



**Government of Pakistan
Ministry of Water Resources
Office of Chief Engineering Advisor/
Chairman, Federal Flood Commission**

6-Attaturk Avenue, G-5/1, Islamabad
Fax No. 051-9244621 & www.ffc.gov.pk

**FFC's
DAILY WEATHER & FLOOD SITUATION REPORT
MONDAY AUGUST 22, 2022**

Rivers Hydrological Situation:

Heavy rainfall during the past 24 hours in **D.G. Khan Hill Torrent** areas generated **High Flows** (Vehova = 67,882 cusecs, Vidore = 39,254 cusecs & Sakhi Sarwar = 10,903 cusecs) as reported by Punjab Irrigation Department. This has resulted in “**High Flood**” in **River Indus** at **Taunsa Barrage** where it is flowing in “**High Flood**” since 1700 hours yesterday (**Ref: Annexure-I**). River Indus is also flowing in “**Medium Flood**” in **Guddu-Sukkur** reach and in “**Low Flood**” at **Kalabagh, Chashma** and **Kotri**.

2. Further to above, due to heavy rainfall in the catchments areas of **River Kabul** (a tributary of River Indus downstream Tarbela), it is flowing in “**Medium Flood**” at **Warsak** and in “**High Flood**” at **Nowshera** (downstream Warsak). Other main Rivers i.e. Jhelum, Chenab, Ravi & Sutlej are in Normal Flow Conditions. For main rivers inflows/ outflows at important control structures **Annexure-I** may be seen.

Reservoirs Storage Position:

3. **Tarbela** reservoir attained its Maximum Conservation Level (MCL) of **1550.00 feet** on **20th August 2022** and is being maintained at the same level today while Mangla Dam has filled only upto 41.15% of its Maximum Live Storage Capacity due to deficient rainfalls in Jhelum River's catchments. Present Combined Live Storage of Tarbela, Chashma & Mangla reservoirs is **8.912 MAF** (i.e. **66.21 %** of **13.461 MAF**) (**Annexure-I**). Tarbela Dam Management Authorities are advised to take utmost care and exercise extra vigilance in the reservoir operation and ensure realistic dam regulation with a view to manage high flows from Kabul and to reduce inflows at Taunsa.

Prevalent Meteorological Situation (Source: FFD, Lahore):

4. **Monsoon Low-Pressure Area** earlier over Jacobabad today lies over Southeastern Sindh. Trough of Westerly Wave previously over Northern parts of Pakistan has moved away Eastwards while another fresh trough of Westerly Wave lies over Northern parts of Iran with Seasonal Low lies over Western Balochistan.

5. Yesterdays “**Depression**” over Northwestern Chattisgarh and adjoining Madhya Pradesh (India) has moved further in West-Northwestwards direction and today lies over Northern Madhya Pradesh (India) and adjoining areas and is likely to move further in the same direction. Moderate Moist currents from Arabian Sea are penetrating into Southern Punjab, Sindh and Balochistan upto 3000 feet.

Weather & Rainfall Forecast (Next 24 hours):

6. **Scattered thunderstorm/rain** of **Moderate Intensity** with **Isolated Heavy Falls** is expected over **Punjab (D.G. Khan, Multan & Bahawalpur Divisions), Upper & Southeastern Sindh, Khyber Pakhtunkhwa (Peshawar, Kohat, Bannu & D.I. Khan Divisions)** and **Eastern Balochistan** including the upper catchments of rivers Indus & Kabul. Moreover, isolated thunderstorm/rain of **Light to Moderate Intensity** is expected over rest of the country. During the past 24 hours **Very Heavy Rainfall** has been experienced over **Sindh (Larkana=157 mm)**. Overall rainfall details for the past 24 hours may be seen at **Annexure-II**.

Weather Outlook & Flood Forecast, 23rd-26th August 2022:

7. A **Fresh Strong Monsoon Activity** is likely over **Punjab (South Punjab & Sargodha Division), Sindh, Khyber Pakhtunkhwa (Peshawar, Kohat, Bannu, D.I. Khan Divisions)** and **Balochistan** including upper catchments of Rivers Indus & Kabul from **23rd to 26th August 2022**.

