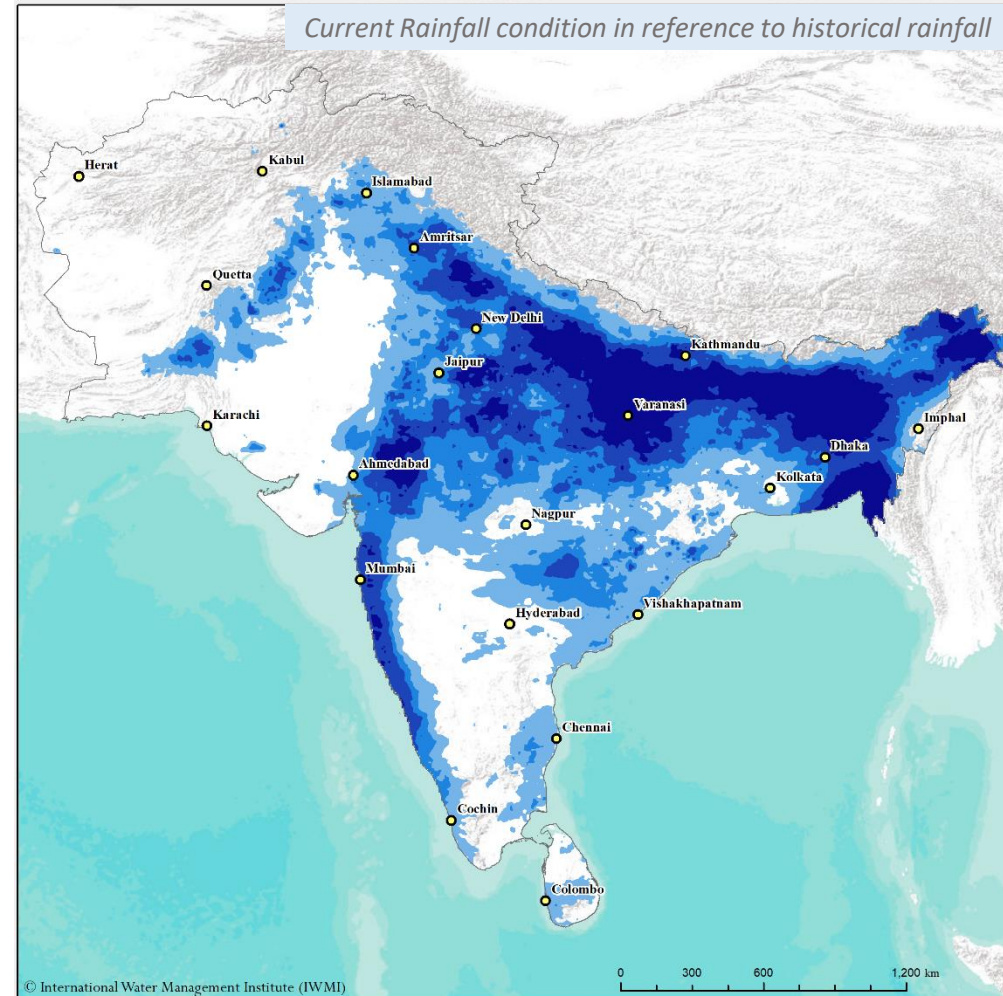
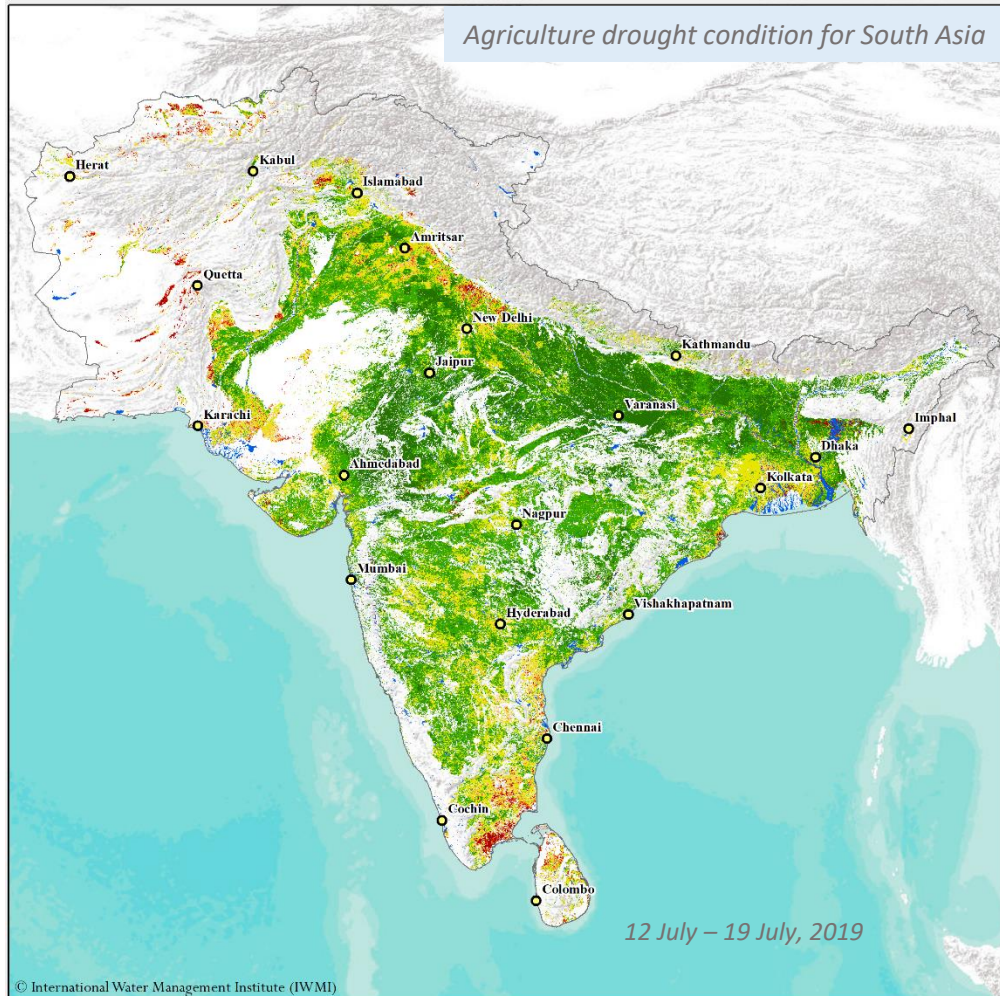


SADMS DROUGHT BULLETIN

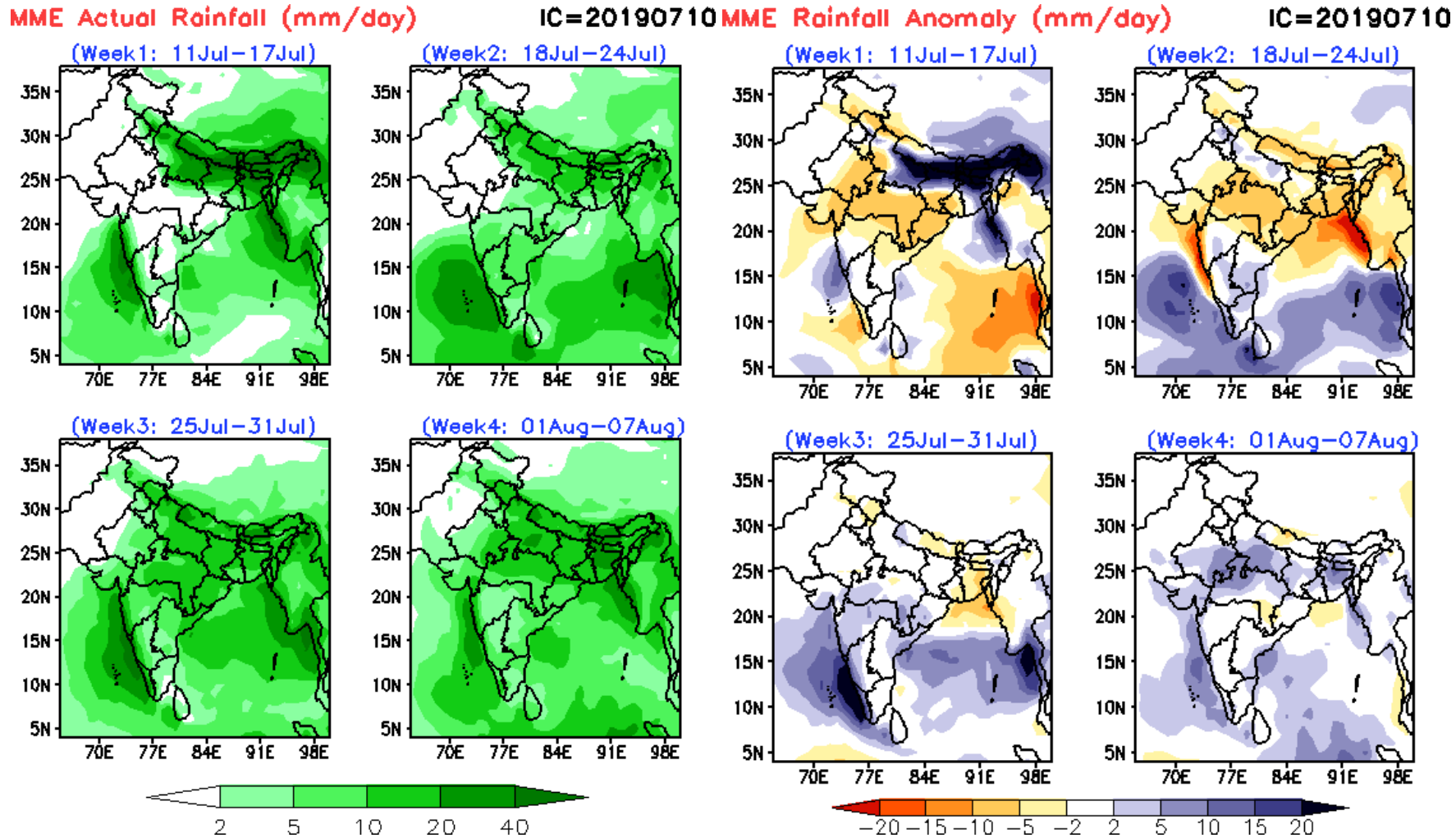
19 July 2019 | ISSUE 06



South Asia Drought Monitoring System (SADMS) drought weekly bulletin is produced by International Water Management Institute (IWMI) and is funded by the Indian Council of Agricultural Research (ICAR), the CGIAR Research Program on Water, Land and Ecosystems (WLE) and the Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan. Development of the beta-monitoring system was made possible at this inception through IDMP supported by WMO/GWP. The bulletin supports the government and other users to strengthen the potential use of satellite technology and modeling tools to reduce the impacts on agriculture risks and support in drought contingency plans and mitigation efforts.

Rainfall Summary - Predicted week wise rainfall for South Asia

Multi Model Ensemble (MME) Seasonal Prediction System for 2019 Monsoon Season



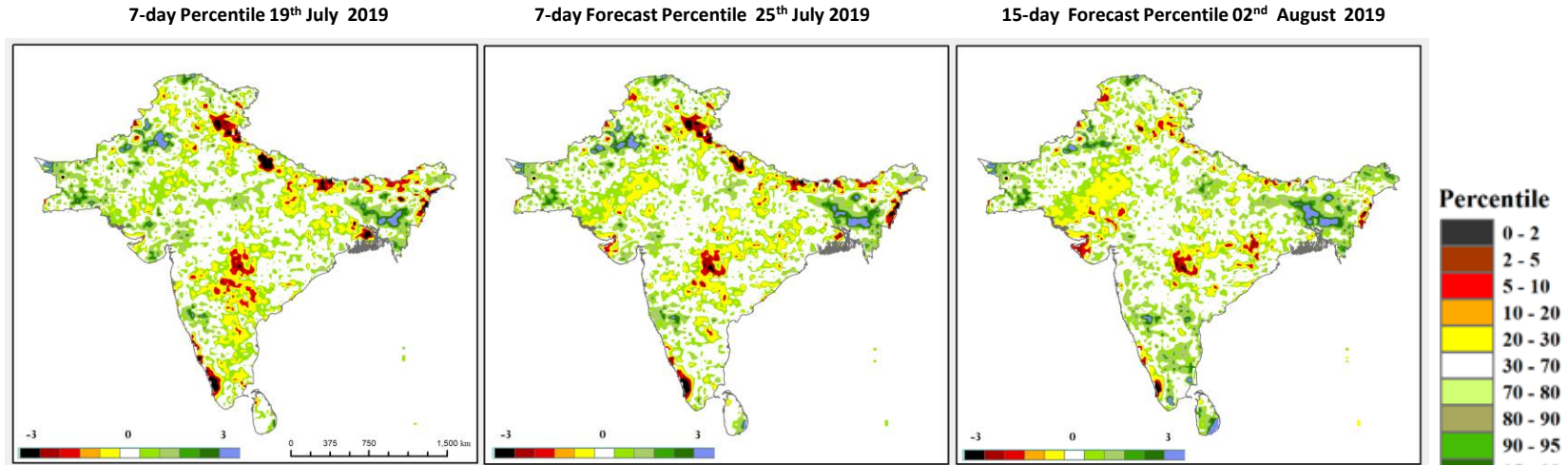
- Rainfall for South and South-west Karnataka, west Maharashtra and Kerala experience in the next week;
- Nepal, Bhutan, south Assam, North and north east Arunachal might experience a increase in rainfall, however the rainfall anomaly explains deficit rainfall in last week of July.
- Most of India might experience increasing in rainfall by beginning of August.
- MP, UP, Bihar, Odisha, Jharkhand, Telangana and West Bengal may experience increasing rainfall from 25th June to 07th August.
- Sri Lanka for Northern, North Central and Eastern province explains normal rainfall but western might experience excess rainfall in month of end of July.
- Nepal rainfall anomaly explains a decrease in rainfall but in Bhutan it will slightly increase in end of July.
- Overall Pakistan shows normal in rainfall.

Note: The summary on country specific details described above based on the ERPAS MME information product do not imply the expression of any opinion whatsoever on the part of the IWMI and its partners as well the data provided by IITM.

