

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

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FFC's DAILY WEATHER & FLOOD SITUATION REPORT <u>SATURDAY AUGUST 20, 2022</u>

<u>Rivers & Reservoirs Situation</u>:

At present **River Indus** is flowing in "**Medium Flood**" at **Taunsa-Guddu**, **Guddu-Sukkur** and **Sukkur-Kotri** reaches. It is flowing in "**Low Flood**" at **Kalabagh**, **Chashma** and **Kotri**. **River Kabul** (a tributary of River Indus downstream Tarbela) is also in "Low Flood" at Nowshera-Warsak reach. Other main Rivers i.e. Jhelum, Chenab, Ravi & Sutlej are in Normal Flow Conditions. **Annexure-I**, depicts main rivers inflows/outflows at important control structures, reservoirs storage position besides Skardu temperature at 0600 hours today.

2. By the grace of Almighty Allah, today **Tarbela reservoir** has attained its Maximum Conservation Level (MCL) i.e. **1550.00 feet**. This has become possible with extremely good reservoir operation by the Tarbela Dam Management while fully cognizant of heavy monsoon activity.

3. <u>Tarbela dam operating authorities are advised to take utmost care and exercise extra</u> vigilance in the reservoir further operation and strictly follow SOPs and associated Dam Safety <u>Guidelines while managing the upstream inflows and releasing downstream discharges.</u> The present Combined Live Storage of country's three major reservoirs (Tarbela, Chashma & Mangla) is 8.803 MAF (i.e. 65.40 % of 13.461 MAF).

4. **Prevalent Meteorological Situation:**

Yesterday's Low Pressure Area earlier prevailing over Southeastern Sindh today lies around Jacobabad (Sindh). Also yesterday's Well Marked Low Pressure Area has intensified into a **Deep Depression** and today lies over North Orissa (India). Trough of Westerly Wave is remained stationery over Northern parts of Pakistan whereas Seasonal Low continues to prevail over Northwestern Balochistan. Moderate Moist currents from Arabian Sea are penetrating into Southern Punjab, Sindh and Balochistan upto 7000 feet. (Source: FFD, Lahore).

5. <u>Weather & Rainfall Forecast (Next 24 hours)</u>:

Under the influence of prevailing conditions, FFD, Lahore has predicted Scattered to Widespread Thunderstorm/Rain with "Heavy Falls" at isolated places and "Very Heavy Falls" at one or two places over Central & Upper Sindh, Eastern Balochistan, Islamabad including over upper catchments of Rivers Kabul & Indus, besides over Rawalpindi, Bahawalpur, Multan & D.G. Khan Divisions (Punjab) & Peshawar Division (Khyber Pakhtunkhwa) during the next 24 hours.

6. Also Scattered Thunderstorm/Rain of Moderate Intensity with isolated "Heavy Falls" is expected over upper catchments of Rivers Jhelum, Chenab & Ravi including Gujranwala & Sargodha Divisions (Punjab), Kohat, Bannu & D.I. Khan Divisions (Khyber Pakhtunkhwa), in addition to isolated Thunderstorm/Rain of Light to Moderate Intensity over rest of the country during the same period.

7. During the past 24 hours **Very Heavy Rainfall** has been experienced over **Sindh** (**Padidan=240 mm**). Complete rainfall details for the past 24 hours may be seen at **Annexure-II**.

8. Weather Outlook & Flood Forecast, 20th-26th August 2022

FFD, Lahore, has reported that a fresh Strong Monsoon activity is likely to start over Sindh, Balochistan, Southern Punjab and Khyber Pakhtunkhwa (D.I Khan Division) from 23rd to 26th August, 2022. There is a likelihood of Heavy to Very Heavy Rainfall over the upper catchments of Rivers Kabul & Indus including their tributaries from 20th to 22nd August 2022.

- 9. As a consequence:
 - Moderate Flash Flooding is expected in the Rivers/Nullahs of Eastern Balochistan during the next 24 hours and Heavy after 24 hours.
 - Medium to High Level Flooding is expected in River Kabul at Nowshera including its Tributaries & River Indus from 20th to 22nd August 2022.
 - Low to Medium Level Flooding is likely in the Hill Torrents of D.G. Khan Division during next 24 hours, while High to Very High Level flood after 24 hours. As a result of flood flows generated from the Hill Torrents of D.G. Khan Division, River Indus at Taunsa Barrage is likely to attain High to Very High Level Flood after 24 hours.
 - River Indus may also attain High Flood Level at Guddu on 21st August 2022 and at Sukkur on 22nd August 2022.

