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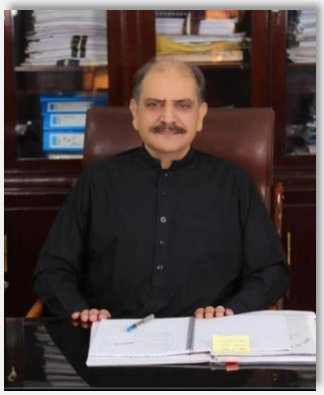


It is with great pride and responsibility that I present the Annual Report of the Indus River System Authority (IRSA) for the year 2024–2025. This period has been marked by both challenges and achievements in our collective effort to manage Pakistan's most vital water resources.

IRSA has continued to uphold its mandate of equitable water distribution among the provinces, ensuring that the principles of fairness, transparency, and cooperation remain at the heart of our operations. Despite climatic variability and increasing demands on the Indus Basin, we have worked diligently to strengthen institutional mechanisms, improve data-driven decision-making, and foster dialogue among stakeholders.

During the year, IRSA advanced initiatives to modernize monitoring systems, enhance coordination with provincial irrigation departments, and promote efficient water usage. These steps are critical in addressing the twin pressures of water scarcity and growing agricultural needs. Our commitment to sustainability has guided every decision, with a focus on balancing immediate requirements with long-term resilience.

I wish to acknowledge the dedication of IRSA's members, technical staff, and partner institutions whose tireless efforts have enabled us to navigate complex circumstances. Their professionalism and integrity remains the cornerstone of our success.

Looking ahead, IRSA will continue to strengthen its role as a custodian of the Indus River System, striving to meet the evolving challenges of water governance with foresight and responsibility. Together, we must ensure that this precious resource is managed wisely for the prosperity of present and future generations.

Sahibzada Muhammad Shabir
Chairman/ Member IRSA (Khyber Pakhtunkhwa)
Indus River System Authority (IRSA)
(2024–2025)

1. EXECUTIVE SUMMARY

1.1 EXECUTIVE SUMMARY

Water Availability and Management in Indus Basin Irrigation System (IBIS)

Pakistan's water resources are primarily derived from the Indus River and its tributaries, fed by snow and ice melt from the Hindu Kush-Himalayan (HKH) Mountains. Any change in Indus Basin flows has major implications for food security, as 90% of agricultural production depends on the Indus Basin Irrigation System (IBIS). Per capita surface water availability has declined sharply: 5,300 m³ in 1951; 1,300 m³ in 2002; 1,000 m³ in 2016: 860 m³ in 2025 (projected) - well below the global water scarcity threshold of 1,000 m³.

Pakistan has 77 million acres of arable land, of which 54 million acres (71%) are cultivated. The remaining 23 million acres (29%) could be brought under production if irrigation water is available. Indus Basin water also supports domestic supply, hydropower, industry, and municipal needs.

1.2 IRSA ADVISORY COMMITTEE (IAC) DECISIONS REGARDING ANTICIPATED SEASONAL WATER AVAILABILITY CRITERIA

Rabi (Oct-Mar) 2024–25

At the start of Rabi 2024-25, IAC on 02.10.2024 approved anticipated Rim-stations inflow of 22.98 MAF as compared to last 5-year average of 22.78 MAF and actual inflow of 20.26 MAF. IAC allocated 31.136 MAF to the Provinces against the actual Utilization 29.427 MAF and last 5-year average of 29.56 MAF. Punjab, Sindh, Balochistan and Khyber Pakhtunkhwa (CRBC) utilised 15.56 MAF, 12.15 MAF, 1.04 MAF, 0.67 MAF against allocations of 16.680 MAF, 12.584 MAF, 1.17 MAF and 0.70 MAF, respectively. The projected shortage at the start of the season with respect to shares was 16%, whereas the actual shortage was around 20%, due to less inflows against anticipated. Accordingly, the actual total carryover storage remained at 0.236 MAF against anticipated of 0.726 MAF.

Kharif (Apr-Sep) 2025

At the start of Kharif 2025, IAC on 26.03.2025 approved anticipated water availability for the season. However, due to significant variations of actual parameters as compared to initial estimates, water availability was revised in early May on 05.05.2025 by IAC. Accordingly, the overall seasonal and sub-seasonal water situation post-revision was as below:

For the whole Kharif 2025, against IAC anticipated Rim-stations inflow of 104.03 MAF and last 5-year average of 99.06 MAF, the actual inflow was 122.36 MAF. IAC allocated 63.718 MAF to the Provinces against the actual utilization of 60.558 MAF and last 5-year average of 59.16 MAF. Punjab, Sindh, Balochistan and Khyber Pakhtunkhwa (CRBC) utilised 28.360 MAF, 28.954 MAF, 2.177 MAF, 1.067 MAF against allocations of 31.299 MAF, 28.748 MAF, 2.848 MAF and 0.823 MAF, respectively. The overall less withdrawal were due to heavy rainfall & floods in all the provinces. Sub season-wise; the projected

shortage was 27% for Early Kharif and 7% for Late Kharif, whereas actual shortage was 22% and 15%, respectively. Early Kharif shortage decreased by about 5% due to better inflows than anticipations while late Kharif shortage increased by 8% due to less provincial demands as a result of heavy rain fall and floods.