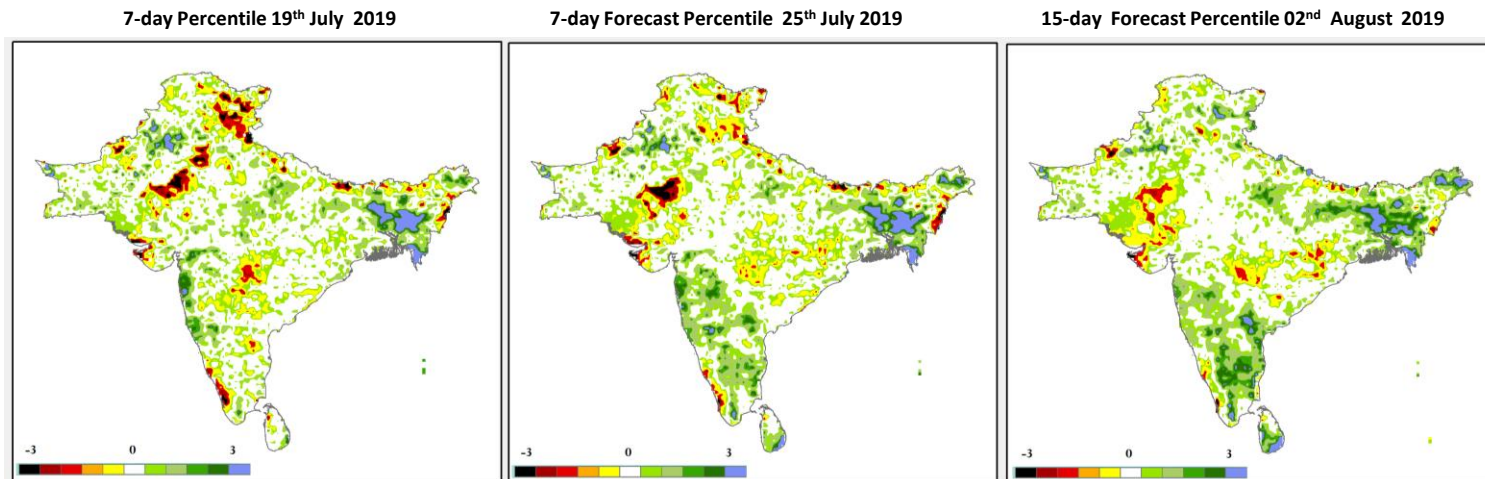
SOUTH ASIA DROUGHT EARLY WARNING SYTEM (SADEWS)

Current Condition: 19 July 2019
Forecast Period : 19 July and 02 Aug 2019
Standardized Soil Moisture and Runoff Index
for regional drought and early warning

SOIL MOISTURE PERCENTILE (SMP)



SOIL RUNOFF PERCENTILE (SRP)



Summary:

The experimental drought forecast products for research/scientific use based on 19th July 2019 initial condition. These forecast products are based on the real time weekly operational forecast generated by Global ENsemble (GENS), a weather forecast model made up of 21 separate forecasts, or ensemble members developed at The National Centers for Environmental Prediction (NCEP), NOAA.

Drought Forecast Outlook:

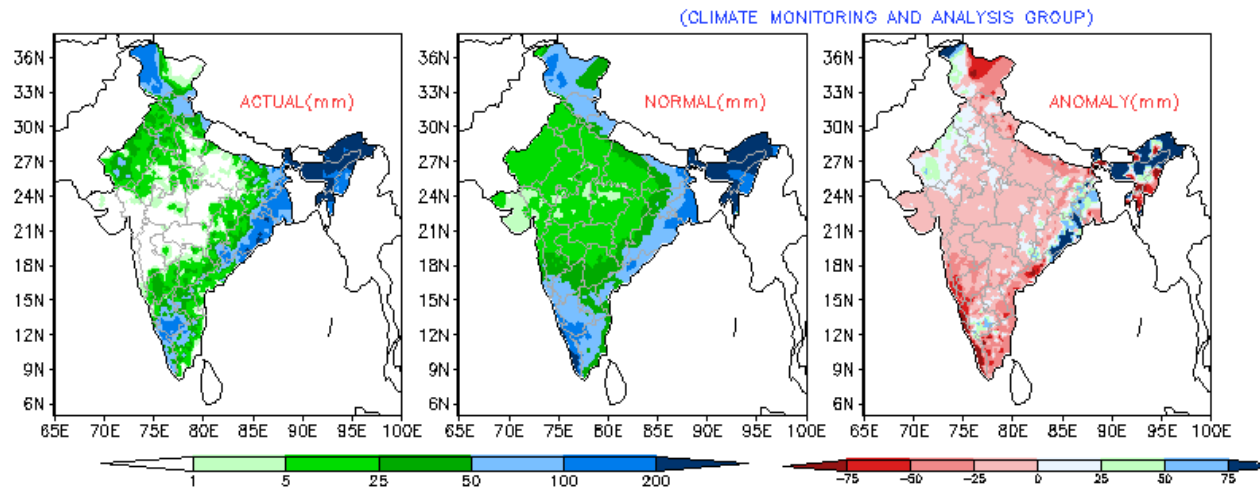
- Rainfall of Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Odisha, Chhattisgarh, Rajasthan, Haryana, Punjab, Maharashtra, UP, Bihar, MP and Telangana will be decreasing rainfall in coming two weeks.
- Initial condition on the Soil Runoff Index (SRI) explains similar trend to SSI.
- Dryness is decreasing in the following week and it will be further decreasing in the 3rd week of July all over India.
- West, South, and South west of Sri Lanka will get more rain when rainfall in Jammu & Kashmir is normal to deficit rainfall.
- The areas are in deficit rainfall condition which may affect the crop productivity and advance need for State and Local authorities for better planning and coordination on water resources management.

The SADEWS is regional scale early warning system developed as a collaborative project between International Water Management Institute (IWMI) and Indian Institute of Technology – Gandhinagar (IIT-GN).

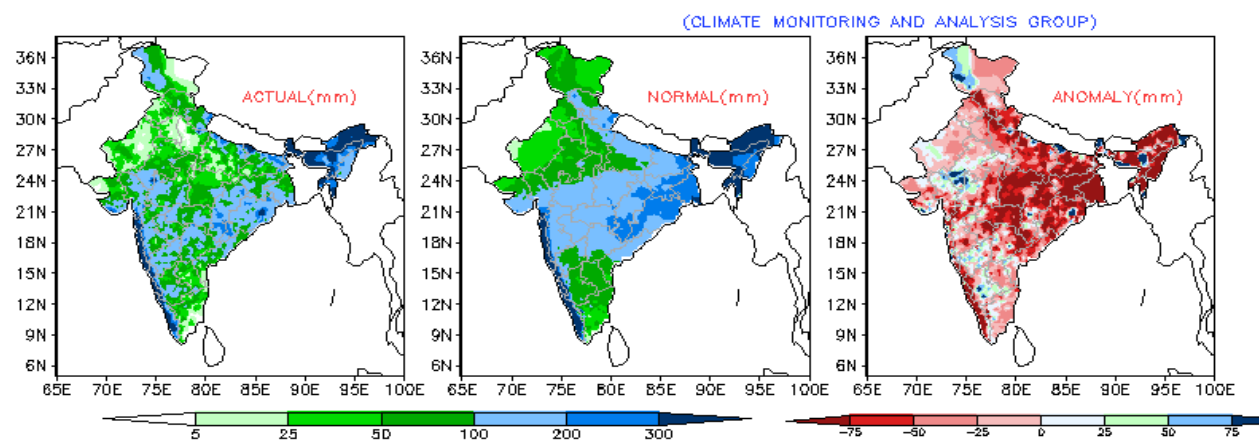
Disclaimer: The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the International Water Management Institute (IWMI) and its partners concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of IWMI.

INDIA – Monthly Rainfall Condition (Actual vs. Anomaly)

Actual Rainfall – May 2019

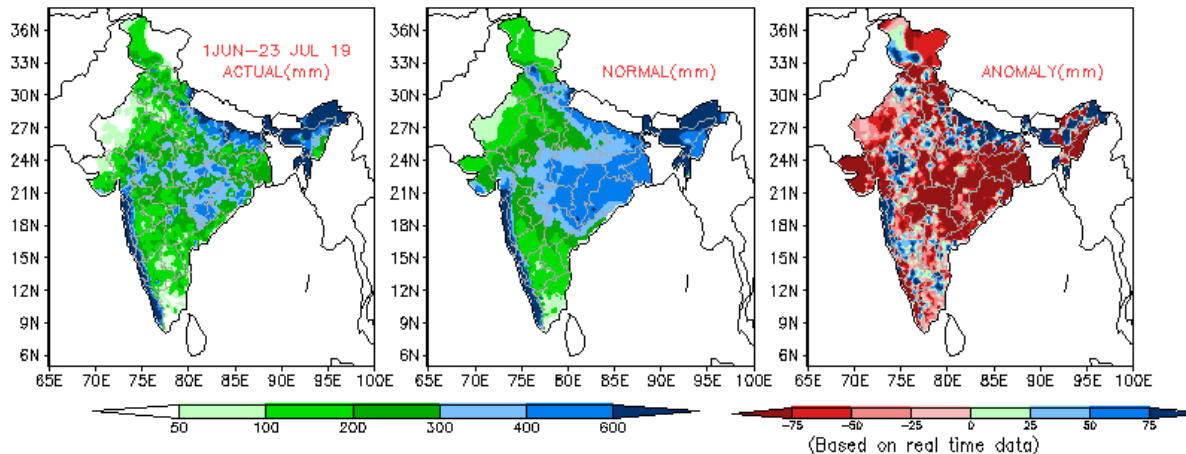


Actual Rainfall – June 2019



Actual Rainfall – Seasonal 2019 (June)

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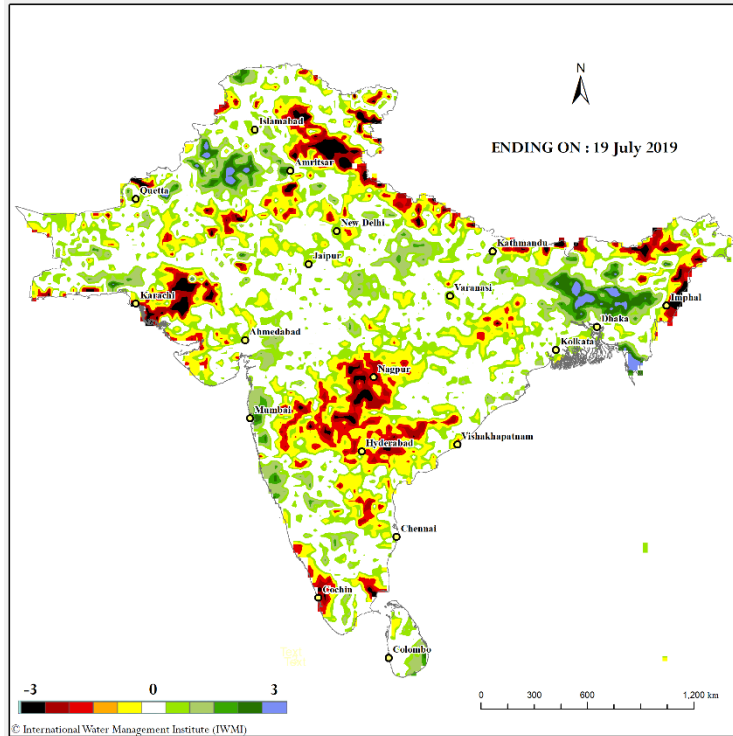
Data Source: IMD

- Several parts of the India there is an decrease in rainfall for the month of July compared to the long-term anomaly, however South, North and North west districts specially in Karnataka, Telangana, Bihar, South Rajasthan, Assam had excess rainfall in July.
- Month of May has experienced mostly negative anomalies across India except western terrestrial area.
- There has a reduction and slightly decreased in rainfall in the month of May, June and it has increased from second week of July most part over the India.
- Overall there has been an slightly excess rainfall.

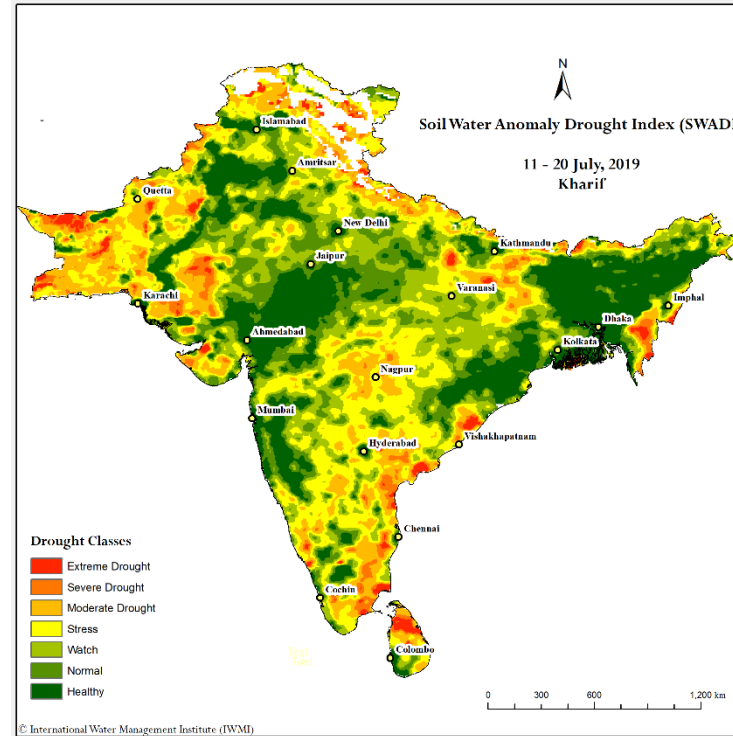
Note: Simple qualitative assessment on the performance on rainfall condition was described here to cross compare with SADMS – IDSI products for evaluation purpose only.

