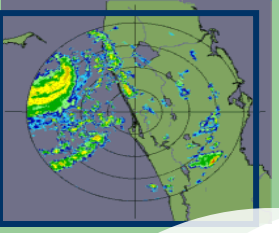
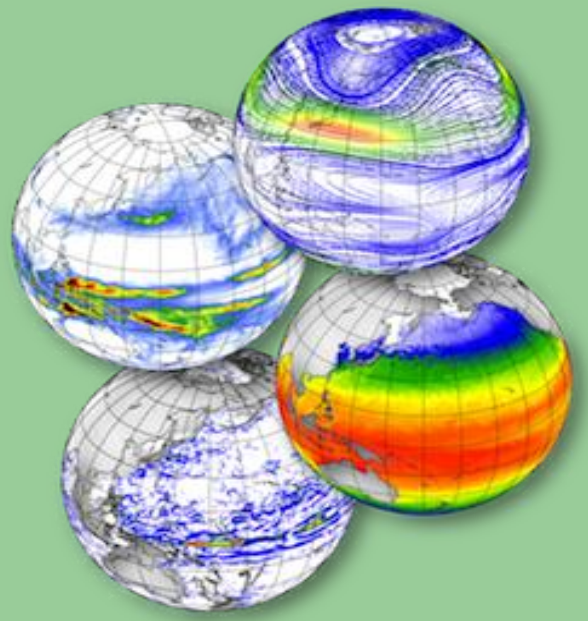


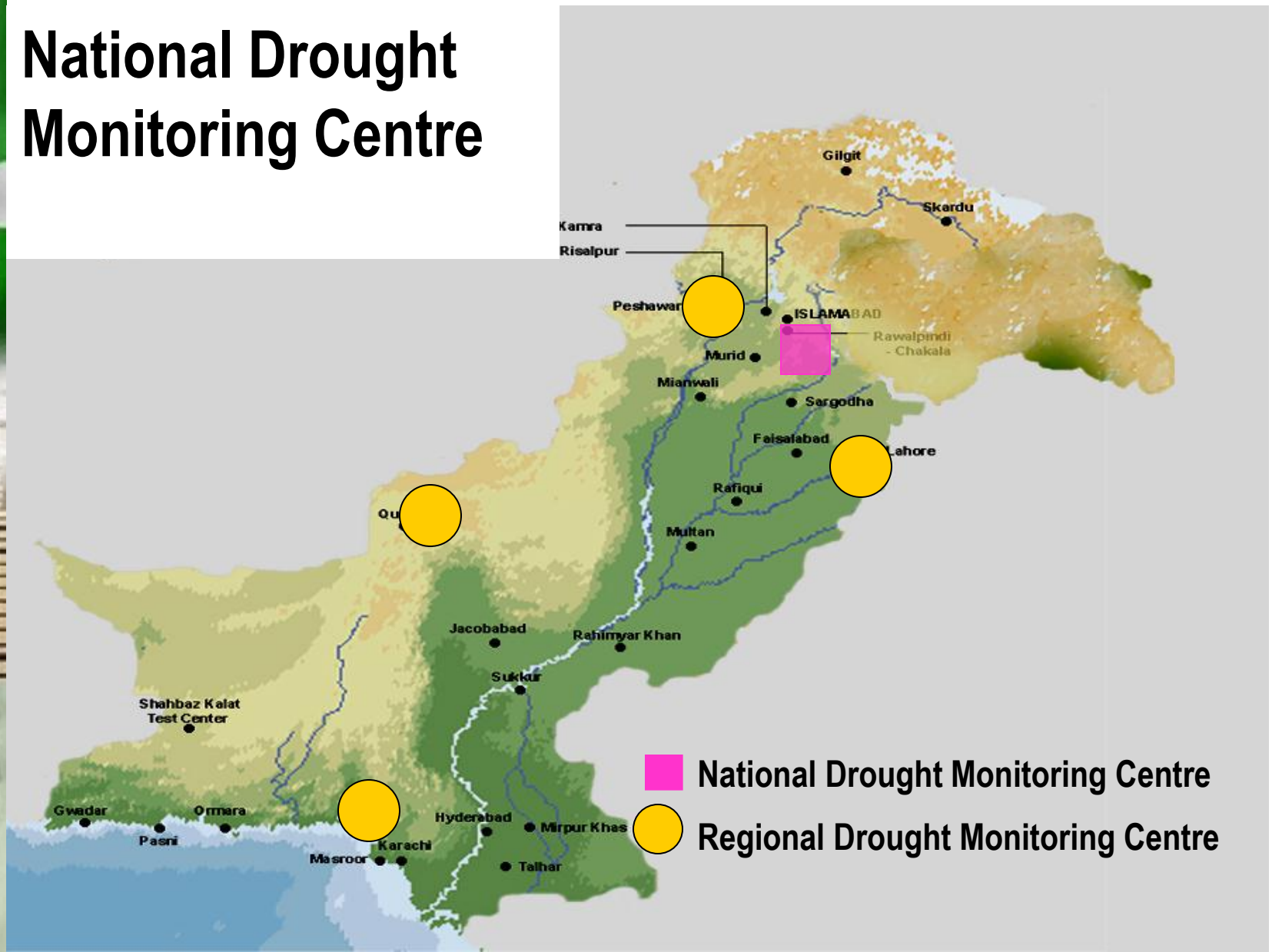
Activities of National Drought Monitoring Centre



Azmat Hayat Khan

Director PMD / Focal Person on SAARC Monsoon Initiative

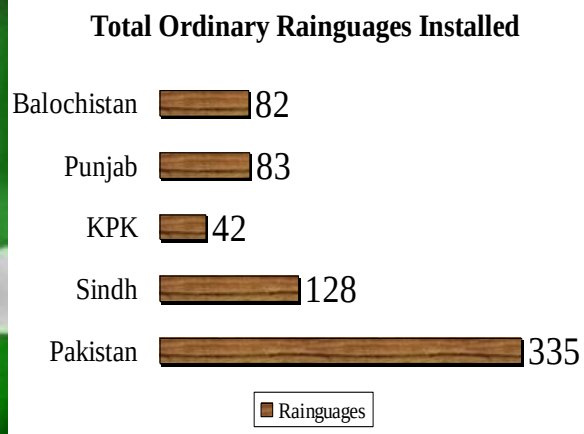
National Drought Monitoring Centre



Mandate

Issue fortnightly/monthly drought monitors & advisories in different regions of country based on various indices and Advising government agencies on drought related matters including drought declaration.

