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

No. FC-I (23)/ 2023

6-Ataturk Avenue, G-5/1,
Islamabad, the October 28, 2024

Sub: MINUTES OF POST MONSOON 2024 REVIEW MEETING OF FEDERAL FLOOD COMMISSION, HELD ON 9TH OCTOBER 2024 IN OFFICE OF THE CHIEF ENGINEERING ADVISER/ CHAIRMAN, FEDERAL FLOOD COMMISSION, ISLAMABAD

I have been directed to enclose herewith a copy of minutes of the subject meeting held on 9th October 2024 in the Committee Room of Office of the Chief Engineering Adviser/ Chairman, Federal Flood Commission, Islamabad. All concerned organizations are requested to take action on the decisions reflected in the minutes and furnish compliance report to this office at the earliest.

2. This issues with the approval of Chief Engineering Adviser/ Chairman, Federal Flood Commission.

Encl: As above



(Engr. Sibte Hassan)
Assistant Engineer (Floods-III)
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Distribution:

1. Director General, Pakistan Meteorological Department, H-8, Islamabad.
2. Member (Infrastructure), Planning Commission, Islamabad.
3. Member (Water), WAPDA, WAPDA House, Lahore.
4. Chairman, Indus River System Authority, Islamabad.
5. Chief Executive Officer, Pakistan Railways, Lahore.
6. Pakistan Commissioner for Indus Waters (PCIW), Islamabad.
7. Chairman, National Highway Authority, Islamabad.
8. Director General (Engineer), Engineers Directorate, GHQ, Rawalpindi.
9. Chief, (Water Resources Section), Ministry of Planning, Development & Special Initiatives, Islamabad.
10. Secretary, Irrigation Department, Government of the Punjab, Lahore.
11. Secretary, Irrigation Department, Government of Sindh, Karachi.
12. Secretary, Irrigation Department, Government of Khyber Pakhtunkhwa, Peshawar.
13. Secretary, Irrigation Department, Government of Balochistan, Quetta.
14. Secretary Water Management & Irrigation Department, Near MP Check Post, Helipad Road, Sonikot, Gilgit.
15. Secretary, Irrigation & Agriculture Department, Government of AJ&K, Muzaffarabad.

16. Member (Operations), National Disaster Management Authority, Prime Minister's Office, Islamabad.
17. Director General, Provincial Disaster Management Authority, Govt. of the Punjab, Lahore.
18. Director General, Provincial Disaster Management Authority, Govt. of Sindh, Karachi.
19. Director General, Provincial Disaster Management Authority, Govt. of KP, Peshawar
20. Director General, Provincial Disaster Management Authority, Govt. of Balochistan, Quetta.
21. Director General, Gilgit-Baltistan Disaster Management Authority, Gilgit.
22. Director General, State Disaster Management Authority, Govt. of AJ&K, Muzaffarabad.

Copy alongwith enclosure to:

1. General Manager (SUPARCO), Pakistan Space & Upper Atmosphere, Research Commission SPARCENT, Near CDA Toll Plaza, Rawat, Islamabad.
2. General Manager (HRM), WAPDA House, Lahore.
3. General Manager, Tarbela Dam Project, Tarbela.
4. General Manager, Mangla Dam Organization, Mangla.
5. Director General, Irrigation & Small Dams, Government of AJ&K, Muzaffarabad.
6. Chief Engineer, Merged Area, Irrigation Department, Peshawar.
7. Executive Director, Global Change Impact Studies Centre (GCISC).
8. Commissioner, Rawalpindi
9. Managing Director, WASA, Liaquat Bagh, Rawalpindi.
10. Deputy Secretary (Water), Ministry of Water Resources, Islamabad.

Copy for information to:

1. Director to the Federal Minister, Ministry of Water Resources, Islamabad.
2. PS to Secretary, Ministry of Water Resources, Islamabad.
3. APS to CEA & CFFC, Islamabad.

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Sub: **MINUTES OF POST MONSOON 2024 REVIEW MEETING OF FEDERAL FLOOD COMMISSION HELD ON 9TH OCTOBER 2024**

The Post Monsoon 2024 Review meeting of Federal Flood Commission (FFC) was held on 9th October 2024 at 1430 hours in the Committee Room of Office of the Chief Engineering Advisor & Chairman Federal Flood Commission (CEA/CFFC), Islamabad. CEA/CFFC chaired the meeting. List of participants is attached as **Annex-I**.

