

## **Brief on**

### Sep-2014 FLOODs

M. Aleem ul Hassan

Deputy Director

National Weather Forecasting

Center







Government of Pakistan Cabinet Secretariat (Aviation Division) Pakistan Meteorological Department Sector H-8/2, Islamabad - 44000 PAKISTAN

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Dated: 16th June, 2014

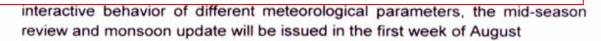
#### Outlook for Monsoon Season (July-September) 2014

Pakistan Summer Monsoon rainfall is invariably affected by the global, regional and local climatic conditions prevailing prior to the season. The emerging climatic features linked to El-Nino development have fairly large potential to suppress Pakistan Summer Monsoon. "Analysis of their combined effect indicates that total amount of rainfall averaged over Pakistan during monsoon season (July-September) 2014 will remain slightly below normal, which means that overall availability of water in the country from monsoon rainfall would be satisfactory".

Main features of seasonal outlook are as under:

- Onset of monsoon is likely to be in the last week of June, 2014 and the rain fall during July will below normal.
- Rainfall will increase gradually in August over Northern parts of the country. During August and September, monsoon will remain by and large normal. However, northeastern parts of the country are expected to receive slightly above normal precipitation during the period. An effective water management practices may be adopted to fill the main reservoir(s) at optimum level.

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Website: www.pmd.gov.pk Email: Pakmet\_islamabad@yahoo.com

Date: 6th 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







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(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*
46 (T. 1975)	Pakistan	-40	-49	91	-23
	Azad J&K	-26	-41	156**	0
	Balochistan	-34	-46	-36	-39
	Gilgit-Baltistan	18	-44	514**	119
	Khyber-PK	-31	-37	-36	-32
	Punjab	-30	-45	200***	-1
	Sindh	-96	-81	-13	-78

#### <u>NOTE</u>

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







### Government of Pakistan PAKISTAN METEOROLOGICAL DEPARTMENT

National Weather Forecasting Center Sector H-8/2, Islamabad

> Date: 08 May, 2014 Time: 1500 PST

Tele: 9250363-4 Fax: 9250370

#### Press Release

Unstable weather conditions would continue during the current month Erratic rains predicted during coming monsoon (Jun-Sep 2014)

Met-Office predicted "Wet than Normal Weather" during the month of May 2014. The current unstable weather conditions would continue with intervals in different parts of the country. Frequent rain with dust-thundershowers predicted in the coming days resulting mild summer than normal in May. Scattered rain with dust-thundershowers is expected in KP, Punjab and Kashmir in next few days. During next week, widespread rain/dust-thundershower is expected in the country accompanied by isolated heavy falls in upper parts of KP (Malakand & Hazara Divisions) and Kashmir. Isolated heavy falls in the said areas may trigger some flash flood events and landslides in the vulnerable areas.

The farmers are advised to take precautionary measures, particularly for harvesting & threshing of wheat crop and sowing of cotton crop during next 2-3 weeks. Due to low

The prevailing unusual weather conditions during the current month and the evolving El-Nino conditions during the coming few months point toward "Erratic Monsoon" in Pakistan. The erratic monsoon may cause deficient rains in some areas, while some monsoonal areas would witness normal/excess rains during the season. Therefore all stakeholders are requested to remain abreast with medium-range weather advisories being issued by Met-Office during the season.



Kind Attn:

Sec Aviation Division
Sec Climate Change
Chairman NDMA/FFC
Sec Water & Power
Chief Sec AJK
Media

