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DROUGHT AND ITS AFTERMATH
(WITH REFERENCE TO CHHATTISGARH IN THE YEAR 2015)



Seraphinus Kispotta

**Assistant Professor, Department of Economics, Guru Ghasidas Vishwavidyalaya,
Bilaspur, C.G.**

Co - Author Details :

Shilpa Beck

PhD Research Scholar, Indira Gandhi Krishi Vishwavidyalaya, Raipur, C.G.

ABSTRACT

The authors intend to highlight the ground reality, in terms of consequences taking place in India in general and in Chhattisgarh in particular due to drought in the year 2015. There are negative effects after the shortage of the rainfall in India as a whole. The ground reality can be vividly observed and experienced in Chhattisgarh.

KEYWORDS : *drought, rainfall, hoardings, price-hike, starvation, schemes.*

INTRODUCTION :

A drought may be a amount of below-average precipitation during a given region, leading to prolonged shortages in its waters provide , whether or not part, surface or well water . A drought will last for months or years, or could also be declared once as few as fifteen days. It will have a considerable impact on the system and agriculture of the affected region. though droughts will persist for many years, even a brief, intense drought will cause important harm and hurt to the native economy

Agricultural droughts ar droughts that have an effect on crop production or the ecology of the vary. This condition may arise severally from any modification in precipitation levels once soil conditions and erosion triggered by poorly planned agricultural endeavors cause a insufficiency in water obtainable to the crops. However , during a ancient drought, it's caused by associate extended amount of below average precipitation.

Agriculturally , folks will effectively mitigate a lot of of the impact of drought through irrigation and crop rotation. Failure to develop adequate drought mitigation methods carries a grave human price within the era, exacerbated by ever-increasing population densities. President Roosevelt on Apr twenty seven, 1935, signed documents making the conservation Service (SCS)—now the Natural Resources Conservation Service (NRCS). Models of the law were sent to every state wherever



DROUGHT AND ITS AFTERMATH (WITH REFERENCE TO CHHATTISGARH IN THE YEAR 2015)

they were enacted. These were the primary enduring sensible programs to curtail future condition to drought, making agencies that 1st began to fret conservation measures to shield farm lands these days. It had been not till the Fifties that there was associate importance placed on conservation was placed into the present laws (NRCS 2014).

Time of droughts will have important environmental, agricultural, health, economic and social consequences. The result varies per vulnerability. For example, subsistence farmers are a lot of likely to migrate throughout drought as a result of they are doing not have different food sources. Areas with populations that rely on water supplies as a serious food source are a lot of liable to famine.

The Facts and Figures:

1. Monsoon rainfall lowest since 2009, quoted in the Times of India, Raipur, Friday, October 2, 2015, page no. 5. Central India received its lowest rainfall this year since 2010 and its third lowest since 1987. With a 16% deficiency, the rainfall in the region this year was 815.5MM as against a normal of 975.5MM. The region received 683.6 MM in 1987, a deficiency of 29.4%. The other acutely deficient year was 2009, when central India recorded 795.5 MM rainfall.

Neha Madaan wrote further that all regions in the central India received deficient rainfall this season, except West Madhya Pradesh, Saurashtra and Kutch. In fact, the deficiency in Marathwada till September-end was 40% and 33% in central Maharashtra.

Let us have a look at the past records:

SN.	Years	Total Monsoon Rainfall (MM)	Difference (%)
1.	2006	889.3	-0.4
2.	2007	943.0	5.7
3.	2008	877.7	-1.7
4.	2009	698.2	-21.8
5.	2010	911.1	2
6.	2011	901.3	1.6
7.	2012	823.9	-7.1
8.	2013	937.2	5.6
9.	2014	781.7	-11.9
10.	2015	760.6	-14

2. Patrika a News Paper concerns about the ditching of the monsoon in some of the important states including Chhattisgarh, as reported on Sunday, 13th Sept. 2015, page no. 01 of 'Patrika'. The fact is found all over India as it has been observed that in the North West India experienced 16% less from the average in the last 3 months i.e. June, July and August 2015. Similarly the Northern India experienced 17%, Central India 20% and Eastern part of India experienced 4% less monsoon than the average. This is a clear sign of the drought attaching the whole India. The effects and consequences are already being experienced in and through various forms, as more than 20 crores of the marginal farmers depend on the monsoon for their agriculture activities in the country.