TELEMETRY PROJECT ON IBIS

a) To modernize and enhance IRSA's discharge monitoring in line with its duties enunciated in IRSA Act 1992, the Telemetry Project was approved in 2022 for 7 IBIS sites (PKR 2,399.6 million, completion Jan 2026). Revised PC-I in 2024 expanded coverage to 27 sites, with costs rising to PKR 23,834.7 million and completion extended to June 2028. Funded through Federal PSDP and IRSA contributions, the project is executed by WAPDA under IRSA's vigilant supervision. Overall progress of the project ending September 2025 was as under: -

1. **Physical Progress** **41.54%**
2. **Financial Progress** **60.08%**

b) The Project Consultant, M/s NESPAK, in collaboration with the contractor, has initiated the development of the IRSA Database and Reference Data Screens within the Management Information System (MIS) application to ensure structured and efficient data management. Proof of Concept (PoC) demonstration was conducted on 16.05.2025, at Kotri Barrage in the presence of key stakeholders. Installation of Telemetry equipment by the Contractor at Balloki Barrage, Trimmu & Khanki Headworks, Jinnah Barrage, Taunsa Barrage, Islam Barrage and Greater Thal Canal. Civil works continued at 27 sites. Ongoing construction activities including control rooms of telemetry equipment installation, security huts for enhanced site safety and bachelor hostel facilities to accommodate on site staff.

FLOOD MANAGEMENT OF EXCEPTIONAL FLOWS IN EASTERN RIVERS

In late August 2025, intense rainfall over the catchments of the Chenab and Eastern Rivers triggered exceptionally high flood flows. Although flood management lies outside IRSA's mandate, the Authority—acting on Sindh's specific request—strategically reduced outflows from Tarbela Reservoir and also curtailed releases from Chashma Barrage to absorb the surge of high inflows. This timely operational adjustment was intended to keep flood peaks at Guddu Barrage below 600,000 cusecs. The measure was warmly acknowledged by Sindh and highlighted in Daily Dawn on 28 August 2025 as a commendable example of responsive water management.

DAWN, ISLAMABAD, THURSDAY AUGUST 28, 2025

Irsa 'turns off' tap at Tarbela as Sindh prepares for surge

- Lower riparian takes measures to tackle inflows from swollen Indus tributaries at Guddu Barrage
- Irsa director says flood of about 650,000 cusecs likely at Guddu if current situation persists

By Mohammad Hussain Khan

HYDERABAD: As Sindh anticipates a very high flood between Sept 1 and 3 at Guddu Barrage — its first barrage on the Indus River — due to the swollen eastern rivers currently wreaking havoc in Punjab, the downstream province has asked the authorities to reduce outflows from Tarbela Dam to help it manage the deluge.

As multiple rivers submerge Punjab, Sindh has reached out to the Indus River System Authority (Irsa) to reduce outflows from Tarbela and retain water at Chashma Barrage — a request accepted by the authority.

The provincial irrigation authorities are keeping an eye on flows generated in the Chenab, Sutlej, and Ravi rivers, as all these rivers converge in the Indus at Mithankot after passing the Panjnad Barrage built over the Jhelum River. At Panjnad, all tributaries of the Indus meet on their way to the sea through Sindh.

"As of today, I foresee a flow of between 650,000 and 700,000 cusecs at Guddu Barrage once the flows start reaching here from the eastern rivers," Jam Khan, Sindh's irrigation minister, told *Dawn* on the phone from Karachi. "Right now it is a guessing game because nobody knows how the rainfall pattern behaves but we are making full preparations and accordingly managing staff at the dykes," he added.

Zarif Kharif, the Sindh irrigation secretary, said a similar situation was witnessed in 2014 when Khanki Barrage on Chenab reported 947,000 cusecs flow on Sept 7, 2014 and Sindh had received about 475,000 cusecs.

"This time, the situation is a bit different because Guddu passed a high flood of 510,798 cusecs on Aug 24. As of Wednesday, Guddu was still showing an upstream discharge of 335,196 cusecs, he said, adding that the flows would increase once water from Punjab reached the barrage.

In order to manage the surge, the secretary confirmed that they reached out to Irsa Director Operations Khalid Idrees Rana for controlling outflows at Tarbela. An outflow of 154,500 cusecs was recorded at Tarbela at 6am on Wednesday, which notably increased to 256,200 cusecs at 6pm. This, coupled with the Kabul River, will reach Sindh's barrages within a few days.

Tarbela Dam had attained the maximum storage level of 1,550 feet on Aug 21. After Irsa started discharging flows, the dam's level stood at 1549.66ft on Wednesday at 6pm. Against this backdrop, the irrigation secretary asked Irsa to retain water at Chashma so that Sindh could manage its flows from the swollen eastern rivers.

"Yes, we have reduced flows from Tarbela (at Sindh's request), where 155,000 cusecs outflow was recorded at 8pm Wednesday," the Irsa operations director told *Dawn*. He also confirmed that "storage can be taken slightly higher than maximum storage of 1,550 feet. We can take it to 1550.2 or 1550.3 feet for now," he argued.