As a consequence:

- **Very High to Exceptionally High Level Flooding** is expected in the **Hill Torrents of D.G.**

Khan Division and in the **Rivers/Nullahs of Eastern Balochistan** from **23rd to 26th August 2022**.

- **Flows from Hill Torrents of D.G. Khan Division** may rise flow at **Taunsa Barrage** up to **High to Very High Flood Level** from **23rd to 26th August 2022**.
- **Urban Flooding in Sindh** during the same period.
- **High to Very High Level Flooding** is expected in **River Kabul** at **Nowshera** and tributaries of **Rivers Indus & Kabul**.

Special Precautionary Measures By Concerned Organizations:

8. All concerned organizations including field formations of respective Irrigation Departments of **Punjab (in particular for Taunsa downstream)** and **Sindh (in particular from Guddu Barrage upto Kotri Barrage downstream)** are strictly advised to ensure unhalted flood fighting as and when needed and remain on **“High Alert”**, take all necessary precautionary measures as per the Contingency Plan and ensure round-the-clock patrolling of river embankments and training works including irrigation & drainage network.

Specific Directions For Dam/Reservoir/Barrages Management Organizations:

9. Further to above, Managers of major dams (**Tarbela & Chashma in particular**)/ reservoirs/ barrages/ headworks are strictly cautioned to remain on **“High Alert”** to effectively manage/ route forecasted river discharges to avoid any downstream flooding (**Taunsa Barrage on-wards**).

10 All concerned organizations including **PDMAs/DDMAs** are also advised to remain **Fully Alert & Vigilant**, take timely actions on warnings issued by the concerned organizations (**especially in the context of flood generating hill torrents in the forecasted areas of Punjab & Sindh**) to ensure safety of communities living in low lying areas, public & private property besides irrigation, drainage & flood protection infrastructure etc.

11. Pakistan Meteorological Department (PMD) is closely monitoring the present weather system over the country in the specific context of **Low Pressure Area** over **Sindh** and **Depression** over **Northern Madhya Pradesh (India)** and is keeping all concerned fully informed through FFD, Lahore.


(Ahmed Kamal)
Chief Engineering Advisor/
Chairman, Federal Flood Commission

Distribution:

1. Minister for Water Resources, Islamabad.
2. Minister for Planning, Development & Special Initiatives, Islamabad.
3. Minister for Climate Change, Islamabad.
4. Secretary to the Prime Minister, Prime Minister’s Office, Islamabad
5. Secretary, Ministry of Water Resources, Islamabad.
6. Secretary, Planning, Development & Special Initiatives Division, Islamabad.
7. Secretary, Ministry of Climate Change, Islamabad.
8. Secretary, Ministry of National Food Security & Research, Islamabad
9. Director General (Coordination-III), President’s Secretariat (Public), Aiwan-E-Sadr, Islamabad.
10. Chairman, National Disaster Management Authority, Prime Minister’s Office, Islamabad.
11. Chairman, WAPDA, WAPDA House, Lahore.
12. Chief Executive Officer, Pakistan Railways, Lahore.
13. Chairman, Indus River System Authority, Islamabad.
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17. Director General, Pakistan Meteorological Department, Islamabad.
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19. Member (Infrastructure), Planning Commission, Islamabad.
20. Chief Secretary, Government of the Punjab, Lahore.
21. Chief Secretary, Government of Sindh, Karachi.
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26. Chief Commissioner, ICT, Islamabad.
27. Chairman, Capital Development Authority, Islamabad.
28. Commissioner, Rawalpindi.
29. Secretary, Irrigation Department, Government of the Punjab, Lahore.
30. Secretary, Irrigation Department, Government of Sindh, Karachi.
31. Secretary, Irrigation Department, Government of Khyber Pakhtunkhwa, Peshawar.
32. Secretary, Irrigation Department, Government of Balochistan, Quetta.
33. Secretary (Works), Gilgit-Baltistan-PWD, Gilgit.
34. Chief Engineer Merged Areas, Irrigation Department, Government of K.P, Peshawar.
35. Secretary, Irrigation & Agriculture, Government of AJ&K, Muzaffarabad.
36. General Manager, Tarbela Dam Project (TDP), WAPDA, Tarbela.
37. General Manager, Mangla Dam Organization (MDO), WAPDA, Mangla.
38. Director General, Provincial Disaster Management Authority, Government of the Punjab, Lahore.
39. Director General, Provincial Disaster Management Authority, Government of Sindh, Karachi.
40. Director General, Provincial Disaster Management Authority, Government of K.P, Peshawar.
41. Director General, Provincial Disaster Management Authority, Government of Balochistan, Quetta.
42. Director General, Gilgit Baltistan, Disaster Management Authority, Gilgit.
43. Director General, State Disaster Management Authority, Govt. of AJ&K, Muzaffarabad.
44. Director General, Irrigation & Small Dams Organization, Govt. of AJ&K, Muzaffarabad.
45. Managing Director, WASA, Rawalpindi.
46. Principal Information Officer, Press Information Department, Islamabad.
47. Director (News), Associated Press of Pakistan, Islamabad.
48. Director (News), Pakistan Television, Islamabad.
49. Flood Cell, General Staff Branch, Engineers Directorate, GHQ, Rawalpindi.
50. Chief Executive Officer, National Disaster Risk Management Fund (NDRMF), Islamabad.
U.O. No.FC-I (31)/2022, Dated 22-08-2022