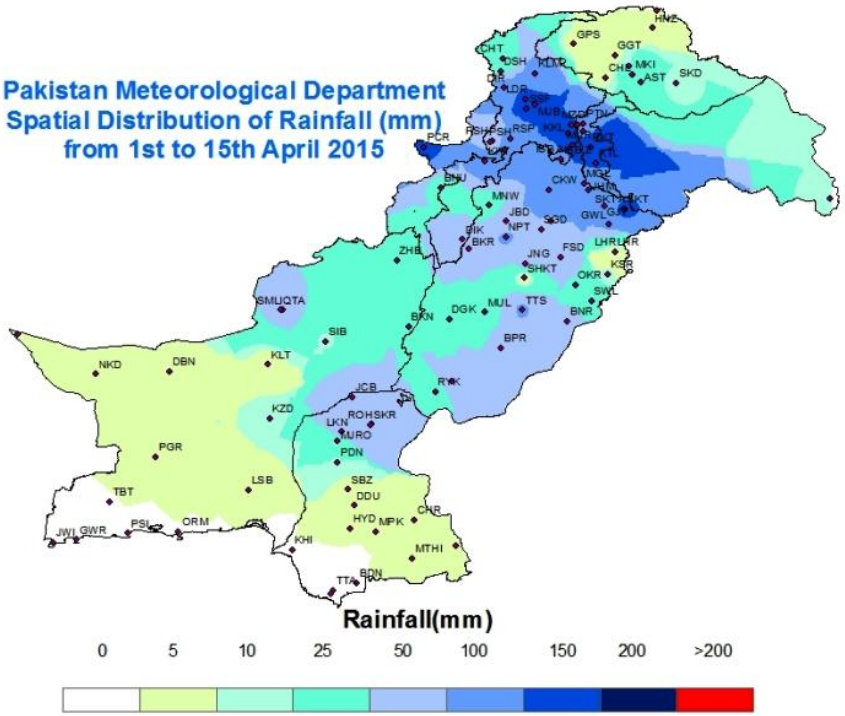
Pakistan Ordinary Rainguagues Network

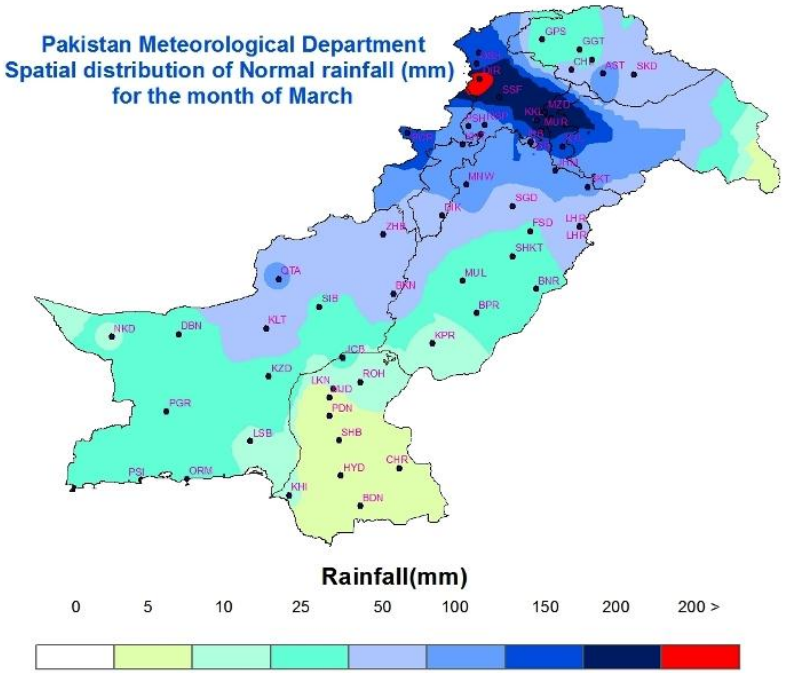


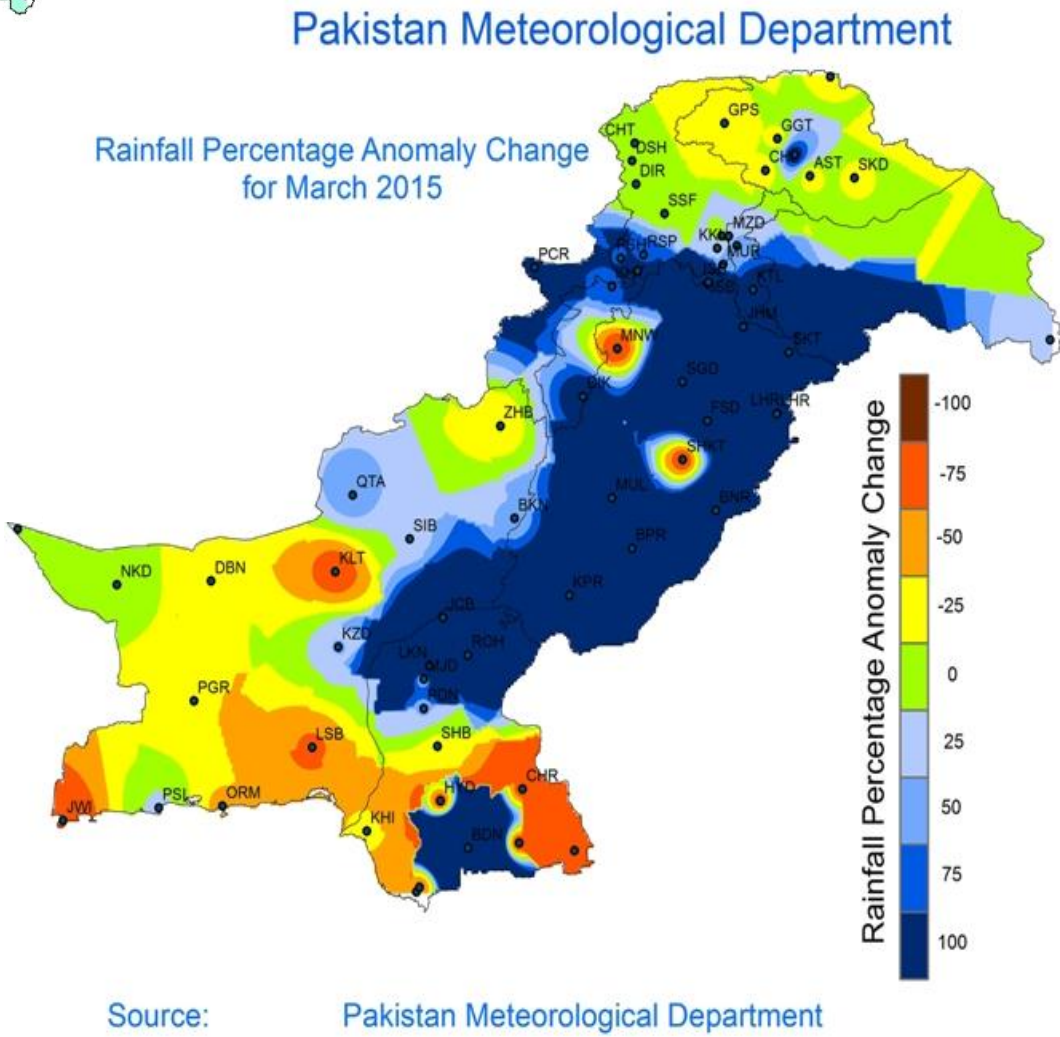
Products

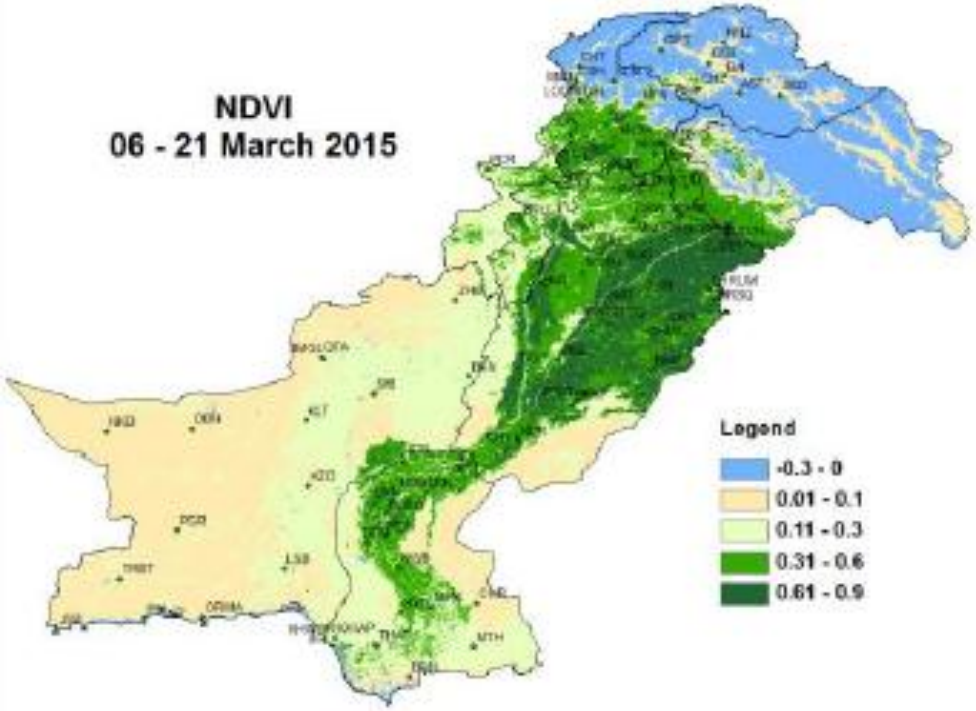
- Percentage Area Weighted Departure of Rainfall
- CPA(Cumulative Precipitation Anomaly Index)
- Soil Moisture Anomaly
- SPI (Standard Precipitation Index)
- Reservoir Data. (Tarbela, Mangla, Rawal, Simly, Khanpur)
- Calculating Returns of Period (Frequency) of Drought on regional/ Provincial level by using Regional Drought Identification Model(REDIM)
- Satellite derived Products (NDVI, LST, TVDI)

