

- India witnessed unseasonal rainfall and hailstorms during the last week of February 2015 and March 2015. The country received 72% more rainfall than normal in the period from 1 March 2015 to 6 May 2015, with 29 of the 36 meteorological sub-divisions reporting excess rainfall (over 20%) in the mentioned period.
- Rajasthan, Madhya Pradesh, Gujarat, Delhi, Haryana, Uttar Pradesh, and Maharashtra received rainfall almost four times of the normal rain during this period of the year.
- How this unseasonal and untimely rainfall has affected the agriculture sector in India and what impact is it expected to have on food inflation. What are the measures being taken by the government to tackle this situation and what other measures can they take to handle this situation. How would this impact farm loans and rural economic growth are some of the questions we attempt to answer here.

Table 1: States which recorded excess rainfall during 1 March 2015 to 6 May 2015

States	Actual (mm)	Normal (mm)	Departure (%)
Rajasthan	62.6	8.1	673
Madhya Pradesh	81.6	11.9	585
Gujarat	9.7	1.5	544
Delhi	135	26.8	404
Haryana	107.4	21.8	392
Uttar Pradesh	78.3	17.1	358
Maharashtra	72.2	16	351
Goa	73.9	20.2	266
Telangana	89.4	29.8	200
Chandigarh	144.1	49.5	191
Puducherry	96.1	37.3	157
Punjab	98.9	40.3	145
Chattisgarh	62	30.5	103
Karnataka	107.9	53.2	103
Jammu & Kashmir	530.5	263.2	102
Uttarakhand	196.2	98.1	100
Bihar	65.9	33.7	95
Tamil Nadu	136.7	73.7	85
Jharkhand	74.4	42	77
Kerala	283.8	171.4	66
Andhra Pradesh	62.4	37.9	65
Himachal Pradesh	267.6	191.3	40
Lakshwadeep	109	77.7	40
West Bengal	139.4	103.9	34
India	136.3	79.4	72

Source: India Meteorological Department

## Impact on agricultural output

- The unseasonal rains and hailstorms during March 2015 caused distress in the Indian agriculture sector. It took place when the Rabi crop was ready for harvesting. A total of 189.81 lakh hectares (figure as of 24 April 2015) of area under crops was damaged across Northern India and South Central India. The early sown crops which were ready for harvest were affected due to water logging, same was the case with the crop harvested and left in the fields for collection. The horticulture crops which are at different stages of flowering, fruit ripening and harvesting were also adversely affected.

State	Area (lakh hectares)
Uttar Pradesh	95.17
Rajasthan	30.57
Haryana	22.24
Bihar	14.58
Maharashtra	9.89
Madhya Pradesh	5.70
Punjab	2.94
Uttarakhand	2.83
Gujarat	1.82
J&K	1.33
West Bengal	1.29
Andhra Pradesh	0.68
Himachal Pradesh	0.67
Telangana	0.09
Kerala	0.01
<b>Total</b>	<b>189.81</b>

Source: [www.pib.nic.in](http://www.pib.nic.in) (Release ID :119842) Ministry of Agriculture

- The hailstorm and untimely rainfall impacted food grains production (wheat, pulses, and oilseeds) and horticultural crops among others. Total food grains production in the country in the Rabi season during 2014-15 as per the 3rd advance estimates were 126.52 million tonnes, 9.83 million tonnes lower than production in the previous year. Almost 51% of this lower production was caused due to lower production of wheat, a rabi crop. Production of wheat during rabi 2014-15 is estimated to be around 90.78 million tonnes, 5.07 million tonnes lesser than production in the previous year.

	Wheat	Rice (Rabi)	Cereals	Coarse cereals	Pulses	Total Food grains	Oilseeds (nine)
2009-10	80.8	13.18	103.7	9.72	10.46	114.15	91.53
2010-11	86.87	15.33	112.52	10.32	11.12	123.64	105.57
2011-12	94.88	12.52	116.98	9.58	11.03	128.01	91.08
2012-13	93.51	12.87	116.63	10.25	12.43	129.06	101.52
2013-14	95.85	15.15	123.09	12.09	13.25	136.35	101.37
2014-15	90.78	12.91	114.65	10.96	11.87	126.52	88.36

Source: Department of Economics & Statistics, Department of Agriculture & Cooperation

