

Agro-Economic Alerts

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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

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Direct Benefit Transfer in Fertilizers - Problem of Dry Lands in Tamil Nadu

Key highlights

- The government introduced the Direct Benefit Transfer (DBT) scheme for fertilizer subsidy payments across different states/Union Territories with effect from 1st September, 2017. Tamil Nadu adopted the scheme since 1st January 2018.
- In India, fertilizer subsidy is one of the largest fiscal commitments made by the government and it ranks second after food subsidy. Fertilizer subsidy is regulated by the government, and in the recent times it has been noticed that there have been a lot of distortions with consequences particularly in dealing with the leakages.
- Two districts in Tamil Nadu, Thanjavur and Perambalur, were studied. Of the two, former is an irrigated district while latter is a rain-fed dry land. It was found that Perambalur was facing some difficulties with the DBT in fertilizers.
- A visible lack of awareness about the DBT in fertilizers amongst the farmers was making the situation worse. More than half of the farmers (52 percent) are not aware that the price which they pay is subsidized price, provided by the government.

- This situation perpetuates fraudulent activities at retail points, as it is evident in the field that the incidence of top twenty and frequent buyers are the staff of the fertilizer shops or a person (farmer) buying on behalf of others.
- Further, the retailers are sometimes forced to sell the fertilizer to the farmers even without Aadhaar card on the fear of losing sales.
- It was also reported that many farmers overuse fertilizers in their fields with the belief that inadequate irrigation would be compensated through the excess of fertilizers. Farmers do not generally welcome regularized or restricted fertilizer doses on soil.

Observations

- Under DBT for fertilizers, 100 percent subsidy is directly released to the companies. The subsidy is released after the fertilizers are sold to the farmers by the retailers through Point of Sale (PoS) machines. This minimizes any misuse of the subsidy on the seller's side.
- Sales and quantum of subsidy are tracked through the PoS devices installed at the retail shops and the beneficiaries are identified through Aadhaar Cards, Kisan Credit Cards (KCC), Voter Identity Cards and so on.

Figure 1: A New PoS Machine at a Fertiliser Retail Point (left); A Farmer Using PoS Machine at a Fertiliser Retail Store (right).



Source: www.bit.ly/2EOjmTP; www.bit.ly/38TCopn

- Since dry lands are completely dependent on the rainfall, the demand for fertilizers is also centered around monsoons. The farmers depend on monsoon and rush for the purchase of fertilizers at the same time as and when it rains. It results in the assembling of huge crowd at fertilizer retail points which eventually results in avoidance of sales through PoS, subject to the time constraint

and thin man power at the retail points.

- In addition, there exists severe network connectivity issue in most of the villages, due to which the retailers are unable to make the sales through PoS machines. The retailers also encounter battery and biometric problems, the fingerprints of the farmers are not able to scan properly in the machine.

Table 1: Major Issues Faced by Retailers of Perambalur District with respect to PoS Machines (All Values are in Percentages).

Particulars/ Issues	Issues in using PoS	Software Issues	Hardware Issues	Authenti-cation Issues	Stock Issues	Network Issues
Reported Issues	83.3	20.0	53.3	30.0	3.3	60.0
Total Respondents	100	100	100	100	100	100

Source: Calculated by the Author.

- From table 1, it can be seen that the 83 percent of the retailers faced issues with the PoS machine while 60 percent of the retailers encountered network issues in the region.
- It was also found that the Primary Agricultural Cooperative Societies (PACS) were performing poorly with respect to the private retailers. However, the manual stock keeping of the retailers was also found to be poor and around 50 percent of retailers' PoS stock and manual stock did not match.

Actions suggested

- Awareness about the functioning of DBT must be created among the farmers for the betterment of the fertilizer subsidy system as a whole and also to meet its purpose.
- Replacing the PoS device with the computer systems is suggested, so that PoS software can be installed on the computer system, where both the tally and the PoS stock records can be synchronized. This will reduce the compliance burden of the retailers to a considerable extent.