He said that a positive sign was that there were no back-up flows in the Chenab. "We are observing nullahs like Palkhu, Basantpur and Bhimber currently," he said. He pointed out that in view of the current situation, a flood of 650,000 cusecs or so was likely at Guddu and that too may last five to six hours. "We are struggling to manage flows in a way that Guddu's discharge should remain below 600,000 cusecs."

2. INTRODUCTION

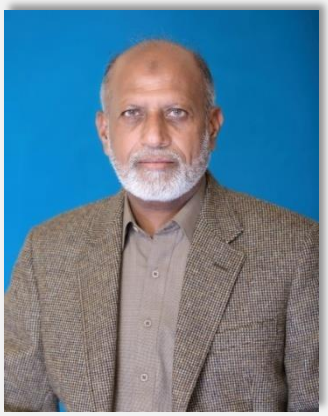
2 INTRODUCTION

Section 15(3) of IRSA's Act 1992, requires that the Indus River System Authority shall submit to the Federal Government, each year, a report on the conduct of its affairs during the year. The report for the period **October 2024 to September 2025** is given below: -

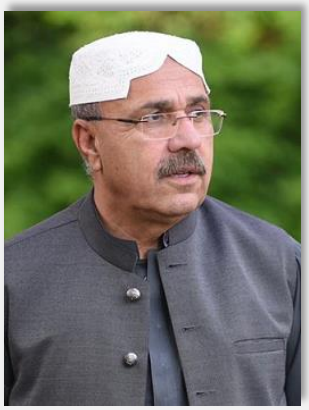
2.1 MEMBERS OF THE AUTHORITY

The Members of the Authority were:-

Engr. Mohammad Ehsan-ul-Haq Leghari
Member IRSA (Sindh)



Engr. Amjad Saeed
Member IRSA (Punjab)



Engr. Abdul Hameed Mengal
Member IRSA (Balochistan)

Engr. Asjad Imtiaz Ali
Member IRSA (Federal)

2.2 POWERS & DUTIES OF THE AUTHORITY

(1) The duties of the Authority as embodied in the IRSA Act XXII of 1992, Chapter II Clause 8 (1) are to:-

a) lay down the basis for the regulation and distribution of surface waters amongst the Provinces according to the allocations and policies spelt out in the Water Accord;

b) review and specify and reservoir operation patterns and periodically review the system of such operation;

c) coordinate and regulate the activities of the Water and Power Development Authority in exchange of data between the Provinces in connection with the gauging and recording of surface water flow;
Explanation:- Actual observation and compilation of the data shall be responsibility of the respective Provinces, Water and Power Development Authority and other allied organizations, while the process shall be monitored by the Authority;

d) determine priorities with reference to sub-clause (c) of Clause 14 of the Water Accord for river and reservoir operations for irrigation and hydropower requirements;

e) compile and review canal withdrawal indents as received from the Provinces on 5-daily or, as the case may be, on 10-daily basis and issue consolidated operational directives to Water and Power Development Authority for making such releases from reservoirs as the Authority may consider appropriate or consistent with the Water Accord;
Explanation:- The directive issued under this clause shall be binding upon Water and Power Development Authority and the Provinces, and shall be followed in letter and spirit;

f) settle any question that may arise between two or more Provinces in respect of distribution of river and reservoir water; and

g) Consider and make recommendations on the availability of water against allocated shares of the Provinces within three months of receipt of fully substantiated water account for all new water projects for the assistance of the Executive Committee of the National Economic Council.

(2) Any question, in respect of implementation of Water Accord, shall be settled by the Authority by the votes of the majority members and in case of an equality of votes the Chairman shall have a casting vote.

(3) A Provincial Government or the Water and Power Development Authority may, if aggrieved by any decision of the Authority, make a reference to the Council of Common Interests.

3. IRSA ADVISORY COMMITTEE (IAC)

3.1 IRSA ADVISORY COMMITTEE (IAC)

Under Section 9 of Chapter III of IRSA Act XXII of 1992, the Authority has an Advisory Committee, consisting of the following: -

(a) Chairman of the Authority, who is also the Chairman of the Advisory Committee;

(b) Members of the Authority;

(c) Chief Engineering Adviser to the Government of Pakistan;

(d) Members, Water and Power Development Authority, in-charge of Water and Power Wings;

(e) Secretaries, Agriculture Departments of the Provinces; and

(f) Secretaries, Irrigation Departments of the Provinces.

The Advisory Committee meets at such time and place to consider such matters as the Authority may from time to time, refer to it;

Provided that the Advisory Committee shall, at the start of each cropping seasons of Kharif and Rabi, hold its meetings without such reference.

4. ANTICIPATED WATER AVAILABILITY RABI 2024-25 & KHARIF 2025

4.1 CROPPING SEASONS

4.2 RABI 2024-25

4.2.1 IRSA TECHNICAL COMMITTEE (ITC) MEETING DATED 26.09.2024

Before the commencement of the Rabi Season, the meeting of the IRSA Technical Committee (ITC) was held on **September 26, 2024**, under the Chairmanship of Secretary / Director (Operation) IRSA, at IRSA HQs Islamabad.