- The rains also impacted the quality of the grain, the grains are smaller in size and also there is loss in lustre.
- The unseasonal rains have also affected the seed banks. Most of the farmers (wheat) use farm grown seeds for sowing for the next season. With a damaged crop, farmers would need to purchase seeds for the next sowing season.
- Another impact likely out of the unseasonal rain is the reduction in the moisture content in the atmosphere which may adversely impact sowing for the kharif season <sup>1</sup>

## Actions taken by the Government

- Following the untimely rainfall and hailstorms, the Government has announced a few measures such as easing the eligibility norms and increasing the compensation amount to aid the farmers impacted by the rains.
- The State Governments have been authorized and asked to utilize funds from State Disaster Response Fund (SDRF) subject to procedures laid down. In the event of a shortfall the states can use the state contingency funds and submit their memorandums as per extant procedure/norms to avail assistance from National Disaster Response Fund (NDRF). This assistance would be by way of relief and not for compensation of losses suffered. The states of Uttar Pradesh, Rajasthan and Haryana have submitted their memorandum for assistance.
- The Central Government has allotted Rs.56.86<sup>2</sup> billion under the State Disaster Response Fund (SDRF) to all states in 2014-15. For 2015-16, it has released the first instalment under SDRF of Rs.4.1 billion for Rajasthan, Rs.1.14 for Jammu & Kashmir and Rs.2.53 billion for Uttar Pradesh. <sup>3</sup>
- The eligibility norms have been revised and farmers will now be eligible for input subsidy if 33 % or more of their crop is damaged compared to the earlier 50% or more. Also, existing quantum of financial assistance has been enhanced by around 50% in case of crop losses.<sup>4</sup> The enhanced input subsidy norms are as follows:
  - The input subsidy has been hiked from Rs.4500 per hectare to Rs.6800 per hectare in case of agriculture crops, horticulture crops and annual plantation crops in rainfed areas and restricted to sown areas.
  - The subsidy has been hiked from Rs.9000 per hectare to Rs.13500 per hectare in the assured irrigated areas.
  - The subsidy has been hiked from Rs.12000 per hectare to Rs.18000 per hectare in the case of perennial crops.
- The Government has also relaxed the quality norms with respect to procurement of wheat.

<sup>1</sup> <http://www.firstpost.com/business/leveraging-jan-dhan-creating-seed-banks-5-steps-modi-handle-farm-crisis-2210694.html>

<sup>2</sup> <http://www.millenniumpost.in/NewsContent.aspx?NID=111760>

<sup>3</sup> [www.pib.nic.in](http://www.pib.nic.in) Release ID: 118616

<sup>4</sup> [www.pib.nic.in](http://www.pib.nic.in) Release ID: 118137

Table 4: Relaxation norms for wheat procurement					
Refractions	Limit under uniform specification	Relaxation given			
		Gujarat	Madhya Pradesh	Rajasthan	Haryana
Lustre lost grains	Should have lustre	25% luster lost grains	40% luster lost grains	50% luster lost grains	10% luster lost grains
Shrivelled & broken grains	6%	It was not required	10%	9%	9%

Source: Ministry of Consumer Affairs, Food & Public Distribution; [www.pib.nic.in](http://www.pib.nic.in) (Release ID: 118064, 118235)

- The Central Government has asked State Governments to expedite the process of claim settlement under the agriculture insurance schemes. Under the Modified National Insurance Scheme, farmers would be eligible to get claim upto 25% without waiting for the result of crop cutting experiments and under the Weather Based Crop Insurance Scheme, farmers are eligible to receive claims within 45 days of the end of the risk period.<sup>5</sup>
- The lower farm output due to untimely rains translates into lower farm incomes and inability of the farmers to service or repay their agricultural loans. The Government has asked State Level Bankers' Committees to facilitate restructuring of crop loans, wherein the loan repayment period would be extended by one year<sup>6</sup>.
- As per RBI norms, banks can extend loans up to Rs.10,000 to existing farmer borrowers for consumption purposes without any collateral. Banks can also convert short-term crop loans to a term loan and extend the repayment period to 3-5 years with a moratorium period of one year and in the event of a severe calamity, the repayment period can be extended to a maximum of 10 years.