- To make the efficient use of fertilizer, the government can do a soil test and recommend the fertilizers based on the soil test. Further, the importance of such scientific use of fertilizer should be conveyed to the farmers properly.
- The farmers' preference for organic fertilizers can be explored through some specific subsidy schemes as the requirement for the same was found on a large scale.

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Information sources:

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Problems of Drought and Flood in Bhagalpur District, Bihar

Key highlights

- In Bihar, 90 percent of the total population is dependent on agriculture and allied activities. The state's agriculture is mainly rain-fed and only 57 percent of the cultivated area is irrigated.
- During 2018, annual rainfall received due to the south-west monsoons in Bihar stood at 689.6 mm, about 20 percent lesser than the long-run average rainfall of 848.2 mm.
- More than 20 percent deficit rainfall in 2018 and over 30 percent decline in rainfall in half of the total districts of Bihar during 2019 has resulted in a setback for the sowing of rain-fed Kharif crops. Such changes in rainfall patterns and intensities have direct implications on crop yields.
- While on one hand, large number of districts under central and eastern Bihar faced drought like situation, on the other hand, districts such as Bhagalpur, Munger and Lakhisarai faced adverse effects of floods in September, 2019.
- Paddy was affected due to drought, while as a result of floods, particularly in a stretch of 5-7 km of the river Ganges, maize crops on both

sides of the river under Bhagalpur district got severely affected.

- The juxtaposition of unpredictable nature of drought and flood has created destructive and dispiriting situations and has been economically damaging farmers due to the spoilage of crops.

Observations

- It was found that during the Kharif season of 2019, out of the total area where paddy could be sown in Jagdishpur block of Bhagalpur district, 80 percent of the paddy fields had no water. If 20 percent of the fields did have required quantum of water, it was due to the endeavors by the farmers themselves.
- Till mid-September, 2019, 896 panchayats of 102 blocks falling under 18 districts of Bihar (which experienced decline of more than 30 percent in normal rainfall) had to be declared drought affected.
- Water in small rivers, canals, ponds and tanks had dried up. Due to such drought conditions, the crops of pulses had also been destroyed to a great extent.

Figure 1: Drought and Subsequent Floods in Bihar in September 2019.



Source: www.bit.ly/2rbiWn4; www.bit.ly/2SaOjlv

- However, later on in the month of September, Bihar experienced incessant rainfall of medium intensity and Bhagalpur district received 449.20 mms of rainfall within just 24 hours in the period of 29th – 30th September 2019.
- The heavy and incessant rainfall at the fag-end of monsoons resulted in over flooded rivers, large scale destruction of existing infrastructure and standing Kharif crops in the entire state.

Actions suggested

- Farmers should be made aware of the advantages and desirability of the adoption of cropping pattern keeping in mind the climate change for increased yield and profits.
- Priority needs to be given to the finding of variety of crops suitable for an area in tune with the type of ecological changes that have become visible as a result of climate change in those areas.
- A large number of water harvesting infrastructures/reservoirs should be constructed in those 15-16 flood prone districts of Bihar, where area under Kharif crops remains inundated under flood water for around two and a half months. Such water bodies may be used for meeting irrigation requirements in crops of those adjoining

areas, where drought like situations often take place.

- Desilting of river beds (particularly flowing through districts of north-eastern Bihar and river Ganges too) should be contrived for mitigating the intensity and magnitude of devastating floods.

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Market Imperfections in Major Agricultural Commodities of Rabi Season in Madhya Pradesh

Key highlights

- Madhya Pradesh ranks 2nd in the country in terms of the area and production of Wheat. Further, Madhya Pradesh is the leading producer of Gram and Lentils in the nation. The state is also the second largest producer of Rapeseed and 3rd largest producer of Mustard in the country.
- However, it was recently found in the State that only two commodities, rice and wheat were being procured by the Primary Agriculture Cooperative Societies (PACS) at the Minimum Support Price (MSP).
- The procurement of other commodities

which were grown in the area and notified under the Commission for Agricultural Costs and Prices (CACP) was not done by PACS at MSP due to which farmers were bound to take the remaining commodities to nearby *mandis* for their sale. This not only unnecessarily increased the marketing costs but at the same time reduced the income of farmers as the commodities were reported to be sold either at MSP or less than it.