4.2.1.1 RECOMMENDATIONS OF ITC

a) ITC recommended with consensus draft Anticipated Water Availability Criteria for Rabi 2024-25, assessed by utilizing WAA-Tool's forecasting capabilities - with the total likely Rim-Stations inflow volume of **22.99 MAF,** including 1.00 MAF of Eastern Rivers, till 31st October 2024 subject to further review in the first week of November 2024 -to be put up to IRSA Advisory Committee (IAC) for its formal assent in the forthcoming meeting.

b) ITC recommended with consensus, -6% losses for Indus Zone & 0% losses for JC Zone for Rabi 2024-25 till 31st October 2024 subject to further review in the first week of November 2024, to be put up to IRSA Advisory Committee (IAC) for its formal assent in the forthcoming meeting.

c) ITC recommended that during the month of October '24, Provinces may be allowed indented supplies for the maturity of Kharif Crops & sowing of Rabi Crops.

d) ITC showed concern over the non-operationalization of T4- LLO since October '22 and the slow pace of T5 HPP works. WAPDA shall apprise IAC in its next meeting about status of T5 HPP and would provide surety of its completion within the approved 33 months and also intimate the timeframe of T4 LLO operationalization, T3 & T4 remaining works, Spillways constraints and overall outflow limitations, etc.

e) ITC appreciated & thanked CSIRO, ACIAR & Australian Government for their support in 'Climate resilient and adaptive water allocation in Pakistan', with focus on extending the existing WAA Tool to allow for changes to be made during the planning season (i.e. intra-season) to allow for combination of actual, forecasted and projected inflows to reduce the variability/fluctuations in water diversions/releases for the provinces.

4.2.2 IRSA ADVISORY COMMITTEE (IAC) MEETING DATED 02.10.2024

The meeting of the IRSA Advisory Committee (IAC) was held on **October 02, 2024** under the Chairmanship of Chairman IRSA/ Member IRSA Balochistan, at IRSA HQs Islamabad.

4.2.2.1 Agenda (a) : Approval of Anticipated Water Availability Criteria for Rabi 2024-25 (Oct-Mar)

DECISIONS

a) IAC unanimously approved the Anticipated Water Availability Criteria for Rabi 2024-25 with a total Rim-Station inflow (including Eastern Rivers Component) of **22.98 MAF,** as recommended by ITC. The expected likely provincial shortage would be around 16% subject to review in the 1st week of November 2024, by taking into consideration the actual IBIS flow patterns.

b) IAC also allowed the provinces indented supplies for the maturity of Kharif Crops & sowing of Rabi Crops during the month of October 2024, which will be adjusted towards the overall provincial shares for Rabi 2024-25 later-on during the season.

c) IAC thanked the Australian Government for providing assistance through CSIRO and ACIAR for Climate Resilient and Adaptive Water Allocation in Pakistan. The provincial stakeholders and WAPDA also committed to provide their necessary inputs for the intended purpose through the already formed joint working group.

The Advisory Committee approved the following figure during the ensuing crop Season: -

(a)	Storage Component (Tarbela, Mangla & Chashma)	=	9.575 MAF
(b)	Anticipated Western Rivers Inflows	=	21.98 MAF
(c)	Anticipated Eastern River Inflows	=	1.000 MAF
(d)	System Losses	=	-1.356 MAF
(e)	Unavoidable Escape d/s Kotri	=	0.065 MAF
(f)	Balance for Provinces (@ Canal Hd)	=	31.136 MAF

Based on the above decision and the Criteria for the operation of the reservoirs the following seasonal allocations were made to the provinces:

Punjab	=	16.680 MAF
Sindh	=	12.584 MAF
Balochistan	=	1.171 MAF
KP (CRBC only)	=	0.701 MAF
Total	**=**	**31.136 MAF**

4.2.2.2 Agenda (b): Progress, Updated Status, Operational Constraints & Outflow Capacity of Tarbela T3, T4, T5 and T4-LLO For upcoming Rabi 2024-25: Briefing By GM/ PD Tarbela, WAPDA

4.2.2.3 Agenda (c): GM/PD Mangla's Briefing about the requirement of Reservoir Level to be kept above 1070 ft to avoid choking of the cooling system

4.2.2.4 Agenda (d): CE / PD Chashma to brief about the issue of Chashma Closure requested from December 25, 2024 to January 20, 2025 (27 Days)

DECISIONS

a) WAPDA assured IAC that IRSA's irrigation demands placed on Tarbela would be fulfilled during Rabi 2024-25, without any constraints.

b) WAPDA shall ensure completion of remaining and remedial works related to T3, T4 & T4-LLO before March 2025, so that the T4-LLO would be ready for normal operation during Kharif 2025.

c) IAC expressed serious apprehensions over the delayed physical progress of T5 HPP works of only 32% against the planned progress of 50% and also it is overlapping with remaining works of T3 & T4 HPPs. In this regard, WAPDA would recoup the delay in physical progress during the remaining 9 months and ensure completion within the 33 approved months, as no more extension will be provided. Also, a Revised Schedule with month-wise planned progress, along with a Contingency Plan - duly vetted and approved by Chairman WAPDA - will be submitted in the next IAC meeting to be held in first week of November 2024.

