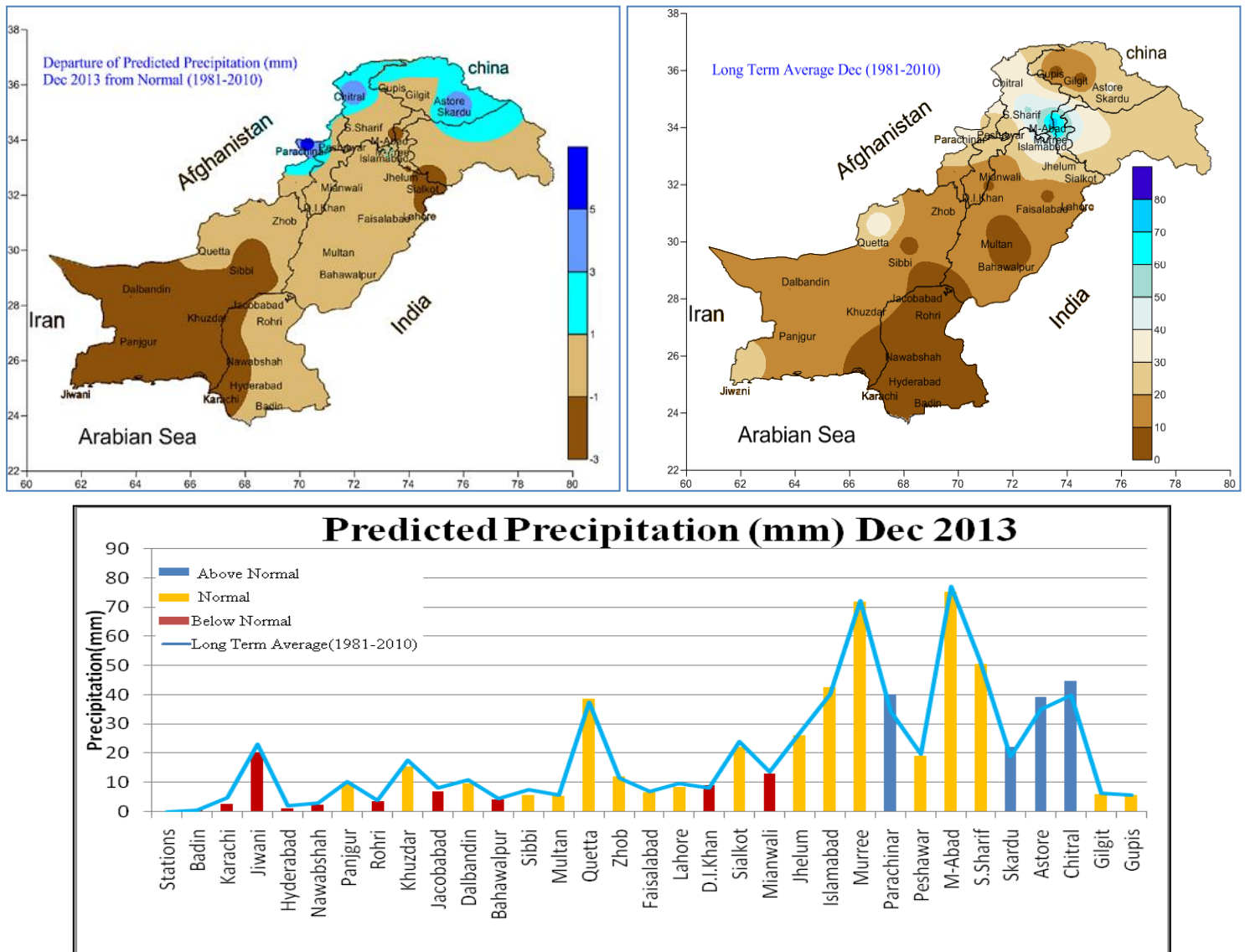


Experimental Precipitation Forecast December 2013

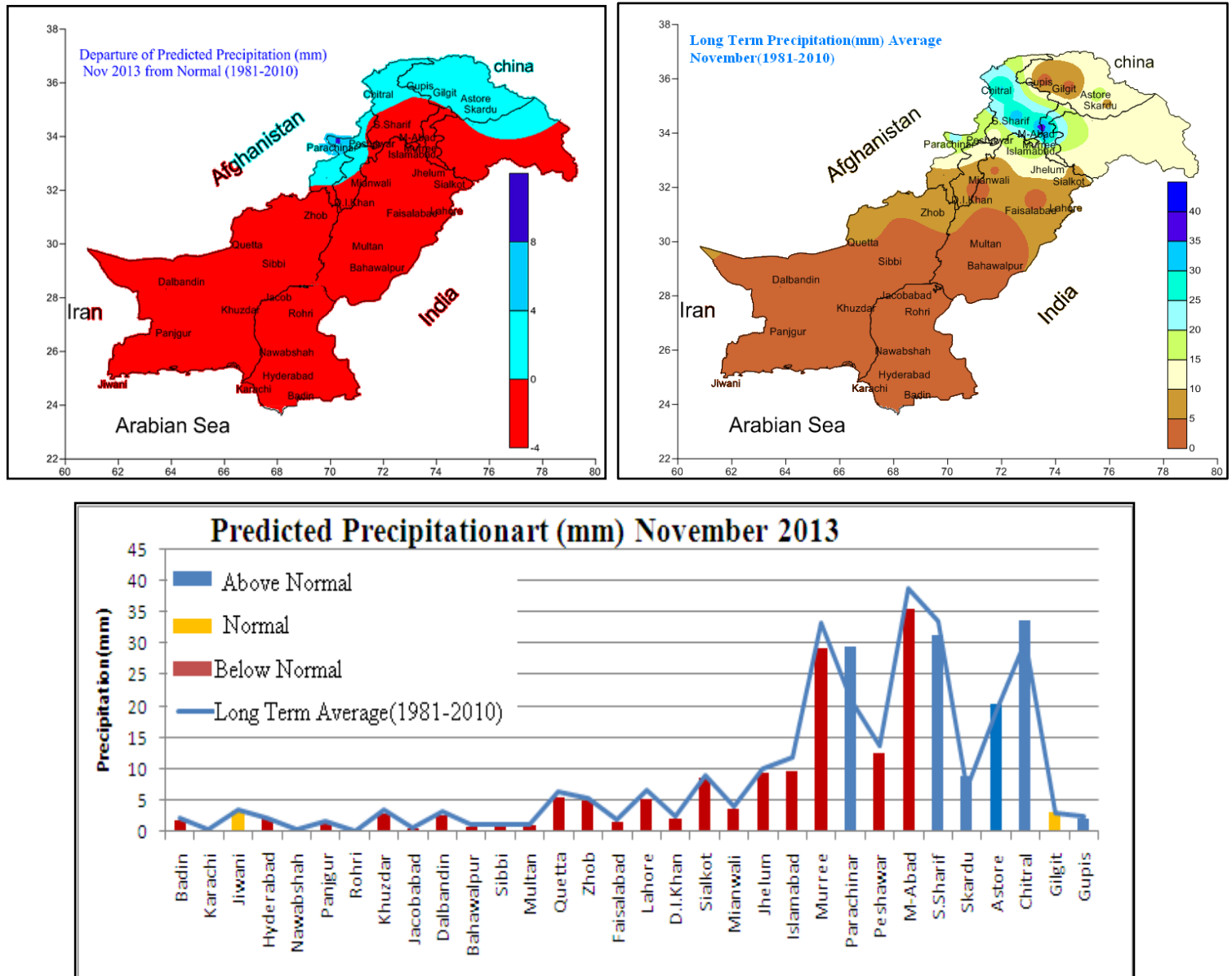
The statistical technique has been used to downscale the output of the CGCM (Combined General Circulation Model) to prepare the precipitation forecast on monthly and seasonal bases. The prominent feature of the December 2013 precipitation forecast is below normal (1981-2010) precipitation over the large area of the country, especially the western half of the Balochistan province is expected to be the driest part during the month of December. Only region expected to remain above normal is the northern edge of the country.



In the above figure stations are arranged according to the increasing latitude from left to right.

Experimental Precipitation Forecast November 2013

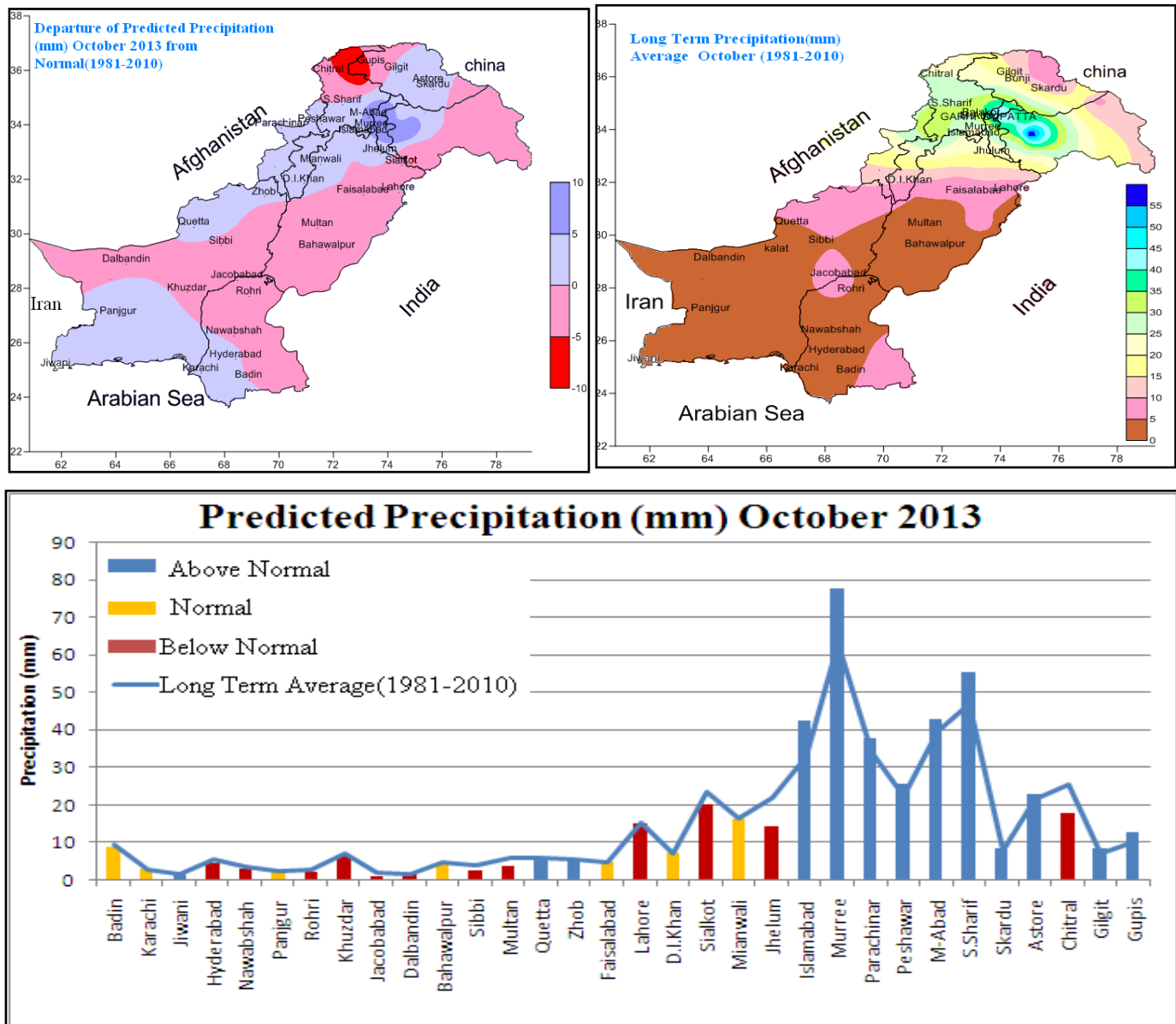
Output of the combined general circulation model (CGCM) is used to predict the precipitation amount over the selected stations of Pakistan on monthly and seasonal time scales. The highlight of the November precipitation forecast is below normal (1981-2010) precipitation over large area of the country. However some regions of the country including FATA, upper parts of Khyber Pakhtunkhwa and Gilgit-Baltistan region are expected to receive slightly above normal precipitation. As a whole below normal precipitation is expected in the country during the month November 2013.