2. The meeting started with recitation from the Holy Quran. The Chair welcomed the participants. In his opening remarks, the Chair highlighted that the Monsoon 2024 passed peacefully and that no High to Exceptionally High Flood Situation was observed in any of the rivers of the Indus River System. The Chair then gave the floor to Engineering Adviser (Civil), O/o CEA/CFFC to further take up the proceedings.

3. Engineering Adviser (Civil) told the participants that in anticipation of Monsoon Season 2024, 59th Annual meeting of FFC was held on 10th June 2024. In the said meeting, necessary directions were given to all federal as well as provincial organizations for ensuring effective flood management during the Monsoon 2024. He added that five (05) online Mid-Monsoon 2024 Review meetings had been held to keep watch on overall country-wise situation. He stated that Monsoon 2024 had mainly passed calmly as no major damages/ casualties were reported due to floods. He then requested the representative of PMD/FFD Lahore to brief the House with respect to projections made for Monsoon 2024 & actual happenings.

4. The Representative of PMD stated that they had forecasted "normal to above normal" rains in Pakistan for Monsoon 2024 (July-August-September). In actual, he said, 51% above normal rains occurred in Pakistan during the three months of Monsoon 2024. He apprised that Balochistan received 111% & Sindh got 108% above normal rains. He highlighted that the national area-weighted rainfall of 138.9 mm had occurred in August 2024, which was +147% above average and stood as the second wettest August during the past 64 years (record was 193.2 mm in 2022). He further stated that normal to slightly below normal rainfall was expected in western and upper parts of the country from October to December 2024.

5. The Chair asked the representative of GCISC about projections for next few years in relation to water sector especially floods & droughts. The representative of GCISC told that they had done Climate Risk Profiling in Khyber Pakhtunkhwa and Punjab Provinces including Northern Areas. She highlighted that the temperatures would be increasing at an uncontrollable level. The most alarming was that the rate of increase/ rise in temperature in Pakistan would be higher as compared to the global level. As a consequence, the frequency & intensity of floods was likely to increase at extreme levels. She further stated that in the Himalayas & Karakoram, making observations was difficult/ very challenging due to terrain challenges and lesser information, and that the accuracy of several projections made in that regard was questionable. She, however, said that as per the latest research going on in the area, there were findings that initially due to rise in temperature, glaciers would be melting with the higher rate. So, we would be having more floods in the country. As we move ahead of 2050, we might have less water availability.

6. The representative of Mangla Dam Organization, WAPDA informed that the Dam could not be filled upto its Maximum Conservation Level (MCL) of 1242.00 feet SPD and they could only fill it upto 1228.60 feet SPD (85.56%). He stated that one of the main reasons of not achieving MCL was lesser rains in the catchment of Jhelum River in addition to IRSA's indents during Monsoon 2024.

7. On a query from Engineering Adviser (Civil) regarding the role of Tarbela-V Extension Project in non-filling of Mangla Dam upto its MCL, the representative of IRSA endorsed his point and informed that Mangla Dam could not be filled due to limitations/ constraints caused by Tarbela-V Extension Project. He said that due to ongoing work at T-V, lesser releases were made from Tarbela Dam to meet irrigation demand. In order to meet that gap, more releases were made from Mangla Dam, due to which it could not be filled upto MCL.

8. The representative of Tarbela Dam Project, WAPDA informed that they achieved MCL of 1550.00 feet for Tarbela Dam on 19th August 2024. The Dam remained at its MCL stage for 25 days. He said that good inflows were received in the month of August 2024. Low Flood (i.e. 360,000 cs) was observed at Tarbela on 8th August 2024. He stated that they had witnessed good coordination with the stakeholders during the Monsoon Season.

