Total premium Disbursed (in crore Rs.)
2016-17	1165.73	569.03
2017-18	1380.76	373.98
2018-19	1501.93	452.66
2019-20	1309.67	1093.47
2020-21	1612.02	501.00
2021-22	1535.11	938.59
2022-23	1506.31	831.09
2023-24	777.92	NA

Source: *Directorate of Agriculture, Department of Statistics, Uttar Pradesh.*

- States are alarmingly opting out of the scheme as earlier the share of Centre and State governments was 50:50 in the premium balance. But since 2020, the Centre has reduced its share to 25 per cent for irrigated areas and 30% for the non-irrigated area. This has aggravated the burden on the states. Further, a colossal portion of the premium is directed to the private insurance companies rather than benefiting the farmers.

- States like Uttar Pradesh mostly registered normal climatic and rainfall conditions for most of the years during 2016-2022. PMFBY does not cover losses based on animal ravage, or pest attacks which are quite devastating for various crops (foodgrains, pulses, and other annual crops) throughout Uttar Pradesh. This is becoming one of the major causes behind farmers shifting from the cultivation of cereals such as rice and wheat towards the cultivation of mustard and other such crops.

Actions Suggested

- The reasons for not achieving the expected level of success of PMFBY have been discussed above. Therefore, the following policy suggestions are presented:

- Farmers should be entitled to avail no-claim bonus for the periods when no crop loss or damage is notified for their area.

- Concerted efforts need to tackle the menace of blue bull (*nilgai*) as the estimated extent of crop damage due to it is around 50 to 70 percent. A holistic approach in tandem with the department of forestry is required to deal this menace.

- Ultimate stakeholder of the damage i.e., the farmers should have representation the crop loss or damage assessment mechanisms. Such inclusive insurance assessments could include government officials, insurance agents, and farmers as well.

- The premium could be charged in two instalments from the farmers. This could ease the one-time burden of payment. A reduced obligation for pay may induce more farmers to opt for insurance. Also, the default in payment of premiums could also be curtailed.

- Empirical and evidential inferences divulge to the fact that there exists huge difference between the premium collected and the amount disbursed. Further, it is the private insurance companies that mostly get benefited. In the last few years, the occurrence of natural calamities in Uttar Pradesh has become less frequent, although the farmers, state government, and central government have been paying hefty premiums benefiting mostly the private insurance companies. Consequently, there is need for the state governments to check the oligopolistic behaviour of these insurance companies. The state governments could set up vigilance or regulatory bodies to facilitate proper functioning as well as proper channelization of public resources.
- The 'Beed Model' initiative by the Maharashtra government could serve as template for wider replication. Under this concept the insurance firms need not entertain loss claims above 110 percent of the gross premium. The state government would bear the cost of claims above 110 percent of the premium collected to insulate the insurer from the losses (bridge amount). However, if the compensation is less than the premium collected, the insurance companies would keep 20 percent of the amount as handling charges and reimburse the rest to the state government (premium surplus). This will reduce the burden of financing PMFBY on the state.

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Breaking Ground: Leveraging West Bengal for National Edible Oil Self-sufficiency

Key Highlights

- Edible oils, a vital component of Indian cuisine, serve as significant sources of dietary fats essential for meeting human nutritional requirements. India stands as one of the major oilseed producers globally and concurrently ranks as the world's second-largest consumer of vegetable oil. Over the years, the average annual per capita consumption of edible oil in India has surged remarkably from 6.2 kg in 1986–1987 to 18.2 kg in 2020–21[1]. This upward trend is expected to persist due to factors such as population growth, rapid urbanization, and evolving dietary preferences.
- Oilseed production in India remains insufficient to meet the domestic demand for edible oil, despite a 43 percent increase between 2015–16 and 2020–21. This disparity necessitates significant imports of edible oil[2]. Over time, India's reliance on edible oil imports has surged—from 28 percent in 1986-87 to 54.9 percent in 2020-21[1]. Unfortunately, this heavy dependence has led to upward pressure on agricultural price[3] and contributed to domestic Wholesale Price Index (WPI) inflation[4]. To mitigate vulnerability to global pricing fluctuations, concerted efforts are required to boost domestic edible oil production.
- In India, the diverse agro-climatic conditions of West Bengal foster the cultivation of all nine oilseeds: Groundnut, Rapeseed-mustard, Soybean, Sunflower, Sesame, Safflower, Niger, Castor, and Linseed[5]. To assess West Bengal's current oilseed production status and explore

strategies for enhancing the state's contribution to the country's overall oilseed production, this study analyzed data from both the Reserve Bank of India[6] and the Government of West Bengal[7].

