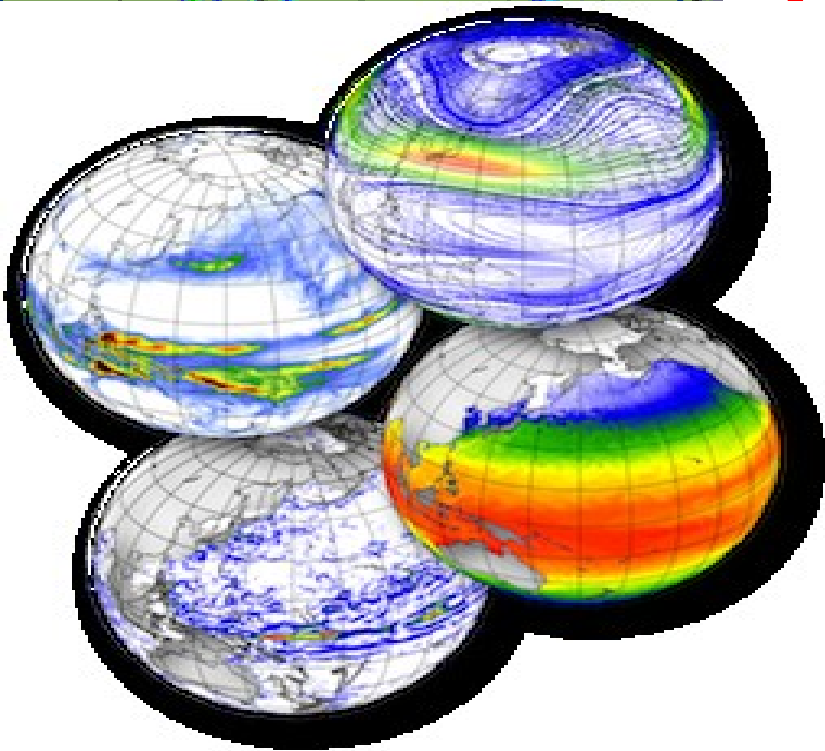


Brief on

# Sep-2014 FLOODs



Hazrat Mir

Director General PMD





**PMD**

Tel: (+92-51) 9250367  
Fax: (+92-51) 9250368

**Pakistan**

Website: [www.pmd.gov.pk](http://www.pmd.gov.pk)  
Email: [Pakmet\\_islamabad@yahoo.com](mailto:Pakmet_islamabad@yahoo.com)

**Date:** 6<sup>th</sup> August, 2014

**Monsoon Update**

**Outlook for Monsoon 2014 (August - September)**

During July 2014 summer monsoon rainfall in Pakistan remained 39% below normal and for rest of the period during August and September, below normal trend is likely to continue.

The erratic behavior of current monsoon, due to prevailing El Nino conditions is likely to continue in Pakistan. During the month of August and September, the monsoon rainfall in Pakistan is likely to remain by and large normal embedded with few extreme rainfall events during mid August to mid September. The northern parts may receive nearly normal rains during the period. While well below normal rains are expected in the southern parts of the country. It means that overall availability of water in the country from monsoon rainfall would be satisfactory.

*Note: This update is prepared at 80% confidence level and meant for planning purpose only.*

**(HAZRAT MIR)**  
Director General, PMD



## Performance of Monsoon 2014 over Pakistan

PERCENTAGE DEPARTURE (01-07-2014 TO 06-09-2014)

Region	Jul	Aug	Sep*	Jul-Sep*
Pakistan	<b>-40</b>	<b>-49</b>	<b>91</b>	<b>-23</b>
Azad J&K	<b>-26</b>	<b>-41</b>	<b>156**</b>	<b>0</b>
Balochistan	<b>-34</b>	<b>-46</b>	<b>-36</b>	<b>-39</b>
Gilgit-Baltistan	<b>18</b>	<b>-44</b>	<b>514**</b>	<b>119</b>
Khyber-PK	<b>-31</b>	<b>-37</b>	<b>-36</b>	<b>-32</b>
Punjab	<b>-30</b>	<b>-45</b>	<b>200***</b>	<b>-1</b>
Sindh	<b>-96</b>	<b>-81</b>	<b>-13</b>	<b>-78</b>