In the above figure stations are arranged according to the increasing latitude from left to right.

Experimental Precipitation Forecast October 2013

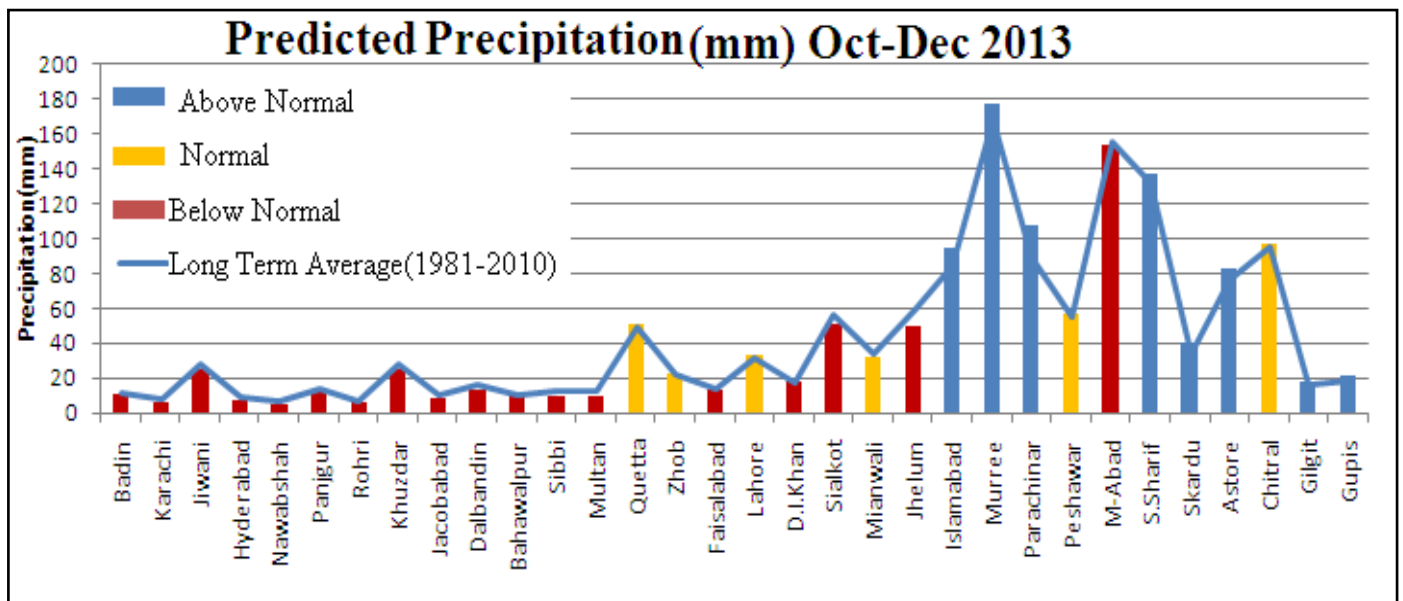
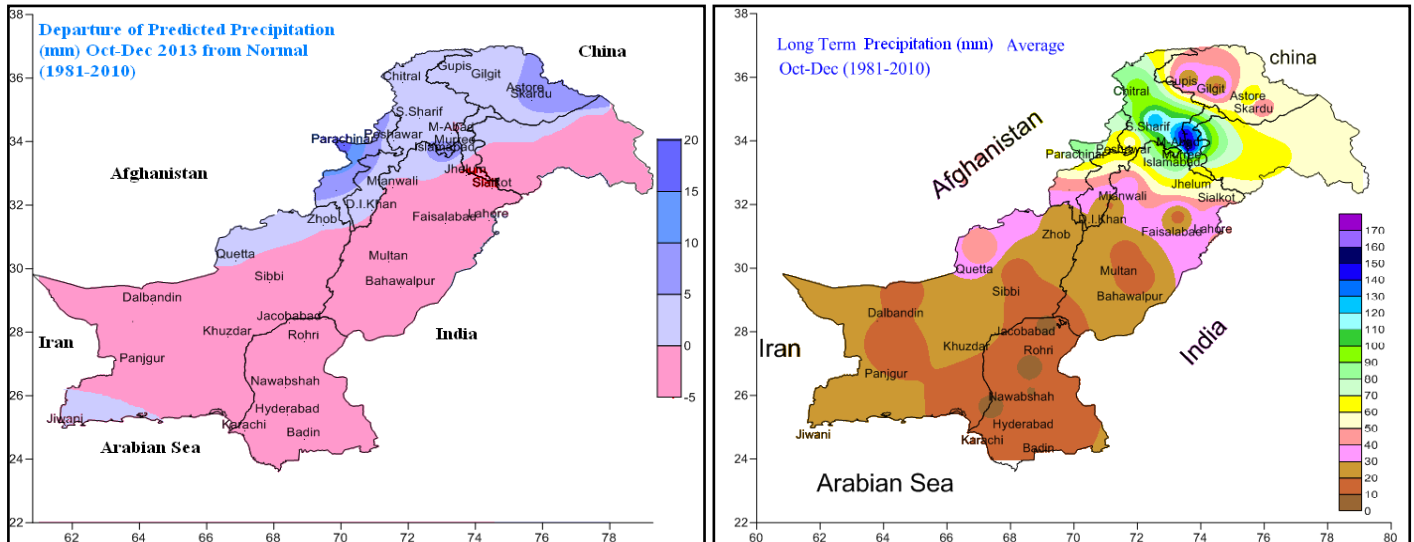
Output of the combined general circulation model (CGCM) is used to predict the rainfall amount over the selected stations of Pakistan on monthly and seasonal time scales. Major parts of the country are likely to receive below normal (1981-2010) rainfall. However some parts of the country including coastal belt of Sindh and Balochistan, Khyber Pakhtunkhaw, northern parts of Punjab, Kashmir and majority of Gilgi -Baltistan is expected to receive slightly above normal rainfall. Overall normal rainfall is predicted in the country during the month of October 2013.



In the above figure stations are arranged according to the increasing latitude from left to right.

Experimental Precipitation Forecast Oct-Dec 2013

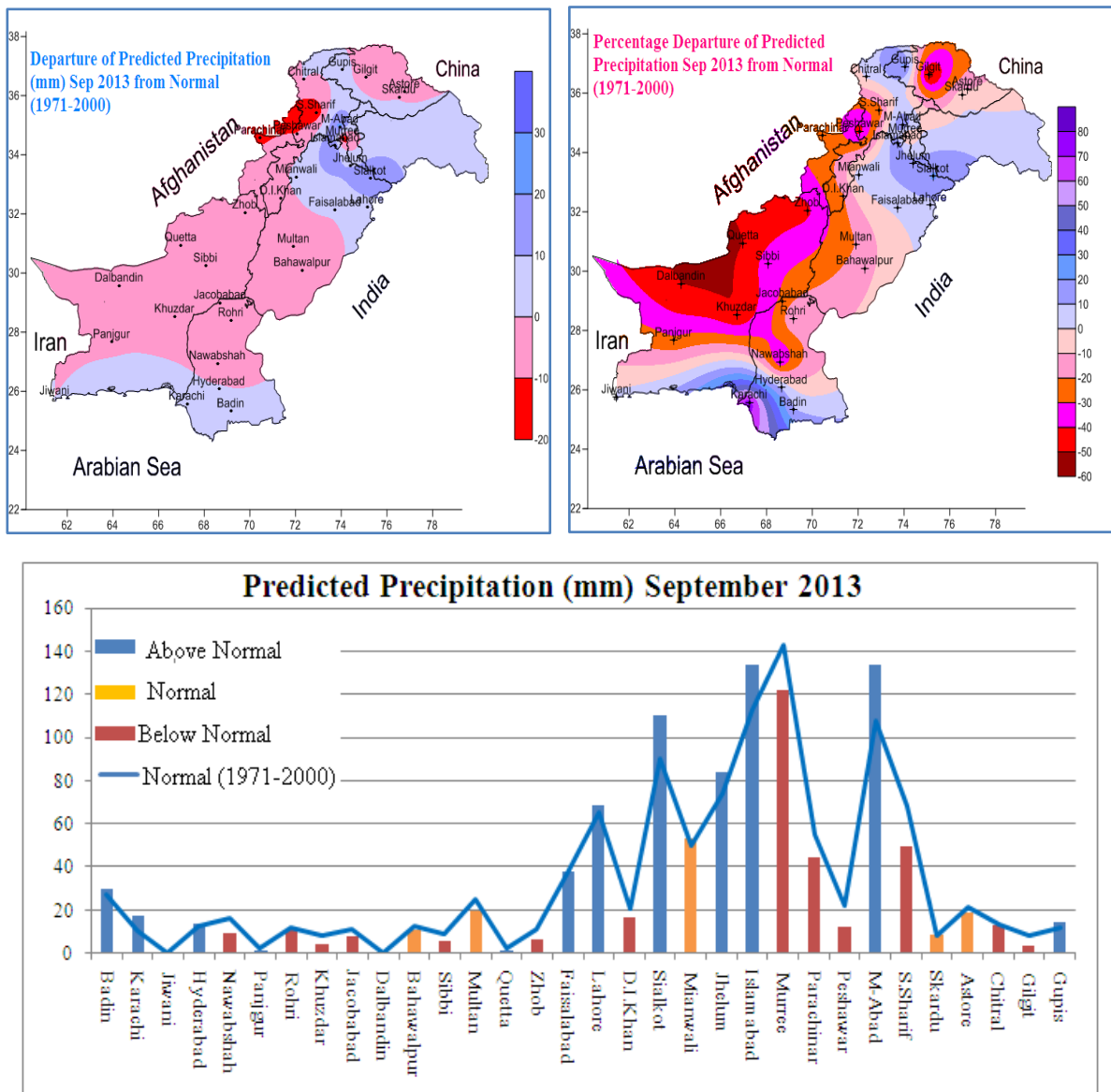
Output of the combined general circulation model (CGCM) is downscaled to predict the Precipitation amount over the selected stations of Pakistan on monthly and seasonal time scales. Most parts of the country are predicted to receive below normal (1981-2010) precipitation for the season October to December 2013. However areas comprising north and north-western region of the country are expected to receive above normal precipitation. As a whole normal precipitation is expected in the country.