d) WAPDA assured that the Tarbela Auxiliary Spillways would be operational in high flow period of Kharif 2025.

e) Monthly Progress Reports (MPRs) of remaining works of T3 & T4, operation of T4-Low Level Outlet (LLO) and T5 HPP, will be regularly communicated to IRSA and stakeholders, without fail.

f) IAC approved Chashma Barrage Closure as requested by WAPDA for a period of 20 days between the tentative dates from 26 December, 2024 to 14 January, 2025, which would be synchronized with Canal Closure schedules of Punjab and Sindh canals. During the Closure, Chashma Reservoir would be constrained between levels 638.15 ft to 640.00 ft with outflow restrictions between 15,000 cfs to 30,000 cfs. However, extension in the closure period would be conditional, depending on the prevalent provincial annual canal closure periods.

g) The request of Mangla Authorities of raising the MOL of Mangla Reservoir from 1050 ft to 1070 ft shall be put-up to IAC in its next meeting to be held in first week of November 2024 based and duly supported by the latest hydrographic survey.

4.2.2.5 Agenda (e): Outstanding amount of Water Utilization Cess against Provinces and WAPDA up to Sep-2024

DECISION

IAC directed Punjab, Balochistan, Khyber Pakhtunkhwa and WAPDA to clear their outstanding dues in respect of Water Utilization Cess payable to IRSA, immediately.

4.3 OPERATION OF RABI 2024-25

The Rabi 2024–25 season commenced on 1st October 2024 with limited carryover storage in the system. Based on hydrological assessments, the IRSA Advisory Committee (IAC) estimated the Rim Station inflows at about 22.98 Million Acre Feet (MAF) for the season. The initial available storage in the reservoirs was about 9.58 MAF, while system losses were estimated at 1.36 MAF and 0.07 MAF was earmarked for releases downstream of Kotri. On the basis of the anticipated water availability, IRSA declared an overall shortage of about 16% for Punjab and Sindh, while Khyber Pakhtunkhwa and Balochistan were largely protected from cuts due to their relatively smaller allocations. During the course of the season, actual inflows showed mixed trends at the Rim Stations. In Indus Zone, Indus at Tarbela inflows was as per anticipations with 0% variation; whereas Kabul at Nowshera recorded inflows 4% less than anticipations. In JC Zone, Jhelum at Mangla and Chenab at Marala recorded significantly lower inflows than anticipations, i.e., about 36% and 23%, respectively. Due to these variations and continuous drawdown of reservoirs, Tarbela and Mangla reservoirs gradually depleted and approached their Dead Levels toward the end of the Rabi season, significantly reducing the available live storage in the system. Overall, IRSA regulated reservoir releases from Tarbela, Mangla, and Chashma and managed irrigation supplies in accordance with the Water Apportionment Accord, 1991. By the end of March 2025, the overall actual system shortage during Rabi 2024–25 was 20%, slightly higher than the initially anticipated 16% shortage.

During the whole crop season, the pattern of inflows vis-à-vis the anticipated parameters are given as under: -

(MAF)

River Inflows	Average of Last 5-years	Anticipated by IAC	Actual
Western Rivers	21.314	21.982	19.250
Eastern Rivers	1.468	1.000	1.013
Total	**22.782**	**22.982**	**20.263**

The actual Provincial Canal withdrawals duly reconciled by the respective Provinces are given as under: -

(MAF)