10. Breach at Qadirpur Shank Bund (District Ghotki Sindh):

As reported by Irrigation Department, Government of Sindh, due to continuous & unprecedented heavy rainfall and wave wash action, a breach, **80 feet** in length, has occurred along **Qadirpur Shank Bund** (located at left bank downstream of Guddu Barrage) at **mile 1/7+100** on **19th August 2022** around midnight which was further widened up to **250 feet** in length.

11. It has been further reported by PID Sindh that the **Qadirpur Shank Bund** is located within Kacha Area protecting some small villages which have now been affected, whereas **Qadirpur Loop Bund** is the main protection bund which reportedly is intact. The water flowing from the breach of Shank Bund will not affect the population of Pacca Area. All necessary material and machinery has been mobilized by the field formation of PID Sindh at the site to combat any likely flood emergency. District Administration has evacuated the people from the affected area to the safer places. Arrangements for plugging the breach by the Irrigation Department Sindh are in process.

12. Special Precautionary Measures By Concerned Organizations:

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

13. <u>Specific Directions For Dam/Reservoir/Barrages Management Organizations:</u>

Further to above, Manager of major dams/ reservoirs/ barrages/ headworks are strictly cautioned to remain on **"High Alert"** to effectively manage/ route forecasted river discharges without compromising on structural safety.

14. 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 areas of forecast in Punjab & Sindh) to ensure safety of communities living in low lying areas, public & private property besides irrigation, drainage & flood protection infrastructure etc.

15. 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 is keeping all concerned fully informed through FFD, Lahore.

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Chief Engineering Advisor/ Chairman, Federal Flood Commission

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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.
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- 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.
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- 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. <u>Chief Executive Officer, National Disaster Risk Management Fund (NDRMF), Islamabad.</u> U.O. No.FC-I (31)/2022, Dated 20-08-2022

Copy for information to:

PS to CEA/ CFFC, Islamabad

ANNEXURE-I

Rivers and Reservoir Positions August 20, 2022 at 0600 Hours

. River Flow Situa	tion:		C					(Discharge in C	Cusecs)
Structures	Designed Capacity	Historic Peak Floods experienced to-date*		Last Year Flow		Today Actual Flow with Flood Classification			Comparative Danger
Structures		Discharge	Date	Inflow	Outflow	Inflow	Outflow	Flood Classification*	(VHF) Classificatio n
1	2	3	4	5	6	7	8	9	10
River Indus									
• Tarbela Reservoir	1,500,000	604,000	30-7-2010	111,000	144,000	250,000	219,000	Normal	650,000
• Kalabagh	950,000	950,000	14-7-1942	177,000	169,000	258,000	254,000	Low Flood (F)	650,000
• Chashma Reservoir	950,000	1,036,673	01-8-2010	184,000	170,000	375,000	359,000	Low Flood (F)	650,000
• Taunsa	1,000,000	959,991	02-8-2010	169,000	141,000	435,000	435,000	Med Flood (S)	650,000
• Guddu	1,200,000	1,199,672	15-8-1976	121,000	90,000	362,000	362,000	Med Flood (R)	700,000
• Sukkur	900,000	1,161,000	16-8-1976	81,000	32,000	351,000	351,000	Med Flood (R)	700,000
• Kotri	875,000	981,000	14-8-1956	36,000	1,000	219,000	219,000	Low Flood (R)	650,000
River Kabul	T								
• Warsak	540,000				21,000		41,000	Low Flood (R)	200,000
• Nowshera		450,000	29-07-2010		28,000		61.000	Low Flood (F)	200,000
River Swat									
• Chakdara Bridge		360,000	30-07-2010		12,000		14,000	Normal	150,000
• Munda(H. Works)		355,000	29-07-2010		7,000		12,000	Normal	150,000
• Charsadda Road	150,000	360,000	30-07-2010		5,000		10,000	Normal	100,000
River Jhelum	†								
Mangla Reservoir	1,060,000	1,090,000	10-9-1992	23,000	34,000	26,000	10,000	Normal	225,000
Rasul	850,000	952,170	10-9-1992	27,000	12,000	7,000	NIL	Normal	225,000
River Chenab	0.50,000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10-9-1992	27,000	12,000	7,000	ML	Tormat	223,000
Marala	1.100.000	1,100,000	26-8-1957	49,000	13,000	76,000	54,000	Normal	400,000
• Khanki	1,100,000	1,086,460	27-8-1959	13,000	6,000	65,000	59,000	Normal	400,000
	1,100,000 900,000	948,530	27-8-1939 11-9-1992	15,000	0,000 NIL	53,000	39,000	Normal	400,000 400,000
• Qadirabad	900,000 875,000	948,550	08-7-1959	25,000	12,000	33,000 121,000	<i>37,000</i> <i>113,000</i>	Normal	400,000 450,000
Trimmu Demined	875,000	943,225 802,516	17-8-1973	13,000	12,000 NIL	<i>121,000</i> <i>96,000</i>	90,000	Normal	450,000
Panjnad	803,000	602,510	1/-0-19/3	13,000	INIL	90,000	90,000	Inormai	430,000
River Ravi	275 000	(90.000	05-10-1955		4.000		11.000	N7 7	150.000
• Jassar	275,000	680,000			,		11,000	Normal	150,000
Shahdara	250,000	680,000 336 200	22-9-1988 28-9-1988	24.000	20,000 NIL	25.000	10,000	Normal Normal	135,000
• Balloki	380,000	336,200 330,210	28-9-1988 02-10-1988	24,000	NIL NIL	35,000	8,000	Normal Normal	135,000
• Sidhnai	150,000	330,210	02-10-1988	16,000	INIL	20,000	8,000	Normal	90,000
River Sutlej									
 Suleimanki 	325,000	598,872	08-10-1955	15,000	2,000	18,000	7,000	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:

D .	Maximum	Minimum	Water L	Level (Feet-AMSL)		Live Storage (MAF)			Present Storage	
Reservoir	Conservation Level (Ft-AMSL)	Operating Level (Ft-AMSL)	2020	2021	2022	Maximum	Last Year	Today	(%age of total storage)	
1	2	3	4	5	6	7	8	9	10	
Tarbela	1550.00	1398.00	1536.93	1541.99	1550.00	5.827	5.424	5.827	100 %	
Chashma	649.00	638.15	646.70	646.60	640.90	0.278	0.173	0.038	13.67 %	
Mangla	1242.00	1050.00	1237.35	1202.60	1175.40	7.356	4.499	2.938	39.94 %	
Total Live Storage					13.461	10.096	8.803	65.40 %		

C. Skardu Temperature:

Skardu Temperature	Last year 2021	Today 2022	Difference (+/-)	
Maximum	33.1 °C	31.7 °C	- 1.4 °C	
Minimum	17.4 °C	15.5 °C	- 1.9 °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

River almost fully submerging islands/belas and flowing upto high banks/bunds but without encroachment on the freeboards

High Flood:

"Danger" Categories Very High Flood (VHF): Exceptionally High Flood (EHF):

River flowing between high banks/bunds with encroachment on the freeboard 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"

Government of Pakistan Ministry of Water Resources Office of Chief Engineering Adviser/ Chairman, Federal Flood Commission DAILY WEATHER AND FLOOD SITUATION REPORT SATURDAY AUGUST 20, 2022 Significant Rainfall Events during the Past 24 Hours

Sr. No.	City/Observatory	Rainfall (mm)					
Α	Punjab						
1.	DG Khan	21					
2.	Mirkhani	20					
3.	Bhandu Wala	13					
В	Sindh						
4.	Padidan	240					
5.	Moin-Jo-Daro	86					
6.	Larkana	81					
7.	Shaheed Benazirabad	65					
8.	Jacobabad	64					
9.	Rohri	63					
10.	Sukkur	49					
11.	Khairpur	40					
12.	Dadu	35					
13.	Sakrand	20					
14.	Tando Jam	14					
15.	Hyderabad	06					
С	Balochistan						
16.	Lasbela & Dalbandin	15 (each)					
17.	Sibbi	07					
18.	Barkhan	06					
19.	Chaman	05					
F	AJ&K						
20.	Kotli	06					
Source: FFD, Labore (Phone No. 042 99200139)							

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