### NOTE

*All calculations are provisional & based on real time values upto 06-09-2014\*.*

**\*\* Second highest September rainfall after 1992 during 1961-2014**

**\*\*\* Fourth highest September rainfall after 2012, 2011 & 1992 during 1961-2014**





Weather Advisory-1

Date: September 01, 2014, Time: 1500 hrs

## **Widespread Rains/Thunderstorm Predicted during the Current Week**

### **Heavy Rains expected in Sindh, Punjab and Kashmir**

A well marked Low Pressure Area (LPA) is located over eastern India (Southeastern Madhya Pradesh) and is likely to move west-northwestward during next 2 days. Under the influence of this weather system, strong monsoon current will start to penetrate in Pakistan (Punjab, Sindh and Kashmir) on Tuesday/Wednesday. **This LPA has a potential to produce heavy at times very heavy rainfall over northeast Pakistan (upper Punjab & Kashmir) during Wednesday to Friday.**

#### **Punjab Forecast**

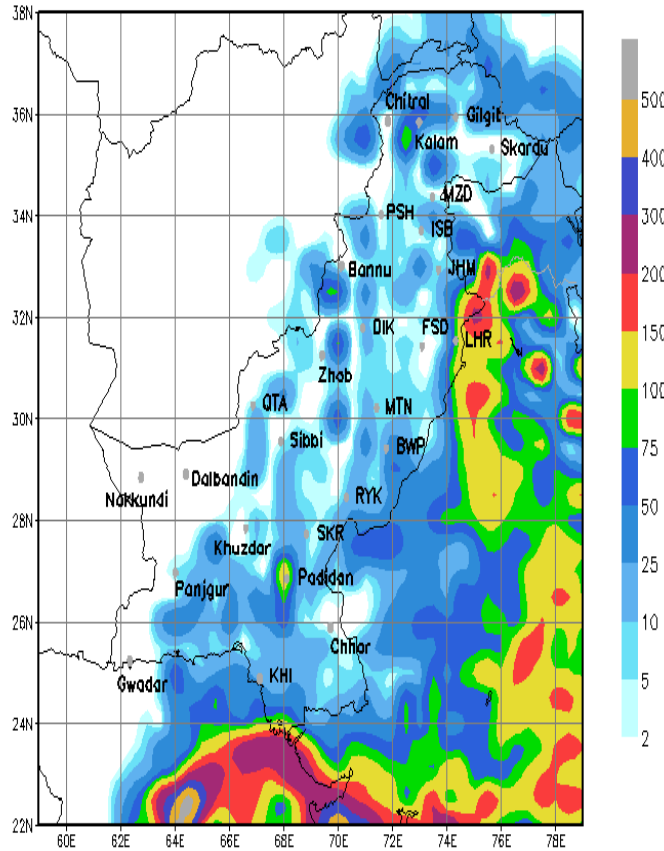
**Widespread rain/thundershowers with isolated heavy falls very heavy at times** are expected in Bahawalpur, DG Khan, Sahiwal, Lahore, Gujranwala, Rawalpindi divisions and Islamabad during Tuesday to Friday. Scattered rain/thundershowers are also expected in rest of the areas (Multan Faisalabad and Sargodha divisions) during Tuesday to Friday. **Heavy falls may generate flash/urban flooding in the vulnerable areas.**

