

Agriculture

Production and growth

Monsoon – 2002

It was a bad Monsoon Year. Month of July normally receives one-third of the total monsoon season rainfall and is therefore crucial for triggering farm activity throughout the country besides augmenting the surface and ground water storage. But this year's July rainfall was almost half of the normal and, the subsequent months too were subdued and did not make up for the deficit. Consequently the country faced one of the worst droughts.

8.2 This year's monsoon season rainfall (June-September), for the country as a whole, was 19 percent below normal causing 29 percent of country's area to face drought conditions with 10 percent area falling under severe drought conditions (Table 8.1 and 8.2).

8.3 July, the rainiest month of the year, normally receiving 30 percent of monsoon

rainfall, was the driest month with 49 percent shortfall, which is a record low in the past 100 years. 18 States in the country, viz. Andhra Pradesh, Chattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttaranchal, Uttar Pradesh and West Bengal suffered most due to poor July rainfall and experienced moderate to severe drought. Some revival in the monsoon during August and September brought some relief to Madhya Pradesh, Jharkhand, Uttaranchal, and Maharashtra. Uttar Pradesh and Andhra Pradesh, too registered some recovery, but finally ended up with a significant shortfall. Recoveries in Punjab and Haryana were only partial. At the end of the monsoon season, 21 out of 36 meteorological sub-divisions had received deficient rainfall (-20 percent to -59 percent). Scanty rainfall (below 60 percent) characterised entire Rajasthan (Table 8.2).

**Table 8.1 : Monsoon performance: 1997 to 2002
(June – September)**

Year	Number of meteorological sub-divisions			Percentage of districts with normal / excess rainfall	Percent of long period average rainfall for the country as a whole
	Normal	Excess	Deficient / scanty		
1997	26	6	3	81	102
1998	20	13	2	81	106
1999	25	3	7	67	96
2000	23	5	7	66	92
2001	29	1	5	68	92
2002	14	1	21	44	81

Source : India Meteorological Department.

Table 8.2 : Rainfall deficiency – percent deviation from normal	
A&N Islands	- 24
Arunachal Pradesh	-22
East UP	-24
West UP	-21
Haryana, & Delhi	-36
Punjab	- 36
Himachal Pradesh	-20
West Rajasthan	-71
East Rajasthan	-60
West Madhya Pradesh	-22
Gujarat Region	-24
Saurashtra, Kutch & Diu	-25
Coastal Andhra Pradesh	-26
Telangana	-23
Rayalseema	-33
Tamil Nadu & Pondicherry	-45
Coastal Karnataka	-30
North Interior Karnataka	-31
South Interior Karnataka	-44
Kerala	-35
Lakshadweep	-45
Source : India Meteorological Department.	

Reservoir storage status

8.4 Water level in 70 major reservoirs recorded a sharp fall this year. At the end of the monsoon season the average water level was only half of the full reservoir level (FRL), much less than the previous year as also the last 10-year average level (Table 8.3).

Table 8.3 : Reservoir storage (At the end of the monsoon season)						
	2002		2001		Avg. of last 10 years	
	Storage in BCM	Percent of FRL	Storage in BCM	Percent of FRL	Storage in BCM	Percent of FRL
At the beginning of monsoon season	16.13	12.36	16.68	12.78	23.19	17.76
At the end of monsoon season	65.92	50.49	78.79	60.35	97.98	75.05
Increase in monsoon season	49.79		62.11		74.79	
* Total Full Reservoir Level (FRL) i.e. designed utilizable capacity of 70 major reservoirs is 130.55 Billion Cubic Meter. Source : Central Water Commission.						