Figure 2: Mustard Cultivation in West Bengal

Source: Sreejit Roy, AERC Visva-Bharti

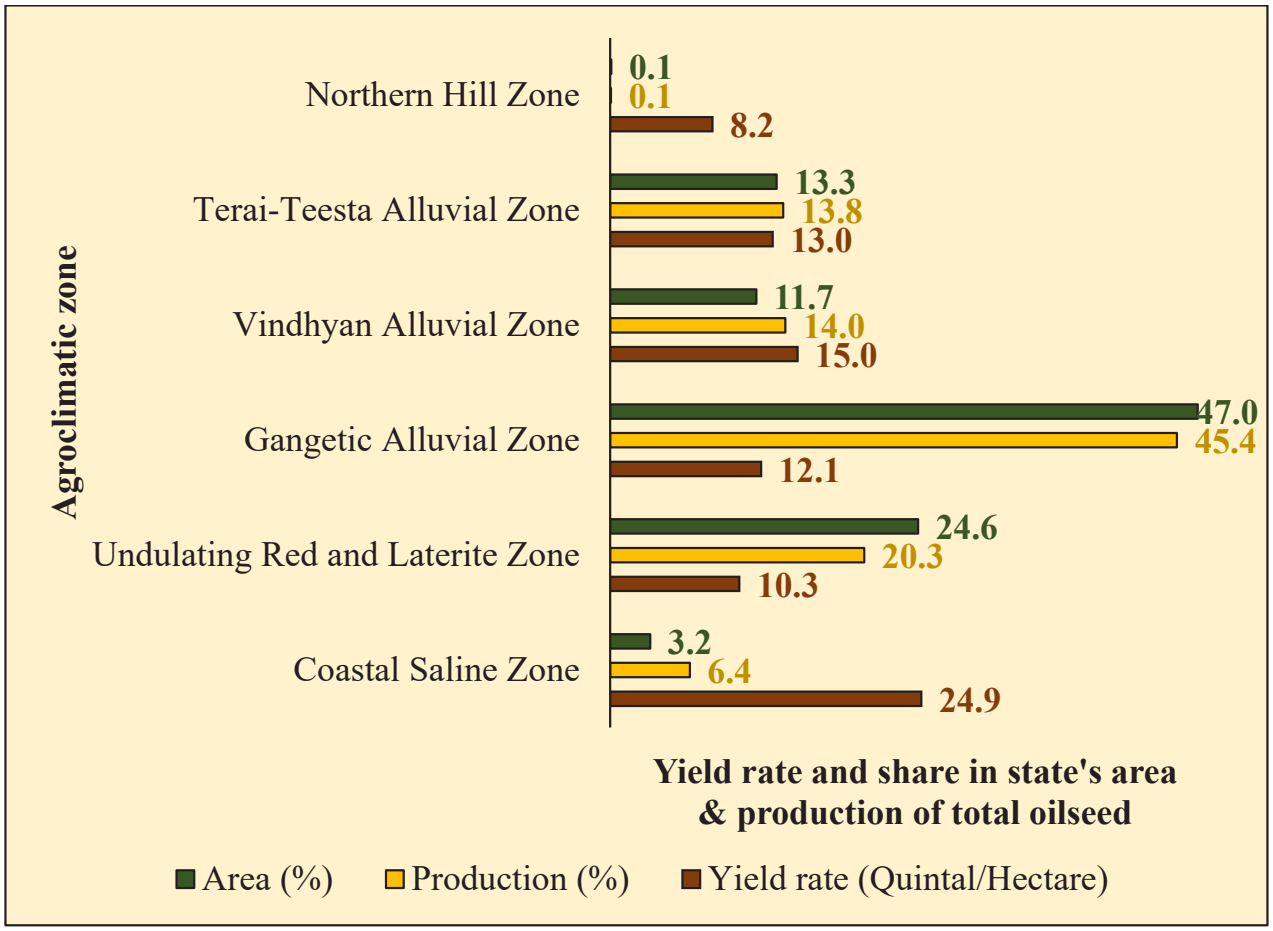
Observations

- West Bengal leads the top five Indian states in terms of the net value added to the economy by agriculture from 2013–2014 to 2020–2021, with the highest compound annual growth rate (CAGR) of both the area under oilseed cultivation and the production from 2010–2011 to 2019–2020, at 4.03 and 4.16 percent, respectively. Regrettably, the CAGR of oilseed production per hectare in West Bengal during the same period stands at a mere 0.13 percent.

- During the period from 2017-2018 to 2021-2022, the "Decomposition Analysis" reveals that the total oilseed production in West Bengal can be broken down into three components: Yield Effect, Area Effect, and Interaction Effect. Despite the positive contributions of both yield rate and area, it is the area effect that predominantly drives the increase in oilseed production. Consequently, West Bengal must focus on enhancing productivity to meet the competing demands of various crops on agricultural land.

- In 2021-2022, as shown in Figure 1, the yield rate of the Gangetic Alluvial Zone falls below that of the Coastal Saline Zone, the Vindhyan Alluvial Zone, and the Terai-Teesta Alluvial Zone. Remarkably, despite this lower yield rate, the Gangetic Alluvial Zone constitutes the majority of West Bengal's total oilseed cultivation area. Conversely, the undulating Red and Laterite Zone, while contributing the second-highest percentage to the overall production area, suffers from an alarmingly low yield rate of 10.3 quintals per hectare. These disparities underscore the need for targeted efforts to enhance productivity and optimize resource allocation across different agricultural zones.

Graph 1: Agroclimatic zone-wise yield rate and share in state's area & production of total oilseed in 2021-2022



Source: Directorate of Agriculture, Government of West Bengal