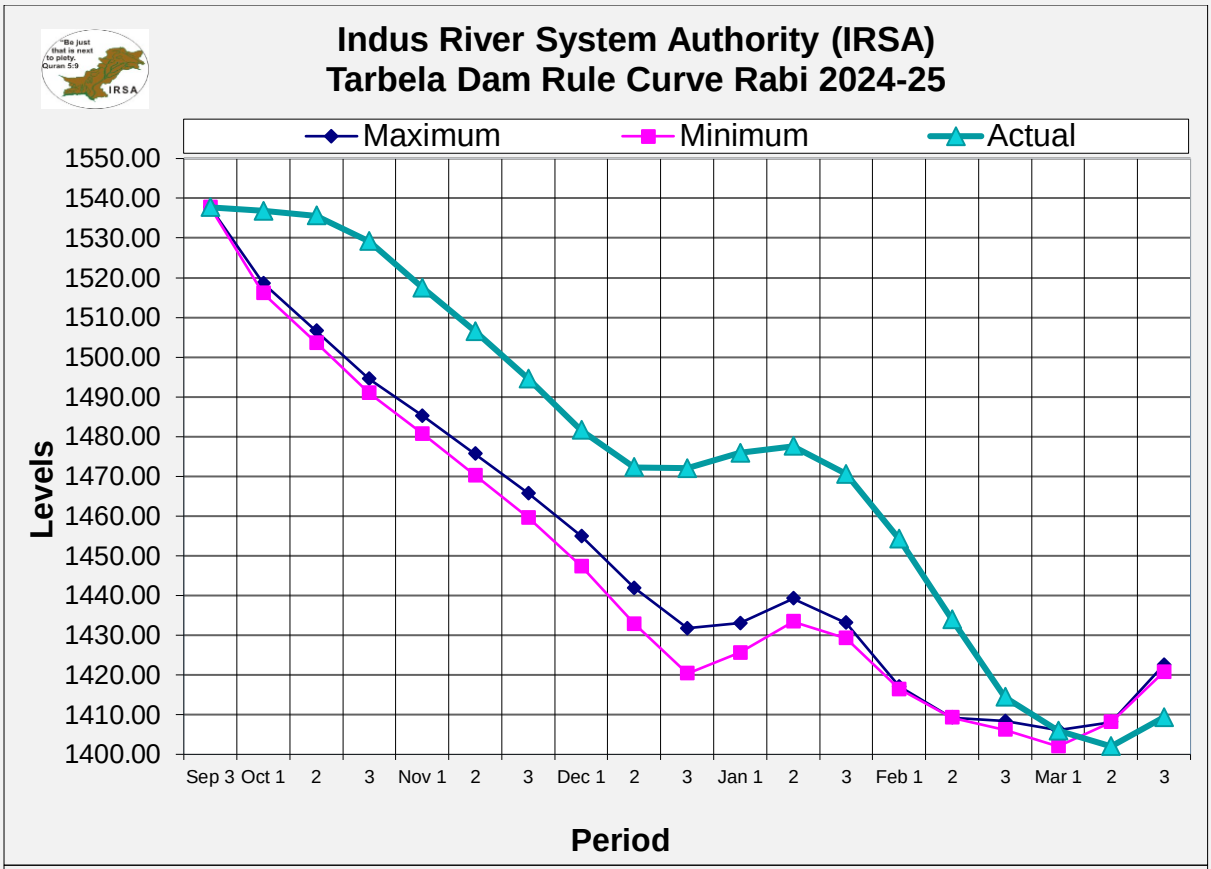
Province	Average of Last 5-years	Allocated by IAC	Actual
Punjab	15.859	16.680	15.561
Sindh	12.146	12.584	12.154
Balochistan	1.039	1.171	1.044
KP (CRBC only)	0.515	0.701	0.668
Total	**29.560**	**31.136**	**29.427**

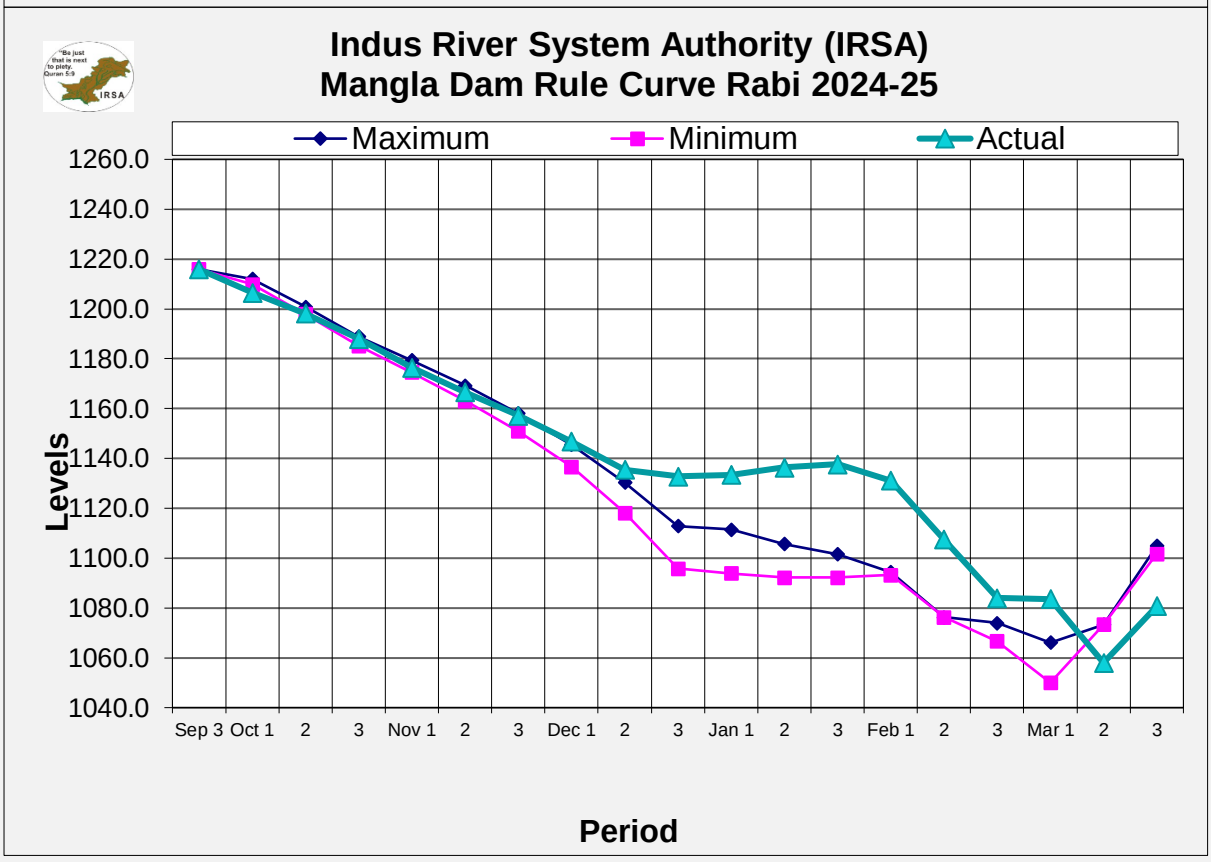
During Rabi 2024-25, escapages downstream Kotri Barrage measured as 0.47 MAF against anticipated volume of 0.065 MAF, which was about 58% less than the last five years average of 1.13 MAF.