South Asia Drought Indices – A Comparison & Assessment

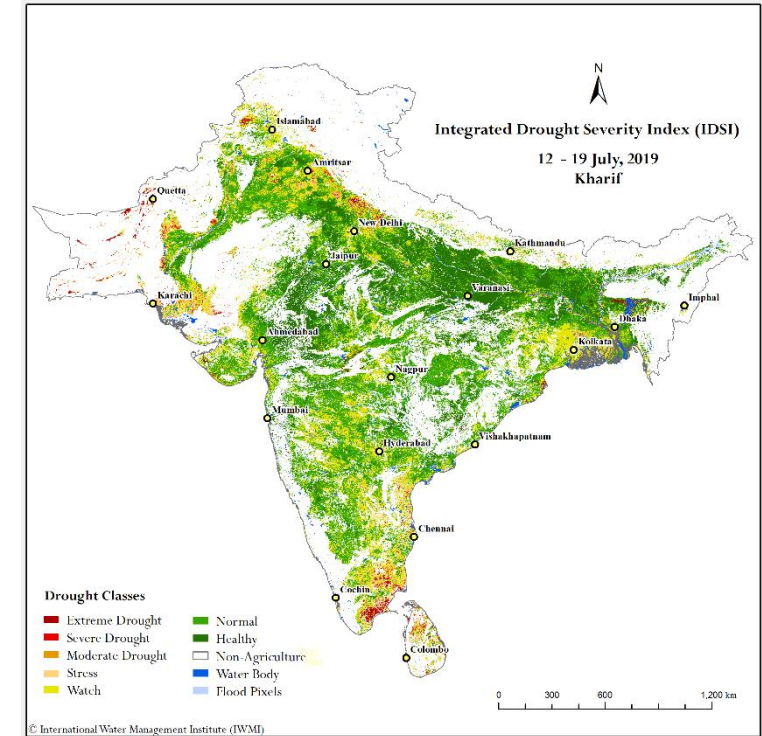
SA-DEWS



SWADI

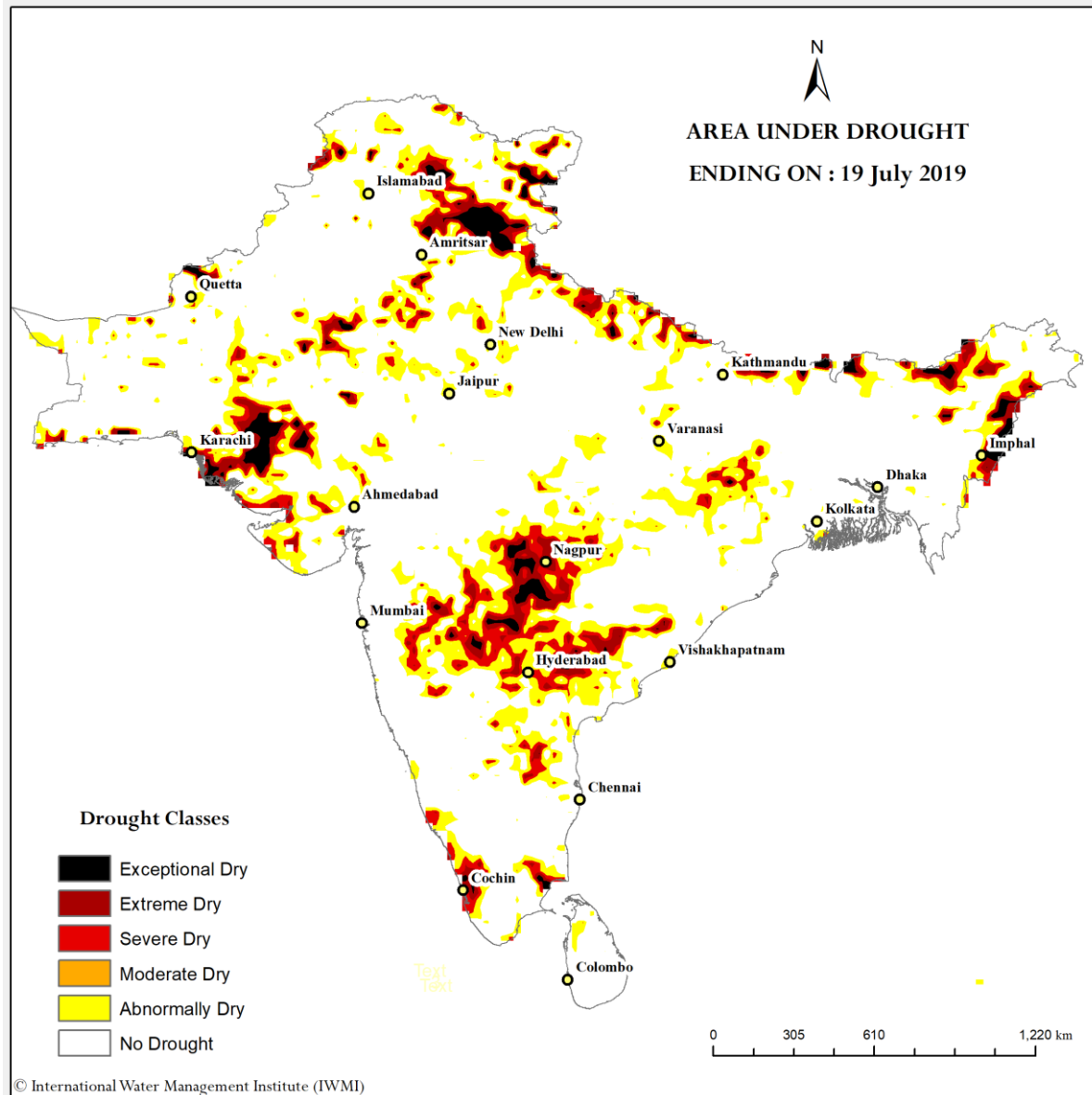


IDS



- South Asia-Drought Early Warning System (SA-DEWS) is an integrated approach based on satellite estimates of rainfall temperature, wind and soil type utilized in VIC model and the derived outputs namely Standardized Precipitation Index (3-Month), Standardized Soil Moisture Index (SSI) and Standardized Runoff Index (SRI).
- Soil Water Anomaly Drought Index (SWADI) is derived from satellite based decadal soil moisture product of ASCAT provided by EUMETSAT.
- Integrated Drought Severity Index (IDS) is an integrated index that has been formulated using VCI, TCI & PCI at 500m resolution for agricultural land-use over South Asia.
- It can be observed, that during this time period, all the three indices shows a relation with each other. The peninsular India is reviving from the drought situation to good condition except Tamilandu state and North and Northeast of Sri Lanka .

South Asia Drought Forecast



Summary:

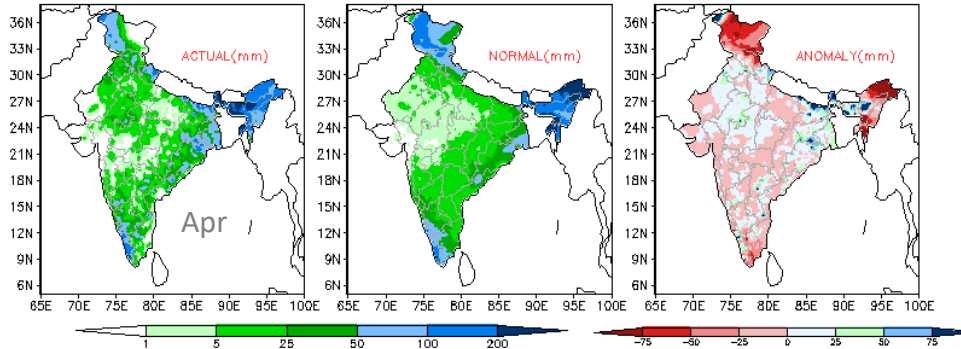
- Using the initial condition i.e. 19th July 2019 based on satellite rainfall estimates of 3B42RT daily time-step integrates in the VIC model and the derived outputs namely Standardized Precipitation Index (3-Month), Standardized Soil Moisture Index (SSI) and Standardized Runoff Index (SRI)
- The extreme values of all three conditions are statistically combined to generated areas under drought for entire South Asia
- Extreme dry condition of North of Telangana, Central and eastern Maharashtra, Tamil Nadu have experience to Severe to Extreme/Exceptional dry condition.
- Part of Jammu & Kashmir, and parts of northeastern belt are observed to have increasing dry condition. Also, North east of Sri Lanka are under Abnormally/moderate dry condition.
- *Reference to IMD SPI data is well correlated to the area under drought predicted by drought algorithm.*

India – State wise analysis

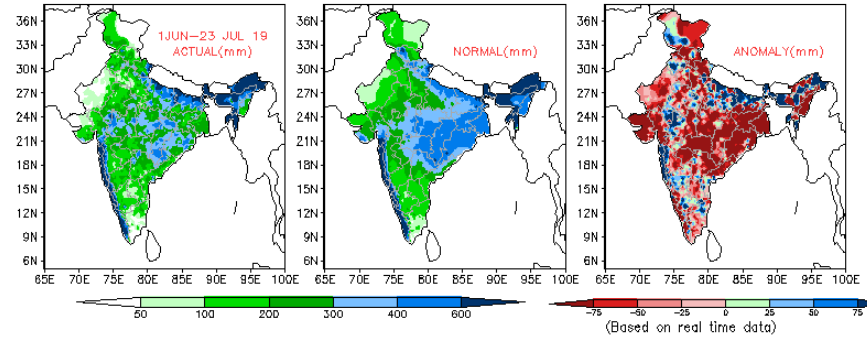


India Monthly Rainfall Comparison & Assessment

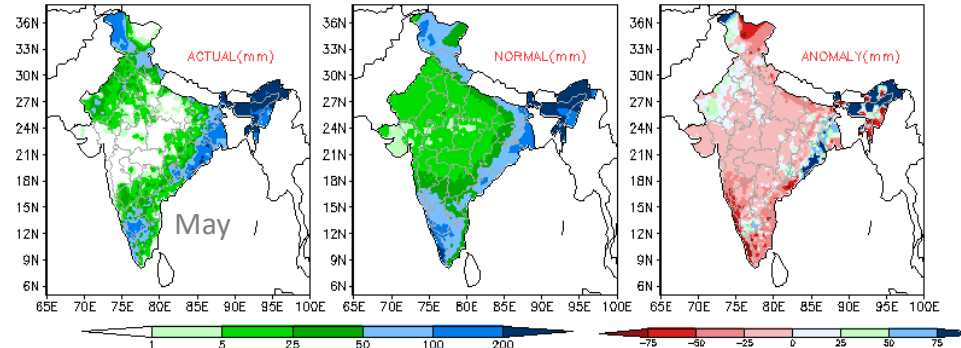
(CLIMATE MONITORING AND ANALYSIS GROUP)



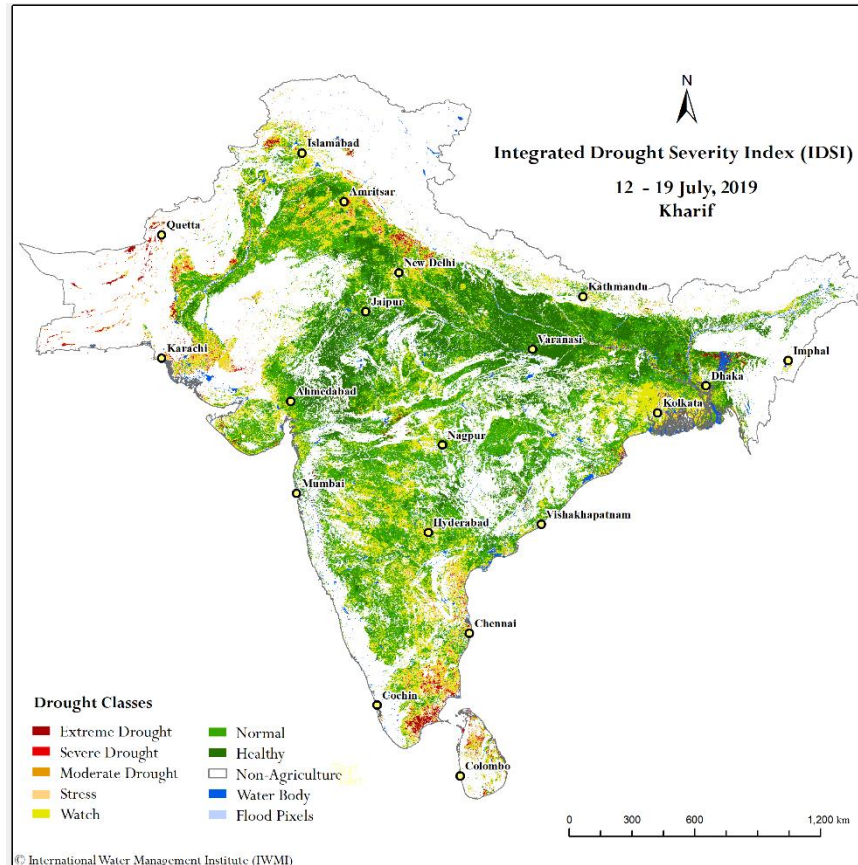
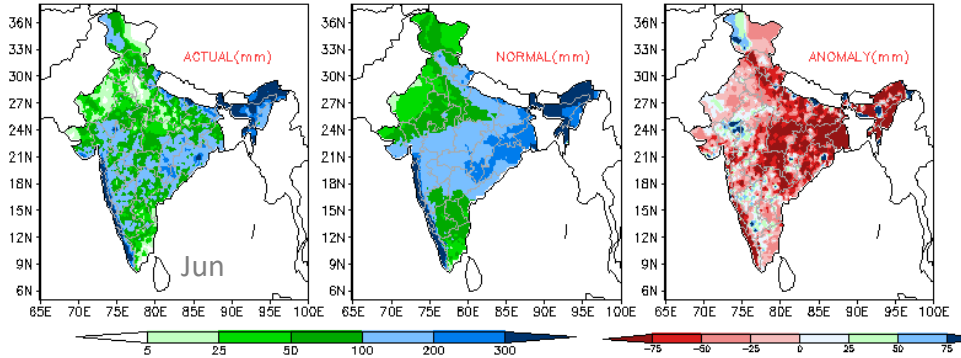
CLIMATE MONITORING AND ANALYSIS GROUP



(CLIMATE MONITORING AND ANALYSIS GROUP)



(CLIMATE MONITORING AND ANALYSIS GROUP)