Islamabad









**Daily JANG** 6 June, 2014

### راولپنڈی اسلام آبادسمیت بالائی علاقوں میں پری مون سون کی پہلی بارش کا امکان

اسلام آباد(اینے نامہ نگارہے) پیچھلے دوہفتوں سے ملک کے تمام میدانی علاقے شدیدگری کی لہر کے زیرا ثر ہیں۔عموماً پاکستان میں گرمی کا دورانیہ 5سے 7 دن تک رہتا ہے کیکن 9 سال کے بعد اتنی طویل گرمی کی شدید لہرنے لوگوں کو بری طرح متاثر کیا ہے ماہرموسمیات ڈاکٹر محمہ حنیف نے جنگ کو بتایا کہ آئندہ چوہیں گھنٹوں کے دوران راولینڈی اسلام آبادسمیت ملک کے بالائی علاقوں میں یری مون سون کی پہلی بارش ہوگی جبکہ اس ہفتے کے دوران ملک کے بالائی علاقوں میں دو سے تین بارشوں کا امکان ہے،جس سے گرمی کی حلیہ لہرختم ہوجا ئیکی۔مون سون کا با قاعدہ آغاز جولائی کے پہلے ہفتے سے ہوگا، ڈاکٹر محد حنیف نے بتایا کہ رواں سال مون سون کی پارشیں غیر متوازن رہیں گی، بیشتر میدانی علاقوں میں کم کیکن شالی پنجاب یا تشمیر میں معمول کے طابق یا پھر معمول سے







Date: September 01, 2014

Time: 1500 hrs

#### Weather Advisory-1

## 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.

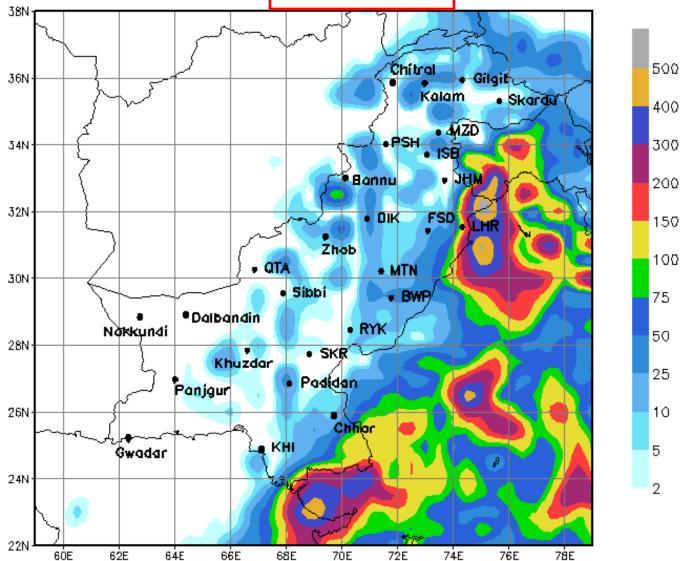








Precipitation Outlook for 00Z D1-SEP-2014 to 00Z 07-SEP-2014







Di Heavy rains forecast for three more days | ePaper | DAWN.COM - Google Chrome

Pakistan epaper.dawn.com/DetailNews.php?StoryText=02\_09\_2014\_002\_009



By Our Staff Reporter

Chief Minister Shahbaz Sharif directed all administrative officers concerned to remain present in the field to monitor the situation after heavy rains, and elected representatives to keep an eye on disposal of rainwater from low-lying areas.

#### Heavy rains forecast for three more days

and the control of the control of the

LAHORE: The city received 28 millimetres of rain on Monday, causing a drop of eight degrees Celsius in the mercory level in the last 24hours (down to 25.8 degree Celsius) and refreshing the weather Drizzling continued by the time this report was filed.

Even the maximum temerature was only 27.2 degree Celsius. Weather pundits predicted the wet spell to continue for another 72 hours, forecasting scattered and heavy rains in Punjab, and dusty winds for the cirk.

Humidity was recorded at 84pc in the morning and 83pc by evening. According to Met officials, low pressure area hovered over eastern parts of Maharushtra (India) and was moving northwards. At the sametime, moist current from the Arabian Sen is also penetrating into Sindh, Punjab and Azad Jammu and Kashmir and can cause rains in these areas.

Thundershowers may hir Sindh (Mirpur Khas, Hyderabad and Karachi) and Balochistan (Kalat division) for the next 48 hours. The same trend is predicted for Panjab and Kashmir.

"Tributaries of rivers Chenab and Ravi might overflow with medium to high floods," said an official of the Met department.

However, all other rivers are expected to flow normally as they did during the last 24 hours.