(MAF)

Season	Last 5-years Average	Anticipated by IAC	Actual
Rabi 2024-2025	1.13	0.065	0.47

4.3.1 Reservoirs Rule Curves for Rabi 2024-25, compared with actual operation of Dams





4.4 KHARIF SEASON 2025

4.4.1 IRSA TECHNICAL COMMITTEE (ITC) DATED 25.03.2025

Before the commencement of the Kharif Season 2025, the meeting of the IRSA Technical Committee (ITC) was held on **March 25, 2025**, under the Chairmanship of Secretary / Director (Operation) IRSA, at IRSA HQs Islamabad.

4.4.1.1 RECOMMENDATIONS OF ITC

a) As the system inflow estimates of all the stakeholders were quite close, ITC recommended with consensus, the draft Anticipated Water Availability for Kharif 2025 at the Rim-Stations totalling 98.362 MAF, i.e., Early Kharif = 23.5 MAF and Late Kharif = 74.86 MAF, based on the agreed probabilities, to be put up to IRSA Advisory Committee (IAC) for its formal assent.

b) The filling target for Mangla Reservoir for minimum scenario may be fixed around 60% till June 30. However, Punjab advocated the 80% filling target, which may be discussed in the IAC meeting.

c) The recommended loss percentages would be 35% for Early Kharif and 15% for Late Kharif in Indus Zone and 5% for Early Kharif and 0% for Late Kharif in JC Zone, subject to subsequent adjustments based on actual data. Punjab, however, advocated 20% for Early Kharif and 10% for Late Kharif in Indus Zone while 10% for Early Kharif and 5% for Late Kharif in JC Zone for Kharif 2025.

d) The DOC / DOD of Punjab and Sindh would be made more effective to check the discharges at key points.

e) To be presented in IAC meeting, PMD shall bifurcate their volumetric estimates of inflows into 10-daily values of discharges and compare them with previous year and long-term averages.

4.4.2 IRSA ADVISORY COMMITTEE (IAC) MEETING DATED 26.03.2025

The meeting of the IRSA Advisory Committee was held on **March 26, 2025** under the Chairmanship of Chairman / Member IRSA Khyber Pakhtunkhwa, at IRSA HQs Islamabad.

4.4.2.1 Agenda (a): Approval of Anticipated Water Availability for Kharif 2025 (April to September 2025)

DECISION

IAC duly accounting the unclear climatically parameters and keeping in view the summer 2025 Weather Outlook presented by PMD, approved the Water Availability only for the Month of April, 2025 with 43% system shortfall. The water situation will again be reviewed in 1st week of May 2025.

4.4.2.2 Agenda (b): Progress, Updated Status, Operational Constraints & Outflow Capacity of Tarbela Dam's T3, T4, T5 & T4-LLO for upcoming Kharif 2025

DECISIONS

a) IAC unanimously expressed grave concern over the delayed progress of on-going works of T3 & T4 HPPs and also shown displeasure on very slow progress of only 43% for T5 HPP.

b) IAC apprehended that the overlapping of remaining works of T3 & T4 with T5 with unavailability of Tarbela Dam Auxiliary Spillways would affect the irrigation supplies during coming Kharif 2025 which may be expedited.

4.4.2.3 Agenda (c): Mangla Dam Operational Constraints

DECISION

It was decided that WAPDA shall take into confidence all the stakeholders before start of any activity regarding raising the Minimum Operating Level (MOL) of Mangla Dam.

4.4.3 2nd IRSA ADVISORY MEETING (IAC) DATED 05.05.2025

4.4.3.1 Agenda (a): Review of Water Situation and finalization of Anticipated Water Availability Criteria for Balance period of Kharif 2025 (May to Sept 2025)

DECISIONS

a) IAC, based on likely scenario, approved an overall shortage of '21%' for remaining "Early Kharif Season" and '7%' for the "Late Kharif Period". The final anticipated water availability criteria for the balance period of Kharif 2025 (May-September). The provinces shall share their withdrawal plans based on the agreed likely shares with IRSA within a week.

b) IRSA shall deploy monitoring personnel at critical locations during the remaining period of Early Kharif 2025. The PIDs Punjab and Sindh shall provide necessary technical and logistical support to IRSA Monitoring Teams.

c) Keeping in view the crisis created by 'India' short supplies in Chenab River, conjunctive use of reservoirs would be done pragmatically to ensure indented supplies to the provinces. The participants showed determination to handle the water crisis with unanimity and national spirit – setting internal reservations, aside.