9. The representative of Hydrology & Water Management, WAPDA informed that the overall performance of Flood Telemetry Stations was satisfactory during Monsoon 2024. He said that data was shared with all the stakeholders during the Monsoon 2024. In case of dysfunctional Telemetry Stations, the data was received through manual sources & the same was transmitted to the relevant departments. Principal River Engineer, O/o CEA/CFFC inquired the status of non-functional telemetry stations of WAPDA. The representative of WAPDA told that there were 59 telemetry stations under the control of WAPDA. Out of those, 29 were working while 30 were out of order. He continued that the dysfunctional telemetry stations would be restored before the onset Monsoon Season 2025. On another query regarding progress on Installation of Telemetry System with the assistance of JICA, he replied that the JICA sponsored "Flood Management Enhancement Project" costing Rs 5,178.41 million had been submitted to the Planning Commission for approval of CDWP.

10. The representative of O/o PCIW informed that less inflows in Indian Dams were observed during Monsoon 2024, hence there was no threat of flood due to eastern rivers in Pakistan. He informed that the Indian side only shared information in case of extraordinarily discharges. Since there were no extraordinary discharges during the Monsoon Season 2024, therefore no information was received from ICIW. He stated that they were making efforts to convince ICIW for restoration of Flood Agreement of 1989.

11. The representative of PDMA Balochistan informed that the meetings of all the DDMA's were held, Contingency Plans were made & advisories of PMD were regularly shared with them. He said that they had closely monitored flood situation during Monsoon 2024. He stated that they were in close liaison with all the stakeholders and regularly shared their daily situation reports.

12. The representative of PID Khyber Pakhtunkhwa informed that they had established Flood Monitoring Cell on 1st June 2024 and it would keep working upto 15th October 2024. He said that the situation remained normal during Monsoon 2024. He stated that there existed the problem of Munda Headworks that had been damaged during Floods of 2022. He requested that MoWR should consider construction of a new barrage at Swat River in place of damaged Munda H/W. He further informed that some damages had occurred to irrigation & flood protection infrastructure in April 2024, which had been restored. He was asked to share the details of damages occurred to Irrigation, Drainage & Flood Protection Infrastructure with FFC.

13. The representative of PDMA Khyber Pakhtunkhwa informed that 112 deaths & 146 injuries had occurred in their province during Monsoon 2024. However, those deaths were not from floods but were mainly from house collapses due to rains. Also, 983 houses were damaged,

Signature
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loss of 154 livestock, damages to 25 bridges & 67 roads were reported. He said that they had conducted rescue & relief operations where needed. He stated that GLOF events had taken place in Shahzor & Kumart Vallies, besides Upper & Lower Chitral. Due to GLOFs, tourists had stranded in those areas, who were later on rescued safely. He highlighted that there was threat of bursting of Talu lake which posed threat of damages. He suggested control breaching of Talu Lake besides Contingency Plan with clear roles & responsibilities of stakeholders. On query, he replied that no deaths had occurred because of GLOF events during Monsoon 2024.

14. The representative of PID Sindh briefed that the Monsoon 2024 had passed calmly. He said that Medium Flood Level was witnessed at Guddu, Sukkur & Kotri Barrages. He stated that in line with their Contingency Plan for Monsoon 2024, machinery, labour and material had been deployed at critical locations. He said that 103 vulnerable points/ locations existed at bunds in Sindh, some of which cropped up during 2022, 2023 & 2024 monsoon seasons. He further informed that Rs 500 million tentative estimates for rehabilitation of rain gharas during Monsoon 2024 from Chief Engineers concerned had been received. The details of those projects/ works were expected to be received soon. As soon as those were received, the same would be shared with FFC. He further informed that 100% rehabilitation of Flood 2022 damages had been done. He was asked to share PC-IV of the rehabilitated works with FFC for reference.

15. He continued that rehabilitation work on restoration of two gates of Sukkur Barrage was in full swing. He added that in November 2024, coffer dam would be installed & floors of the Barrage both upstream & downstream would be checked for damages after 92 years since its commissioning in 1932. He proposed that FFC or any other provincial irrigation department might depute its technical team to witness/ experience the checking of the floors of the barrage to enhance their technical capacity. On query regarding reported generation of afflux at a certain bridge upstream of Kotri Barrage in the wake of 2022 floods, the representative of PID Sindh informed that they had not observed any back water curve upstream of Kotri Barrage because the said bridge was constructed around 80 km upstream of the Kotri Barrage and the back water curve, even if generated, would not have any impacts for such a long distance. On another query regarding LBOD & RBOD, he responded that only RBOD-II rested with the Sindh Government while other drains/ drainage projects were under the custody of WAPDA. He said that they had written to WAPDA to take over RBOD-II as well. However, the issue was pending so far.