Copy for information to:

PS to CEA/ CFFC, Islamabad

Rivers and Reservoir Positions August 22, 2022 at 0600 Hours

A. River Flow Situation:

(Discharge in Cusecs)

Structures	Designed Capacity	Historic Peak Floods experienced to-date*		Last Year Flow		Today Actual Flow with Flood Classification			Comparative Danger (VHF) Classification
		Discharge	Date	Inflow	Outflow	Inflow	Outflow	Flood Classification*	
1	2	3	4	5	6	7	8	9	10
River Indus									
• Tarbela Reservoir	1,500,000	604,000	30-7-2010	124,000	93,000	257,000	241,000	Normal	650,000
• Kalabagh	950,000	950,000	14-7-1942	138,000	131,000	269,000	264,000	Low Flood (R)	650,000
• Chashma Reservoir	950,000	1,036,673	01-8-2010	155,000	140,000	341,000	323,000	Low Flood (R)	650,000
• Taunsa	1,000,000	959,991	02-8-2010	163,000	141,000	551,000	551,000	High Flood (S)	650,000
• Guddu	1,200,000	1,199,672	15-8-1976	128,000	97,000	483,000	483,000	Med Flood (R)	700,000
• Sukkur	900,000	1,161,000	16-8-1976	87,000	35,000	418,000	418,000	Med Flood (R)	700,000
• Kotri	875,000	981,000	14-8-1956	31,000	NIL	247,000	247,000	Low Flood (R)	650,000
River Kabul									
• Warsak	540,000				17,000		64,000	Med Flood (S)	200,000
• Nowshera		450,000	29-07-2010		21,000		117,000	High Flood (R)	200,000
River Swat									
• Chakdara Bridge		360,000	30-07-2010		9,000		17,000	Normal	150,000
• Munda (H. Works)		355,000	29-07-2010		4,000		15,000	Normal	150,000
• Charsadda Road	150,000	360,000	30-07-2010		5,000		13,000	Normal	100,000
River Jhelum									
• Mangla Reservoir	1,060,000	1,090,000	10-9-1992	22,000	24,000	38,000	10,000	Normal	225,000
• Rasul	850,000	952,170	10-9-1992	31,000		7,000	NIL	Normal	225,000
					16,000				
River Chenab									
• Marala	1,100,000	1,100,000	26-8-1957	52,000	17,000	68,000	44,000	Normal	400,000
• Khanki	1,100,000	1,086,460	27-8-1959	15,000	7,000	66,000	59,000	Normal	400,000
• Qadirabad	900,000	948,530	11-9-1992	25,000	8,000	76,000	60,000	Normal	400,000
• Trimmu	875,000	943,225	08-7-1959	22,000	5,000	74,000	63,000	Normal	450,000
• Panjnad	865,000	802,516	17-8-1973	13,000	NIL	97,000	91,000	Normal	450,000
River Ravi									
• Jassar	275,000	680,000	05-10-1955		3,000		24,000	Normal	150,000
• Shahdara	250,000	680,000	22-9-1988		19,000		24,000	Normal	135,000
• Balloki	380,000	336,200	28-9-1988	32,000	3,000	36,000	8,000	Normal	135,000
• Sidhnai	150,000	330,210	02-10-1988	15,000	NIL	23,000	12,000	Normal	90,000
River Sutlej									
• Suleimanki	325,000	598,872	08-10-1955	16,000	2,000	16,000	5,000	Normal	175,000
• Islam	300,000	492,581	11-10-1955	1,000	NIL	4,000	3,000	Normal	175,000