In the above figure stations are arranged according to the increasing latitude from left to right.

Experimental Precipitation Forecast September 2013

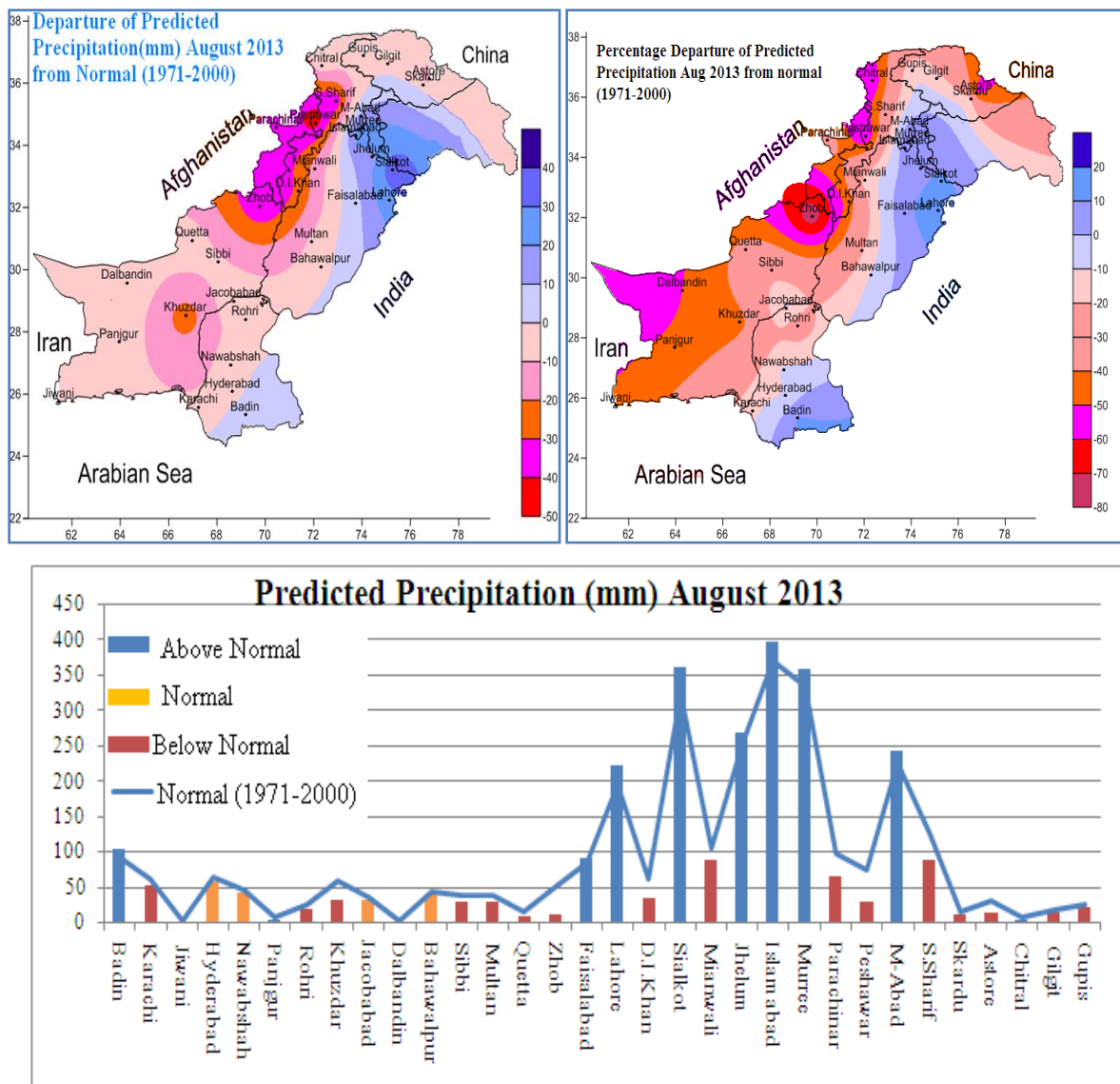
Output of the Combined General Circulation Model (CGCM) is used to obtain the precipitation forecast on monthly and seasonal time scales. Above normal (1971-2000) precipitation is expected in the northern Punjab, adjoining Kashmir, northern limits of Khyber Pakhtunkhwa and along the coast of Sindh. All the remaining parts of the country are expected to receive below normal rainfall during the month of September 2013. Negative departure from normal is most prominent in the Balochistan province, central Sindh and in Gilgit region. Over all below normal precipitation is expected in the country during the month of September 2013.



Along X-axis stations are arranged in ascending order of latitude from left to right.

Experimental Precipitation Forecast August 2013

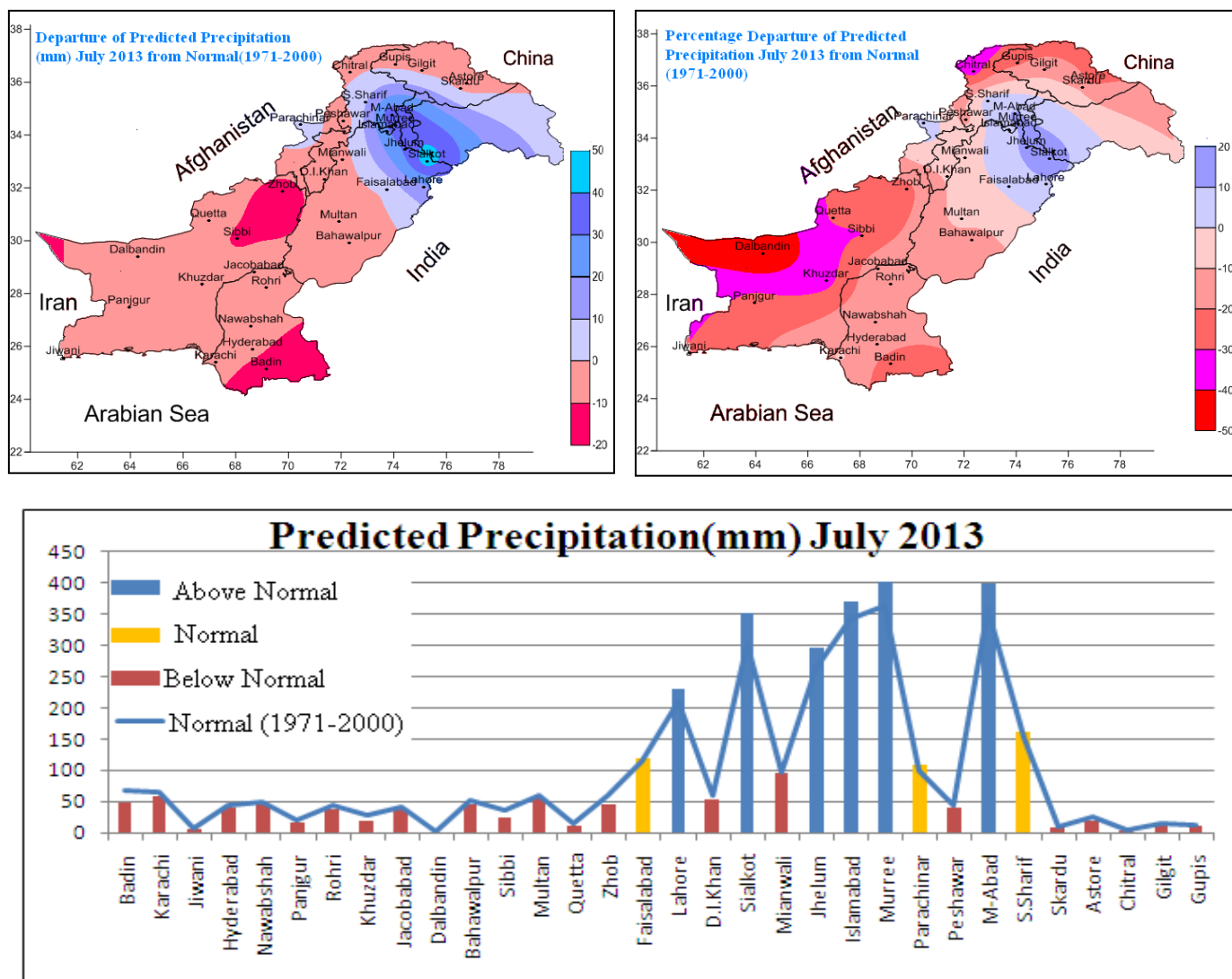
Seasonal prediction provides information that how the weather condition is expected as compared to the normal atmospheric conditions. Output of the Combined General Circulation Model (CGCM) is downscaled to obtain the seasonal forecast. Normal to above Normal (1971-2000) precipitation is expected in Kashmir and most of the Punjab province excluding western and south western parts. The coastal areas of Sindh are also expected to receive above normal precipitation. All the remaining parts of the country are expected to receive below Normal precipitation during the month of August 2013. Negative departure is most prominent in FATA and western Balochistan. Overall below normal precipitation is expected in the country during the month of august 2013.



Along X-axis stations are arranged in ascending order of latitude from left to right.