16. The representative of PDMA Punjab informed that the Monsoon 2024 had largely passed peacefully. However, some rescue & relief operation was carried out due to hill torrents of D.G Khan & Rajanpur namely Kaha and Kala Bagga hill torrents. He said that no deaths/ human loss had occurred due to floods. Some cuts had occurred to roads due to hill torrents, but most of those had been restored.

17. The representative of Irrigation & Agriculture Department of AJ& K informed that below normal rains occurred in AJ&K and no major flood damages had been reported. He said that on 26th September, one aqueduct had been damaged due to flow of local nullah. He stated that damages to Brarkot Bund had not been restored for want of funds from their Finance Department.

18. The representative of Irrigation & Water Management Department, Government of Gilgit Baltistan informed that less rains were experienced in G-B during Monsoon 2024. He stated that the damages occurred to channels had been repaired. He told that GLOF event was witnessed in Sonar Valley. He requested FFC to sponsor flood protection works in GB by reactivating PSDP allocations.

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19. The Chair showed serious concerns over absence of representatives from PID Punjab, PID Balochistan and Pak Railways in such an important meeting. He stated that progress on certain critical issues such as Shahdara Breaching Section at River Ravi, construction of Left Guide Bund of Shershah Railway Bridge across River Chenab in District Multan was required from concerned organisations.

20. The representative of Pak Army informed that they had established Flood Control Centre for Monsoon 2024, which had been deactivated from 1st October 2024. He said that no major casualties were witnessed during Monsoon 2024. He highlighted that there occurred some damages to Mahandri Bridge - a critical transportation link on the Naran-Kaghan road - due to flash floods, but the same was later on rehabilitated/ restored by the Frontier Works Organisation (FWO).

21. He also inquired about the impact of construction of Diamer-Bhasha Dam on the discharges downstream Kotri Barrage. The Chair responded that Kotri Studies had been conducted by Office of CEA/CFFC through the International Panel of Experts in 2003 to determine the amount of water needed for environmental flows, prevention of sea water intrusion and protection of mangroves growth. CEA/CFFC shared following recommendations of the Kotri studies:

- An escapege of 5,000 Cfs throughout the year to check seawater intrusion, accommodate the needs for fisheries and environmental sustainability, and maintain the river channel. Based on this, monthly releases are:

	Kharif						Rabi						Total		
	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Year	Rabi	Kharif
Cfs	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000			
MAF	0.3	0.3	0.3	>=0.3	>=0.3	>=0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6+	1.8	1.8+

- In a dry year, the above amounts can be proportionately reduced in relation to the reductions in the irrigation water supply.
- A total volume of 25 MAF in any 5 years period (an annual equivalent amount of 5 MAF) to be released in a concentrated way as flood flow (Kharif period), to be adjusted according to the storage in the reservoirs and the volume discharged in the four previous years. These flood flows recommended by the IPOE are required for:
 - Deposition of Sediment on coast and delta area to stop the coastal erosion
 - Keeping the river morphology in good condition
 - Sustainable mangrove growth

22. After detailed discussion, following decisions were taken:

- PIDs & FLAs to ensure complete removal of encroachments (reported earlier) from Flood Plains/ High Flood Risk Zones, waterways of major, secondary and tertiary rivers including hill torrents/ flood flow generating nullahs, which cause hindrance to flood flows.

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- (ii) **PID Punjab and PDMA Punjab** alongwith other stakeholders to chalk out at the earliest, a well considered & thought-out plan/ solution to the long outstanding issue of non-functionality of Shahdara Bridge Breaching Section.
- (iii) **PID Sindh** to share Completion Reports/ PC-IVs of the post Flood 2022 damages rehabilitated works with FFC for reference and future record.
- (iv) **PMD & GCISC** to continue monitoring of variations in temperatures & projections regarding near future weather scenarios in Pakistan.
- (v) **WASA Rawalpindi** to submit PC-Is/ PC-IIs of its urban flood protection projects with FFC under FPSP-III for consideration by the Scrutinizing Committee of Federal Flood Commission.
- (vi) **WAPDA** to ensure restoration of dysfunctional telemetry stations at the earliest, under intimation to FFC.
- (vii) **Pak Railways** to ensure the execution of Left Guide Bund of Shershah Railway Bridge across River Chenab in District Multan at the earliest and share status with FFC on regular basis till completion of the task.
- (viii) **PCIW** to ensure necessary alternate arrangements for obtaining reservoirs/ rivers flows data and other information of Chenab and Eastern Rivers from India, in case ICIW does not provide the same, especially during Monsoon Season 2025.