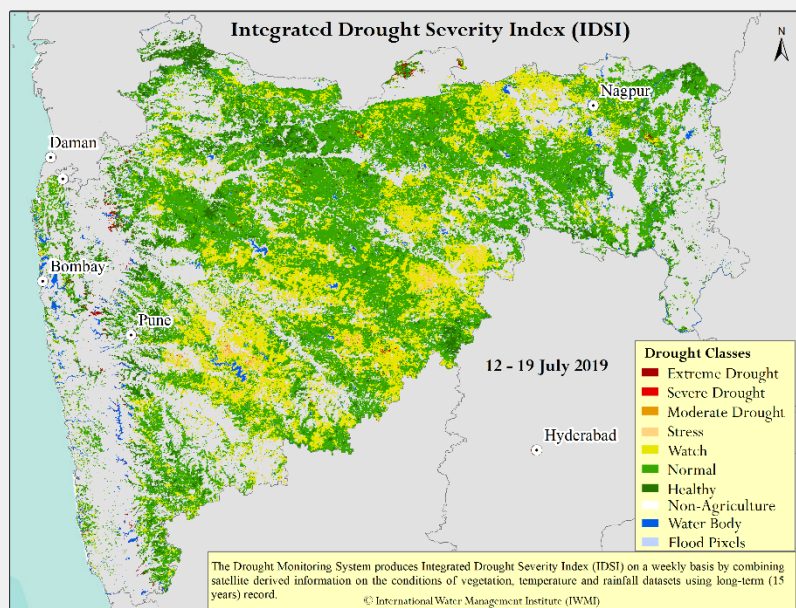
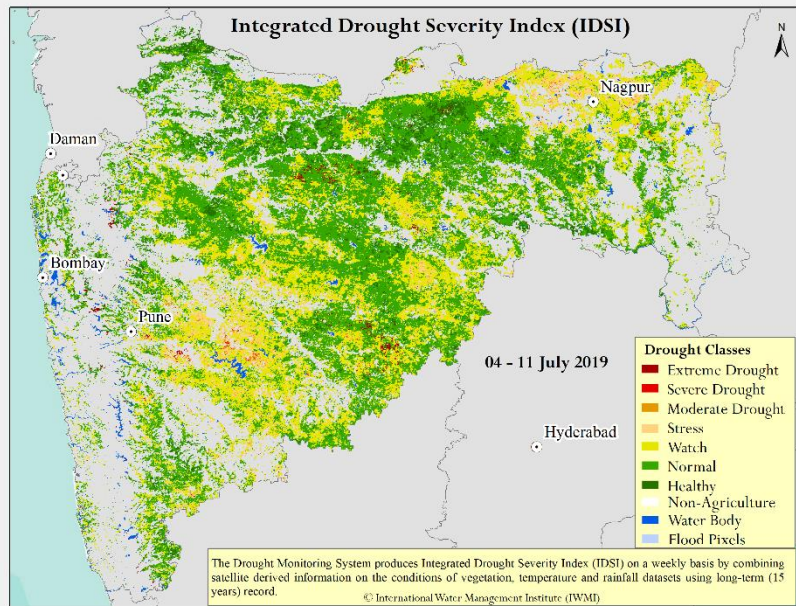


Summary:

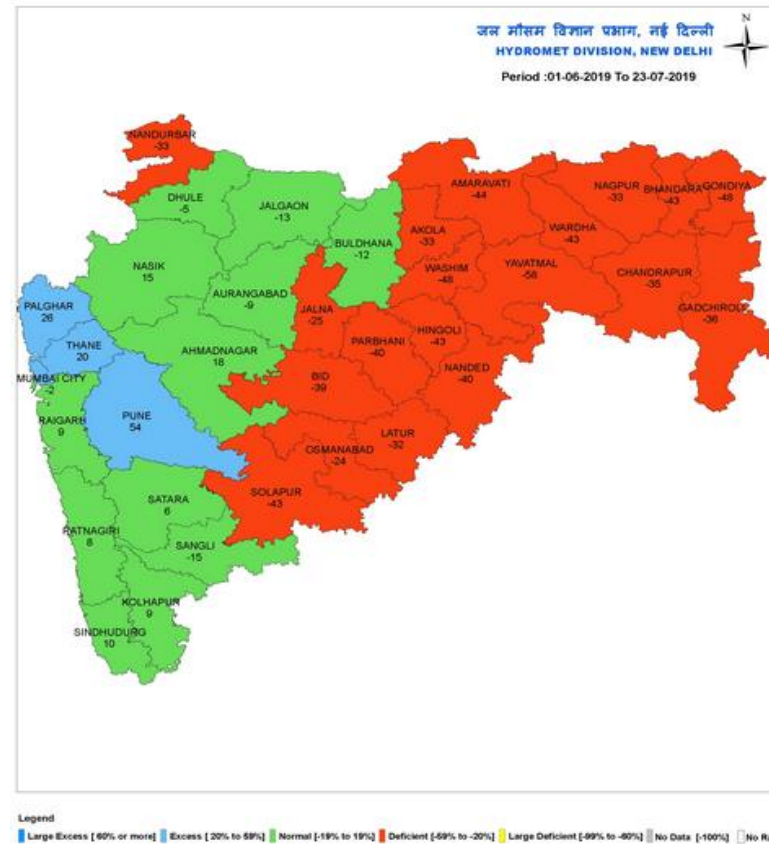
Rainfall deficit in whole India from June is now recovering in many states of the country and the reduced the vegetation stress while converting severe drought to normal and healthy condition in the agricultural land, which is clearly reflected in the IDSI.

Similar pattern has been revealed by monthly rainfall anomaly report from IMD.

South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Maharashtra)



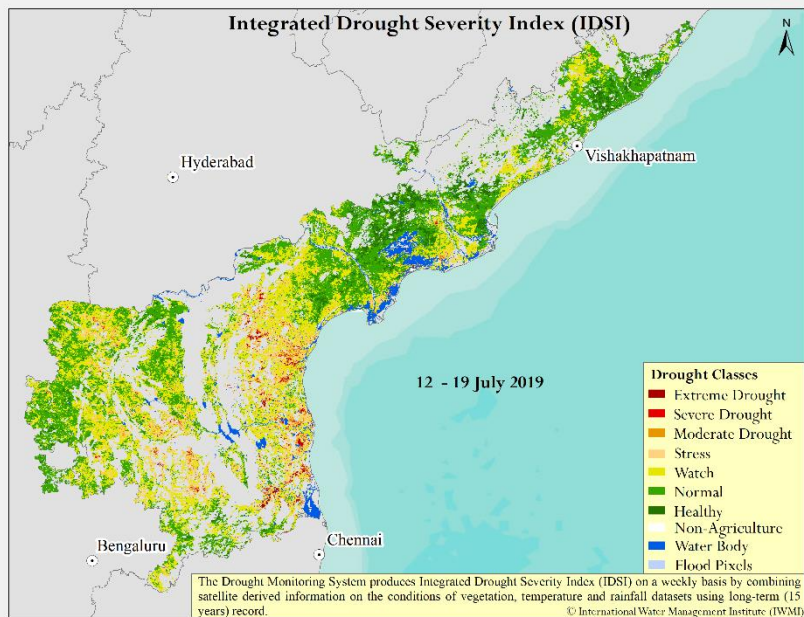
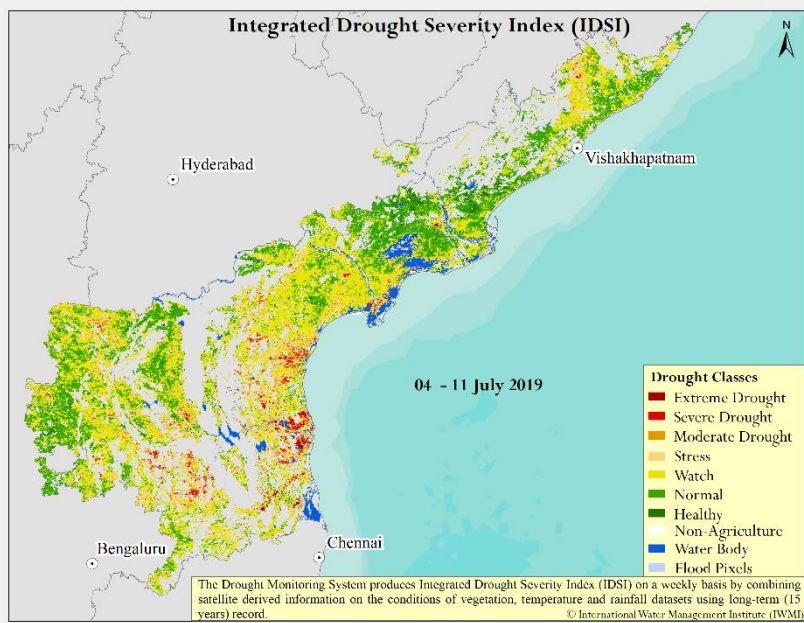
DISTRICT RAINFALL DEPARTURE MAP - MAHARASHTRA



Summary:

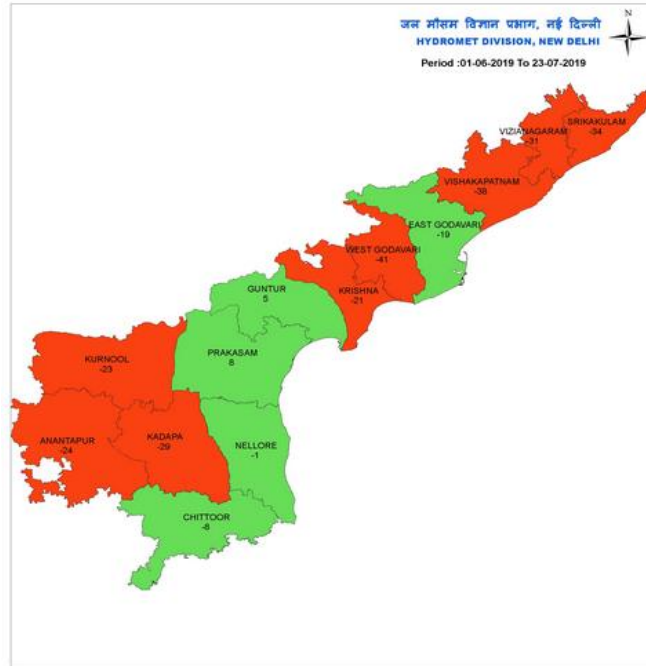
- SADMS framework was applied for the agriculture drought monitoring in Maharashtra for current obtained mainly from satellite remote sensing data. The index (Integrated Drought Severity Index – IDSI), Indian Meteorological Rainfall maps were analysed to understand rainfall deficit which could help in validating the drought maps with the absence of in-situ observations.
- Except Sothern and Eastern district most of the of the districts are recovering from drought at the beginning of July 2019. Also it is clearly indicate from rainfall anomaly.
- Increase of Rainfall in state has reduced the vegetation stress in the agricultural land, which is clearly reflected in the IDSI. Extreme to severe drought condition has improve in to normal most of the State. Similar pattern has been revealed by seasonal rainfall report from IMD.

South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Andhra Pradesh)



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INDIA METEOROLOGICAL DEPARTMENT

DISTRICT RAINFALL DEPARTURE MAP - ANDHRA PRADESH



Rainfall Status (Avg from 01-06-2019 to till date)
Actual **138.2mm**, Deviation **-35.8%**