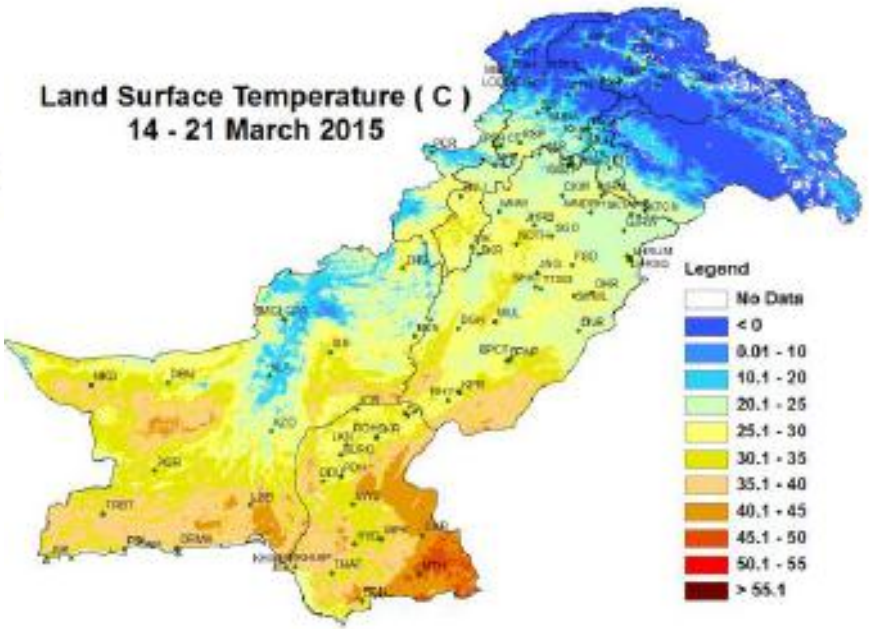
Rainfall Maps

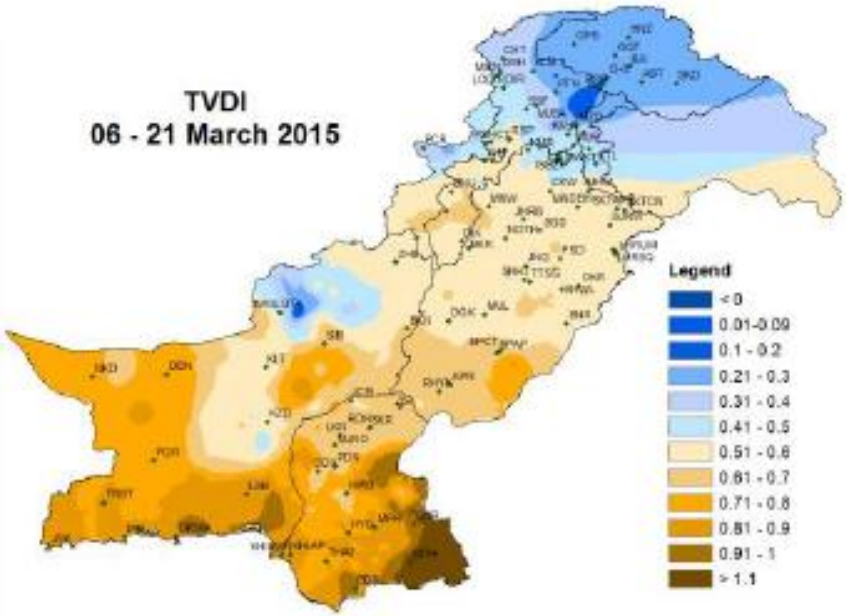






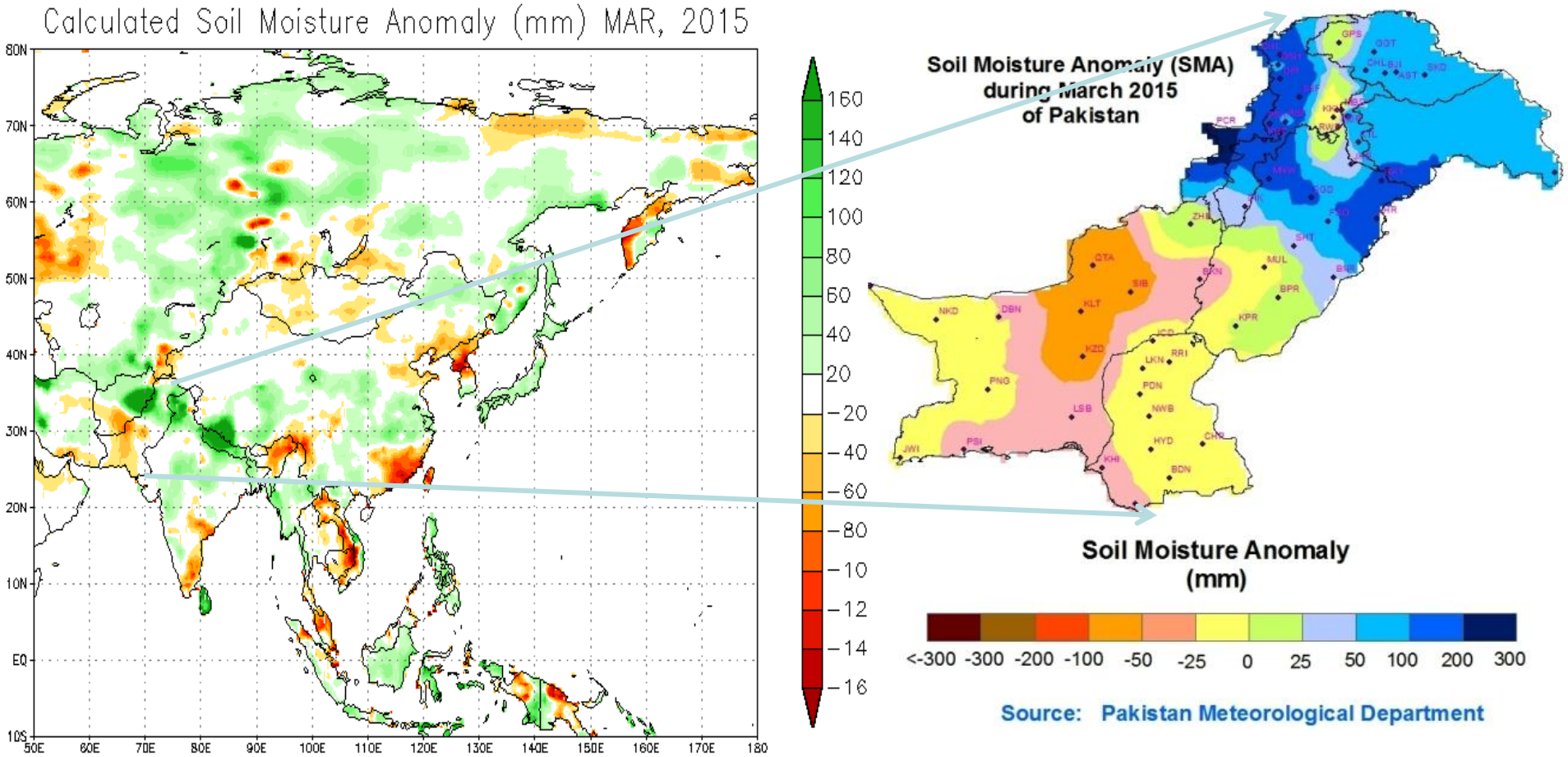






Courtesy: **National Oceanic and Atmospheric Administration** (**NOAA)**

Soil Moisture Anomaly



Courtesy: http://www.cpc.ncep.noaa.gov/soilmst/glb_lb/curr.w.anas.gif

Seasonal Outlook

No.CO (Isb)-2(4)/SO/2015/
Government of Pakistan
Cabinet Secretariat (Aviation Division)

Tel : (
Fax: (

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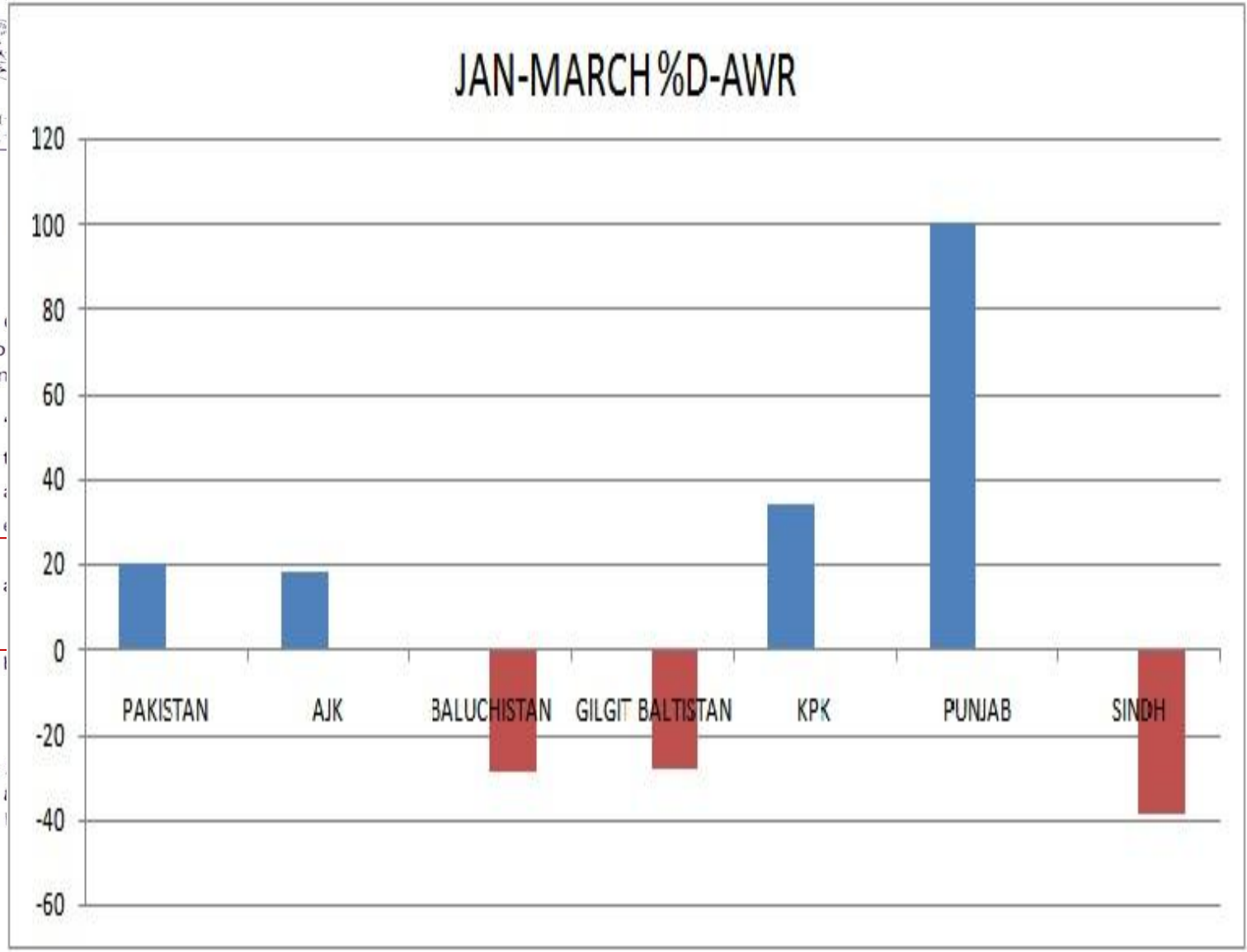
Note:



Duration 01 April to 15 April 2015

FAX NO. :051-9205037 Jan. 05 2015 12:58AM P1

MOST IMMEDIATE / BY FAX

Government of Pakistan
National Disaster Management Authority
(Prime Minister's Office)
ISLAMABAD

Subject: **Drought Monitoring**

Please find attached a copy of Pakistan Meteorological Department Drought Bulletin for the month of December 2014. You are requested to please monitor the drought situation in the affected areas and take necessary mitigation measures as deemed necessary.