## Impact on inflation, growth

- The spill over effect of lower crop output could impact inflation with food inflation remaining a key concern. The shortage in wheat output due to damage can be met through the stocks with FCI. The food grain central pool has stock of 17.2 million MT (as of 1 April 2015) of wheat. So the impact could be muted. However, as the quality of the grains has been affected, millers are considering importing wheat for meeting their requirements.<sup>7</sup>
- RBI Governor has also said that effect of higher food prices on wage inflation should be kept in check. Cereals and pulse products have a combined weight of 12.05% in CPI. CPI rose by 5.7% in March 2015, with food inflation up by 6.1% over the year-ago month. However the magnitude of the impact of lower food grain output on inflation may not be much, as there are sufficient food grain stocks, also imports can be considered. Globally food prices have come down. FAO price index was 171 points, 19.2 % lower than year ago level (40.5 points) in March 2015.<sup>8</sup>

<sup>5</sup> [www.pib.nic.in](http://www.pib.nic.in) Release ID: 118137

<sup>6</sup> [www.pib.nic.in](http://www.pib.nic.in) Release ID: 118081

<sup>7</sup> <http://www.thehindubusinessline.com/industry-and-economy/agri-biz/millers-struggle-to-get-quality-wheat-as-unseasonal-rain-leads-to-lustre-loss/article7170769.ece>

<sup>8</sup> <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>

- There have been instances of rise in inflation over the last few years, on account of damage to crops due to unseasonal rainfall. During November – December 2010, the untimely rains affected the onion crop in Maharashtra, Gujarat, Karnataka and Tamil Nadu resulting in an overall estimated damage of 30-35% to the crop. Huge crop losses were also reported in Orissa. The unprecedented rise in onion prices across the country reversed the downward trend in inflation in December 2010.<sup>9</sup>
- In March 2014, the country received excess rainfall (around 39% higher than normal), damaging produces and horticultural crops. Prices of fruits and vegetables rose compared to previous month and corresponding period of the previous year (around 13% higher).
- The agriculture sector is highly dependent on monsoon rains as around 60% of the cultivable area in the country is rainfed. The sector contributes around 15% to the country's GDP and employs more than 50% of the country's population. The lower farm output can translate into lower rural income, which could impact rural demand for goods and services. The farmer's ability to service the agricultural loans or repay the loans will also be impacted.
- The impact of the farmers inability to repay their loans would be reflected in the system with a lag, as RBI's NPA accounting guidelines indicate that a loan to any agricultural plantation will be considered overdue after one crop cycle (for long duration crops) or two crop cycles (for short duration crops)<sup>10</sup>, extending bad loan recognition to beyond 90 days past due. In addition to this, if the banks restructure the agricultural loans since they are a result of natural causes, it may delay recognition even further.
- One positive impact of the unseasonal rains has been the replenishment of the various reservoirs across the various parts of the country, thus allaying fears arising out of weak monsoon forecast for this year. A number of reservoirs have water higher than year-ago levels and the long term average.

### The way forward: Key suggestions

- The government has taken several measures to extend support and limit the loss to the farming community. However, it needs to take some more measures to support the farmers as well as consumers.
- There is a need to extend weather based insurance system to all states and all crops and thus ensure greater penetration of crop insurance in the country. There are various crop insurance schemes in India, however awareness levels and penetration of crop insurance schemes in India is low, and relatively even lower in the states of Haryana and Punjab. Action/steps need to be undertaken to ensure greater coverage under the crop insurance schemes.
- Steps need to be taken to improve storage facilities. A great proportion of the storage facilities in India are open storage facilities for food grains. This does not provide shelter from rains. Incentives should be provided for setting up of cold chains and warehouses across rural heartland to bring down post-harvest losses. Land must be made available at reasonable cost and locations with stable power supply assured for such facilities.

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<sup>9</sup> Managing Food Inflation in India: Reforms and Policy Options – Ramesh Chand, P Shinoj, Ashok Gulati, Kavery Ganguly

<sup>10</sup> [https://rbi.org.in/scripts/BS\\_ViewMasCirculardetails.aspx?id=9009#CT29](https://rbi.org.in/scripts/BS_ViewMasCirculardetails.aspx?id=9009#CT29)

- In addition to the crops, the seed bank of the farmers has also been adversely affected.<sup>11</sup> The farmers need to be provided with good quality seeds for the next sowing season. The government need to set a target for increasing seed replacement to 50% by 2020. At present, seed replacement in case of paddy stands at 33% and for wheat at 25%.
- The government should improve the decision support systems built on real time weather forecast for irrigation scheduling.
- Timely release of food grains stock should be ensured, so that they do not lead to increase in prices and stoke inflation. Sufficient stock of food grains is available in the country.

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<sup>11</sup> <http://www.firstpost.com/business/leveraging-jan-dhan-creating-seed-banks-5-steps-modi-handle-farm-crisis-2210694.html>