"Some rain in Kashmir could be good news for Mangla Dam, which is sliding fast to the horrors of water planners," an official of the Irrigation Department sail It has already hir 1,228 feet, some 14 feet below optimum leavel

DRAINAGE: Wasa on Monday claimed to have drained out all the accumulated rainwater by 4:30pm from various spots by running pumping stations before

Chief Minister Shahbaz Sharif directed all administrative officers concerned toremain present in the field to monitor the situation afterheavy rains, and elected representatives to keep an eye on disposal of rainwater from low-lying areas.



Daily DAWN

2 Sep, 2014







Date: September 03, 2014

Time: 1400 hrs



## 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.

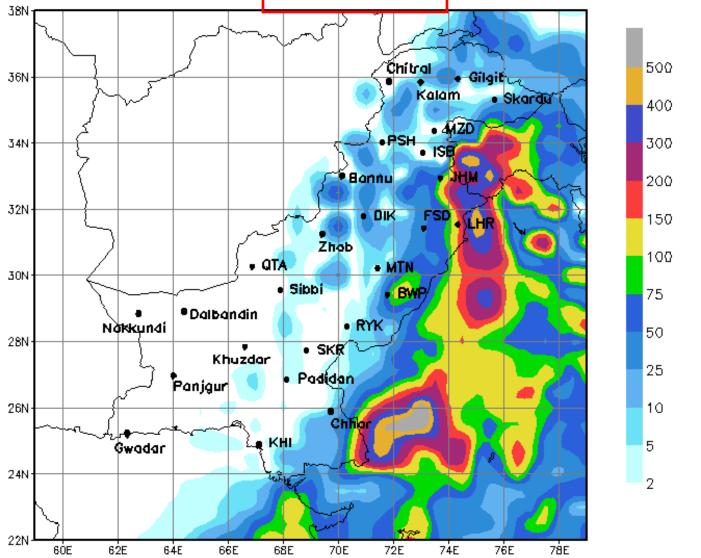








Precipitation Outlook for 00Z 03-SEP-2014 to 00Z 09-SEP-2014









Date: September 04, 2014

Time: 1400 hrs

#### Weather Advisory-3 (ALERT)

## 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.

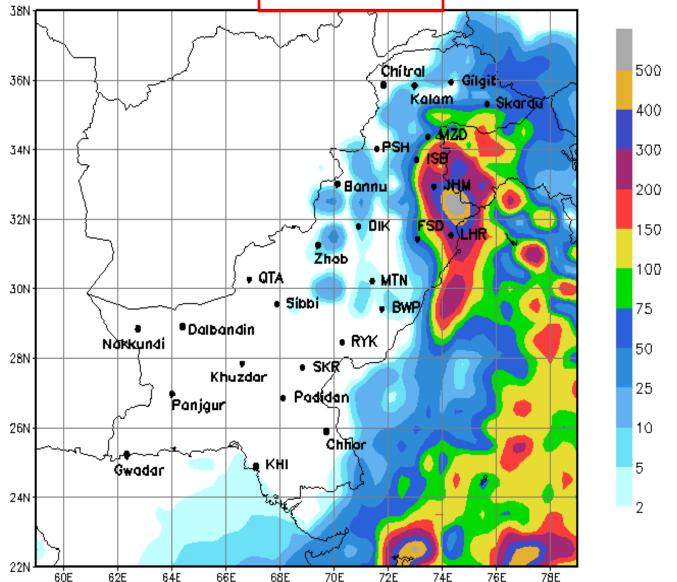








Precipitation Outlook for 00Z 04-SEP-2014 to 00Z 10-SEP-2014







### 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

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Conferences and Seminars

Jobs

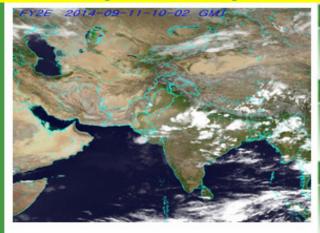
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Youth Corner (Met.Edu)

Webmaster



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Pakistan Weather
National Forecast, Cities Forecas Weekly, Seasonal Outlook
Aviation Products
Aviation Weather Charts, NMCC Cha Metars, Tafors