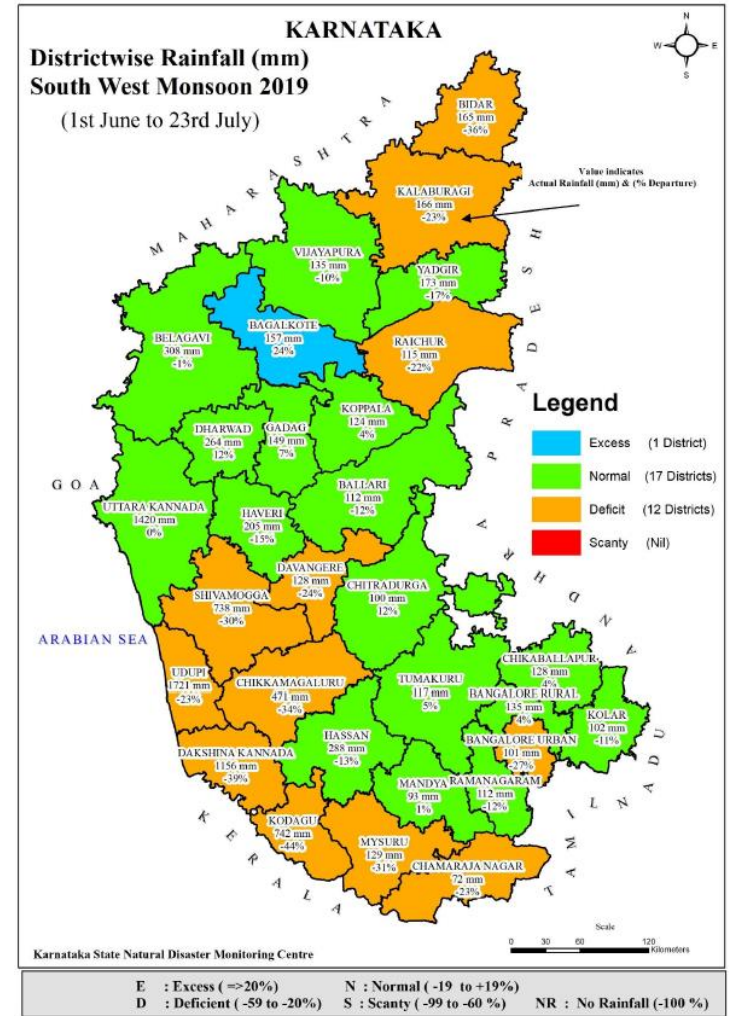
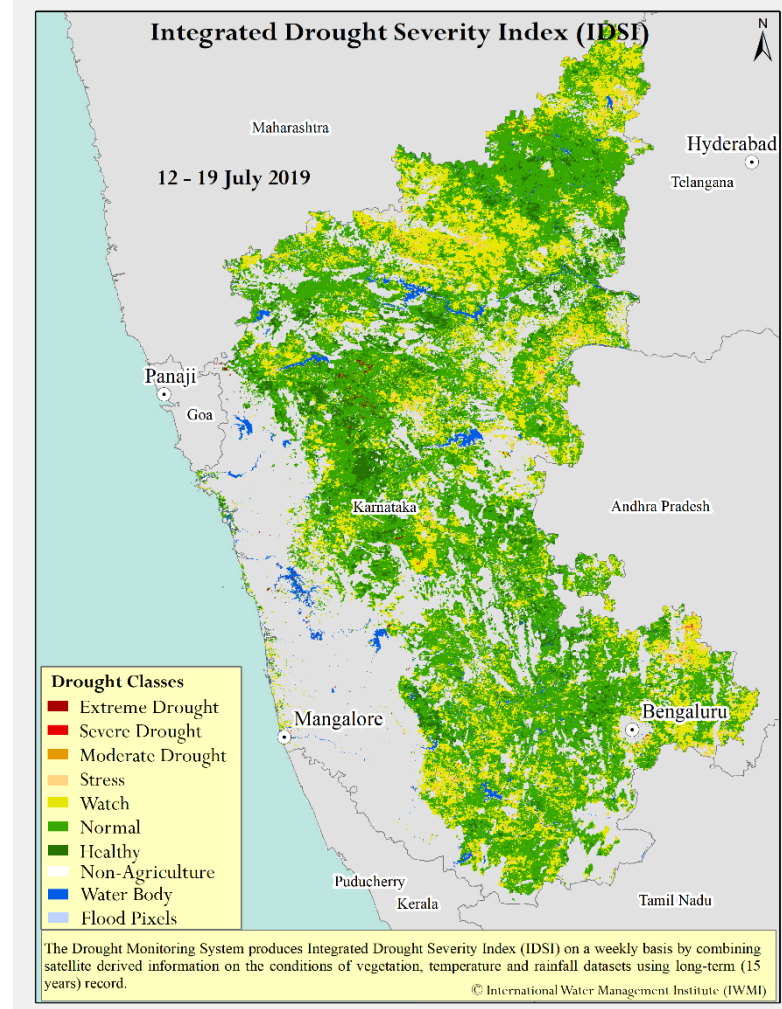
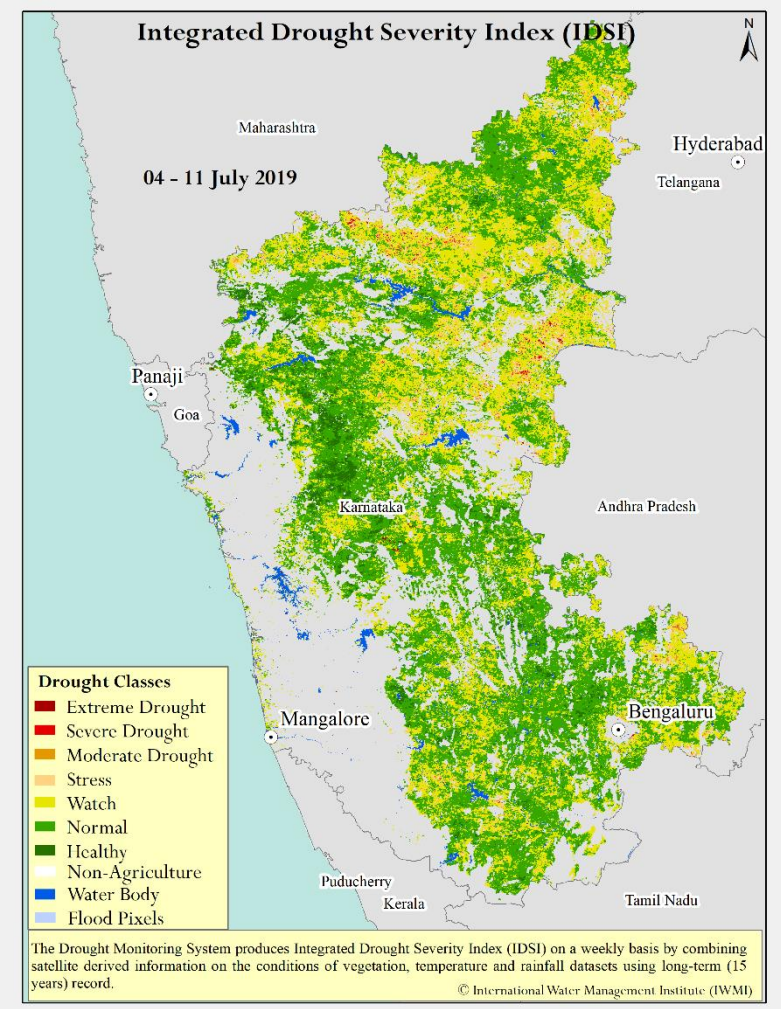
District-Wise, Month-Wise Rainfall Status from 01/06/2019				
District	Actual	Normal	Deviation(%)	Status
Srikakulam	152.9	275.6	-44.5	Deficient
Vizianagaram	160.7	268.0	-40.0	Deficient
Vishakapatnam	192.0	278.5	-31.1	Deficient
East Godavari	190.8	316.2	-39.7	Deficient
West Godavari	161.2	319.3	-49.5	Deficient
Krishna	177.7	271.4	-34.5	Deficient
Guntur	161.7	206.1	-21.5	Deficient
Prakasham	129.9	131.9	-1.5	Normal
Nellore	91.2	130.9	-30.3	Deficient
Chittoor	139.9	162.5	-13.9	Normal
Kadapa	93.0	149.3	-37.7	Deficient
Anantapur	69.5	119.4	-41.8	Deficient
Kurnool	96.6	168.9	-42.8	Deficient
State	138.2	215.2	-35.8	Deficient

Data Source: APSDPS

Summary:

- Out of the 13 districts in A.P., 8 districts had low rainfall from June 1 to 23 July 2019;
- 'Stress to extreme drought' category is remain same all over the district from previous week.
- Negative rainfall anomalous condition has reduced from 01 to 23 July 2019. it is the indication of reducing the extreme drought condition in to watch to normal category. Still few patches observed the drought condition in southern district of the state.

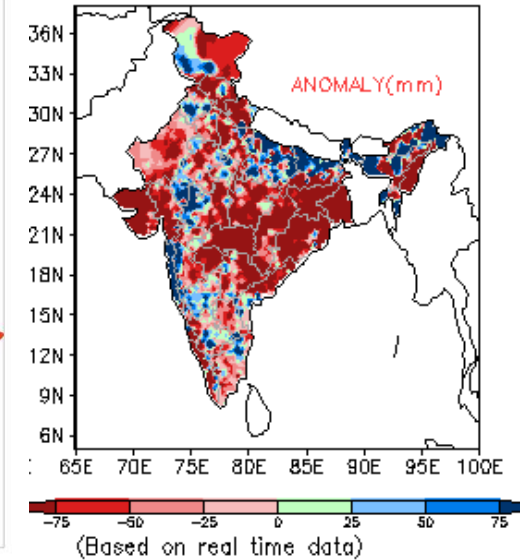
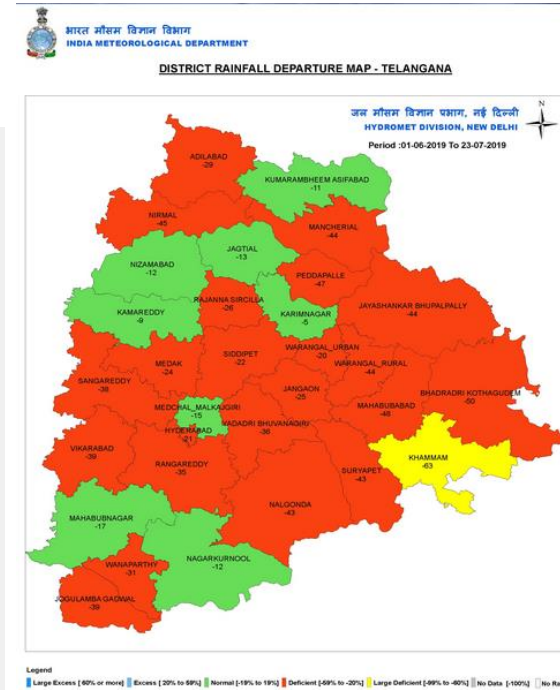
South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Karnataka)



The Integrated Drought Severity Index (IDSI) for Karnataka were assessed at district level. The condition of vegetation has been slightly affected along north central district only in second week of July, All over the State reduce the drought condition due continues rainfall. Extreme drought condition in the many district has changing watch to normal from last week of current week of July. Specially in majority of IDSI category of all districts are Normal to Healthy.

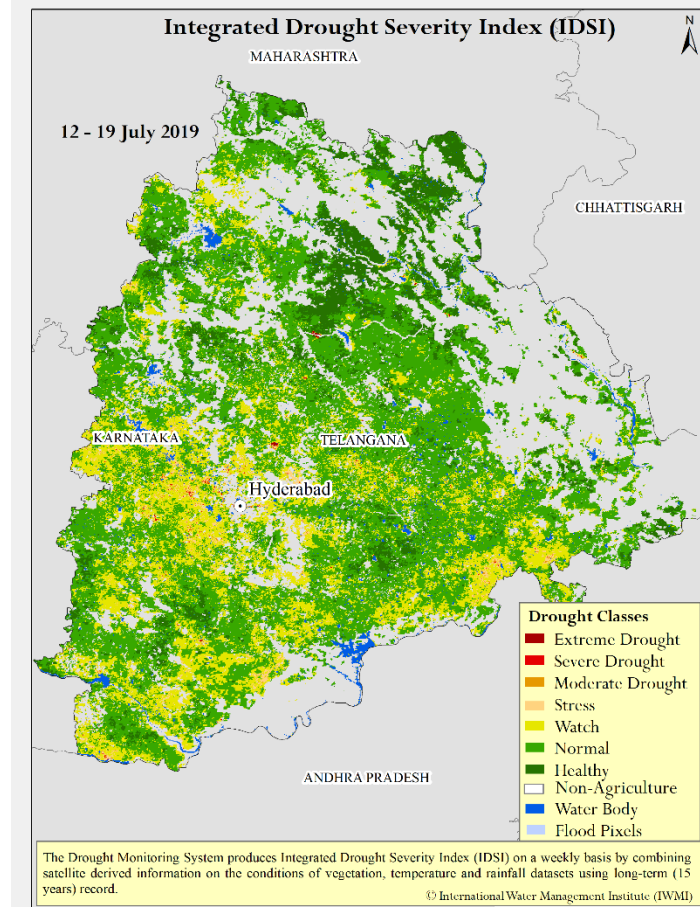
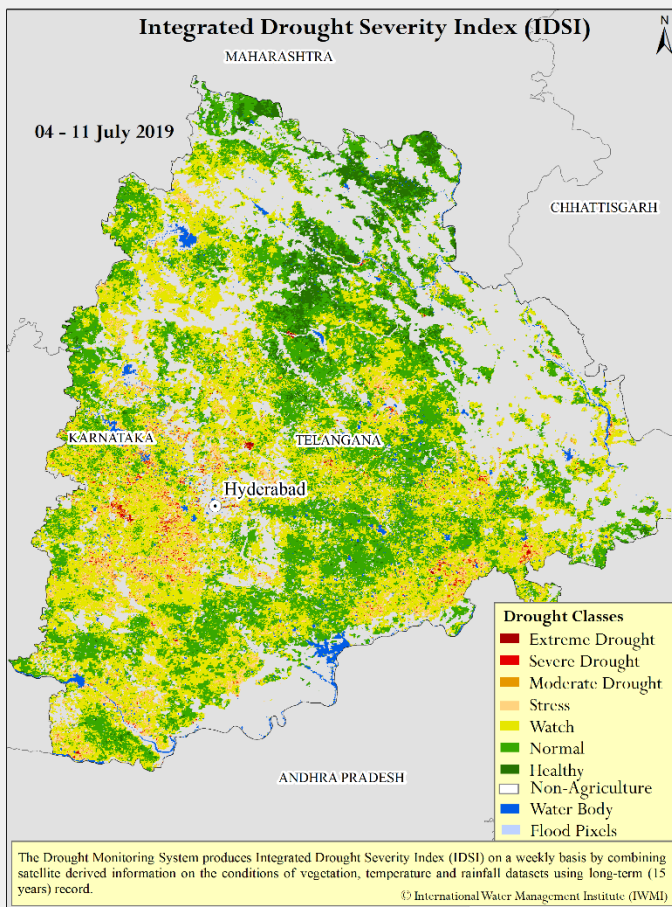
South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Telangana)