Experimental Precipitation Forecast July 2013

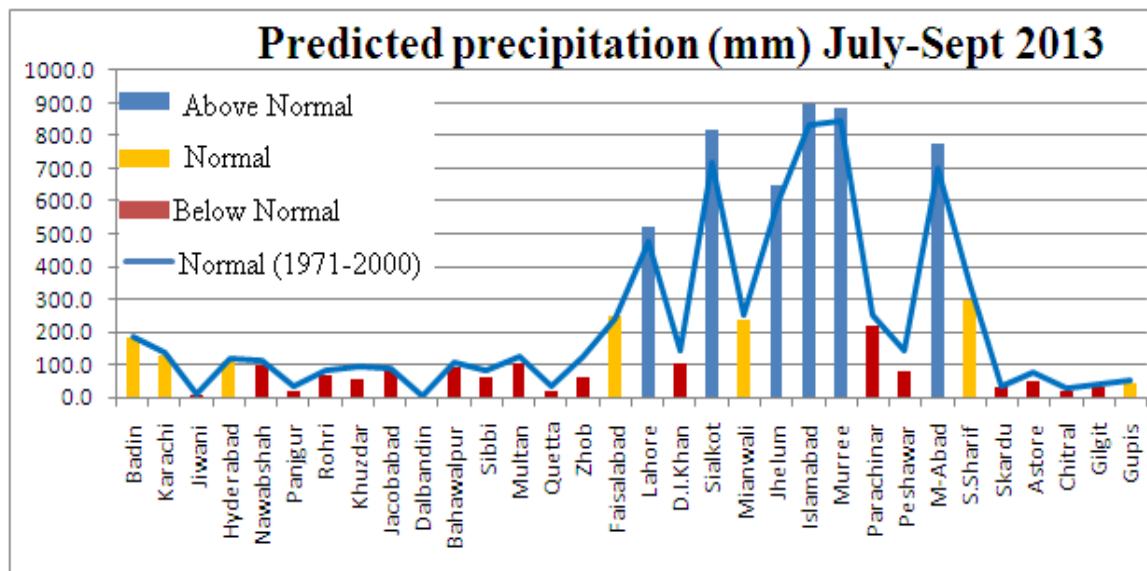
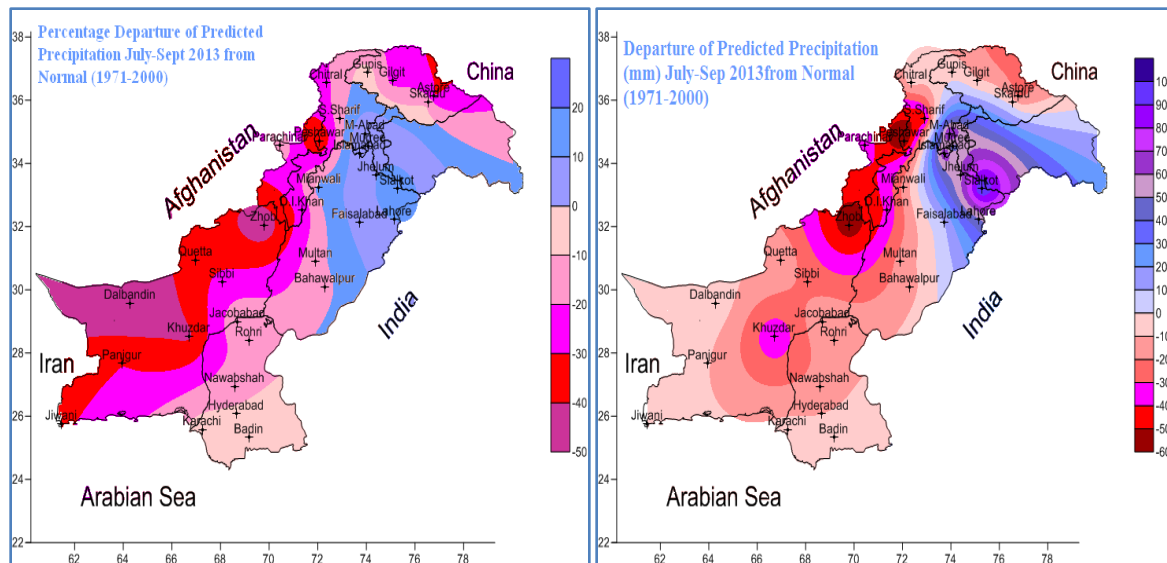
Output of the Combined General Circulation Model (CGCM) is downscaled to obtain the precipitation forecast for the selected stations of Pakistan. Major parts of the country are predicted to receive below Normal (1971-2000) precipitation during the month of July. Negative departure from normal is more prominent in the Balochistan province as well as along the coast of Sindh and in the mountainous regions in the extreme north of the country. Northern parts of Punjab along with adjoining Kashmir and Khyber Pakhtunkhwa regions are likely to receive above normal precipitation. Overall below normal precipitation is predicted in the country during the month of July 2013.



Along X-axis stations are arranged in ascending order of latitudes from left to right.

Experimental Precipitation Forecast July-September 2013

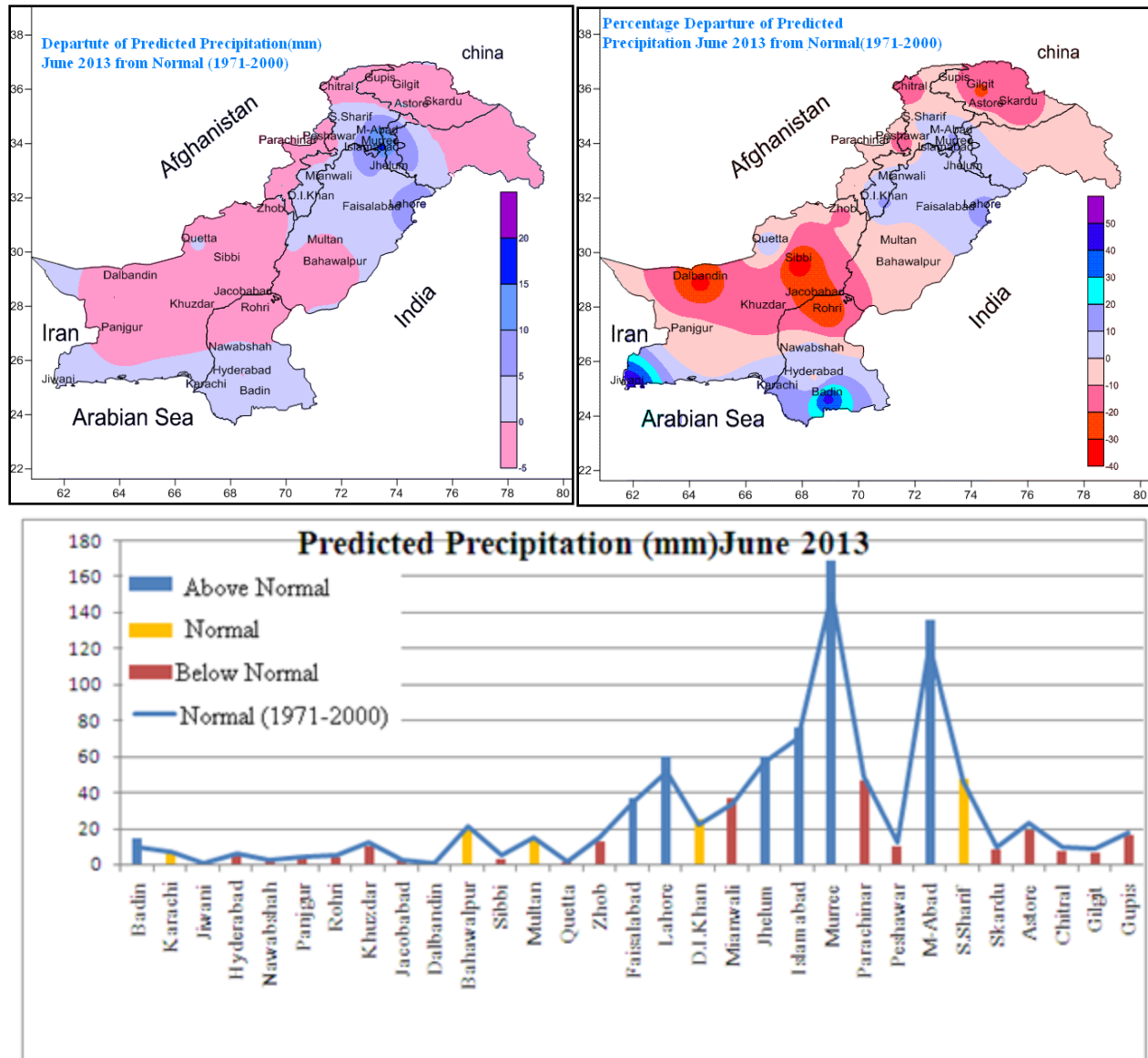
Combined General Circulation Model (CGCM) has been used to predict the precipitation over the Pakistan by using statistical downscaling technique. This is the part of an experimental process for long range forecasting extending from month to a season. Above normal (1971-2000) precipitation is expected in northern and central parts of Punjab, Kashmir and adjoining Khyber Pakhtunkhaw. Coastal areas of Sindh are expected to receive normal amount of precipitation during the period July to September 2013. All the remaining parts of the country are predicted to receive below normal precipitation. Below normal precipitation is more prominent in whole of Balochistan province, majority regions of Khyber Pakhtunkhaw and Gilgit-Baltistan region. Model Predict overall below normal precipitation in the country during the monsoon season, July-September 2013.



Along X-axis stations are arranged in ascending order of latitude from left to right.