2. A priority action is requested, please.

Lieutenant Colonel
For Chairman NDMA
(Raza Iqbal)
Tel. 051-9205035
Fax. 051-9205086

- DG, PDMA Punjab, Lahore
- DG, PDMA Sindh, Karachi
- DG, PDMA Balochistan, Quetta
- DG, GBDMA Gilgit Baltistan, Gilgit
- DG, PDMA Khyber Pukhtunkhwa, Peshawar
- DG, SDMA Azad Jammu & Kashmir, Muzaffarabad
- FATA Disaster Management Authority, Peshawar

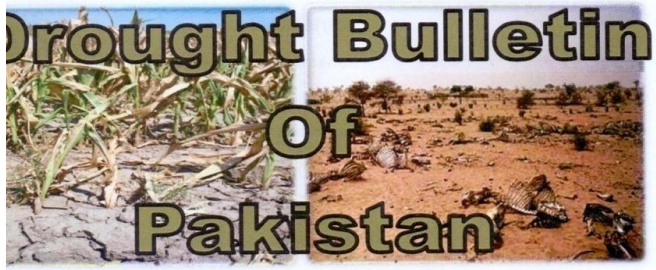
No F.2 (E) / 2014-NDMA (Flood/Gen) dated 5 January 2015

cc

i. Pakistan Meteorological Department, Islamabad

METEOROLOGICAL HEADQUARTERS ISLAMABAD Dy. No. 3318 Date 5/1/2015 P.A. to D.G.

Pakistan Meteorological Department



MARCH, 2015

ighlights:

March 2015 was the wettest month on record over Punjab during last 55 years
Occasional heavy rainfall associated with hailstorms for short periods is a significant feature of weather over sub-mountainous areas of Punjab and KP during April. Farmers are advised to keep abreast of weather updates for timely precautionary measures to minimize weather induced losses.
Despite widespread rains in upper half of country, drought affected areas of Sindh (Tharparkar, Thatta, Mirpurkhas) did not receive any appreciable rainfall that could help to alleviate drought conditions in the area.
Moderate to severe drought conditions prevail across rainfed areas of Sindh
No significant rainfall is likely over most parts of Sindh during April 2015
El Nino conditions are strengthening across equatorial Pacific that may result to further aggravate drought conditions in Sindh by the end of monsoon season.

National Drought Monitoring Centre (NDMC)

Headquarters Office, Sector H-8/2, Islamabad

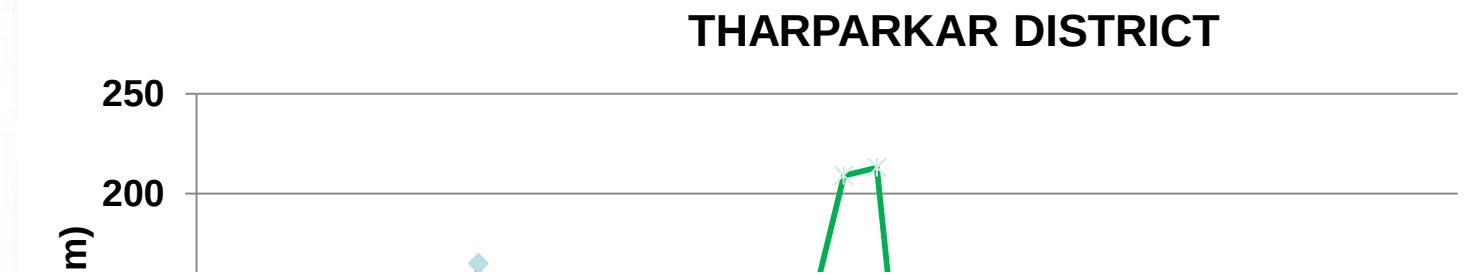
Tel : + (92-51) 9250598, Fax: + (92-51) 9250368, URL: http://www.pmd.gov.pk