SN	States	Average in 2015 -16	Actual in 2015 -16	Difference
1.	Rajasthan	1114.3 MM	888 MM	226.3 (Less)
2.	Madhya Pradesh	1734.1 MM	1560.6 MM	173.5 (Less)
3.	Marathwada	579.8 MM	317.5 MM	262.3 (Less)
4.	Chhattisgarh	1026.4 MM	835.4 MM	191 (Less)

3.1st October 2015 in Dainik Bhaskar, page 3: Shortage of 12% Monsoon in the state of Chhattisgarh. The Monsoon of Some of the districts of Chhattisgarh is given as follows:

Sn.	Districts	Rain account	Less/More than the average
1.	Bilaspur	927.2	13 (less)
2.	Bastar	1304.5	13 (More)
3.	Bijapur	1422	4 (More)
4.	Dantewada	1409.2	20 (More)
5.	Dhamtari	833.4	21 (Less)
6.	Durg	874.5	14 (Less)
7.	Jashpur	939.5	30 (Less)
8.	Kanker	961.5	22 (Less)
9.	Korba	1008.9	19 (Less)
10.	Koreya	691.8	39 (Less)
11.	Kawardha	723.8	18 (Less)
12.	Mahasamund	1083.7	4 (More)
13.	Narayanpur	1178.2	4 (less)
14.	Raigarh	1142.0	0 (Average)
15.	Raipur	823.3	21 (less)
16.	Chhattisgarh	835.4 MM	191 (Less)

4. Brij Mohan Agrawal, the Minister for Agriculture and Water Resource said that the tehsils from Balod, Dantewada, Koreya, Raipur, Mahasamund, Gariaband, Dhamtari, Durg, Bemetra, Rajnandgaon, Bastar, Kondagaon, Narayanpur, Bijapur, Bilaspur, Mungeli, Korba, Raigarh, Balrampur and Jashpur districts are being affected by the shortage of rain.

5. Drought Prone 93 Tehsils of 20 districts declared by the State Government of Chhattisgarh in Patrika 16th Sept. 2015 Page 1.

6. Again in the Patrika, 17th September 2015, page no. 11, Mr. Ajit Pujari Superintendent, Land Record, Bilaspur, has given the fact that some of the Tehsils in Bilaspur Sub-Division, are going to face the droughts this year, 2015-16. According to him 933 villages of Bilaspur sub-division, which have experienced an average rainfall of 83.95 mm, are going to face the starvation due to drought caused by shortage of monsoon and hoarding business.

SN.	Tehsils	No. of Villages	Average Rainfall (MM)
1.	Bilaspur	97	88.5
2.	Belha	91	94.5
3.	Masturi	174	79.8
4.	Takhatpur	181	97.2
5.	Kota	165	100.8
6.	Pendra Road	87	78.4
7.	Pendra	52	73.2
8.	Marwahi	86	59.2
	Total	933	83.95

7. Due to the shortage of water for the crops, the price of the edible commodities has recently gone up. This is not only the reason, but also the hoardings of the commodities by several owners of the storages and mills all over India. Here, the authors would like to mention the case of Bilaspur, Chhattisgarh, where the raid was done and a plenty of commodities found out being hoarded.

Hoardings of the pulses, identified as follows on 21.10.2015, page 13, as found in and through Bilaspur Patrika.

SN.	Cold Storage & Mills (21.10.2015)	In Quintals	Rs.
1.	Chandra and Chandra Cold Storage, Tifra	1600	1.28 crores
2.	Mahamaya dal Mill, tifra	1400	2.80 crores
3.	Welcome Dal Mill, Tifra	90	9 lacs

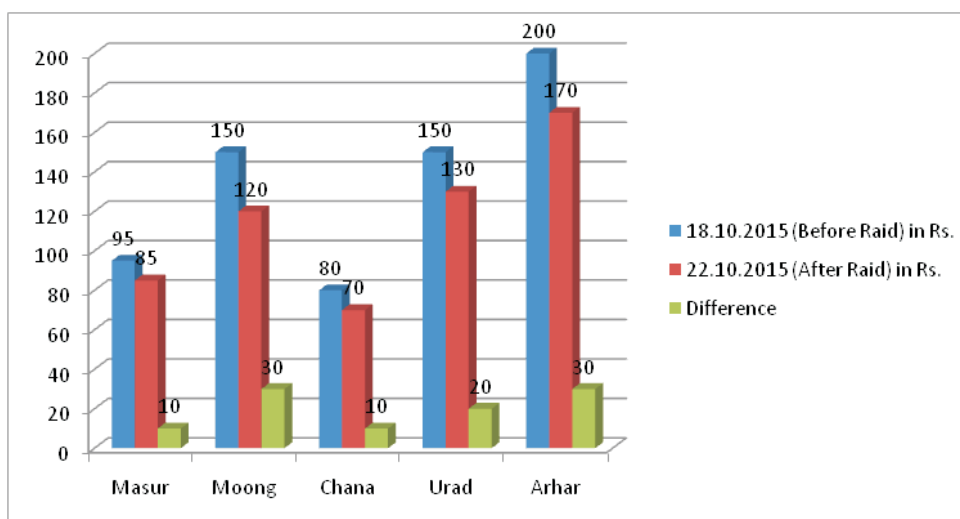
8.Hoardings of the pulses, identified as follows on 22.10.2015 as recorded in and through Bilaspur Bhaskar:

SN.	Cold Storage & Mills (22.10.2015)	In quintals
1.	Ishwar Oil Dal Mill	4707
2.	Rakesh Cold Storage	3400
3.	Chandra and Chandra cold Storage	1483
4.	Mahamaya Dal Mill	106
5.	Welcome Dal Mill	90
6.	Jay Ambe Dal Mill	10
7.	Vishal Dal Mill Sirgitti	155
8.	Roshan Dal Mill	268.5
9.	Vineet Dal Mill	105

Consequences:

Consequently, price hike in all the edible commodities especially pulses was experienced. The price of different pulses has been recorded on 18.10.2015 and 22.10.2015 as follows, through Dainik Bhaskar, Bilaspur, page No.22.

SN.	Pulses	18.10.2015 (Before Raid) in Rs.	22.10.2015 (After Raid) in Rs.	Difference
1.	Masur	95	85	10
2.	Moong	150	120	30
3.	Chana	80	70	10
4.	Urad	150	130	20
5.	Arhar	200	170	30



2. Drought also can cut back water quality , as a result of lower water flows cut back dilution of pollutants and increase contamination of remaining water sources. Common consequences of drought include:

- Diminished crop growth or yield productions and carrying capability for placental
- Famine because of lack of water for irrigation

- Hunger , drought provides insufficient water to support food crops.
- deficiency disease, dehydration and connected diseases
- Mass migration, leading to internal displacement and international refugees
- Reduced electricity production because of reduced water flow through electricity dams
- Shortages of water for industrial users • Social unrest
- War over natural resources, together with water and food.

3. Many farmers are dying out of the shortage of crops due to shortage of rainfalls.

Protection, mitigation and relief

1. Strategies for drought protection, mitigation or relief include:

- Dams - several dams and their associated reservoirs provide further water in times of drought
- desalinisation - of ocean water for irrigation or consumption.
- Drought watching - Continuous observation of downfall levels and comparisons with current usage levels will facilitate stop semisynthetic drought.
- Land use - rigorously planned crop rotation will facilitate to reduce erosion and permit farmers to plant less water-dependent crops in drier
 - fresh water gathering - assortment and storage of fresh water from roofs or alternative appropriate catchments. • Recycled water - Former effluent (sewage) that has been treated and sublimated for utilize.
- Building canals or redirecting rivers as huge tries at irrigation in drought-prone areas.

2. The Gates of Gangrel Dam under Mahanadi Irrigation Project were opened and 121 Lac Cubic meter water was supplied to the agriculture fields of Raipur, Balod, Durg and Dhamtari.

Measures:

1. Construction of dams in the small streams, Stop Dam, Check dam
2. 24 hours of Electricity supply to irrigation pumps.
3. Subsidy to diesel
4. Subsidy for fodder production
5. Agriculture insurance scheme till 30th Sept. 2015.
6. One quintal rice reserve with Sarpanch of the village panchayat.
7. Job-oriented training.
8. Supply of safe drinking water
9. Priority to solve the problems related to agriculture.

SUGGESTIONS:

1. Increase in the Agriculture production esp. Dal and for this ,subsidy should be given by the government.
2. The barren land should be made productive as it is quoted in Times City of the Times of India, Friday, Oct.23, 2015 page no.2, that despite the challenges of uneven land, irregular irrigation source and facilities, dearth of knowledge of selection of best seeds, fertilizers and modern technology, tribal farmers of Dantewada, South bastar District, succeeded in shaping up their dream of organically growing horticulture produces and pulses under district administrations scheme called “Macho Baadi” – Organic Farming, initiated in 2013-14.

So far 850 farmers of 37 gram panchayats of 04 development blocks have benefitted under this

scheme. Ludruram Nag, a farmer said, "by growing veggies, oil seeds and purses in our fields the intake of nutrition has improved."

3. Hoarding mentality must be uprooted from the hoarders.

4. Reserve Bank of India should take actions like minimizing the interest rate of the loans esp. for the agriculture purpose.

5. Peoples, participation is required urgently.

CONCLUSION:

This is a ripe time on the part of the government and people to curb the price-hike of the edible commodities. Government should be always ready to face the challenges like drought and should prepare the strategic plan to mitigate the shortages of food items. The people esp. the farmers should be more hardworking in the agricultural field in order to produce more and more crops. The government in this case should support in terms of Minimum Support Price. The authors think honestly, the solution for all the problems lies in the system with the people themselves.

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