- Moreover, the Coastal Saline Zone contributes a mere 3.2 percent to the state's total oilseed farming area despite boasting the highest yield rate of 24.9 quintals per hectare.
- In summary, it becomes evident that, with the exception of the Northern Hill Zone, agroclimatic zones with a larger share of oilseed cultivation areas tend to exhibit lower oilseed productivity and vice versa. Consequently, policy efforts should prioritize enhancing oilseed productivity in the Gangetic Alluvial Zone and the Undulating Red and Laterite Zone, which collectively account for over 70 percent of the state's total oilseed cultivation area. Additionally, expanding oilseed cultivation in the Coastal Saline Zone, known for its remarkable oilseed productivity, would be a strategic move.

Actions Suggested

Strategies recommended for enhancing oilseed productivity and expanding cultivation in different zones of West Bengal

- **Gangetic Alluvial Zone and Undulating Red and Laterite Zone:**
- High-Yielding Varieties: Introduce high-yielding, early-maturing oilseed varieties that thrive in these zones.
- Pest and Disease Resistance: Develop varieties resistant to common pests and diseases prevalent in these regions.
- Selective Mechanization: Encourage the adoption of selective mechanization to improve production efficiency.

- Crop Management: Disseminate information about improved crop management practices.
- Micronutrient Utilization: Educate farmers on optimal micronutrient usage for healthier crops.
- **Coastal Saline Zone:**
- Diversification to Oilseeds: Promote diversification by encouraging farmers to cultivate oilseeds.
- Input and Price Support: Provide effective input subsidies and fair price support to incentivize oilseed cultivation.
- Irrigation Expansion: Increase the area under irrigation by optimizing water resources.
- Market Opportunities: Create avenues for selling oilseed produce at fair prices.
- Warehouse Receipt-Based Financing: Facilitate financing through warehouse receipts.

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