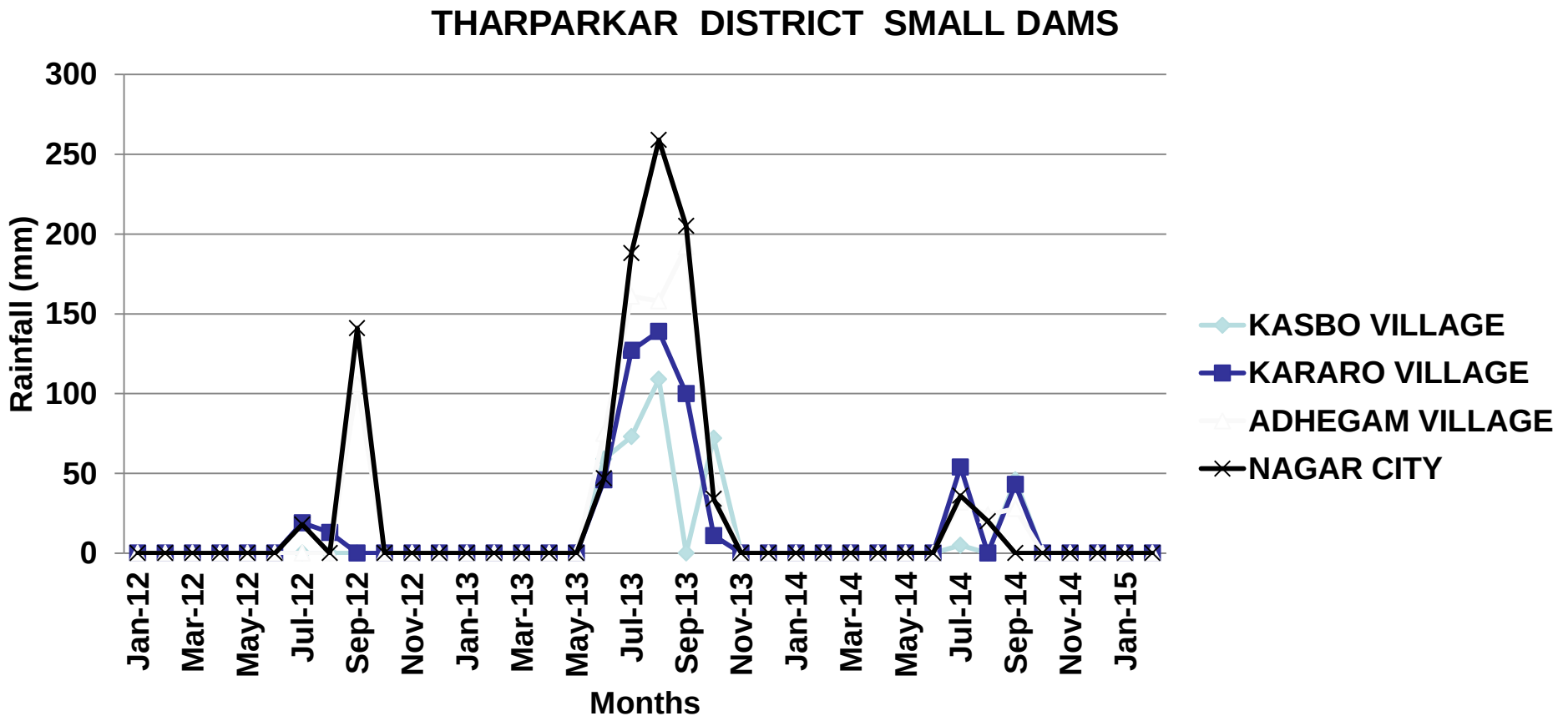
Information Dissemination

Information dissemination through

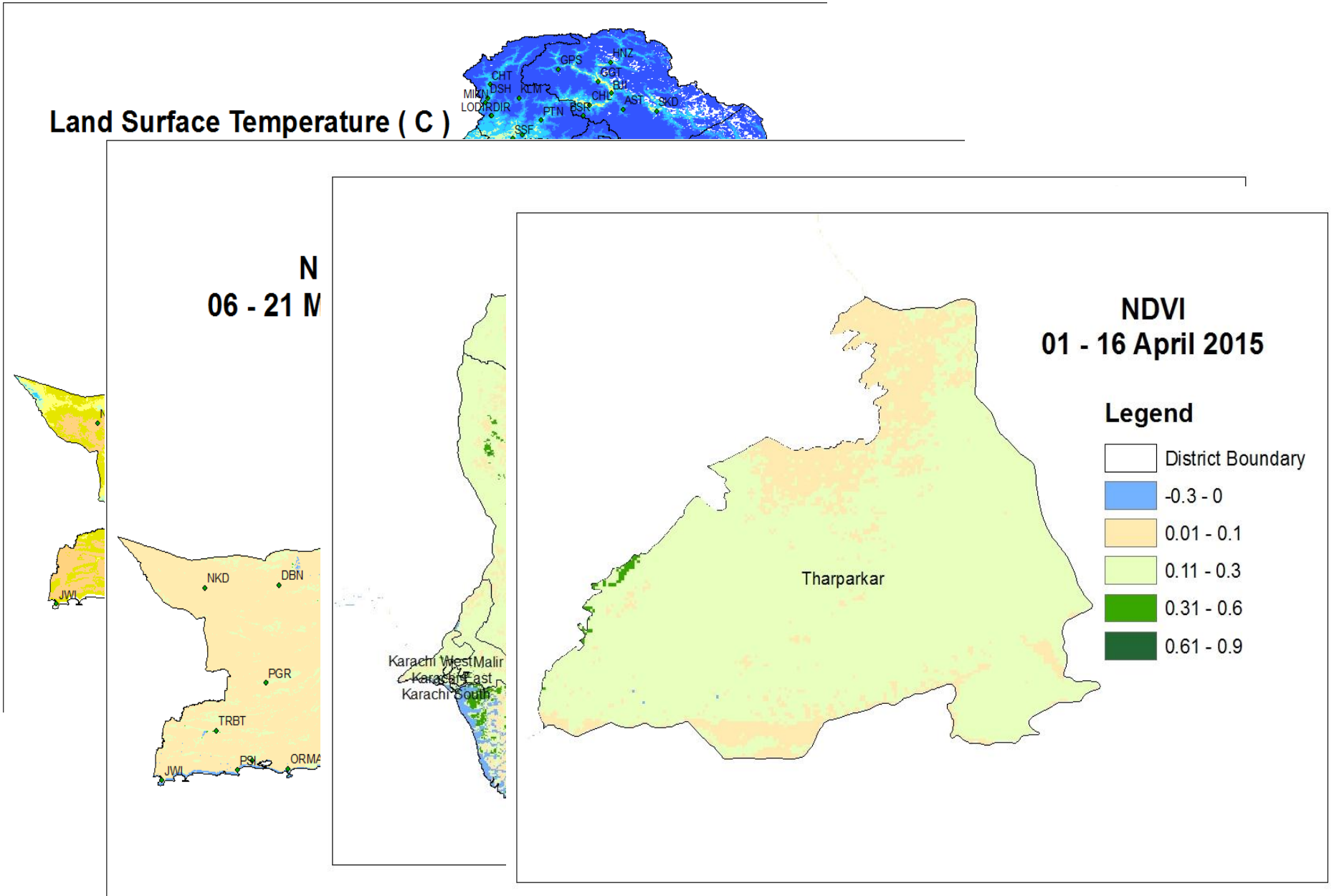
- Emails/Fax/telephone …
- Web: http://www.pmd.gov.pk/ndmc
- GIS enabled WEBSITE has been launched to support in decision making.