#### **Kashmir Forecast**

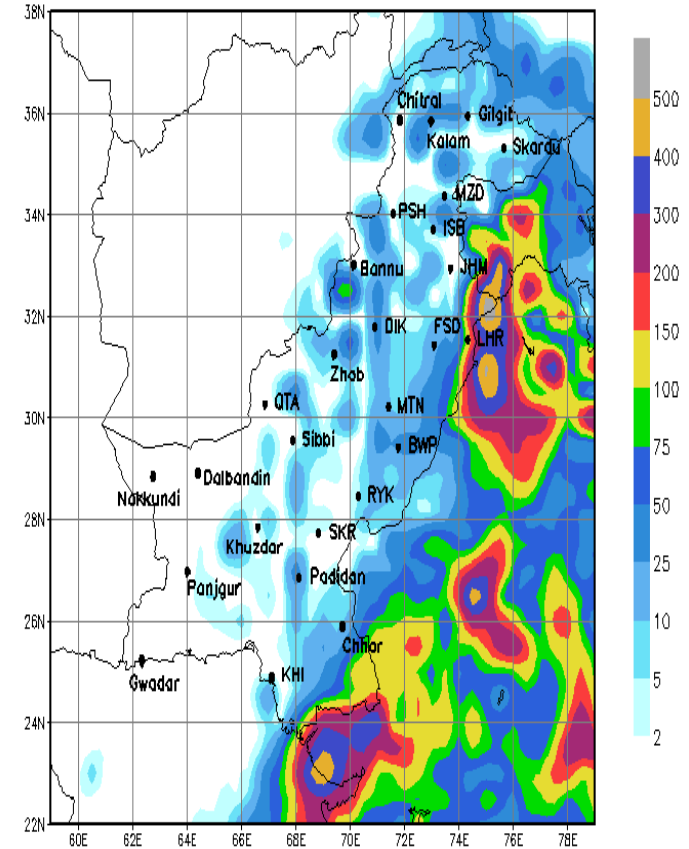
Widespread rain/thundershowers with isolated heavy falls are expected in most parts of Kashmir during Wednesday to Friday. **Heavy intermittent rainfall may trigger flash flooding/landslides in the vulnerable areas**



Precipitation Outlook for 00Z 30-AUG-2014 to 00Z 05-SEP-2014



Precipitation Outlook for 00Z 01-SEP-2014 to 00Z 07-SEP-2014





**Widespread Heavy to Very Heavy Rains/Thunderstorm Predicted in Northeast Punjab and Kashmir during next 72 hours**

A well marked Monsoon Low Pressure Area (MLPA) is now located over Rajasthan (India) and is likely to move northward during next 24 hours. **This weather system has a potential to produce heavy at times very heavy rainfall over northeast Punjab (Gujranwala, Lahore, Rawalpindi divisions), Kashmir and adjoining areas during next 72 hours, causing flood situation in the Jhelum, Chenab, Ravi, Sutlej Rivers and their tributaries.**

**Punjab Forecast**

Widespread rain/thundershowers **with isolated heavy at times very heavy falls** are expected in Lahore, Gujranwala, Rawalpindi divisions and Islamabad during Thursday to Friday. **Heavy falls may generate flash/urban flooding in the vulnerable areas.**

Scattered rain/thundershowers are also expected in rest of Punjab during the period.

**Kashmir and Gilgit-Baltistan Forecast**

Widespread rain/thundershowers **with isolated heavy at times very heavy falls are expected in Kashmir during Thursday to Friday.** Heavy intermittent rainfall **may trigger flash flooding/landslides in the vulnerable areas of Kashmir.**

Isolated rain/thundershowers are also expected in Gilgit-Baltistan during Thursday to Friday.