Experimental Precipitation Forecast June 2013

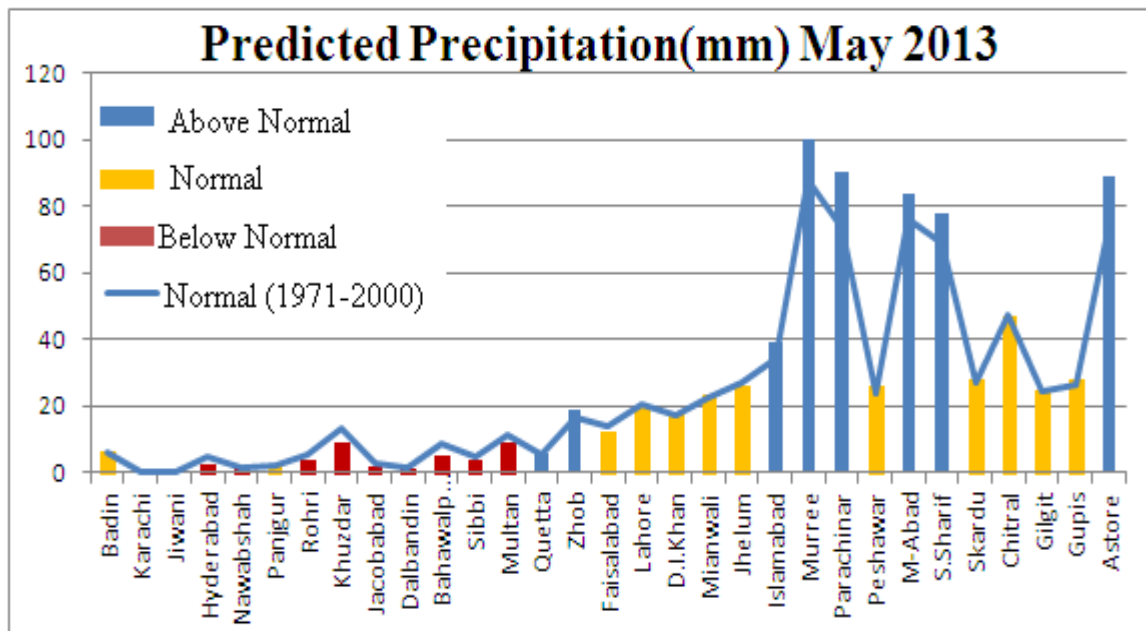
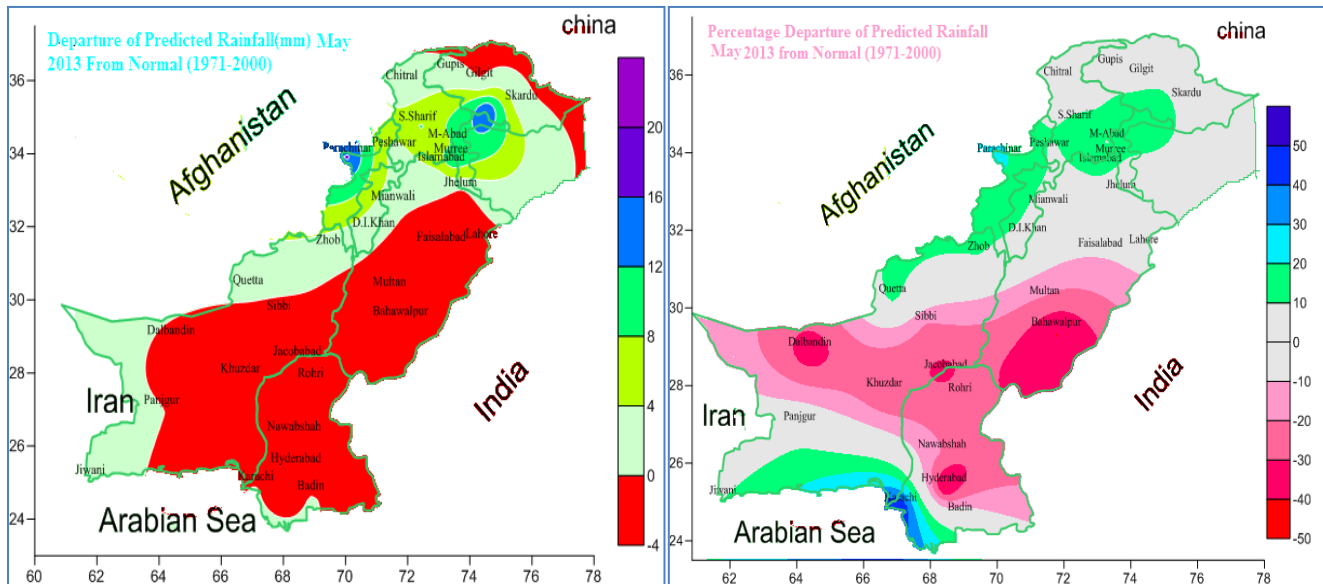
Output of the Combined General Circulation Model (CGCM) is used to predict the precipitation forecast over Pakistan. Statistical downscaling techniques are applied to obtain the forecast. Below normal (1971-2000) precipitation is expected in most parts of the country including Balochistan except coastal belt, southern Punjab along with adjoining Sindh, most parts of Khyber Pakhtunkhwa and whole of the Gilgit-Baltistan region. Coastal areas of Balochistan and Sindh, upper parts of Punjab and adjoining areas of Kashmir are expected to receive above normal rainfall. Overall precipitation is expected to be below normal in the month of June 2013.



Along X-axis stations are arranged in ascending order of Latitudes from left to right.

Experimental Precipitation Forecast May 2013

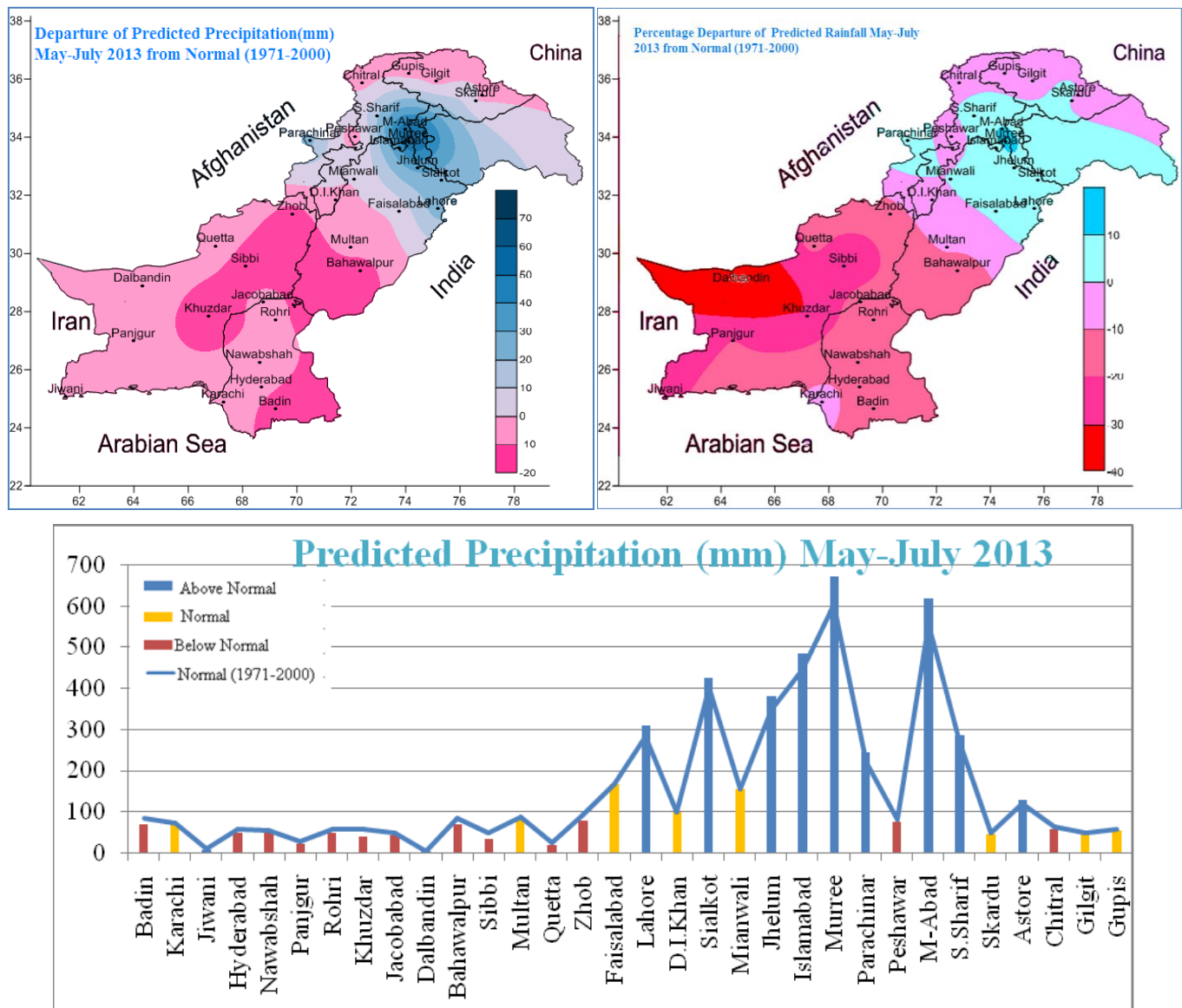
Output of the Combined General Circulation Model (CGCM) is used to obtain the precipitation forecast on monthly and seasonal time scales. Below normal rainfall is expected in most regions of the Sindh province, southern Punjab, and central Balochistan. Normal Rainfall is predicted in northern half of Punjab along with neighboring areas of Khyber Pakhtunkhaw, some parts of Balochistan, Kashmir, Gilgit-Baltistan and Chitral region. Above normal precipitation is expected in areas of Balochistan and Khyber Pakhtunkhaw along the border of Afghanistan and parts of Kashmir along with the northern tip of Punjab and adjoining Khyber Pakhtunkhaw. As a whole below Normal (1970-2000) precipitation is expected in the country.



Along X-axis stations are arranged in ascending order of Latitudes from left to right.

Experimental Seasonal Forecast May-July 2013

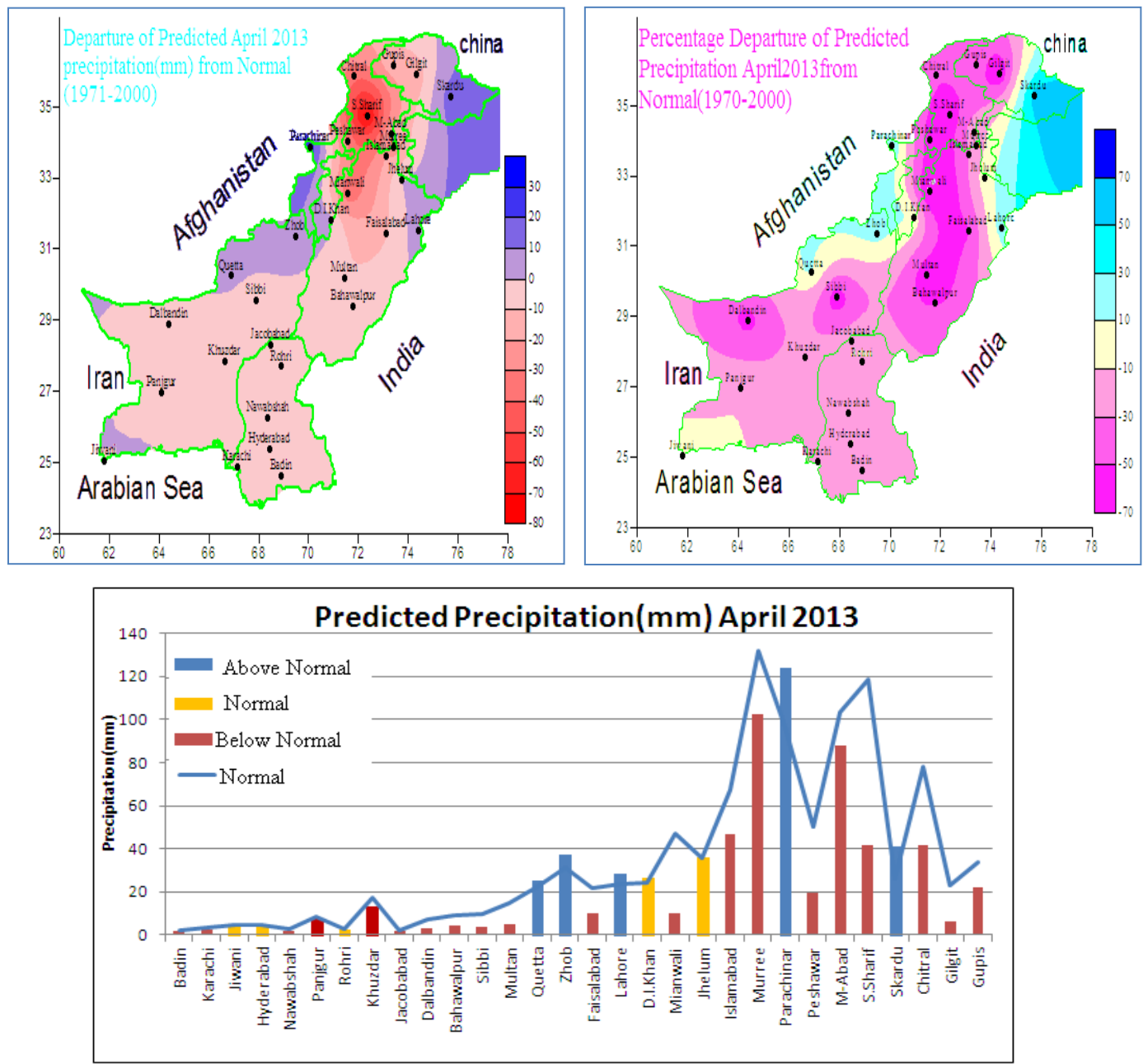
Experimental seasonal forecast is issued on monthly and seasonal timescales by applying the statistical downscaling techniques. Output of the Combined General Circulation Model (CGCM) is used to predict the precipitation forecast over the selected stations of Pakistan. Below Normal (1971-2000) precipitation is predicted in most parts of the country. Negative departure from normal is more prominent in Balochistan and Sindh province as well as in the southern Punjab. Whereas the northern parts of Punjab along with the adjoining regions of Khyber Pakhtunkhwa and Kashmir are likely to receive above normal rainfall. Overall below normal precipitation is predicted in the country during the season May-July 2013.



