

Southwest Monsoon

Continued sign of weakness

July 15, 2011

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Continued sign of weakness

The advancement of the rainfall weakened further as the *cumulative rainfall* for the season till July 13, 2011 stood 3.3% below normal as against 1.2% above Normal in the preceding week. This is for the first time in this season that the cumulative rainfall has gone down below normal.

Though number of divisions with Excess rainfall reduced to 6 from 12 in the preceding week, the number of divisions with normal rainfall increased to 22 from 15 in the preceding week. Moreover the number of deficient/ scanty divisions also came down to 8 from 9 in the preceding week. The total rainfall till date is about 30.4% of the normal (see table VI) rainfall for the full season compared with 28.6% for the corresponding period last year.

...however rainfall picks up in key agri states

For the week ended July 13, 2011, though cumulative rainfall in rain dependent areas declined to 2.7% above normal from 6.9% above normal in preceding week, rainfall in certain key agri states like Gujarat and Maharashtra has shown significant improvement during the week with 10-80% above normal rains.

Reservoir levels at 30% of their FRL's

The reservoir levels stand at 30% of their full reservoir level (FRL) as against 24% Long Period Average (LPA) .

Forecast rainfall for parts of central, eastern and north eastern regions

As the advancement of the monsoon continues, parts of central, eastern and north eastern regions in India are likely to receive a good amount of rainfall with rest of India expected to receive lesser rainfall.

Major crop acreage at ~30mn hectares down 3.7%yoy

Acreage under major crops decreased to ~30mn hectares from 31.1mn hectares last year; decrease of 3.7%. Sown area under Cotton and Coarse cereals decreased by ~32.5% and 10.7% respectively as compared to the same period last year whereas area under rice, pulses and sugarcane saw an increase.

TABLE - I Cropped area for major crops

Mn hectres	9-Jul-10	8-Jul-11	% yoy chg
Rice	7.2	7.4	2.8
Coarse cereals	5.8	5.2	-10.7
Oilseeds	5.8	5.4	-6.9
Pulses	0.8	2.3	174.8
Sugarcane	4.7	5.1	8.5
Cotton	6.6	4.5	-32.5
Total	31.1	29.9	-3.7

TABLE - II: Advancement of southwest monsoon

% deviation to normal	8-Jun-11	15-Jun-11	22-Jun-11	29-Jun-11	6-Jul-11	13-Jul-11
Well Irrigated areas	11.9	18.2	33.3	69.6	51.6	15.2
Adequately Rain-fed areas	54.0	18.4	18.3	-2.1	-8.5	-11.8
Rain Dependent Areas	6.3	1.2	34.2	21.3	6.9	2.7
India	17.1	3.4	11.3	10.7	1.2	-3.3

Source: Indian Meteorological Department, Emkay Research

TABLE - III: Distribution of rainfall

No of divisions	8-Jun-11	15-Jun-11	22-Jun-11	29-Jun-11	6-Jul-11	13-Jul-11
Excess	9	15	17	17	12	6
Normal	16	10	9	9	15	22
Deficient/Scanty	11	11	10	10	9	8