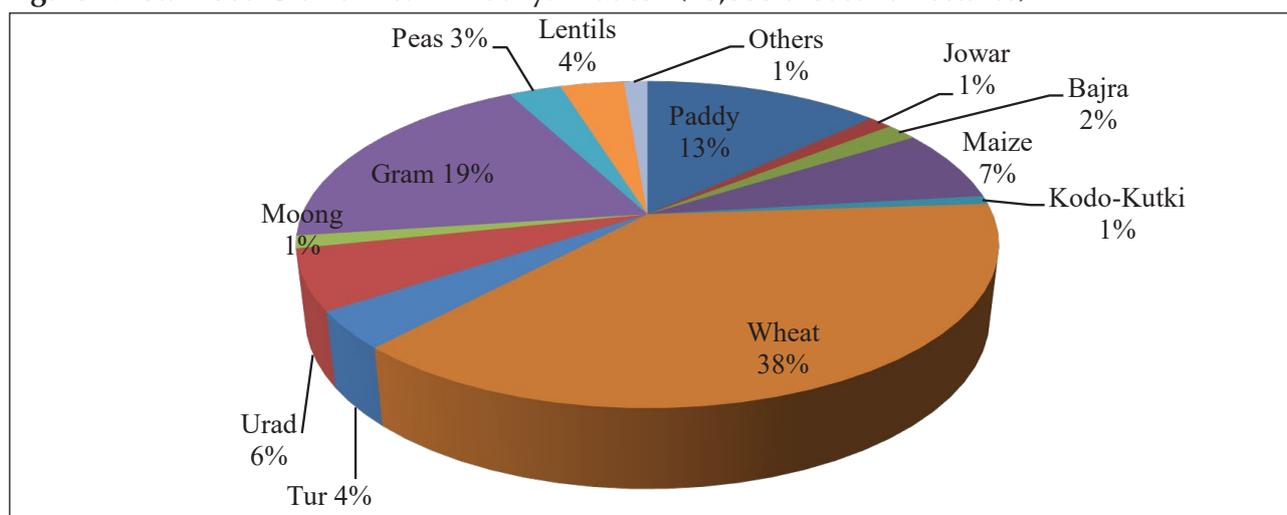
Observations

- In Madhya Pradesh diversified farming is being practiced in around 15,555 thousand hectares. The maximum area is occupied under Wheat (38 percent) followed by Gram (19 percent), Paddy (13 percent), Maize (7 percent), Urad (6 percent), Tur (4 percent),

Lentil (4 percent), Pea (3 percent), *Bajra* (2 percent), *Jowar* (1 percent), *Moong* (1 percent), Kodo-kutki (1 percent) and other food grains (1 percent) (Figure 1).

- The procurement of other food grains/commodities causes serious hindrance not only in diversifying agriculture to mitigate risk but affecting enhancement in the income of farmers thereby reducing nutritional food security at regional level at affordable prices.
- Often after witnessing the procurement scenario of rice and wheat through PACS, the farmer community tends to sow same crops repetitively leading to the degradation of soil health and increase of the incidence of biotic & abiotic stresses further discouraging farmers to cultivate more remunerative crops.

Figure 1: Total Food Grains Area in Madhya Pradesh (15,555 thousand hectares)



Source: www.mpkrishi.org

Actions suggested

- Procurement of commodities notified under CACP should be done at regional level at MSP in order to make nutritional food secure and accessible at affordable prices to rural masses.
- Government should plan to have nutritional food security banks at regional levels for

increasing the accessibility of quality food at reasonable prices which will not only help to stabilize prices, diversify agriculture, eradicate malnutrition, reduce transportation costs but also help in improving the economies of scale.

- It has become imperative to take immediate steps for making markets efficient not only by incentivizing the farming community for

producing these crops but by increasing the farmers' share in consumer rupee. This is important as by establishing valuable and viable long term value chain will not only provide livelihood security to the deprived farmers of the State but at the same time ensure nutritional food security at national level thereby reducing the burden of imports and saving foreign exchange reserves.

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Information sources:

- i. Secondary sources.
- ii. Discussions with farmers and government officials.



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