23. The meeting ended with a vote of thanks by the Chair.

B/28-10-24

**LIST OF PARTICIPANTS OF POST MONSOON REVIEW 2024 MEETING OF
FEDERAL FLOOD COMMISSION HELD ON 09th OCTOBER 2024, IN OFFICE OF THE
CHIEF ENGINEERING ADVISOR/ CHAIRMAN FEDERAL FLOOD COMMISSION,
ISLAMABAD**

FEDERAL FLOOD COMMISSION (MINISTRY OF WATER RESOURCES)

1. Mr. Ahmed Kamal **In Chair**
Chief Engineering Advisor &
Chairman Federal Flood Commission
2. Mr. Ather Hameed
Engineering Advisor (Civil)
3. Mr. M. Hanif Chachar
Principal River Engineer
4. Mr. Hussain Shigri
Senior Engineer (Floods)
5. Mr. Sibte Hassan
Assistant Engineer (Floods)

MINISTRY OF CLIMATE CHANGE (GCISC)

6. Mrs. Qurat-ul-Ain Ahmed
Head WR&G

PAKISTAN METEOROLOGICAL DEPARTMENT

7. Shahid Abbas
Chief Meteorologist, FFD, Lahore
8. Dr. Zaheer-u-din Babar
Director

MINISTRY OF PLANNING, DEVELOPMENT & SPECIAL INITIATIVES (PD & SI)

9. Mr. Zafar Hussain
Assistant Chief

ENGINEERS DIRECTORATE, GHQ, RAWALPINDI

10. Major Harris

NATIONAL DISASTER MANAGEMENT AUTHORITY

11. Mr. Muhammad Fareed
Manager (Ops)

OFFICE OF PAKISTAN COMMISSIONER FOR INDUS WATERS (PCIW)

12. Mr. Usman-e-Ghani
Additional Commissioner for Indus Water

INDUS RIVER SYSTEM AUTHORITY (IRSA)

13. Mr. Zeeshan Riaz Tarar
System Analyst

WATER & POWER DEVELOPMENT AUTHORITY (WAPDA)

14. Mr. Ali Haider
Superintending Engineer (Survey & Hydrology)
Tarbela Dam Project
15. Syed Faizan Haider Shah
Superintending Engineer (Hydrology)
Mangla Dam Organization
16. Mr. Tanveer Ahmed Shaikh
Project Director (H&R)
17. Mr. Muhammad Farooq
Director, WRMD

IRRIGATION DEPARTMENT, GOVERNMENT OF SINDH

18. Mr. Sajid Ali Bhutto
Chief Engineer (Barrages Management Unit)

IRRIGATION DEPARTMENT, GOVERNMENT OF KHYBER PAKHTUNKHWA

19. Willayat Khan
Chief Engineer (South)

WATER MANAGEMENT & IRRIGATION DEPARTMENT, GILGIT BALTISTAN

20. Mr. Sher Jahan
Director

IRRIGATION & SMALL DAMS ORGANIZATION GOVERNMENT OF AJ&K

21. Raja Waqar Ahmed
Incharge Planning Cell/WMO

PROVINCIAL DISASTER MANAGEMENT AUTHORITY, PUNJAB

22. Mr. Zaheer Liaquat
Director (Admin & Coordination)

PROVINCIAL DISASTER MANAGEMENT AUTHORITY, KHYBER PAKHTUNKHWA

23. Mr. Sajid Nawab
Director (DRM)

24. Mr. Ismail Khan
DRM, Specialist

PROVINCIAL DISASTER MANAGEMENT AUTHORITY, BALOCHISTAN

25. Mr. Naveed Ahmed
Director (Planning)

WASA RAWALPINDI

26. Mr. Saleem Ashraf
Managing Director

NHA

25. Aftabullah Babar
General Manager

SUPARCO

26. Muhammad Ibrahim
Manager

JICA

27. Mr. Takafami Sueishi