Source: Indian Meteorological Department, Emkay Research

TABLE – IV: Distribution of rainfall during southwest monsoon till July 13, 2011

	From June 1 to						
Division		July 13, 2011			July 14, 2010		
	Actual (MM)	Normal (MM)	Deviation (%)	Actual (MM)	Normal (MM)	Deviation (%)	
Well Irrigated Areas	195	170	15.2	117	178	-34.3	
East Uttar Pradesh	240	223	7.7	102	235	-56.5	
West Uttar Pradesh	233	171	36.3	121	180	-32.8	
Haryana, Chandigarh And Delhi	113	108	4.1	122	114	6.9	
Punjab	126	118	6.5	133	119	12.0	
Adequately Rain-Fed Areas	715	811	-11.8	743	862	-13.8	
Konkan And Goa Region	1,262	1,162	8.6	1,054	1,171	-10.0	
Coastal Karnataka	1,480	1,350	9.6	1,117	1,436	-22.2	
Kerala	942	991	-5.0	866	1,058	-18.1	
Sub-Himalayan West Bengal And Sikkim	702	760	-7.6	900	766	17.5	
Assam & Meghalaya	500	766	-34.7	650	869	-25.2	
Nagaland, Manipur, Mizoram And Tripura	458	593	-22.8	499	595	-16.1	
Arunachal Pradesh	500	736	-32.1	586	707	-17.2	
Uttaranchal	409	328	24.6	283	342	-17.3	
Andaman & Nicobar Islands	581	600	-3.2	716	634	12.9	
Lakshadweep	279	454	-38.5	450	448	0.6	
Rain Dependent Areas	227	221	2.7	211	232	-9.4	
Gangetic West Bengal	520	386	34.6	290	395	-26.6	
Orissa	297	346	-14.1	277	366	-24.2	
Jharkhand	385	336	14.5	184	337	-45.4	
Bihar	357	316	12.8	251	325	-22.8	
Himachal Pradesh	193	199	-2.9	284	199	42.9	
Jammu & Kashmir	139	129	7.4	133	126	5.7	
West Rajasthan	62	66	-6.0	86	69	25.4	
East Rajasthan	208	139	49.7	104	151	-31.2	
West Madhya Pradesh	321	214	50.0	159	238	-33.1	
East Madhya Pradesh	398	274	45.0	235	310	-24.3	
Gujarat Region	146	267	-45.4	174	284	-38.8	
Saurashtra And Kutch	124	155	-20.5	199	171	16.5	
Madhya Maharashtra	217	246	-11.7	258	247	4.4	
Marathwada	168	212	-20.8	322	217	48.3	
Vidarbha	222	297	-25.1	355	321	10.6	
Chattisgarh	277	336	-17.6	266	366	-27.4	
Coastal Andhra Pradesh	153	166	-7.7	256	167	53.8	
Telangana Region	185	225	-18.0	274	228	20.2	
Rayalaseema	82	100	-18.0	155	93	66.3	
North Interior Karnataka	148	156	-5.3	168	148	13.0	
South Interior Karnataka	217	236	-8.0	205	246	-16.5	
Tamil Nadu And Pondicherry	72	72	0.0	132	72	84.1	
India	271	280	-3.3	255	293	-13.0	

Excess/Normal/Deficient/Scanty	No of divisions	No of divisions
Excess	6	7
Normal	22	16
Deficient/Scanty	8	13

Source: Indian Meteorological Department, Emkay Research

TABLE - V: Distribution of rainfall during southwest monsoon for the week ended July 13, 2011

