

Agro-Economic Alerts

Aiding the future of India's farmers and agriculture



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 7, September 2018

Alert 1 – Agricultural Losses in Kerala Due to Recent Floods in August

Alert 2 – Rising Imports in Edible Oils Despite High Tariffs

Alert 3 – Problems with the Operationalization of Farm Mechanization Banks (FMB) in Bihar

Compiled and Edited by
Center for Management in
Agriculture (CMA)
Indian Institute of Management
Ahmedabad

Contact: Prof. Ranjan Ghosh or
Prof. Vasant P. Gandhi
Chairperson CMA
cma@iima.ac.in
Phone: +91-79-6632-4651

Acknowledgements: Nikita Pandey,
Dipali Chauhan, Nicky Johnson

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

Alert 1: Agricultural Losses in Kerala Due to Recent Floods in August

Key highlights

- Kerala witnessed heavy rains and consequent floods in August 2018. The precipitation was 1,844.8 mm, 170 percent above the normal.
- The inundation caused damage to 1.47 lakh hectares of agricultural land, resulting in an estimated loss worth Rs. 5,622.86 crores to the economy of the state.
- Kerala's signature crop pepper witnessed a huge loss (35 percent), followed by paddy (20 percent) and cardamom (18 percent) in terms of the affected area (Table 1). The three crops constitute about 73 percent of the total area lost.
- Short duration crops such as banana, vegetables, tapioca, areca nut, and tuber crops also faced substantial losses both in area (21 percent) and value (15 percent).
- Nearly 12.31 lakh coconut trees and 4.15 lakh rubber trees were lost, accounting a loss of Rs. 1,045.13 crores.
- Since, the farm sector plays a key role in providing food and employment, this will have a substantial negative impact on food security unless adequate interventions are done.

Figure 1: Destruction caused by the floods in Kerala.



Source: www.livemint.com; www.cdn.theatlantic.com

Observations

- The worst flood-affected districts such as Idukki and Wayanad (highlands), Alappuzha (paddy fields), Pathanamthitta, Kottayam, Kannur, and Kozhikode (commercial crops fields) were also high-yielding agricultural production centers of the state.
- The flooded fields will not be suitable in time for the next crop of paddy. *Nendran* banana (an Onam specialty) cultivated in 60,000 hectares, has also been submerged or washed away.
- Floods also affected the sustainability in milk production, livestock and poultry production.

Figure 2: Flooded Town; Loss of Major Crops



Source: www.gdb.voanews.com, www.im.indiatimes.in

Actions suggested

- The central and state governments should provide comprehensive financial assistance to revive the agricultural sector.
- There is a need to examine the existing soil conditions before planning future farming activities. Concerned institutions such as the Kerala Agricultural University should initiate and coordinate necessary assistance in the area, at the earliest.
- The authorities should encourage farmers to consider precision farming methods and look at the alternatives such as prefabricated structures for animals, including poultry.
- Farmers, entrepreneurs and Self Help Groups (SHG) such as Kudumbashree should encourage sound practices and a group farming approach for production, value-addition and marketing.

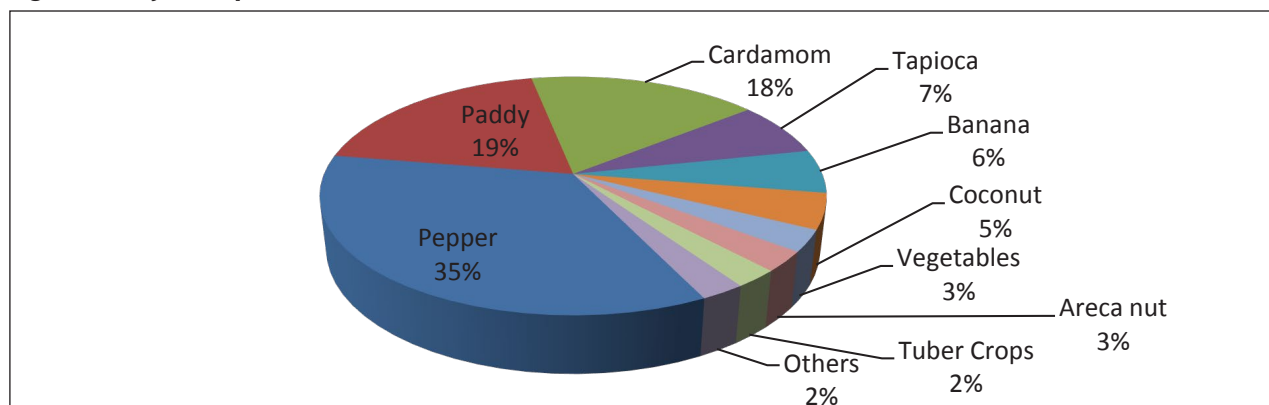
Table 1: Crop Wise Loss due to South West Monsoon & Floods, 2018