**Hydrological forecast verification**

**4<sup>th</sup> September 2014**

RIVER	MEASURING LOCATION	PREDICTED FLOW ON 3 <sup>rd</sup> Sep MORNING	RECORDED FLOW TILL 4 <sup>th</sup> MORNING	FORECAST ACCURACY
JHELUM	MANGLA	200 R 600 <b>Exceptionally High</b>	485.0	100%
	RASUL	50-80 <b>Low</b>	79.41	100%
CHENAB	MARALA	200 R 550 <b>Very High</b>	484.8	100%
	KHANKI	200 R 550 <b>Very High</b>	373.8	100%
	QADIRABAD	200 R 550 <b>Very High</b>	368.4	100%
	TRIMMU			





Weather Advisory-3 (ALERT)

Date: September 04, 2014, Time: 1400 hrs

## **More Widespread Heavy to Very Heavy Rains/Thunderstorm Predicted in Northeast Punjab & Kashmir during next 24-36 hours**

The chief amounts of rainfall recorded during last 30 hours are as; Sialkot (cantt. 251, Airport 167), Rawalakot 194, Lahore (City 183 Airport 180), Kotli 168, Gujrat 163, Mangla 153, Kasur 135, Jhelum 115, Faisalabad 113, T T Singh 97, Okara 85 and Mandibahauddin 70 mm.

This weather system **still has a potential to produce heavy at times very heavy rainfall** over northeast Punjab (Gujranwala, Lahore, Rawalpindi divisions), Kashmir and adjoining areas during next 24-36 hours. **causing flood situation in the Jhelum, Chenab, Ravi, Sutlej Rivers and their tributaries.**

### **Punjab Forecast**

Widespread rain/thundershowers with isolated heavy at times very heavy falls are expected in Lahore, Gujranwala, Rawalpindi divisions and Islamabad during next 24-36 hours. **Heavy falls may generate further flash/urban flooding in the vulnerable areas.**

Scattered rain/thundershowers are also expected in rest of Punjab during the period.

### **Kashmir and Gilgit-Baltistan Forecast**

Widespread rain/thundershowers with isolated heavy **at times very heavy falls** are expected in Kashmir during next 24-36 hours. **Heavy intermittent rainfall may trigger further flash flooding/landslides in the vulnerable areas of Kashmir.**

Scattered rain/thundershowers are also expected in Gilgit-Baltistan during next 24 hours.