Division		July 13, 2011		July 14, 2010			
Division	Actual (MM)	Normal (MM)	Deviation (%)	Actual (MM)	Normal (MM)	Deviation (%)	
Well Irrigated Areas	28.3	59.8	-52.7	42.2	61.4	-31.3	
East Uttar Pradesh	24.5	71.8	-65.9	49.1	74.0	-33.6	
West Uttar Pradesh	41.2	64.7	-36.3	41.4	66.5	-37.7	
Haryana, Chandigarh And Delhi	30.4	41.8	-27.3	27.7	45.2	-38.7	
Punjab	15.8	45.2	-65.0	41.8	43.7	-4.3	
Adequately Rain-Fed Areas	110.5	151.0	-26.8	91.6	149.2	-38.6	
Konkan And Goa Region	328.7	233.6	40.7	158.7	226.8	-30.0	
Coastal Karnataka	186.9	246.7	-24.2	63.5	252.8	-74.9	
Kerala	87.2	172.1	-49.3	39.0	171.9	-77.3	
Sub-Himalayan West Bengal And Sikkim	127.3	143.9	-11.5	183.8	134.5	36.7	
Assam & Meghalaya	80.4	139.2	-42.2	90.7	141.0	-35.7	
Nagaland, Manipur, Mizoram And Tripura	45.3	100.7	-55.0	39.2	94.0	-58.3	
Arunachal Pradesh	85.7	117.5	-27.1	88.3	112.6	-21.6	
Uttaranchal	77.5	96.2	-19.4	42.3	99.3	-57.4	
Andaman & Nicobar Islands	88.2	87.0	1.4	80.0	82.0	-2.4	
Lakshadweep	71.5	68.6	4.2	31.1	62.2	-50.0	
Rain Dependent Areas	49.3	53.6	-8.1	46.0	55.8	-17.6	
Gangetic West Bengal	33.3	75.1	-55.7	57.2	79.7	-28.2	
Orissa	33.8	72.0	-53.1	55.3	78.9	-29.9	
Jharkhand	24.9	78.0	-68.1	50.6	74.9	-32.4	
Bihar	32.3	86.1	-62.5	105.7	81.8	29.2	
Himachal Pradesh	41.2	63.9	-35.5	34.3	60.7	-43.5	
Jammu & Kashmir	27.2	39.7	-31.5	23.2	38.5	-39.7	
West Rajasthan	33.4	20.4	63.7	11.4	22.2	-48.6	
East Rajasthan	48.9	46.3	5.6	17.1	51.7	-66.9	
West Madhya Pradesh	76.1	64.4	18.2	26.3	68.7	-61.7	
East Madhya Pradesh	53.5	77.8	-31.2	103.6	85.1	21.7	
Gujarat Region	123.9	78.8	57.2	36.0	84.4	-57.3	
Saurashtra And Kutch	94.9	31.4	202.2	44.0	40.8	7.8	
Madhya Maharashtra	63.0	57.1	10.3	23.9	55.5	-56.9	
Marathwada	68.6	36.6	87.4	25.6	34.2	-25.1	
Vidarbha	56.5	71.3	-20.8	95.4	76.6	24.5	
Chattisgarh	83.8	83.4	0.5	92.3	88.1	4.8	
Coastal Andhra Pradesh	29.6	31.5	-6.0	46.2	29.9	54.5	
Telangana Region	45.8	47.3	-3.2	67.9	45.7	48.6	
Rayalaseema	7.0	19.5	-64.1	37.9	16.9	124.3	
North Interior Karnataka	21.1	29.5	-28.5	8.3	26.1	-68.2	
South Interior Karnataka	21.4	49.1	-56.4	32.8	51.5	-36.3	
Tamil Nadu And Pondicherry	9.4	15.3	-38.6	44.5	15.2	192.8	
India	52.5	64.6	-18.7	50.3	66.0	-23.8	

Source: Indian Meteorological Department, Emkay Research

Excess/Normal/Deficient/Scanty	No of divisions	No of divisions
Excess	5	8
Normal	10	4
Deficient/Scanty	21	24

Source: Indian Meteorological Department, Emkay Research

TABLE - VI: Rainfall till date as % of full season

	From June 1 to							
Division		July 13, 2011			July 14, 2010			
	Actual (MM)	FS (MM)	Deviation (%)	Actual (MM)	FS (MM)	Deviation (%)		
Well Irrigated areas	195	717	27.2	117	717	16.3		
East Uttar Pradesh	240	907	26.5	102	907	11.3		
West Uttar Pradesh	233	769	30.2	121	769	15.8		
Haryana, Chandigarh and Delhi	113	466	24.2	122	466	26.1		
Punjab	126	494	25.4	133	494	27.0		
Adequately Rain-fed areas	715	1,972	36.3	743	1,972	37.7		
Konkan and Goa region	1,262	2,790	45.2	1,054	2,790	37.8		
coastal Karnataka	1,480	3,163	46.8	1,117	3,163	35.3		
Kerala	942	2,130	44.2	866	2,130	40.6		
sub-Himalayan West Bengal and Sikkim	702	1,916	36.7	900	1,916	47.0		
Assam & Meghalaya	500	1,942	25.7	650	1,942	33.5		
Nagaland, Manipur, Mizoram and Tripura	458	1,390	32.9	499	1,390	35.9		
Arunachal Pradesh	500	1,702	29.3	586	1,702	34.4		
Uttaranchal	409	1,206	33.9	283	1,206	23.5		
Andaman & Nicobar Islands	581	1,680	34.6	716	1,680	42.6		
Lakshadweep	279	981	28.5	450	981	45.9		
Rain Dependent Areas	227	764	29.8	211	764	27.6		
Gangetic West Bengal	520	1,130	46.0	290	1,130	25.6		
Orissa	297	1,163	25.5	277	1,163	23.9		
Jharkhand	385	1,079	35.7	184	1,079	17.1		
Bihar	357	1,019	35.0	251	1,019	24.6		
Himachal Pradesh	193	772	25.0	284	772	36.7		
Jammu & Kashmir	139	523	26.6	133	523	25.5		
west Rajasthan	62	262	23.7	86	262	32.8		
east Rajasthan	208	629	33.1	104	629	16.5		
West Madhya Pradesh	321	901	35.6	159	901	17.7		
East Madhya Pradesh	398	1,086	36.6	235	1,086	21.6		
Gujarat region	146	907	16.1	174	907	19.2		
Saurashtra and Kutch	124	486	25.4	199	486	41.0		
madhya Maharashtra	217	695	31.2	258	695	37.1		
Marathwada	168	706	23.8	322	706	45.6		
Vidarbha	222	972	22.9	355	972	36.5		
Chattisgarh	277	1,200	23.1	266	1,200	22.1		
coastal Andhra Pradesh	153	570	26.8	256	570	44.9		
Telangana region	185	762	24.2	274	762	35.9		
Rayalaseema	82	376	21.9	155	376	41.3		
north interior Karnataka	148	485	30.5	168	485	34.6		
south interior Karnataka	217	667	32.5	205	667	30.8		
Tamil Nadu and Pondicherry	72	310	23.1	132	310	42.5		
India	271	889	30.4	255	889	28.6		