Crop	Crop Loss Area (in Hectares)	Crop Loss (in Hectares) %	Estimated Loss (in Rs. Cr.)	Estimated Loss (in Rs. Cr.) %	Assistance Requested (in Rs. Cr.)	Assistance Requested (in Rs. Cr.) %
Pepper	51210.89	34.83	3974.66	70.69	422.48	46.00
Paddy	28247.54	19.21	423.71	7.54	38.13	4.15
Cardamom	25755.40	17.52	154.53	2.75	46.36	5.05
Tapioca	10765.13	7.32	10.98	0.20	7.32	0.80
Banana	8650.23	5.88	690.03	12.27	201.79	21.97
Coconut	7034.38	4.78	63.31	1.13	84.04	9.15
Vegetables	4251.38	2.89	106.39	1.89	5.74	0.62
Areca nut	3995.74	2.72	37.11	0.66	65.59	7.14
Tuber Crops	3540.68	2.41	20.51	0.36	24.08	2.62
Other Crops	3565.45	2.43	141.63	2.52	22.96	2.50
Total	147016.82	100.00	5622.86	100.00	918.49	100.00

Source: Compiled by authors from the Estimates of Department of Agriculture Development & Farmers' Welfare, Government of Kerala

Note: Other crops include coffee, rubber, cashew, betelvine, ginger, nutmeg, clove, cocoa, turmeric, groundnut, sesame, sugarcane, pineapple and pulses.

Figure 3: Major Crop Area Lost due to South West Monsoon & Floods, 2018



For further details, contact:

Dr. K. Jothi Sivagnanam, Director,
 jothisiva@unom.ac.in; Mob: 9444285357
Ashraf Pulikkamath, Research Assistant,
 ashraf.p@mariancollege.org; Mob: 9895790837
 Agro-Economic Research Centre, University of
 Madras, Chennai.

Information sources:

1. S Irudaya Rajan, Arokkiaraj Heller, Rakesh Ranjan

(2018), Kerala's Flood Disaster Will Migration Still Act as Indemnification?, Economic & Political Weekly (September 2018), 2. Making Sense of Kerala's Flood Disaster, Economic & Political Weekly (August 2018), 3. Primary Report on Crop Wise Damage Due To South West Monsoon 2018, Department of Agriculture Development & Farmers' Welfare, Government of Kerala (September 2018).

(Cover Photo: Janayugom Online, August 28, 2018)

Alert 2: Rising Imports in Edible Oils Despite High Tariffs

Key highlights

- India has high import dependence on palm oil, soybean oil and sunflower oil with about 66 percent of the domestic requirement of edible oil being met through imports in 2016-17.
- Though the cultivation of major oilseeds has been relatively profitable and the oilseed sector has a growth rate of 3.6 percent (1985-86 to 2016-17) in production, it has not been able to satisfy the domestic requirement of oilseeds for the processing industry.
- Between 2001-02 and 2016-17, imports of edible oils increased at 12 percent. The government has started increasing tariffs on imported edible oil since 2013.
- Between September 2016 and March 2018, the import duty was increased four times. As on March 1, 2018, the highest duty was on Refined Bleached Deodorized (RBD) palm oil (54 percent) followed by crude palm oil (44 percent). A major objective of the government was to protect farmers by improving market prices of oilseeds through stricter tariff policy.

- However, in spite of the recent increases in tariff rates (since 2013), imports have been increasing.

Observations

- In 2016-17, the yield of all oilseeds at an all-India level was 0.88 tonnes per hectare as against the global level of 2.01 tonnes per hectare. The percentage coverage under irrigation for oilseeds which was 17.3 percent in 1985-86, increased only to 27.4 percent in 2014-15.
- As per the Commission for Agricultural Costs and Prices (CACP) report for Kharif and Rabi crops (2017-18), if state average yields can be further improved and increased to a level of potential yield, about 8 million tonnes of additional Kharif

oilseeds, particularly soybean can be produced.

- During 1994-95 and 2017-18, quantity of edible oil imported was observed to be negatively correlated with tariff rates on imported edible oils. However, against the expectations, oilseed production and oilseed prices were found to be negatively correlated with tariffs.
- Our research suggests that there was low awareness among farmers about tariff rate changes and their impact on oilseed prices.
- The research suggests that stricter import controls may not necessarily translate into higher domestic prices and production of oilseeds and hence may not improve profitability for oilseed cultivators.

Figure 4: Soybean Oilseeds and Oil; Sunflower field.



Source: www.flickr.com/photos/unitedsoybean/; www.pixabay.com

Actions suggested

- Yields should be increased by the provision of adequate irrigation facilities and by improving availability of quality

seeds. Studying farming practices in the benchmark countries and states and providing extension work to the farmers may be very useful for increasing domestic yields of oilseeds.

- Greater investment in cultivation of domestic oilseeds and palm under the National Mission on Oilseeds and Oil Palm (NMOOP) would encourage more production.
- Frequent changes in trade policy may lead to increase in the operational complexity and uncertainty for the domestic oil processing industry. Hence, a stable and open trade policy coupled with suitable domestic policies would help in stabilizing the environment for the stakeholders

involved in production, processing and trade of edible oilseeds and oils.