#### **Drought Monitoring**

Current Drought Situation/Monitoring Soil Moisture Analysis/Advisory

#### Tropical Cyclone/Marine Weather

Tides, Wave Height, Wind speed Coastal Areas Forecast, SST

#### **Research Activities**

R&D, NWP Products, Publications Pollen Count, Pak. Jrn. of Meteorology

#### Satellite/Radar Images

Pakistan, Asia, Global Satellite Images Radar Network

#### Flood Update

Flood Forecasts, Dams Flows GIS Maps, Rainfall/Temperature

#### **Farmer's Weather**

Farmers Forecasts, Agromet Bulletins Crop Vegetation Index, Crops Report

#### **Earthquake Information**

Recent Earthquakes, Seismic Reports Seismic Monitoring Network

#### Synoptic Data

Daily Synoptic Data Browsing Surface/Upper Air Met Data

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

Daily Weather Report

Weekly Weather Outlook (Monsoon 2014)

Real Time Flood Report for Lai Nullah Basin

Weather Advisory/ Press Release

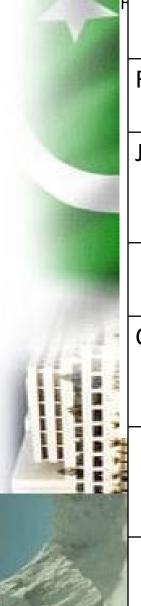
FLOOD ALERT











<b>Hydrological forecast verification</b>
5 <sup>th</sup> September 2014

<u>5" September 2014</u>						
į	RIVER	MEASURING	FLOW FORECAST	RECORDED FLOW	FORECAST	
Ī		LOCATION			ACCURACY	
	JHELUM	MANGLA	300-500	634.0	100%	
i			Exceptionally			
			High			
		RASUL	100-150	79.41	100%	
b			Medium			
	CHENAB	MARALA	400 R 600	547.2	100%	
-			Exceptionally			
			High			
-		KHANKI	400 R 600	660.2	100%	
3			Exceptionally			
			High			
		QADIRABAD	300 R 500	656.0	100%	
d			Very High			
		TRIMMU				





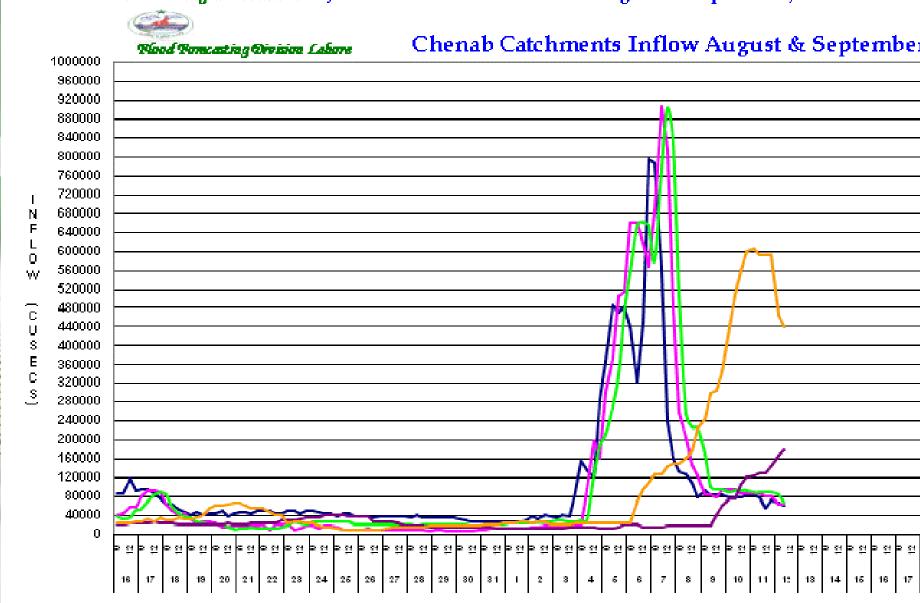
### Pakistan Meteorological Department

Government of Pakistan



Placed Tomocating Division Labore

Jhelum Catchments Inflow August & September, 2014



Marala

Khanki







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











# Thank you!