Source: Indian Meteorological Department, Emkay Research

Full season is normal rainfall from June 1 to September 30

TABLE -VII: Reservoir levels in select areas between July 08-July 13, 2011

	Live capacity at FRL	Current storage	Sto	rage as % of live capa	city
	(BCM)	(BCM)	This year	Last year	10-yr avg
Himachal Pradesh					
Gobind Sagar(Bhakra)	6.2	2.9	46	23	35
Pong Dam	6.2	3.5	56	12	21
Total	12.4	6.4	51	18	
Punjab		U	Ų.		
Thein	2.3	1.1	45	31	40
Rajasthan	-		-		
Mahi Bajaj Sagar	1.7	0.0	2	4	22
Jhakam	0.1	0.0	5	6	22
Rana Pratap Sagar	1.4	0.2	16	21	38
Total	3.3	0.3	8	12	00
Orissa	0.0	0.0		12	
Hirakud	5.4	0.4	7	11	20
Balimela	2.7	0.3	12	5	6
			10	5 17	
Salanadi Bangali	0.6 3.4	0.1 0.7	20		31 14
Rengali				1	
Machkund(Jalput)	0.9	0.6	67	4	26
Upper Kolab	0.9	0.1	10	4	22
Upper Indravati	1.5	0.1	9	3	23
Total	15.3	2.3	15	1	
Maharashtra					
Jayakwadi(Paithon)	2.2	0.3	16	4	19
Koyana	2.7	1.3	49	34	51
Bhima(Ujjani)	1.5	0.2	13	26	3
Isapur	1.0	0.5	51	24	26
Mula	0.6	0.1	19	9	23
Yeldari	0.8	0.3	36	14	9
Girna	0.5	0.0	6	7	16
Khadakvasla	0.1	0.0	48	32	34
Upper Vaitarna	0.3	0.1	44	22	45
Upper Tapi	0.3	0.1	41	62	27
Pench (Totaladoh)	1.1	0.3	29	13	14
Total	11.0	3.4	31	20	
Uttar Pradesh					
Matatila	0.7	0.6	79	58	31
Rihand	5.6	1.1	19	7	12
Total	6.4	1.6	26	13	
Madhya Pradesh					
Gandhi Sagar	6.8	0.0	0	0	7
Tawa	1.9	0.6	33	45	38
Bargi	3.2	1.1	34	6	19
Bansagar	5.2	1.2	24	3	6
Indira Sagar	9.7	0.3	4	2	8
Total	26.9	3.3	12	_ 5	-
Andhra Pradesh		- 10	<u>-</u>		
Srisailam	8.3	1.2	15	24	25
Nagarjuna Sagar	6.8	4.0	59	25	27
Sriramsagar	2.3	0.4	19	41	_,
Somasila	2.0	1.1	53	27	12
Lower Manair	0.6	0.2	27	10	19
Total	20.0	7.0	35	26	19
Total India	151.8	45.7	30	17	24

Source: Central water commission, Emkay Research

FRL: Full reservoir level BCM: Billion cubic meters

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