**Hydrological forecast verification**

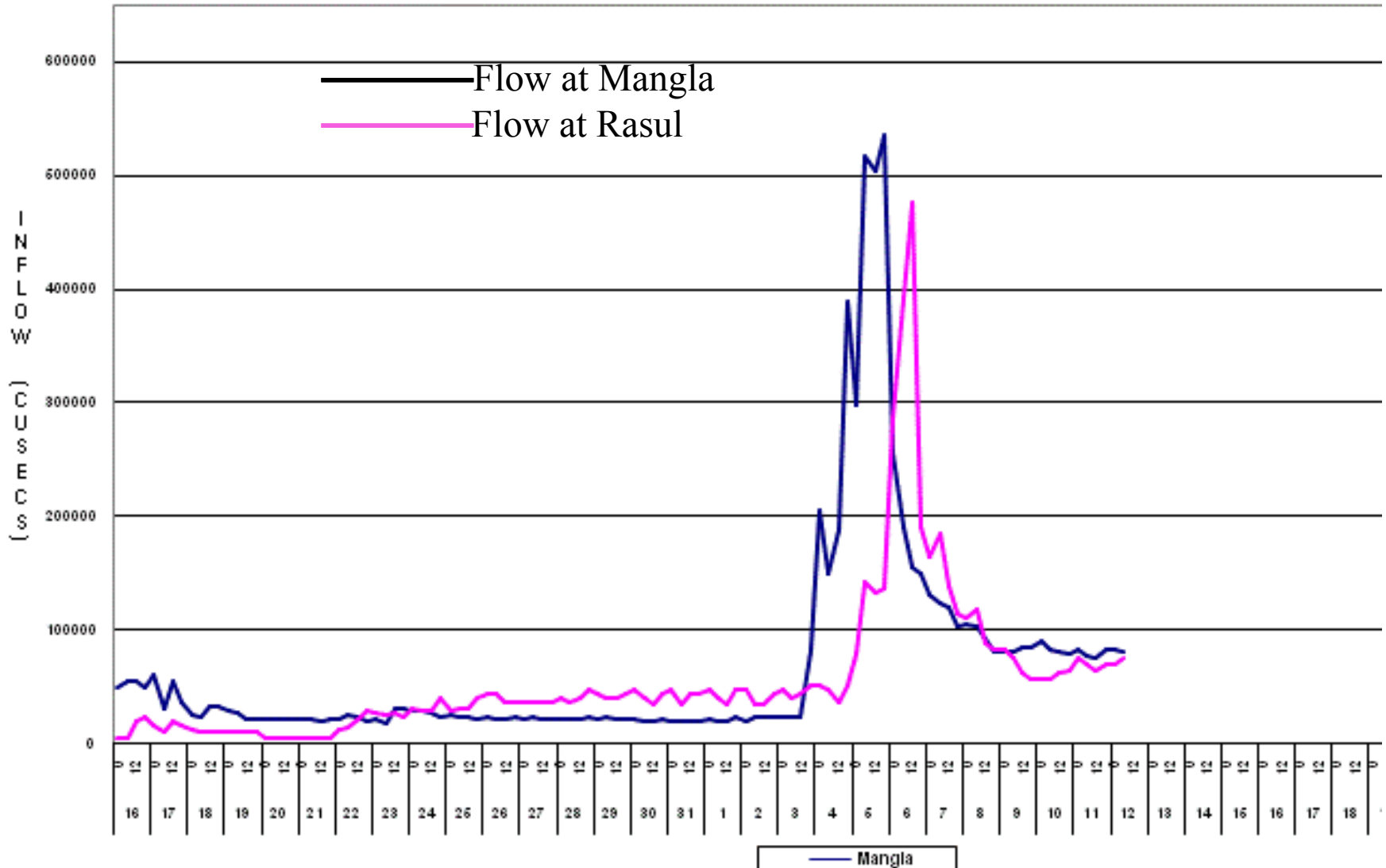
**5<sup>th</sup> September 2014**

RIVER	MEASURING LOCATION	FLOW FORECAST	RECORDED FLOW	FORECAST ACCURACY
JHELUM	MANGLA	300-500 <b>Exceptionally High</b>	634.0	100%
	RASUL	100-150 <b>Medium</b>	79.41	100%
CHENAB	MARALA	400 R 600 <b>Exceptionally High</b>	547.2	100%
	KHANKI	400 R 600 <b>Exceptionally High</b>	660.2	100%
	QADIRABAD	300 R 500 <b>Very High</b>	656.0	100%
	TRIMMU			