Along X-axis stations are arranged in ascending order of latitude from left to right.

Experimental Precipitation Forecast April 2013:

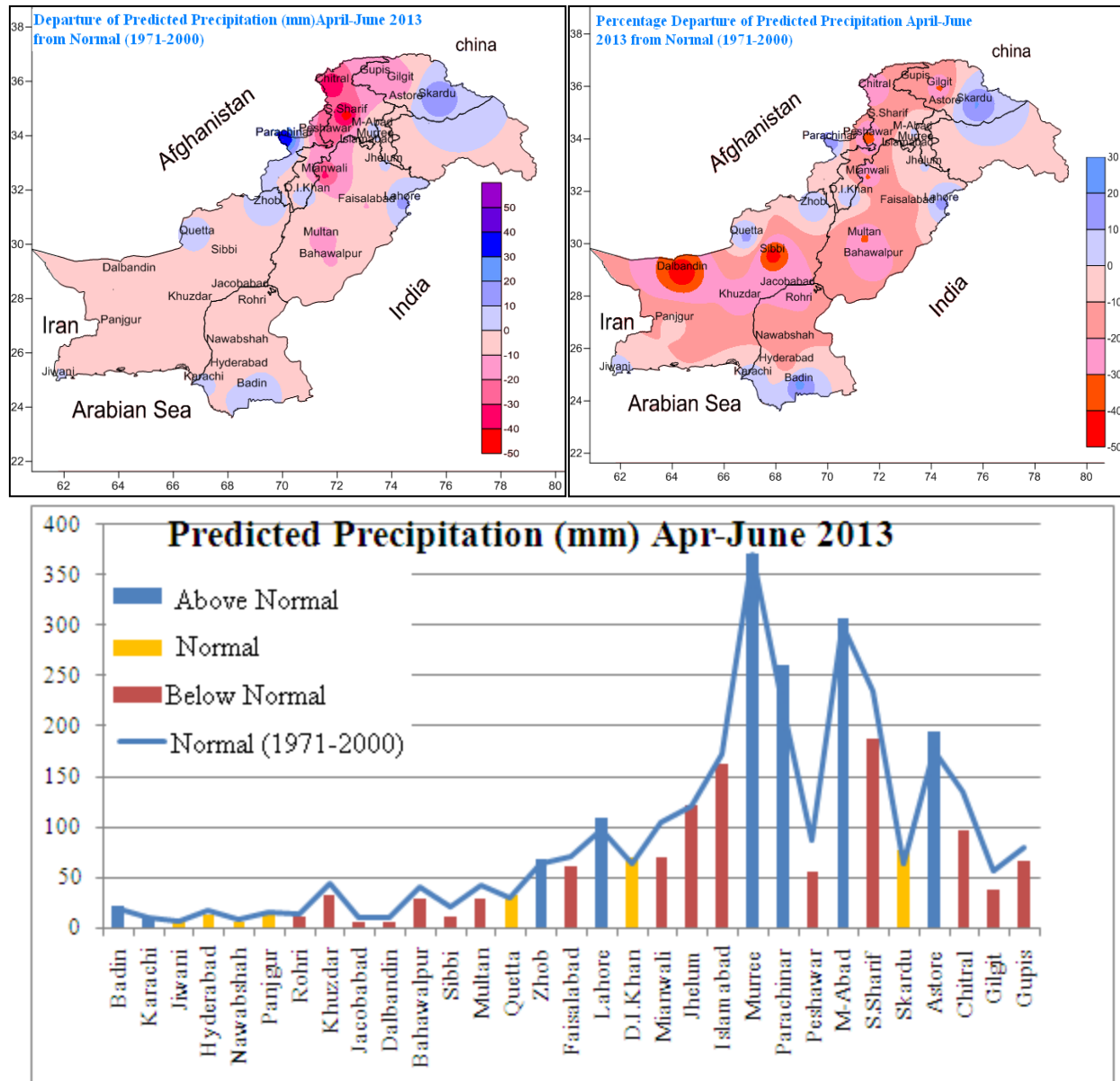
Seasonal prediction provides information that how the weather conditions are expected as compared to the normal atmospheric conditions. Output of the Combined General Circulation Model (CGCM) is downscaled at regional level to obtain the seasonal forecast. Most parts of the country extended from coastal areas in south, through the deserts, plains and plateau of Sindh, Panjab and Balochistan upto the highlands of Northern areas is expected to receive below normal rainfall during the month of April. Below normal rainfall is more prominent in the Khyber Pakhtunkhaw. A few parts of Balochistan and Kashmir are expected to receive above normal rainfall. On the whole below normal rainfall is expected in the country during the month of April 2013.



Along X-axis stations are arranged in ascending order of Latitudes from left to right.

Experimental Precipitation Forecast April-June 2013

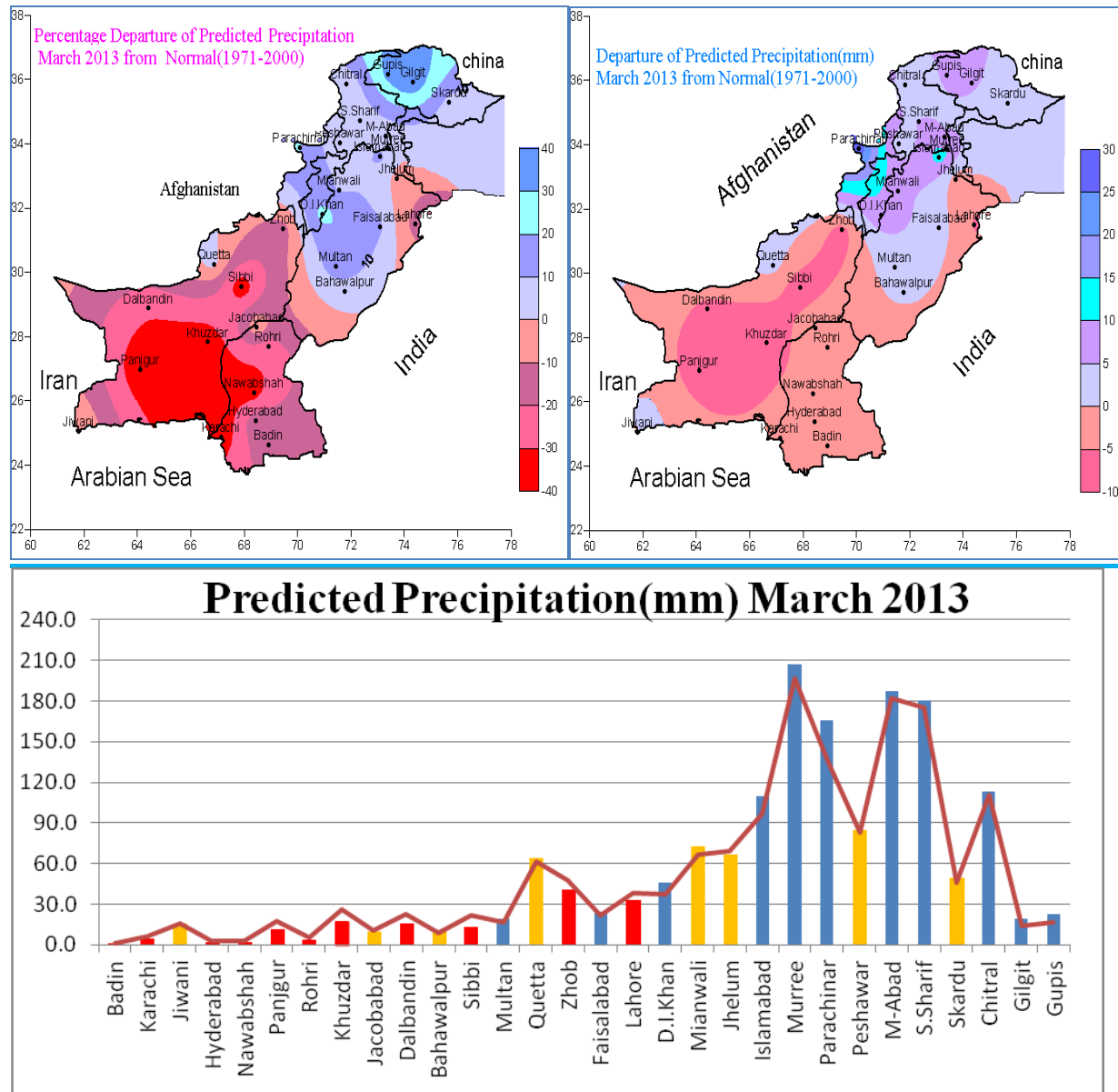
Experimental seasonal forecast is issued on monthly and seasonal time scales by applying the statistical downscaling techniques. Output of the Combined General Circulation Model (CGCM) is used to obtain the predicted rainfall over the selected stations of Pakistan. Below Normal (1971-2000) precipitation is expected in most parts of the country including Balochistan, Sindh except coastal belt, almost whole of the Punjab, major parts of Khyber Pakhtunkhwa and major parts of Gilgit Baltistan province. Very few areas are expected to receive slightly above normal precipitation. Overall below normal precipitation is expected in the country.