01 June – 23 July 2019

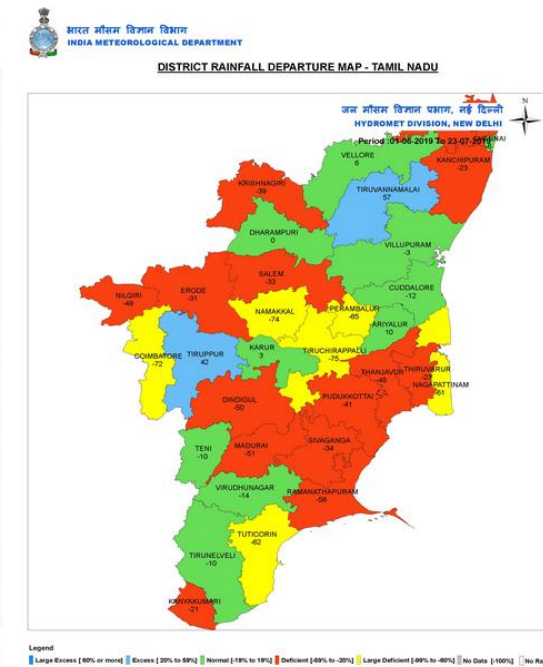
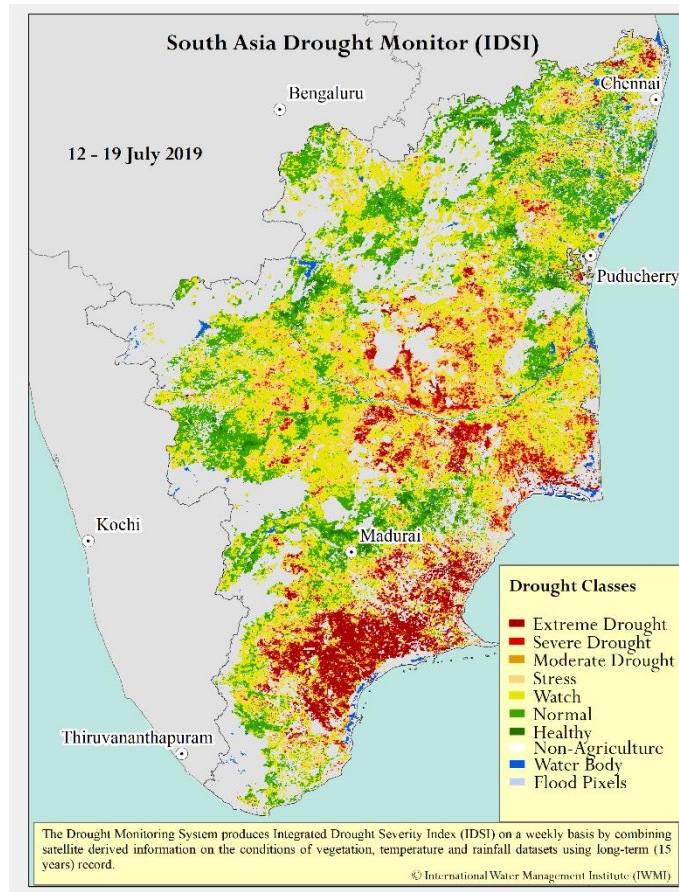
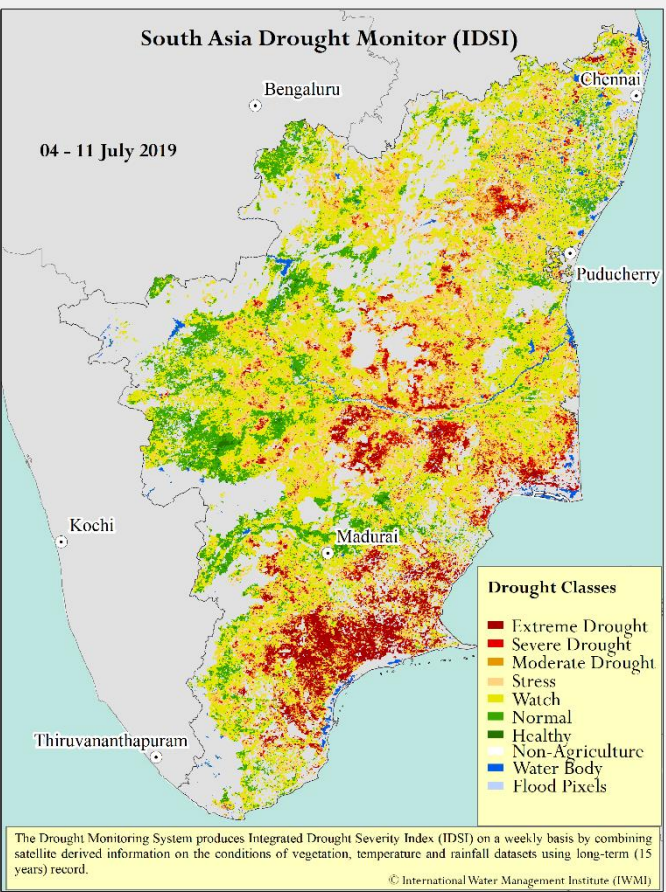


Summary:

The Integrated Drought Severity Index (IDSI) for Telangana was assessed at district level. There seems to be drastic reduction watch to stress drought condition of previous week to normal and healthy condition. More than 50 % of the state is recovering watch to moderate drought condition from last week to normal to health. Most of the district in States are observed to normal to healthy category while small patches are represent the watch to moderate category.

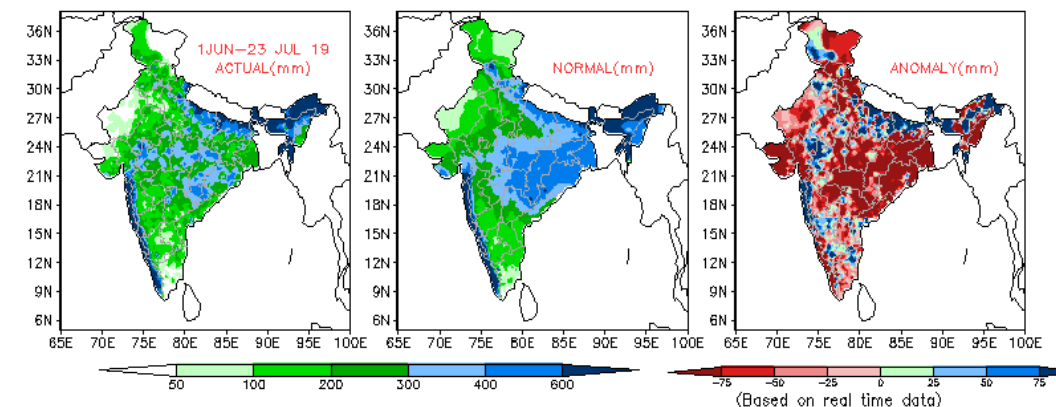


South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Tamil Nadu)



01 June – 23 July 2019

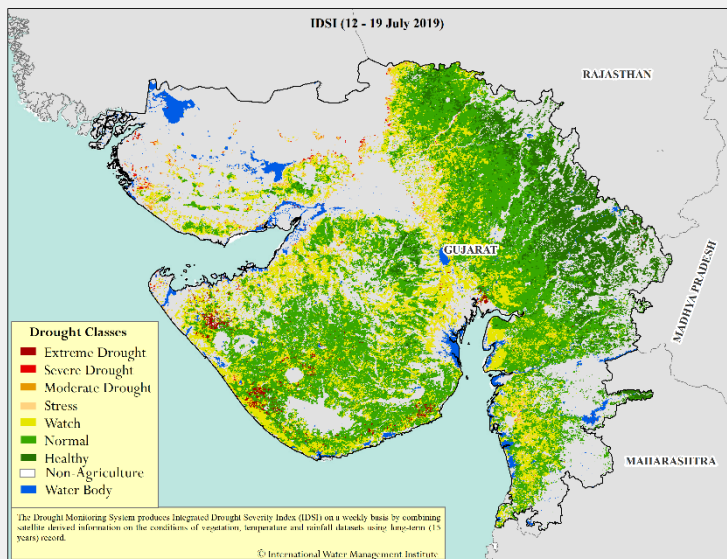
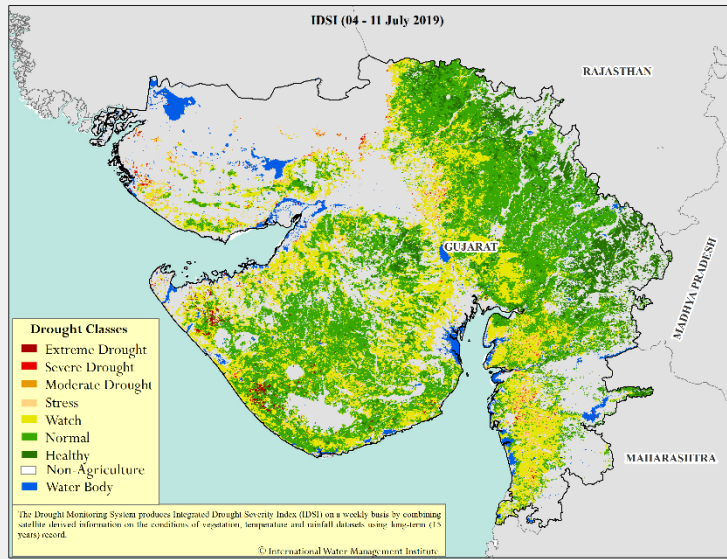
CLIMATE MONITORING AND ANALYSIS GROUP



Summary:

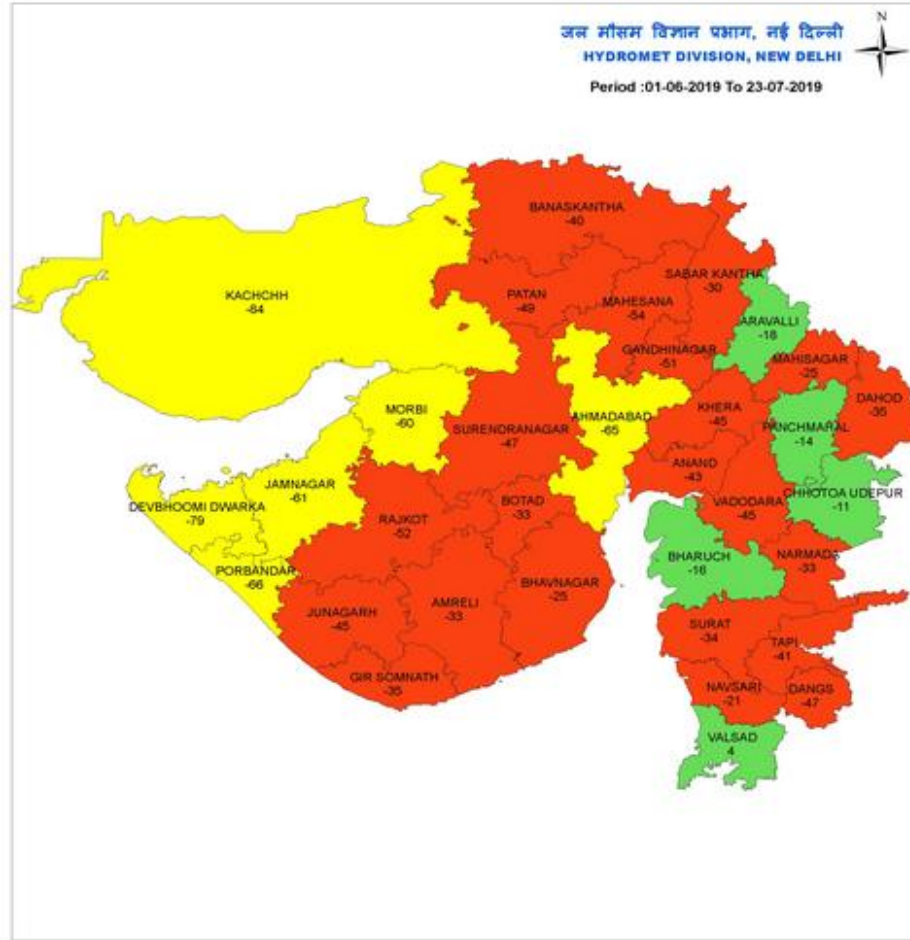
- Overall drought condition is still same condition from previous analysis cycle. Also south, South-East, North and of Tamil Nadu seem to have 'moderate' to 'severe' drought at the week ending on 19th of July 2019. Most of western districts are under the 'watch' to 'Health' category in IDS which is giving the good correlation with rainfall anomaly as well.
- Overall, it can be observed that 10-30% area of the state have 'extreme' to 'watch' drought classes and same spatial pattern is continue from previous week.

South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Gujarat)



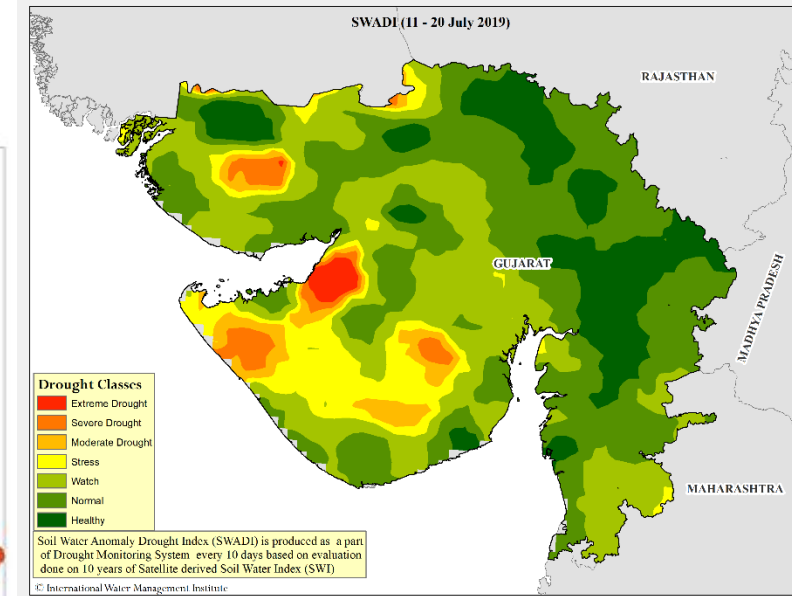
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DISTRICT RAINFALL DEPARTURE MAP - GUJARAT



Legend

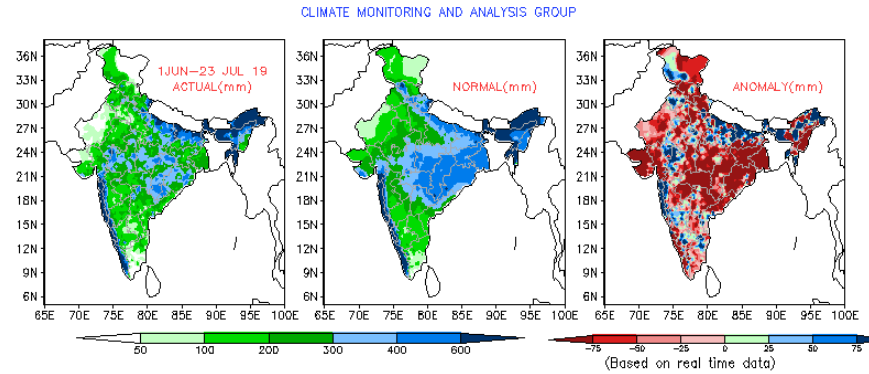
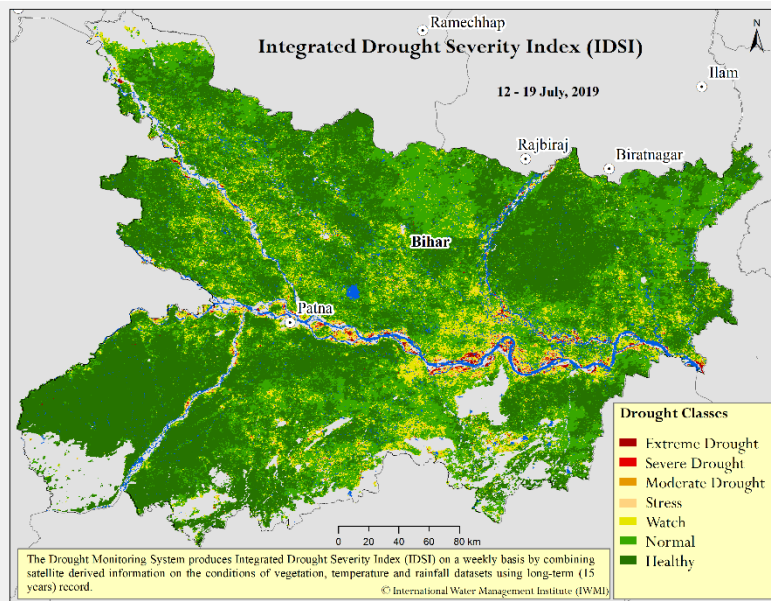
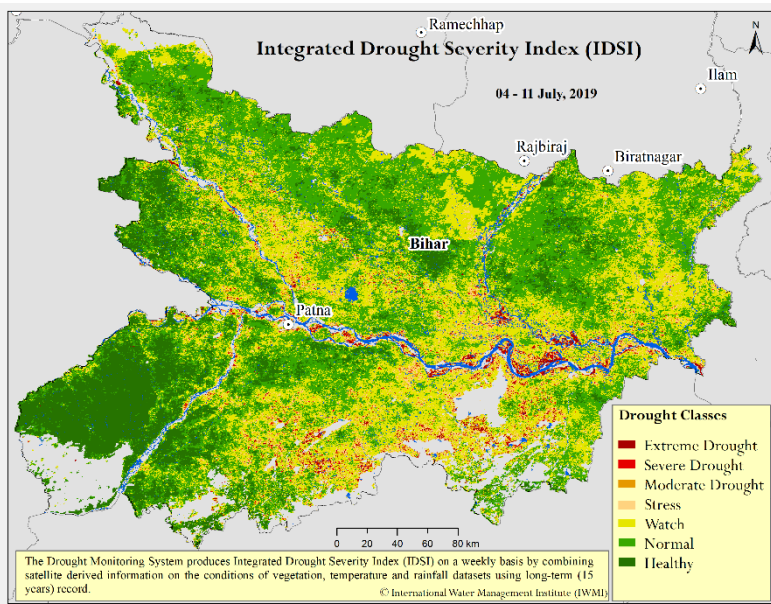
- Large Excess [80% or more]
- Excess [20% to 80%]
- Normal [-19% to 19%]
- Deficient [-59% to -20%]
- Large Deficient [-99% to -60%]
- No Data [-100%]
- No Rain