Reported Data

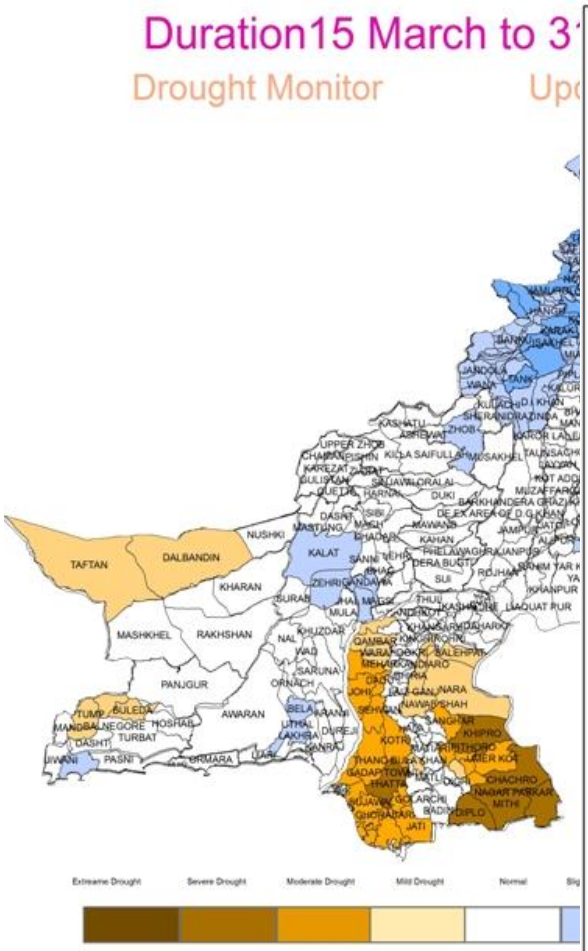


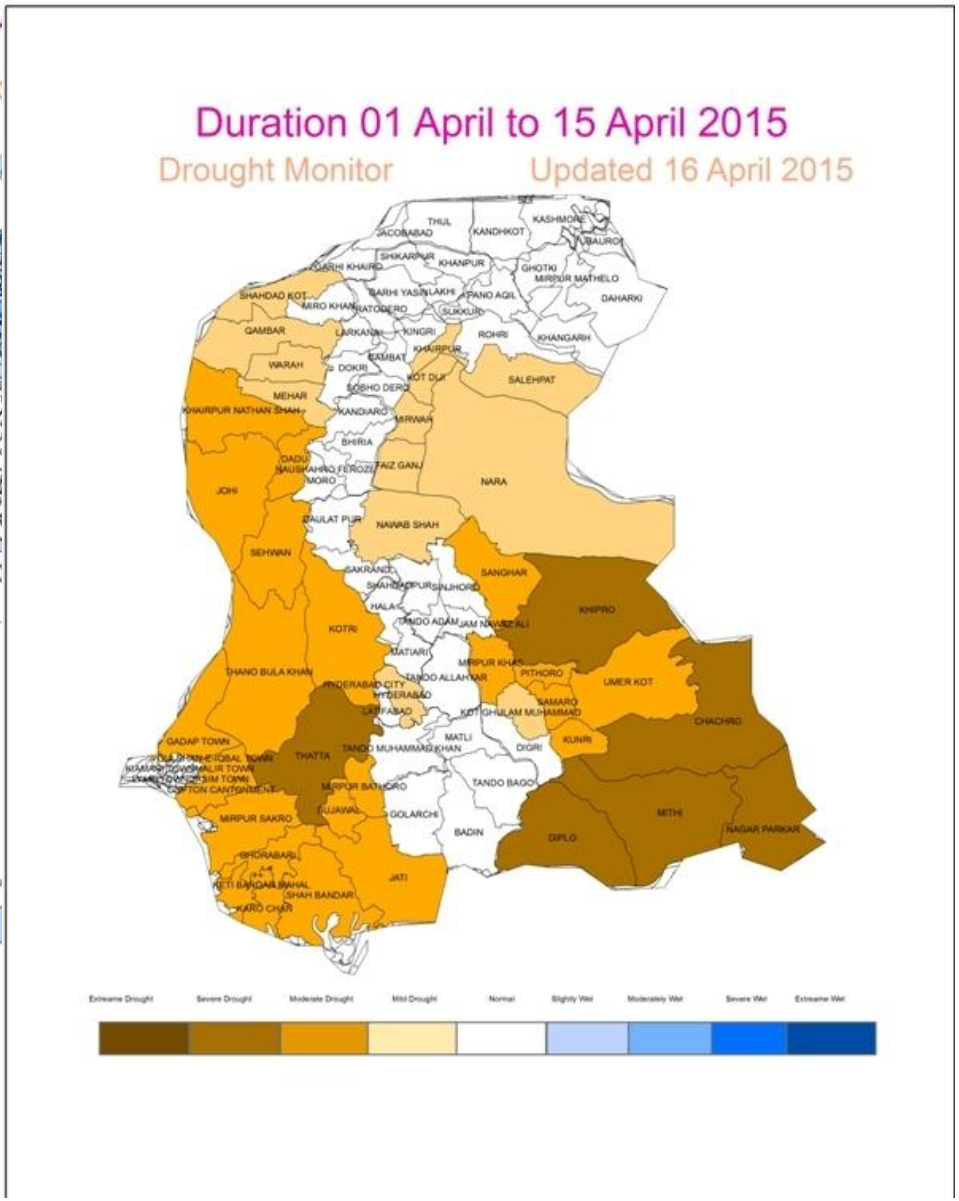


Satellite Derived Products

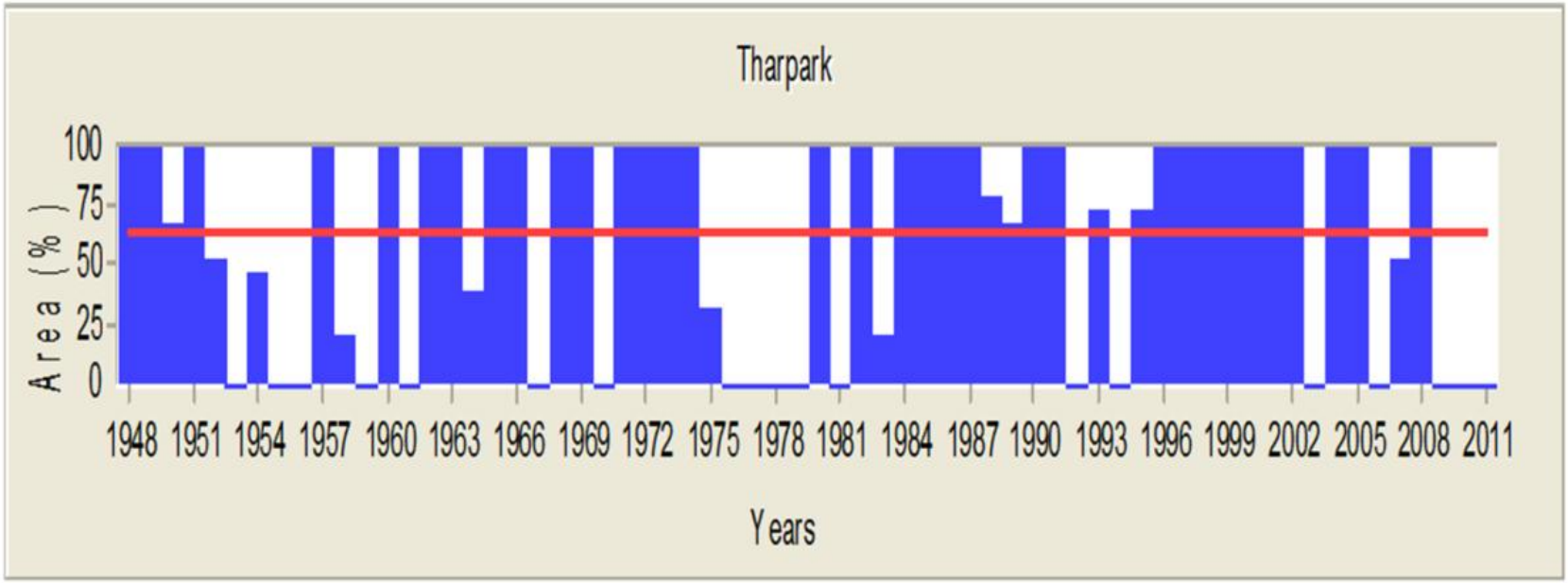


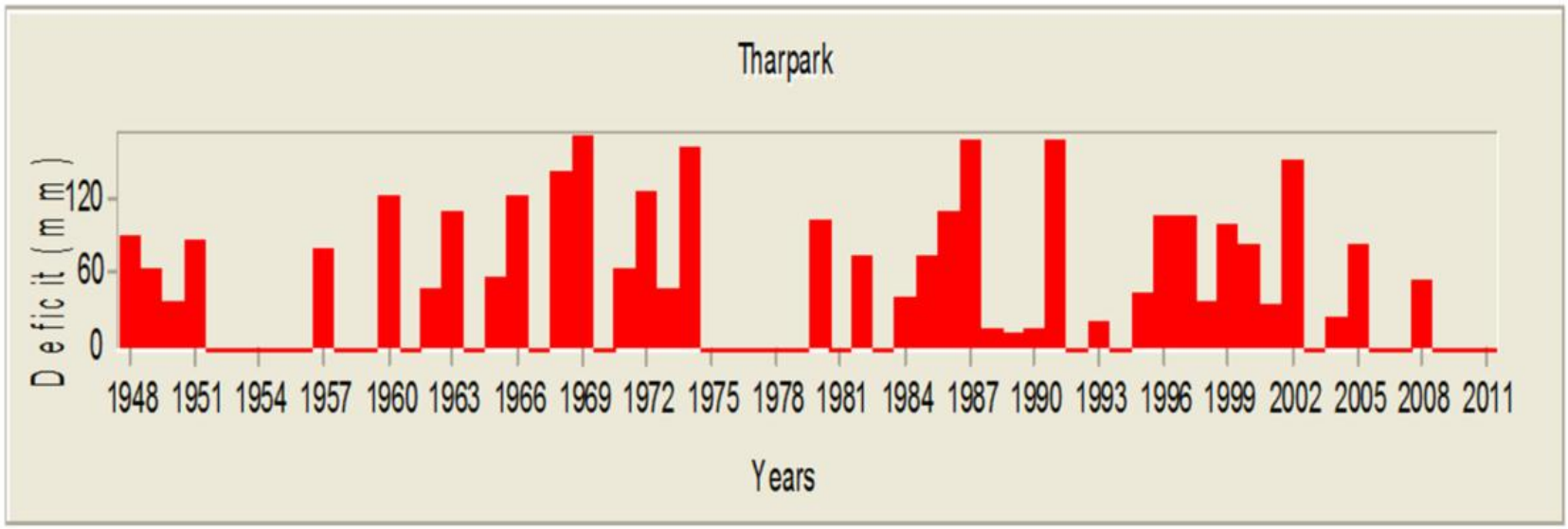
Drought Monitor



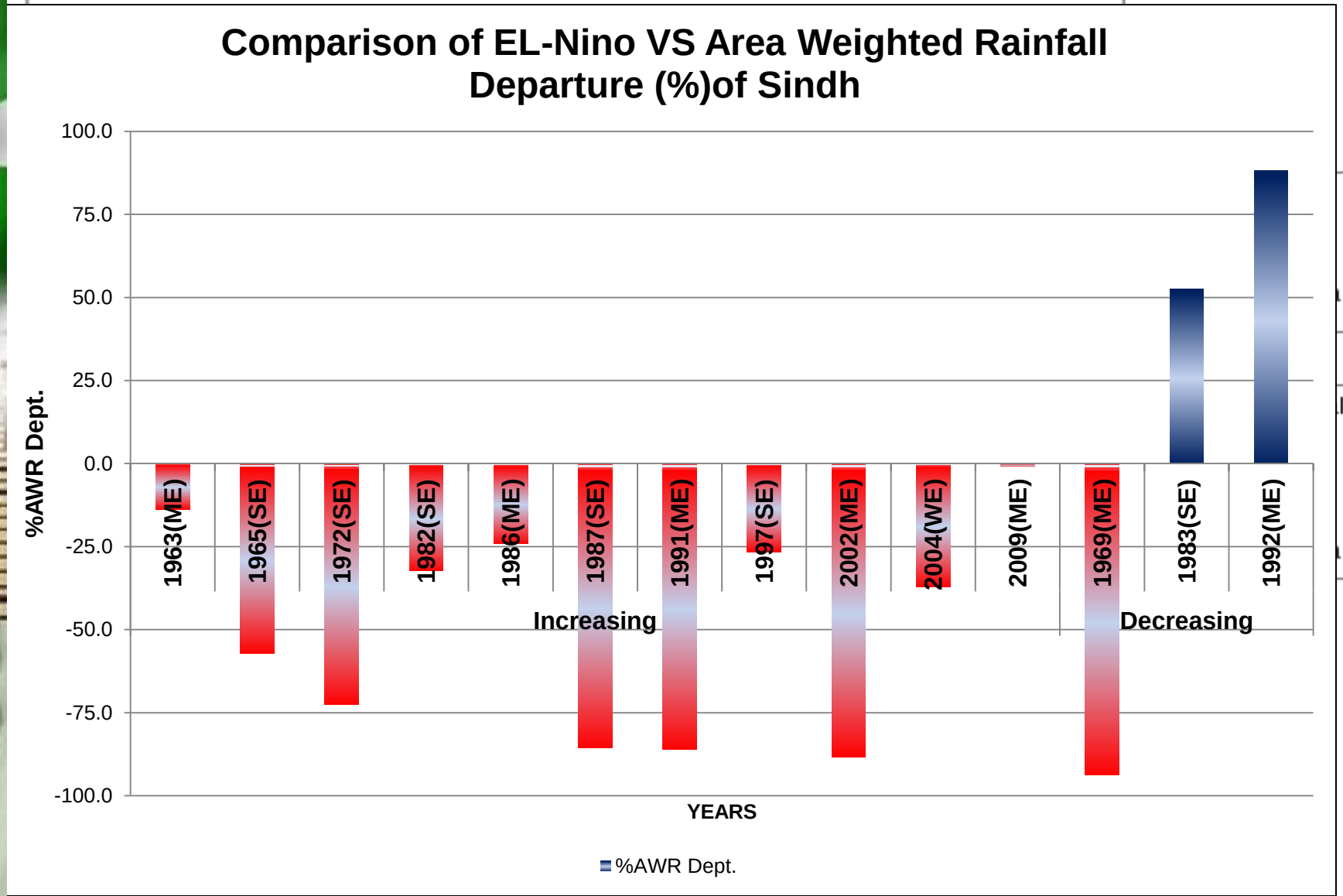


Drought Statistics (Tharparkar)





Climate Projections & Impact



Conclusion

The analysis of ground observations and satellite data depicts that;

Moderate to Severe drought conditions prevail in Tharparkar. On the average, Four out of Ten years are drought years.

NOAA Satellite derived moisture anomaly is depicts that vegetation stress is there in the area.

NDVI data from MODIS satellite depicts green vegetation exists in the area. The comparison with average depicts negative anomaly ; means vegetation stress.

Conclusion

Outlook

There is 60% probability that El Nino conditions will prevail during coming monsoon season and Pacific ocean is likely to exhibit warming trend.

As such, drought conditions may further aggravate towards the end of year.

UNDERSTAND the Climate Risk

COMMUNICATE the Climate Risk

Thank you!

director@pmd.gov.pk