Flood Forecasting Division Lahore

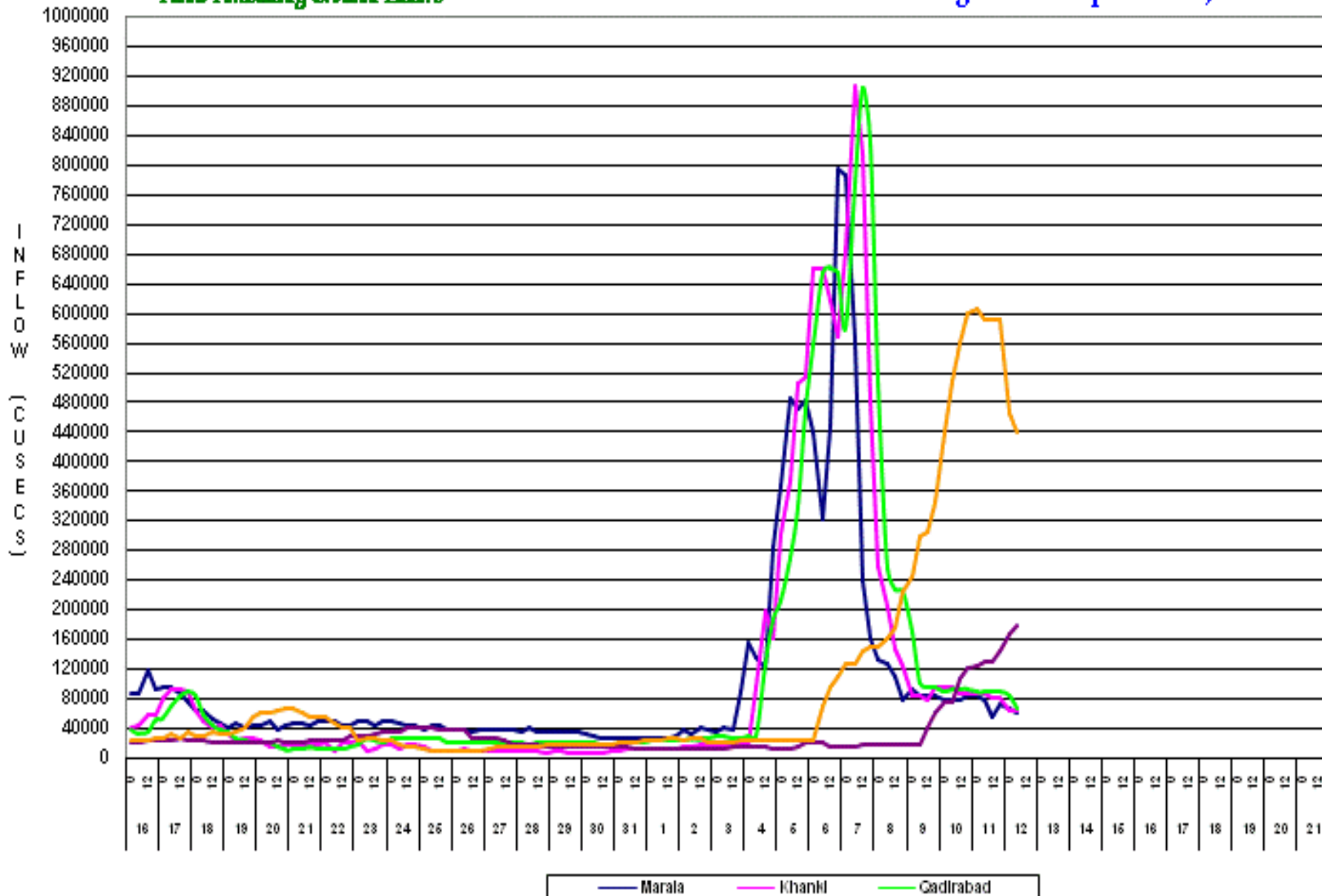
## Jhelum Catchments Inflow August & September, 2014