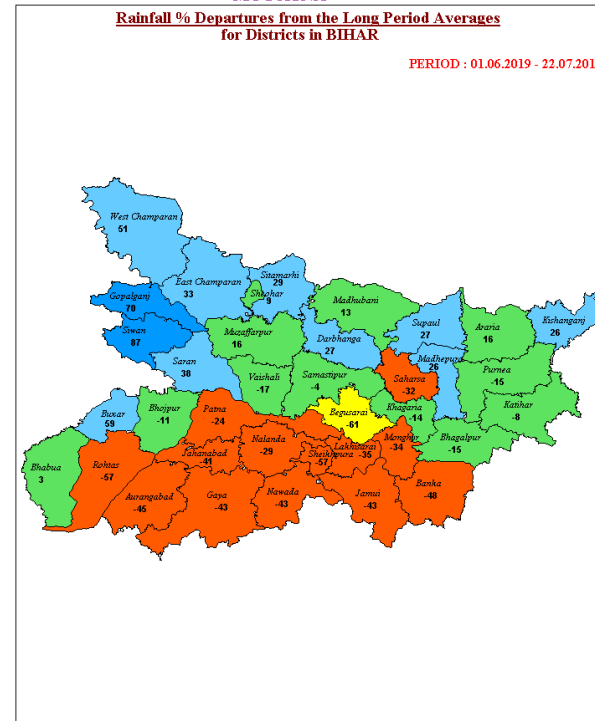
Summary:

- Overall the state is recovering from extreme to watch drought condition form previous to resent week.
- There is deficit rainfall for 80% of the state but still there are few districts with normal rainfall deficient from 1 June to 23 July.
- Overall, it can be observed that most of the districts are recovering towards health category.

South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Bihar)



INDIA METEOROLOGICAL DEPARTMENT MC PATNA



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%) ■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA



India Meteorological Department
Hydromet Division, New Delhi

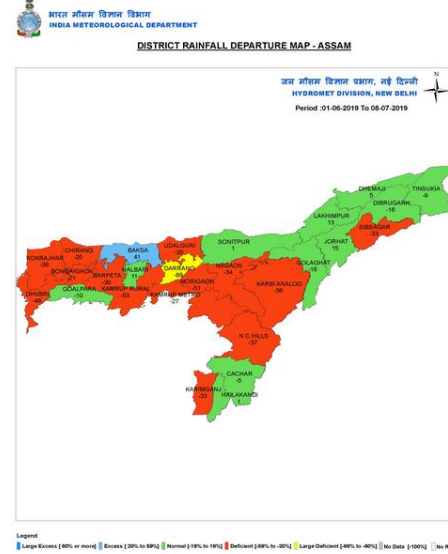
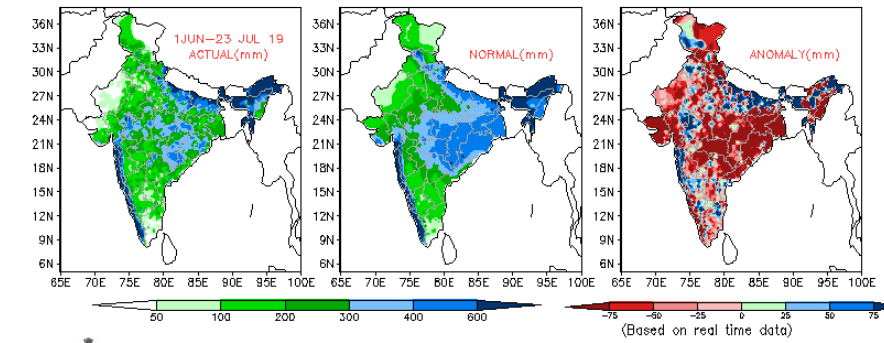
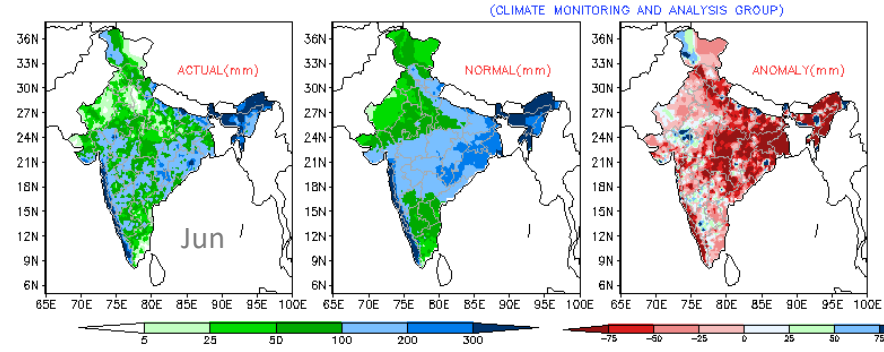
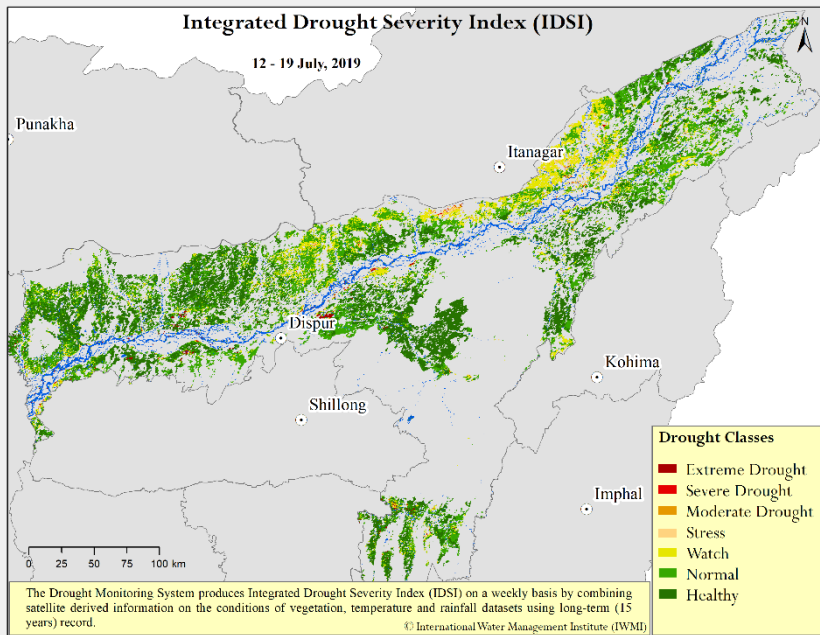
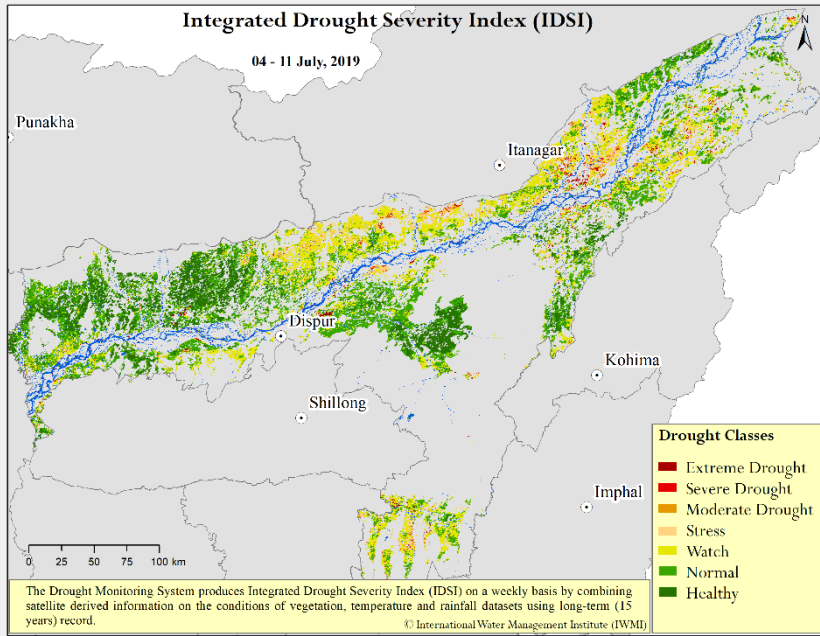
DISTRICT-WISE RAINFALL DISTRIBUTION

S NO	MET SUBDIVISION/UT/STATE/DISTRICT	Day -22-07-2019				Period-01-06-2019 To 22-07-2019			
		ACTUAL (mm)	NORMAL (mm)	%DEP.	CAT.	ACTUAL (mm)	NORMAL (mm)	% DEP.	CAT.
	SUBDIVISION : BIHAR	2.4	9.2	-74%	LD	418.3	421.9	-1%	N
1	ARARIYA	0.0	15.6	-100%	NR	698.1	600.5	16%	N
2	ARWAL	0.0	5.4	-100%	NR	152.1	295.2	-48%	D
3	AURANGABAD	0.0	7.9	-100%	NR	183.3	335.6	-45%	D
4	BANKA	0.0	8.0	-100%	NR	195.2	373.7	-48%	D
5	BEGUSARAI	0.0	8.3	-100%	NR	163.1	421.1	-61%	LD
6	BHABUA	0.0	5.7	-100%	NR	347.8	338.8	3%	N
7	BHAGALPUR	0.0	10.2	-100%	NR	348.1	409.1	-15%	N
8	BHOJPUR	0.0	7.4	-100%	NR	329.5	369.3	-11%	N
9	BUXAR	0.0	8.1	-100%	NR	496.3	312.9	59%	E
10	DRABHANGA	2.9	6.6	-57%	D	449.6	353.8	27%	E
11	GAYA	0.0	6.1	-100%	NR	199.6	350.5	-43%	D
12	GOPALGANJ	3.1	6.3	-51%	D	674.7	397.0	70%	LE
13	JAHANABAD	0.0	2.9	-100%	NR	190.3	324.0	-41%	D
14	JAMUI	0.0	8.5	-100%	NR	223.8	389.7	-43%	D
15	KATIHAH	0.0	11.9	-100%	NR	442.9	481.4	-8%	N
16	KHAGARIA	0.0	11.3	-100%	NR	367.2	426.9	-14%	N
17	KISHANGANJ	17.2	19.8	-13%	N	1033.8	822.8	26%	E
18	LAKHISARAI	0.0	5.6	-100%	NR	222.1	340.7	-35%	D
19	MADHEPURA	0.0	10.6	-100%	NR	613.7	487.4	26%	E
20	MADUBANI	2.3	11.2	-80%	LD	471.8	417.7	13%	N
21	MUNGER	0.0	8.5	-100%	NR	271.2	413.9	-34%	D
22	MUZAFFARPUR	0.0	5.8	-100%	NR	470.9	405.7	16%	N
23	NALANDA	0.0	6.5	-100%	NR	248.5	348.1	-29%	D
24	NAWADA	0.0	5.4	-100%	NR	195.4	344.0	-43%	D
25	PACHIM CHAMPARAN	24.2	12.7	91%	LE	796.8	526.4	51%	E
26	PATNA	0.0	10.4	-100%	NR	284.5	374.5	-24%	D
27	PURBA CHAMPARAN	0.9	10.0	-92%	LD	573.8	433.0	33%	E
28	PURNIA	0.0	16.7	-100%	NR	557.6	659.5	-15%	N
29	ROHTAS	0.0	7.3	-100%	NR	137.7	317.7	-57%	D
30	SAHARSA	0.0	15.2	-100%	NR	396.3	584.3	-32%	D
31	SAMASTIPUR	0.0	7.3	-100%	NR	381.1	397.0	-4%	N
32	SARAN	1.8	5.6	-67%	LD	504.7	366.7	38%	E
33	SHEIKHPURA	0.0	6.3	-100%	NR	159.1	365.8	-57%	D
34	SHEOHAR	14.8	10.5	41%	E	494.4	454.9	9%	N
35	SITAMARHI	14.8	10.5	41%	E	588.5	455.1	29%	E
36	SIWAN	1.5	5.5	-72%	LD	708.1	378.4	87%	LE
37	SUPAUL	0.0	12.6	-100%	NR	612.6	486.6	27%	E
38	VAISHALI	0.0	8.9	-100%	NR	318.5	385.9	-17%	N

Summary:

- The drought severity in all parts of Bihar seems to be recovering to healthy in the weeks are ending on 19th of July. Most of the districts has recover from drought compare to previous week specially in southern districts.
- This has happened because of all the district in Northern shows normal to excess rainfall but southern district rainfall has slightly increase compare to the previous week.