For further details, contact:

Dr. Jayanti Kajale, Professor,
jayanti@gipe.ac.in; Mob: 9975153718
Agro-Economic Research Centre, Gokhale Institute
of Politics and Economics, Pune, Maharashtra.

Information sources:

Report on Trade Policy and Edible Oilseed Sector, AERC Pune, along with field visits and discussions with farmers and industry sources.

Alert 3: Problems with the Operationalization of Farm Mechanization Banks (FMB) in Bihar

Key highlights

- Realizing the importance of farm mechanization, the State Government under the Chief Minister's Green Agriculture Plan (CMGAP), is instituting Farm Mechanization Banks (FMBs) in all the 8,463 Primary Agricultural Cooperative Societies (PACS) in order to promote modern agricultural practices at low costs.
- Under this program, each PACS will be given Rs. 20 lakhs over a period of two years, out of which 50 percent will be given as subsidy and the remaining as loan. Those PACS showing better performance during first year of establishment of FMBs will only be eligible to get money for FMB on subsidized rates.
- PACS will be free to select and decide the purchase of farm machineries, tools and

implements in conformity with prescribed standards. Based on the needs, quite a few PACS may purchase machineries individually and/or in a group.

- However, there is skepticism about the launch of this scheme due to the inefficiency of a similar scheme initiated in some of the districts of Bihar during the 11th Five Year Plan. The scheme did not perform well and the FMBs established then, have become non-functional.

Observations

- Agricultural Road Map-III of the Bihar government continues to recognize that subsidy towards farm mechanization is an important requirement for promoting mechanization of agricultural activities, such as ploughing, harvesting and threshing.

- The state government has been providing subsidy to facilitate processing by rice, pulses and oil mills to reduce such post-harvest losses. The introduction of mechanization at different stages of the value chain helps in minimizing post-harvest losses.
- It was found that the expenditure on processing machines had remained only about 6.5 percent of the total expenditure on agriculture during the last 3-year period (from 2014-15 to 2016-17).
- Further, the number of farm equipment distributed on subsidy in 2009-10, such as tractors (3,672) and combine harvesters (42) had increased to 4,617 and 158 respectively in the year 2016-17. In 2016-17, threshers (2,654) and zero-tillage machines (833) were also distributed in Bihar.
- Six Farm Mechanization Banks (FMB) were established under the Rashtriya Krishi Vikas Yojana (RKVY) in 2011 in Muzaffarpur, Sitamarhi, Darbhanga, Madhubani, Munger and Bhagalpur districts of Bihar on a 70:30 basis (70 percent of the total cost was borne by the concerned agricultural university and the remaining 30 percent was shared by the farmer members of the concerned FMB).
- Various factors considered for the establishment of FMBs were farmers' interest and their socio-economic conditions, available power source, present status of mechanization and need for further mechanization in that locality.
- An amount of Rs. 10 lakh was given to every FMB for constructing the shed for mechanization bank. During first three years of the scheme, four major posts such as motivator, master trainer, assistant and guard were also designated and were paid for about a year.
- It was found that a few FMBs were functioning satisfactorily until 2015. But, due to various reasons such as non-

Figure 5: A Defunct Farm Mechanization Bank (FMB) in Bhagalpur, Bihar.



Source: AERC Bhagalpur; www.thehindubusinessline.com

coordination among members and non-payment to the staff, even those FMBs have now become totally non-operative.

Actions suggested

- Before equipping FMBs with latest farm machinery, farm members should be given proper training for operating that equipment.
- Only qualified, non-political and vision oriented dynamic personnel should be made the members of the leadership and executing bodies of such FMBs.
- Tractors of higher horsepower (preferably 60 HP) should be provided to each of the FMBs. Further, combine harvesters manufactured by reputed companies must be made available.
- Special training for changing the outlook

and attitude of members of the FMBs should be undertaken.

- Apart from the recent initiatives undertaken by the state government for new FMBs, the old non-functioning FMBs should be revived to re-instill confidence in the system.

For further details, contact:

Dr. Rajiv Kumar Sinha, Research Associate,
rajiv.sinha1959@gmail.com; Mob: 7292881992
Agro-Economic Research Centre, Bhagalpur
University, Bihar.

Information sources:

Sinha, Dr. Rajiv Kumar & Marandi, Dr. (Mrs) Rosline Kusum 'Effect of Mechanization on Agricultural Growth and Comparative Economics of Labour and Machinery in Bihar', and various other secondary sources.



CENTRE FOR MANAGEMENT IN AGRICULTURE (CMA)

Indian Institute of Management Ahmedabad (IIMA)

Vastrapur, Ahmedabad, Gujarat 380015

e-mail: cma@iima.ac.in | **Phone:** +91-79-6632-4650, 6632-4651 | **Fax:** +91-79-6632-4652

Web: www.iima.ac.in