*Flood Forecasting Division Lahore*

**Chenab Catchments Inflow August & September, 2014**





**Weather Advisory-4**

Date: September 05, 2014, Time: 1500 hrs

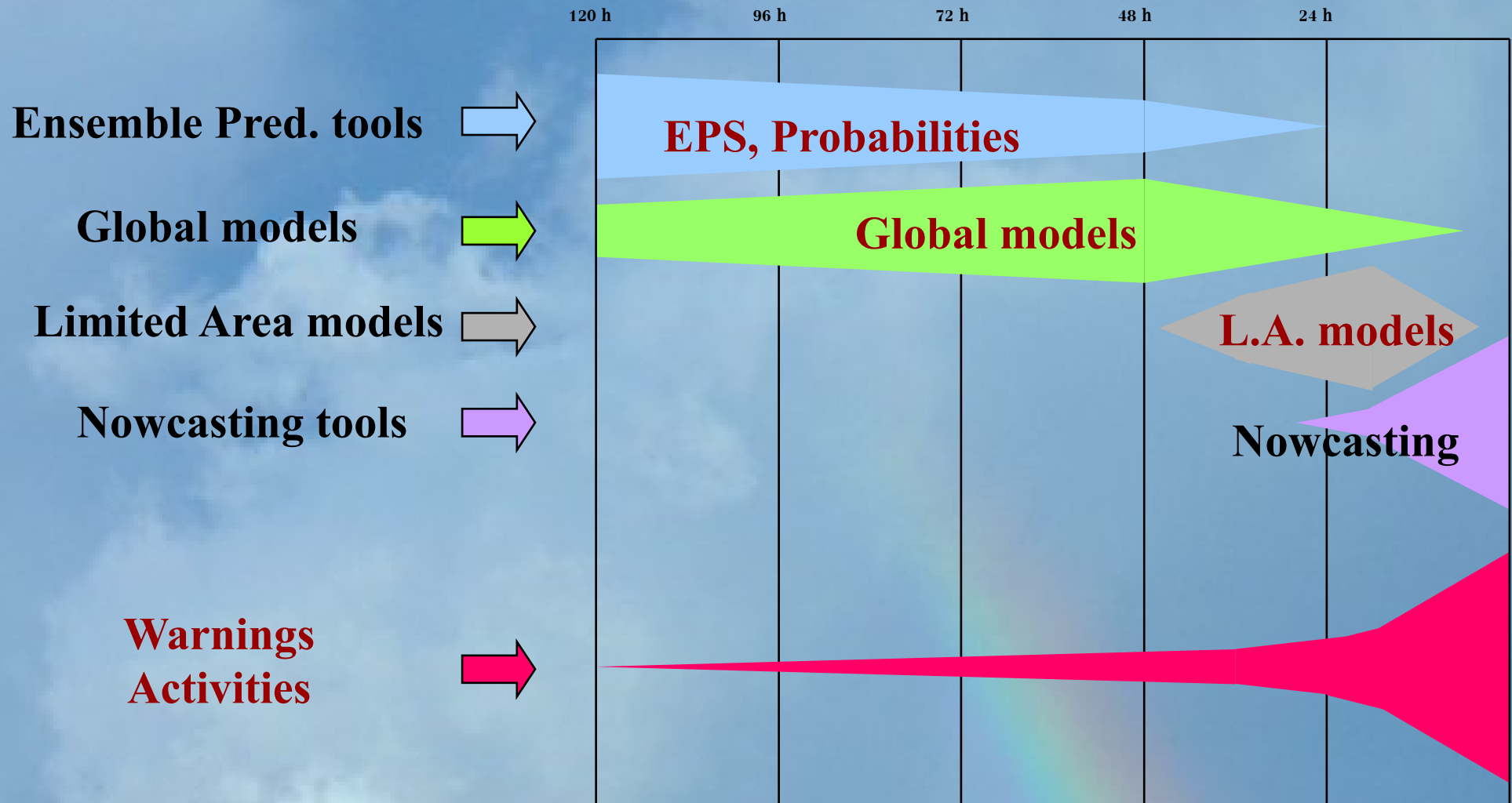
**Widespread Moderate to Heavy intensity Rains/Thunderstorm Likely to Continue during next 24 hours**

**The weather system likely to weaken gradually from Saturday**



# Risk Identification: Early warnings

## Time Dependency of Warnings at PMD



# Accessibility of Weather Advisories

For updates about weather & climate, floods & droughts, earthquakes and snowstorms, please visit

PMD website

<http://www.pmd.gov.pk>

OR

Call PMD 24hrs a day at following numbers.