Along X-axis stations are arranged in ascending order of Latitudes from left to right.

Precipitation Forecast March 2013

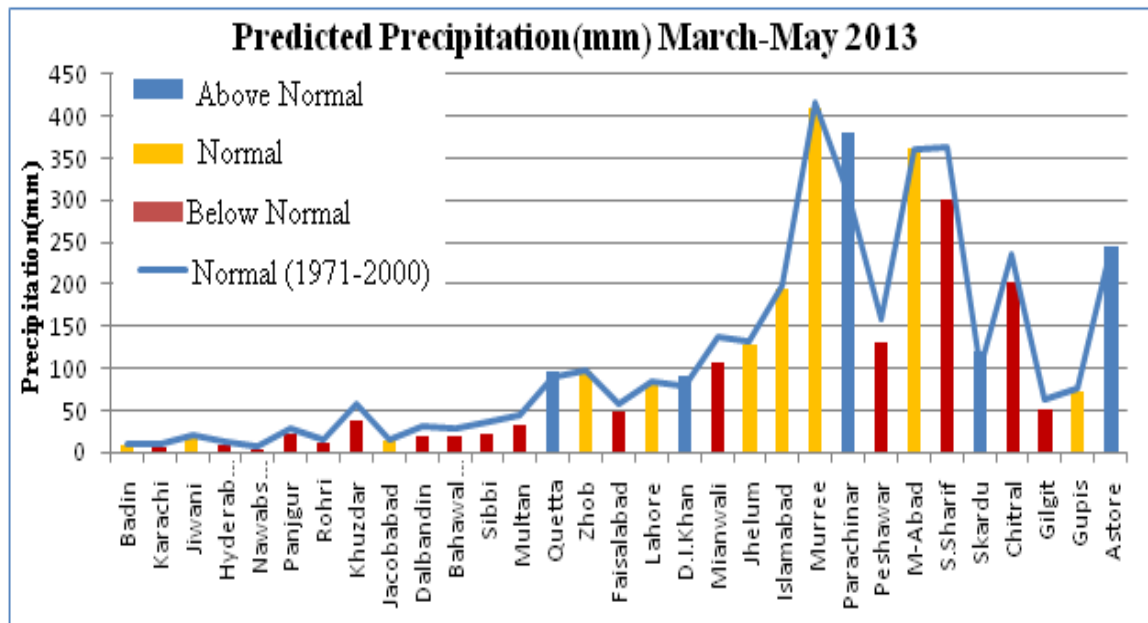
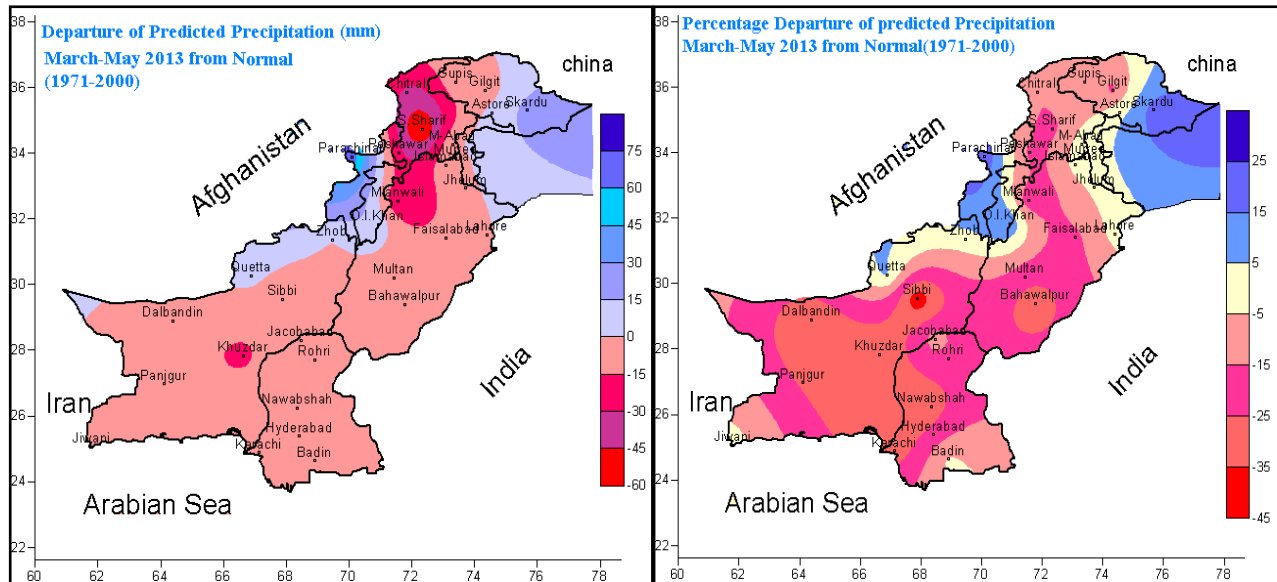
The experimental seasonal precipitation forecast is issued on seasonal and monthly basis by downscaling statistically the output of the Combined General Circulation Model (CGCM). Normal to above Normal precipitation is expected in the Northern half of the country. Above normal precipitation is most prominent in the Gilgit Baltistan region. Remaining parts of the country including southern edge of Punjab, whole of the Sindh province and almost all parts of Balochistan are predicted to receive below normal precipitation. Below normal precipitation is more evident in the southern parts of Balochistan and adjoining Sindh. As a whole normal precipitation is expected for the country during the month of March 2013.



Along X-axis stations are arranged in ascending order of Latitudes from left to right. Line graph shows normal rainfall where as bar graph represent predicted rainfall for the month of March 2013. Blue shaded graphs stand for above normal, yellow for normal and red shows below normal values of predicted rainfall.

Experimental Precipitation Forecast March-May 2013

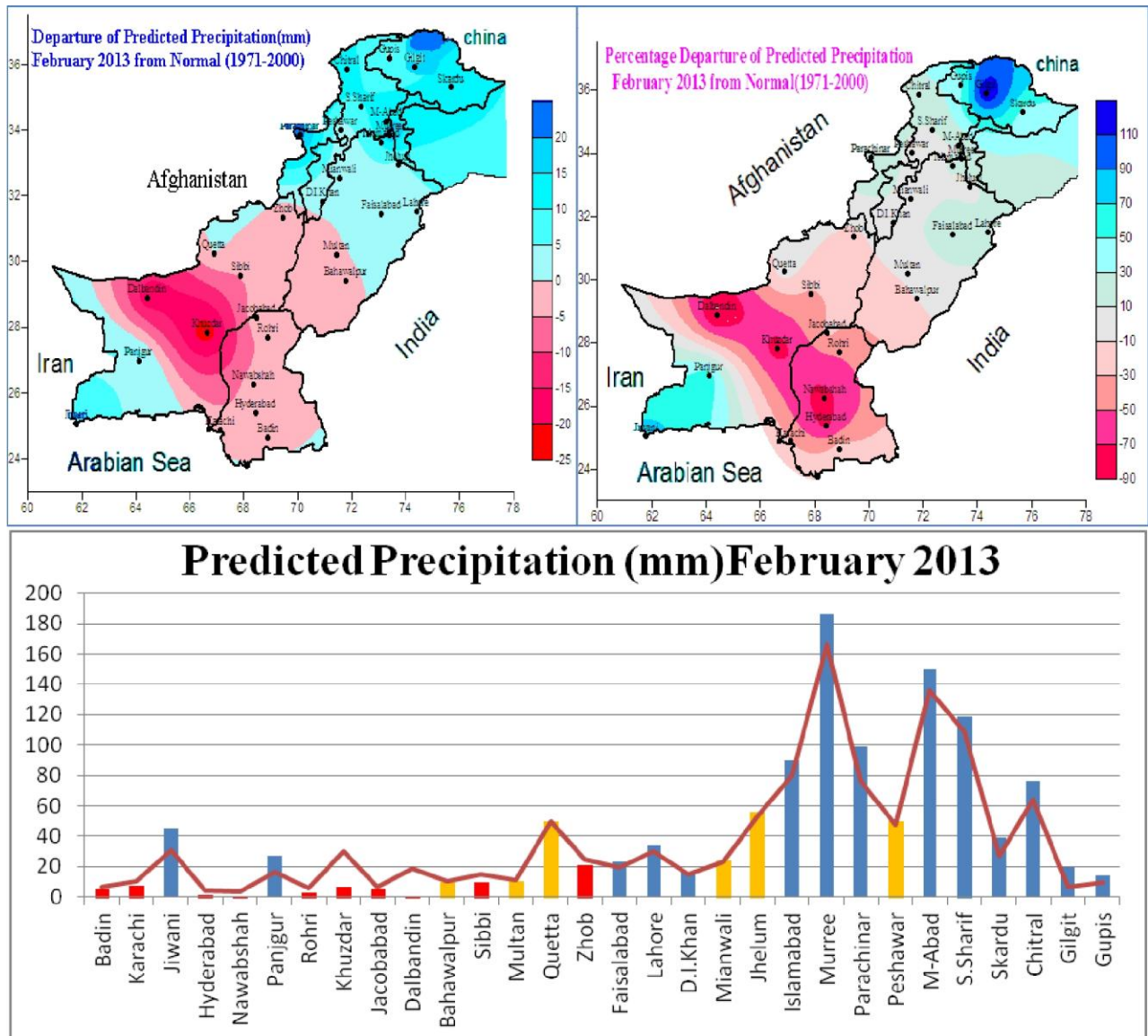
Output of the Combined General Circulation Model (CGCM) is downscaled to find out the seasonal prediction for precipitation over the Pakistan. Most parts of the country including Punjab, major parts of Baluchistan and Khyber Pakhtunkhwa and northwestern Gilgit Baltistan region is likely to receive below normal rainfall. Whereas the western parts of Khyber pakhtunkhwa and kashmir region is likely to receive above normal rainfall. As a whole below normal rainfall is predicted in the country for the season march to may 2013.



Along X-axis stations are arranged in ascending order of Latitudes from left to right.