South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Assam)



India Meteorological Department
Hydromet Division, New Delhi

DISTRICT-WISE RAINFALL DISTRIBUTION

S NO	SUBDIVISION / MET. DISTRICT	Day -22-07-2019				Period:01-06-2019 To 22-07-2019			
		ACTUAL (mm)	NORMAL (mm)	%DEP.	CAT.	ACTUAL (mm)	NORMAL (mm)	% DEP.	CAT.
	SUBDIVISION : ASSAM & MEGHALAYA	29.9	15.9	88%	LE	864.5	910.4	-5%	N
	STATE : ASSAM	29.8	11.5	159%	LE	715.3	753.8	-5%	N
1	BAKSA	32.9	11.5	186%	LE	1253.5	716.2	75%	LE
2	BARPETA	76.9	16.8	358%	LE	1412.2	1270.5	11%	N
3	BONGAIGAON	106.5	18.2	485%	LE	1482.5	1221.8	21%	E
4	CACHAR	8.4	16.5	-49%	D	939.2	907.6	3%	N
5	CHIRANG	142.0	14.8	859%	LE	1517.7	1308.8	16%	N
6	DARRANG		6.6		ND	125.2	687.2	-82%	LD
7	DHEMAJI	79.3	18.2	336%	LE	1367.1	877.1	56%	E
8	DHUBRI	16.5	11.9	39%	E	917.1	1183.7	-23%	D
9	DIBRUGARH	20.1	12.8	57%	E	663.1	776.9	-15%	N
10	GOALPARA	0.0	15.5	-100%	NR	998.1	981.7	2%	N
11	GOLAGHAT	12.6	7.5	68%	LE	376.5	503.8	-25%	D
12	HAILAKANDI	13.1	17.5	-25%	D	782.6	766.3	2%	N
13	JORHAT	12.1	9.5	27%	E	567.6	581.4	-2%	N
14	KAMRUP METRO	0.0	4.8	-100%	NR	420.7	499.6	-16%	N
15	KAMRUP RURAL	5.8	9.1	-36%	D	470.1	682.9	-31%	D
16	KARBI ANALOG	0.0	5.4	-100%	NR	225.4	375.7	-40%	D
17	KARIMGANJ	22.8	22.4	2%	N	941.9	1121.8	-16%	N
18	KOKRAJHAR	223.2	22.9	875%	LE	1542.6	1417.8	9%	N
19	LAKHIMPUR	51.0	15.1	238%	LE	1196.9	978.3	22%	E
20	MORIGAOON	0.0	7.4	-100%	NR	318.2	539.4	-41%	D
21	N C HILLS		6.2		ND	473.4	591.6	-20%	D
22	NAGAON	0.4	9.9	-96%	LD	283.8	474.2	-40%	D
23	NALBARI	29.4	11.8	149%	LE	1202.6	861.0	40%	E
24	SIBSAGAR	5.0	9.7	-48%	D	362.1	570.6	-37%	D
25	SONITPUR	3.2	6.9	-54%	D	599.7	573.1	5%	N
26	TINSUKIA	39.9	13.4	198%	LE	775.8	747.5	4%	N
27	UDALGURI	1.0	15.5	-94%	LD	781.7	787.4	-1%	N

Summary:

The drought severity in many parts of Assam seems to be decrease compare to previous week specially severe to watch drought category in previous week reduced up watch and moderate in north-eastern districts, simultaneously normal to healthy drought category observed rest of the area.

This has happened because of most of southern and eastern district shows reduction of deficit rainfall and increase the rainfall sue to activation of South west monsoon over India.

South Asia Drought Monitoring System (SADMS) – Agriculture Assessment (Odisha)

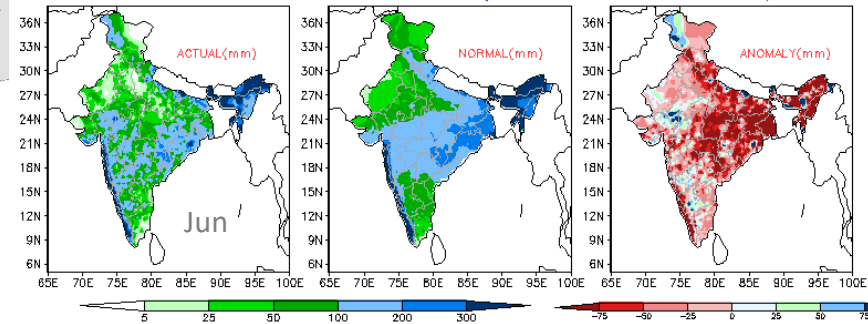


India Meteorological Department
Hydromet Division, New Delhi

DISTRICT-WISE RAINFALL DISTRIBUTION

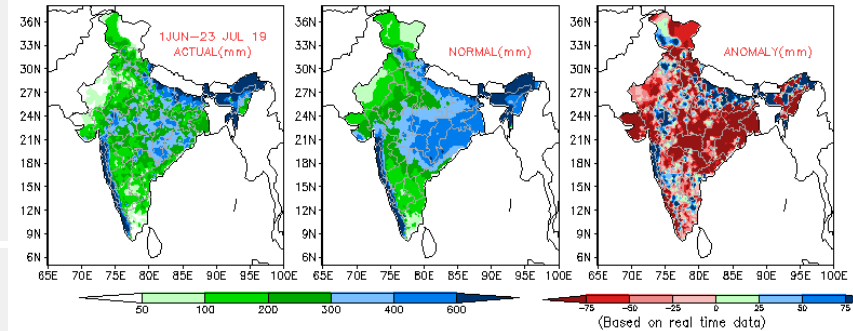
S NO	SUBDIVISION/UT/STATE/DISTRICT	Day :22-07-2019				Period:01-06-2019 To 22-07-2019			
		ACTUAL (mm)	NORMAL (mm)	% DEP.	CAT.	ACTUAL (mm)	NORMAL (mm)	% DEP.	CAT.
	SUBDIVISION - ODISHA	1.0	13.6	-93%	LD	317.5	458.6	-31%	D
1	ANUGUL	0.0	12.4	-100%	NR	255.1	436.3	-42%	D
2	BALANGIR	0.0	13.3	-100%	NR	279.3	483.9	-42%	D
3	BALESHWAR	0.0	11.2	-100%	NR	225.0	475.2	-53%	D
4	BARAGARH	0.0	21.0	-100%	NR	388.8	479.6	-19%	N
5	BAUDA	0.0	13.7	-100%	NR	309.7	432.9	-28%	D
6	BHADRAK	0.0	6.0	-100%	NR	305.5	403.7	-24%	D
7	CUTTACK	0.0	11.7	-100%	NR	391.9	443.3	-12%	N
8	DEOGARH	0.0	15.9	-100%	NR	316.5	525.5	-40%	D
9	DHENKANAL	0.0	12.3	-100%	NR	367.9	439.4	-16%	N
10	GAJAPATHI	9.0	12.7	-29%	D	208.0	412.5	-50%	D
11	GANJAM	0.0	8.6	-100%	NR	265.8	333.6	-20%	D
12	JAGATSinghapur	0.2	8.5	-98%	LD	307.7	391.3	-21%	D
13	JAJAPUR	0.0	15.6	-100%	NR	386.2	555.1	-30%	D
14	JHARSUGUDA	0.0	17.6	-100%	NR	374.2	485.4	-23%	D
15	KALAHANDI	0.5	12.8	-96%	LD	347.2	495.2	-30%	D
16	KANDHAMAL	4.0	12.8	-68%	LD	266.8	464.5	-43%	D
17	KENDRAPARHA	0.0	9.6	-100%	NR	305.2	403.5	-24%	D
18	KENDUJHAR	0.0	11.4	-100%	NR	289.7	464.2	-38%	D
19	KHORDHA	0.0	11.1	-100%	NR	346.4	417.1	-17%	N
20	KORAPUT	8.1	16.9	-52%	D	478.9	463.2	3%	N
21	MALKANGIRI	0.0	18.2	-100%	NR	293.5	457.2	-36%	D
22	MAYURBHANJ	0.5	12.7	-96%	LD	296.7	516.5	-43%	D
23	NABARANGAPUR	0.0	19.6	-100%	NR	469.4	530.6	-12%	N
24	NAYAGARH	0.0	8.1	-100%	NR	298.1	426.0	-30%	D
25	NUAPARHA	0.0	13.0	-100%	NR	290.1	421.6	-31%	D
26	PURI	0.0	7.1	-100%	NR	295.6	356.3	-17%	N
27	RAYAGARHA	1.0	14.2	-93%	LD	229.0	401.3	-43%	D
28	SAMBALPUR	0.0	15.9	-100%	NR	335.0	525.5	-36%	D
29	SUBARNAPUR	0.0	14.1	-100%	NR	335.7	477.2	-30%	D
30	SUNDARGARH	1.0	17.1	-94%	LD	293.8	492.2	-40%	D

(CLIMATE MONITORING AND ANALYSIS GROUP)



01 June – 23 July 2019

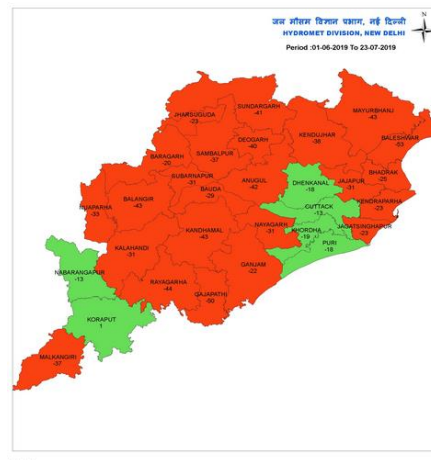
CLIMATE MONITORING AND ANALYSIS GROUP



(Based on real time data)

भारत मेटेरोलोजिकल विभाग
INDIA METEOROLOGICAL DEPARTMENT

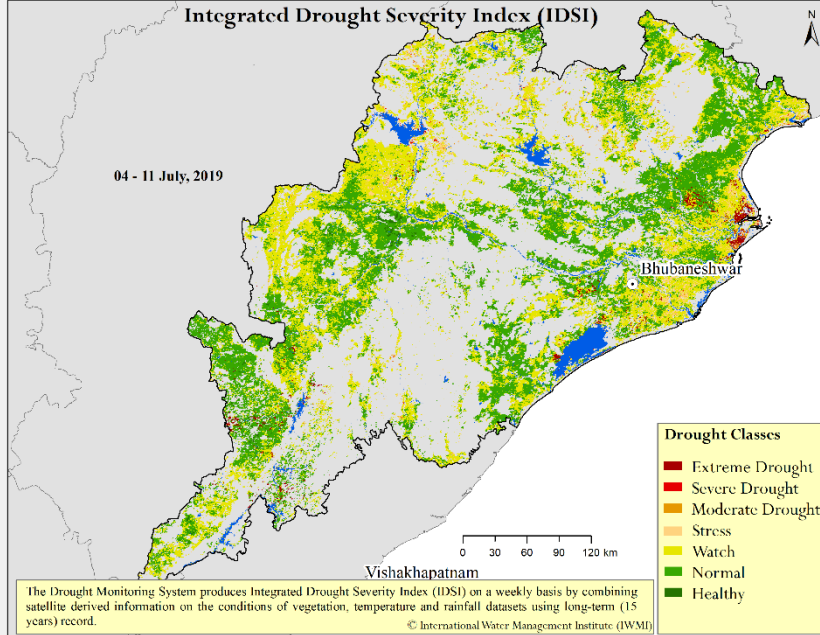
DISTRICT RAINFALL DEPARTURE MAP - ODISHA



Summary:
Through out the Odisha state the drought condition reduced watch to normal in IDSI category compare to previous week.
Still 95% of State observed deficient but due to continues rainfall over the state change the vegetation condition to normal.

Integrated Drought Severity Index (IDSI)

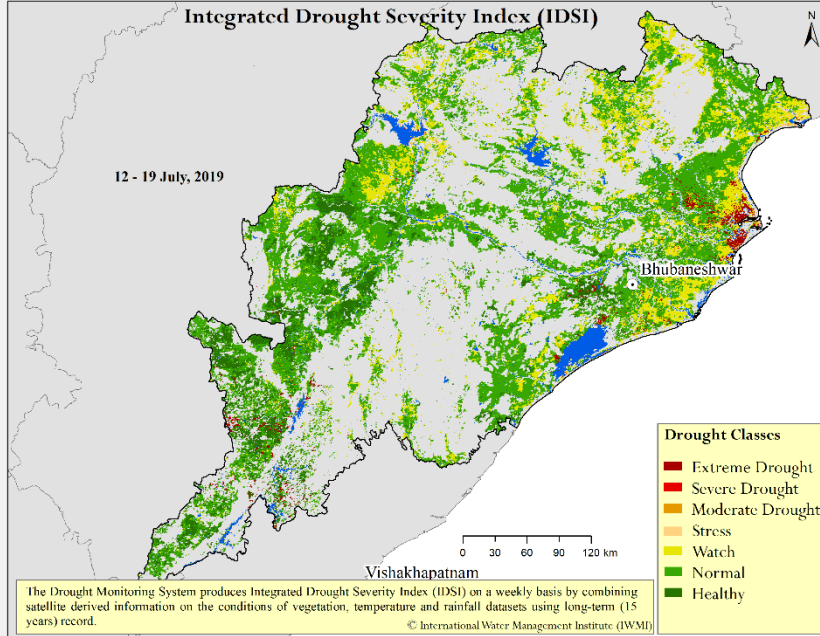
04 - 11 July, 2019



The Drought Monitoring System produces Integrated Drought Severity Index (IDSI) on a weekly basis by combining satellite derived information on the conditions of vegetation, temperature and rainfall datasets using long-term (15 years) record.
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Integrated Drought Severity Index (IDSI)

12 - 19 July, 2019



The Drought Monitoring System produces Integrated Drought Severity Index (IDSI) on a weekly basis by combining satellite derived information on the conditions of vegetation, temperature and rainfall datasets using long-term (15 years) record.
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Thanks.....

Disclaimer

All content within this bulletin is based upon the most current available data. As the drought is a dynamic situation, the current realities may differ from what is depicted in this document. The product has not been validated and used only the weather forecast and remote sensing observation. We welcome the feedback from the end-users and request you to provide field observations and any other details which can improve the product quality and prediction skills in the near future.

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