**Flood Forecasting Division**

**042-99200208, 042-99200139**

**National Weather Forecasting Centre**

**051-9250363-4, 051-9250595**

**Tropical Cyclone Warning Centre**

**021-99261434**

**Tsunami Warning Centre**

**021-99261429**

**National Drought Monitoring Centre**

**051-9250365, 9250598**



# Pakistan Meteorological Department

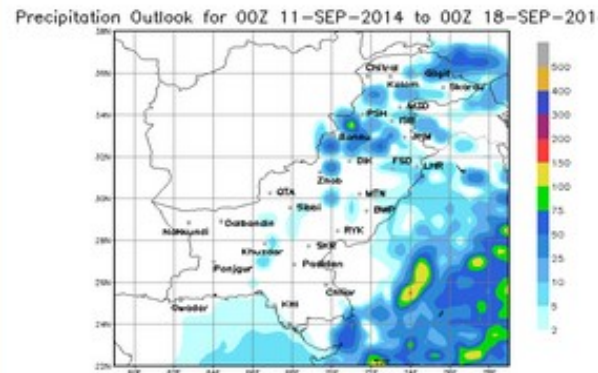
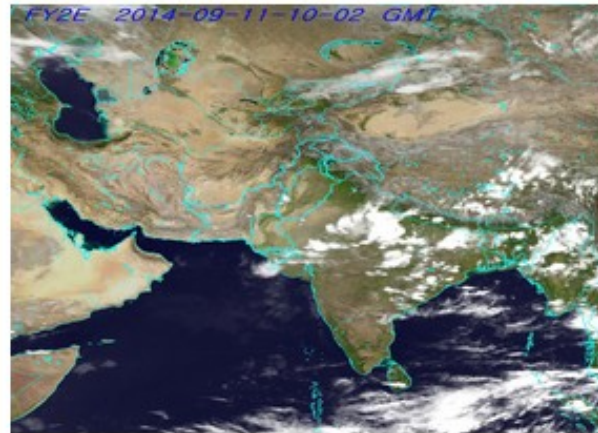
Government of Pakistan

ISO 9001:2008 Certified Provider of Aviation Meteorological Services View Certificate



country. However, rain-thundershowers are expected at isolated places in Malakand, Hazara, Peshawar, Kohat, Rawalpindi, Gujranwala, Lahore

- About PMD
- Leaders
- Services
- Address Book
- Met Observatories
- PMD Projects
- Climate & Astronomical Data
- Historical Events
- Numerical Weather Products
- Seasonal Forecast
- Academic Strength
- Events Pictures/Videos
- Training and Courses
- Publication/Reports
- Quarterly News Bulletin
- Conferences and Seminars
- Jobs
- Tender
- Official Email
- Contact Us
- Youth Corner (Met.Edu)
- Webmaster



Larkana, Moenjodaro, Turbat, Dalbandin 40°C. Islamabad 33°C, Lahore 34°C, Karachi 33°C, Peshawar 37°C, Q

Pakistan Weather	Satellite/Radar Images
National Forecast, Cities Forecast Weekly, Seasonal Outlook	Pakistan, Asia, Global Satellite Images Radar Network
Aviation Products	Flood Update
Aviation Weather Charts, NMCC Charts Metars, Tafors	Flood Forecasts, Dams Flows GIS Maps, Rainfall/Temperature
Drought Monitoring	Farmer's Weather
Current Drought Situation/Monitoring Soil Moisture Analysis/Advisory	Farmers Forecasts, Agromet Bulletins Crop Vegetation Index, Crops Report
Tropical Cyclone/Marine Weather	Earthquake Information
Tides, Wave Height, Wind speed Coastal Areas Forecast, SST	Recent Earthquakes, Seismic Reports Seismic Monitoring Network
Research Activities	Synoptic Data
R&D, NWP Products, Publications Pollen Count, Pak.Jrn.of Meteorology	Daily Synoptic Data Browsing Surface/Upper Air Met Data

Daily Weather Report

Weekly Weather Outlook (Monsoon 2014)

Real Time Flood Report for Lai Nullah Basin

Weather Advisory/ Press Release

FLOOD ALERT



**UNDERSTAND** the Climate Risk

**COMMUNICATE** the Climate Risk

***Thank you!***