Precipitation Forecast February 2013

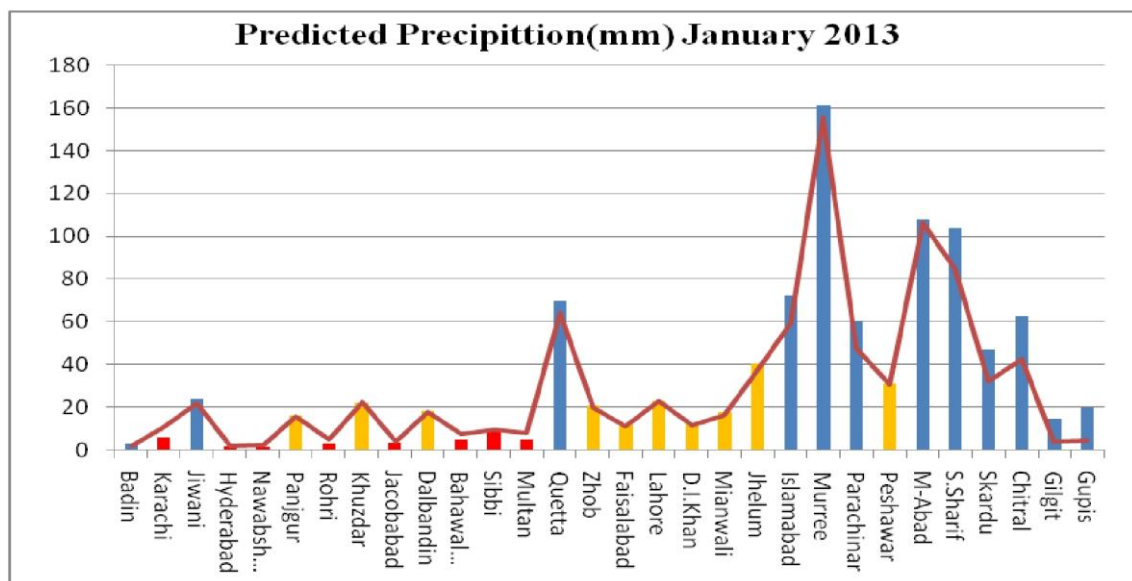
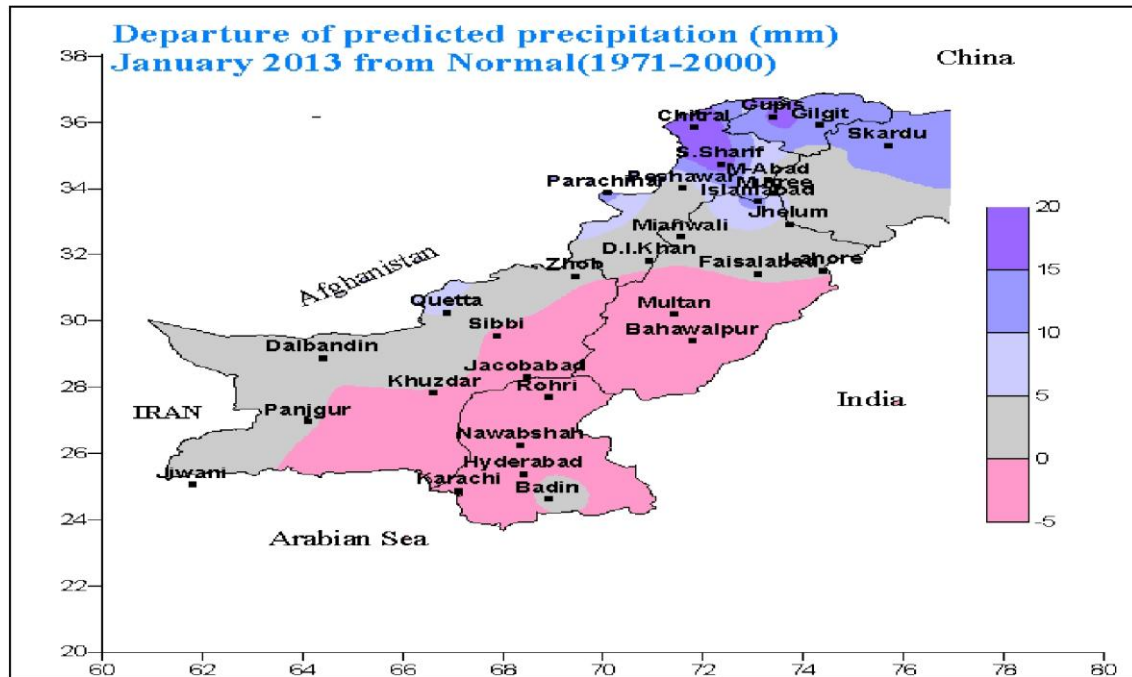
Combined General Circulation Model (CGCM) has been used to predict the precipitation over the Pakistan by using statistical downscaling technique. This is the part of an experimental process for long range forecasting extending from month to a season. Above normal precipitation is expected in the Northern half of the country. Gilgit Baltistan region is expected to receive the highest amount of precipitation during the month of February. Southern parts of Punjab, whole of the Sindh province and major parts of Balochistan excluding coastal areas is expected to receive normal to below normal precipitation except coastal region of Baluchistan. As a whole normal rainfall is expected for the country.



Along X-axis stations are arranged in ascending order of Latitudes from left to right. Line graph shows normal rainfall where as bar graph represent predicted rainfall for the month of February 2013. Blue shaded graphs stand for above normal, yellow for normal and red shows below normal values of predicted rainfall.

Precipitation Forecast January 2013

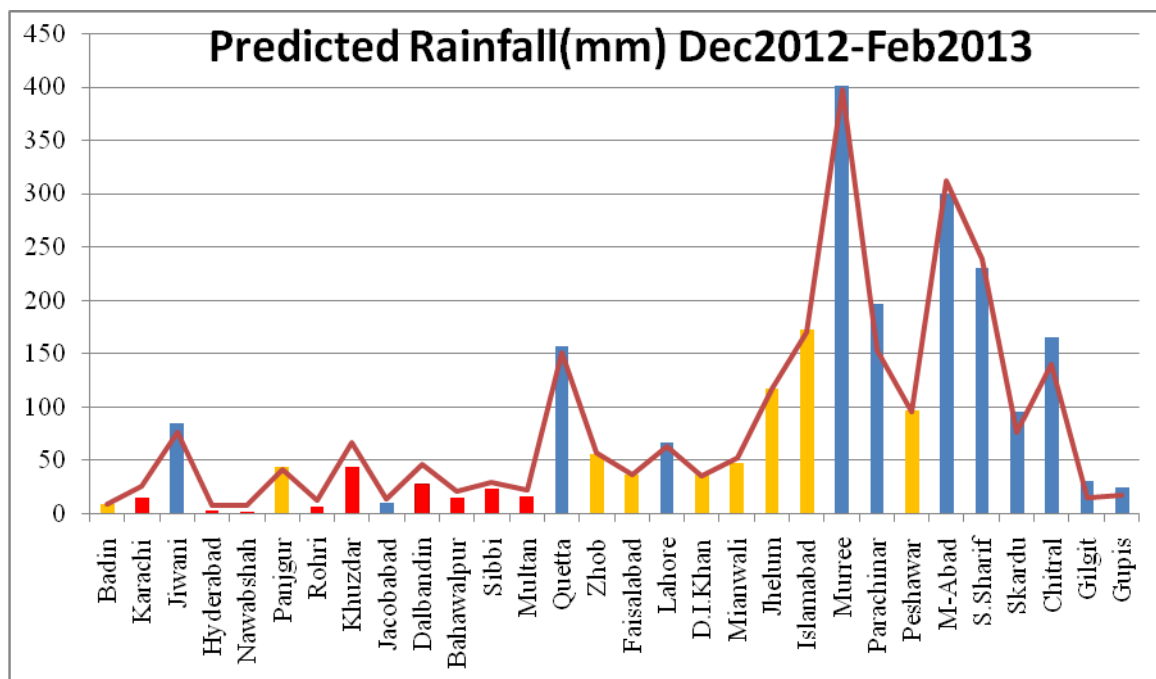
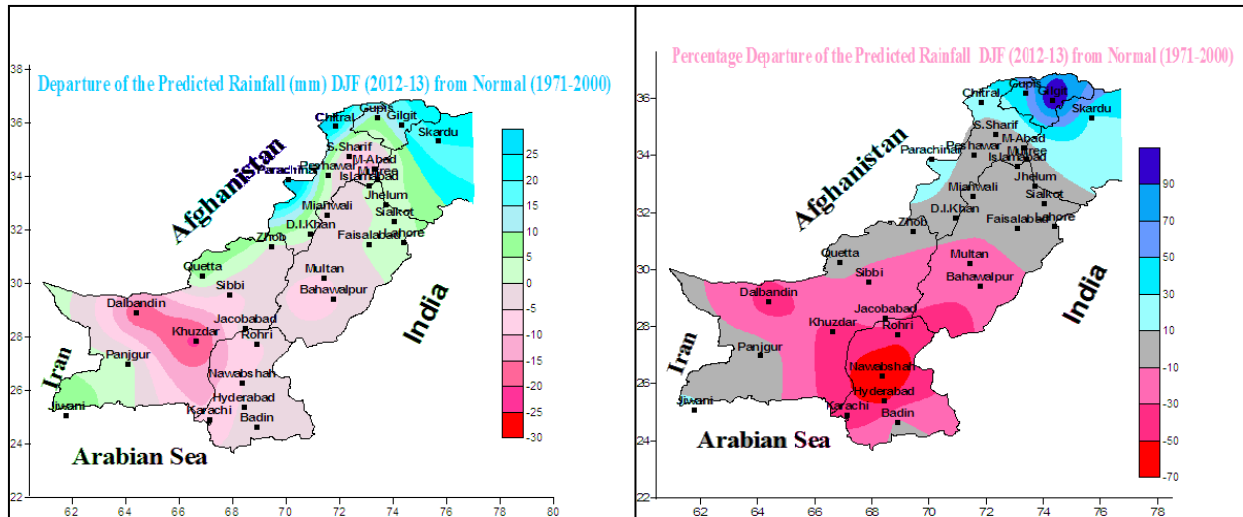
The statistical technique is used to downscale the output of the CGCM (Combined General Circulation Model) to prepare the precipitation forecast for the month of January. Above normal precipitation is predicted in the Northern highlands of the country. Almost whole of the Sindh province, adjoining Baluchistan and southern parts of Punjab are predicted to receive below normal precipitation. All the remaining parts of the country are expected to receive normal precipitation during this month.



Along X-axis stations are arranged in ascending order of Latitudes from left to right. Line graph shows normal rainfall where as bar graph represent predicted rainfall for the month of January 2013. Blue shaded graphs stand for above normal, yellow for normal and red shows below normal values of predicted rainfall.

Precipitation Forecast for Dec 2012-Feb 2013

Output of the combined general circulation model (CGCM) is used to predict the rainfall amount over the selected stations of Pakistan on monthly and seasonal time scales. The highlight of the Dec 2012-Feb 2013 precipitation forecast is above normal precipitation in the northern parts of Pakistan including Gilgit Baltistan region, Kashmir and major parts of KPK. Coastal areas of Balochistan and Quetta are also expected to receive slightly above normal precipitation. All the remaining parts of the country are expected to receive below normal precipitation during the winter season.



Along X-axis stations are arranged in ascending order of Latitudes from left to right. Line graph shows normal rainfall where as bar graph represent predicted rainfall for the month of December2012 to Feb 2013. Blue shaded graphs stand for above normal, yellow for normal and red shows below normal values of predicted rainfall.