B. Reservoir Storage Position:

Reservoir	Maximum Conservation Level (FL-AMSL)	Minimum Operating Level (FL-AMSL)	Water Level (Feet-AMSL)			Live Storage (MAF)			Present Storage (%age of total storage)
			2020	2021	2022	Maximum	Last Year	Today	
1	2	3	4	5	6	7	8	9	10
Tarbela	1550.00	1398.00	1540.93	1542.95	1550.00	5.827	5.479	5.827	100 %
Chashma	649.00	638.15	648.50	648.50	642.00	0.278	0.253	0.058	20.86 %
Mangla	1242.00	1050.00	1238.05	1202.05	1177.15	7.356	4.463	3.027	41.15 %
Total Live Storage						13.461	10.195	8.912	66.21 %

C. Skardu Temperature:

Skardu Temperature	Last year 2021	Today 2022	Difference (+ / -)
Maximum	32.7 °C	30.8 °C	- 1.9 °C
Minimum	15.0 °C	17.3 °C	+ 2.3 °C

NOTES: "Mild" Categories

- Low Flood: River flowing within deep (winter) channel(s) but about to spill threatening only river islands/belas
Medium Flood: River partly inundating river islands/belas
High Flood: River almost fully submerging islands/belas and flowing upto high banks/bunds but without encroachment on the freeboards

"Danger" Categories

- Very High Flood (VHF): River flowing between high banks/bunds with encroachment on the freeboard
Exceptionally High Flood (EHF): Imminent danger of overtopping/breaching, or the high bank areas have become inundated

* Flood Classification/ Historic Peak Floods: (applied on downstream discharge/Outflow)

(R) Signifies "Rising" Flood, (F) Signifies "Falling" Flood, (S) Signifies "Stable" Flow Condition & NR stands for "Not Received"

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**DAILY WEATHER AND FLOOD SITUATION REPORT
MONDAY AUGUST 22, 2022
Significant Rainfall Events during the Past 24 Hours**

Sr. No.	City/Observatory	Rainfall (mm)
A	Punjab	
1.	DG Khan	56
2.	Kot Addu	17
3.	Bhandu Wala	06
B	Sindh	
4.	Larkana	157
5.	Khairpur	99
6.	Moin-Jo-Daro	98
7.	Sukkur	67
8.	Rohri	59
9.	Jacobabad	46
10.	Padidan	40
11.	Shaheed Benazirabad	20
C	Khyber Pakhtunkhwa	
12.	Kalam	20
13.	Dir	16
14.	Mirkhani	09
15.	Parachinar	06
16.	Malam Jabba, Drosh & Babusar	05 each
D	Balochistan	
17.	Quetta	45
18.	Kalat	40
19.	Pishin	33
20.	Barkhan, Muslim Bagh & Zhob	24 each
21.	Ziarat	22
22.	Chaman	19
23.	Sibbi	10
E	Gilgit-Baltistan	
24.	Hunza	40
25.	Bagrote	10
26.	Gupis	08
F	AJ&K	
27.	Kotli	40
28.	Domel	05

Source: FFD, Lahore (Phone No. 042 99200139)