The Advisory Committee approved the following figure during the ensuing crop Season (May to Sep 2025): -

(a)	Anticipated Western Rivers Inflows	=	90.427 MAF
(b)	Anticipated Eastern River Inflows	=	2.281 MAF
(c)	Carryover for Rabi 2025-2026	=	10.671 MAF
(d)	System Losses	=	-11.790 MAF
(e)	Escape d/s Kotri	=	9.956 MAF
(f)	Balance for Provinces @ Canal H/d)	=	60.291 MAF

Based on the above decision and the criteria for the operation of the reservoirs the following likely seasonal allocations for the balance period of Kharif 2025 (May-September) were made;

Punjab	=	29.167 MAF
Sindh	=	27.615 MAF
Balochistan	=	2.844 MAF
KP (CRBC only)	=	0.664 MAF
Total:	**=**	**60.291 MAF**

4.4.4 OPERATION OF KHARIF 2025

The Indus River System Authority (IRSA) managed the water distribution during Kharif 2025 under challenging hydrological conditions, especially during Early Kharif. At the commencement of the Kharif season (1st April 2025), the major reservoirs, namely Tarbela and Mangla, were operating close to their respective Dead Levels, resulting in negligible carryover storage in the system. The combined live storage in the reservoirs was therefore minimal, which created serious concerns regarding irrigation supplies for the early Kharif period. Based on the hydrological assessments and anticipated river inflows at the Rim Stations, IRSA initially estimated a system shortage of about 43% for the month of April 2025. Due to the uncertainty in inflows, the Authority approved water distribution for April 2025 only, while the final plan for the remaining Kharif season was deferred until better clarity in inflow trends was available. Subsequently, with a slight improvement in river inflows during April 2025, the water shortage for the Early Kharif period (April–June) was revised midseason to approximately 27%. Accordingly, provincial

supplies were adjusted while maintaining the established practice of sharing shortages between Punjab and Sindh, whereas Khyber Pakhtunkhwa and Balochistan were largely exempted from cuts due to their comparatively smaller allocations under the Water Apportionment Accord (WAA), 1991. However, fluctuations in river inflows in Early Kharif 2025—particularly reduced inflows in the Jhelum Chenab Zone—again affected the water outlook. Consequently, IRSA with approval of IAC reassessed the situation and declared about 21% shortages for Early Kharif (up to 10 June). The anticipated shortage for Late Kharif (June–September) was projected to remain relatively lower at around 7%, subject to improvement in snowmelt-driven inflows. IRSA managed the system through conjunctive operation of the major reservoirs, namely Tarbela, Mangla, and Chashma, while continuously monitoring the inflow situation at the Rim Stations. Daily releases were regulated in accordance with provincial indents and actual river inflows to ensure equitable distribution in line with the provisions of the WAA-1991. As the Kharif season progressed, rising temperatures in the northern catchments accelerated snowmelt, resulting in increased river flows. This improvement in inflows gradually enhanced water availability in the system and enabled IRSA to improve supplies to provinces and meet irrigation demands to a greater extent. Reservoir storages also started improving during the mid-season. In late August 2025, extreme rainfall spells occurred over catchments of Chenab and Eastern Rivers, resulting in exceptionally high floods. Though flood management falls outside its scope, IRSA on the specific request of Sindh reduced Tarbela Reservoir outflows in conjunction with curtailing downstream releases from Chashma Barrage to retain high inflows. This timely operational adjustment was intended to keep upstream flood flows at Guddu Barrage below 600,000 cusecs, an action duly appreciated by Sindh and recorded by Daily Dawn in its news clip dated 28.08.2025. By the end of the Kharif season, the hydrological situation turned out to be significantly better due to very high floods than initially projected. The total Rim Station inflows during Kharif 2025 reached approximately 122.364 Million Acre Feet (MAF), which was about 18% higher than the initial projections and approximately 19% above the ten-year average. Out of the available water, the provinces collectively utilized about 62.394 MAF for irrigation purposes during the season. Due to improved inflows during the later part of the season, reservoir storages increased substantially, and by September 2025 the major reservoirs were almost full, reaching nearly 99% of their storage capacity. This improvement in storage significantly strengthened the system's position and facilitated a smoother transition into the Rabi 2025-26 seasons, with comparatively better water availability than initially anticipated. Overall, despite starting the season with very low reservoir storage and significant anticipated shortages, IRSA successfully managed the Indus Basin irrigation system through prudent reservoir operations, continuous monitoring of hydrological conditions, and equitable distribution of available water among the provinces in accordance with the Water Apportionment Accord, 1991.

During the whole crop season, the comparison of actual inflows with the anticipated inflows is as given under: -

(MAF)

River Inflows	Average of last 5- years	Anticipated by IAC	Actual
Western Rivers	95.634	101.589	107.861
Eastern Rivers	3.424	2.440	14.503
Total	**99.058**	**104.029**	**122.364**

The actual Provincial Canal withdrawals reconciled by the stakeholders are given as under:-

(MAF)

Provinces	Average of last 5- years	Allocated by IAC	*Actual
Punjab	31.179	31.299	28.360
Sindh	25.499	28.748	28.954
Balochistan	1.584	2.848	2.177
KP (CRBC only)	0.896	0.823	1.067
Total	**59.157**	**63.718**	**60.558**

* Less withdrawals due to heavy rainfall & Flood in all Provinces.

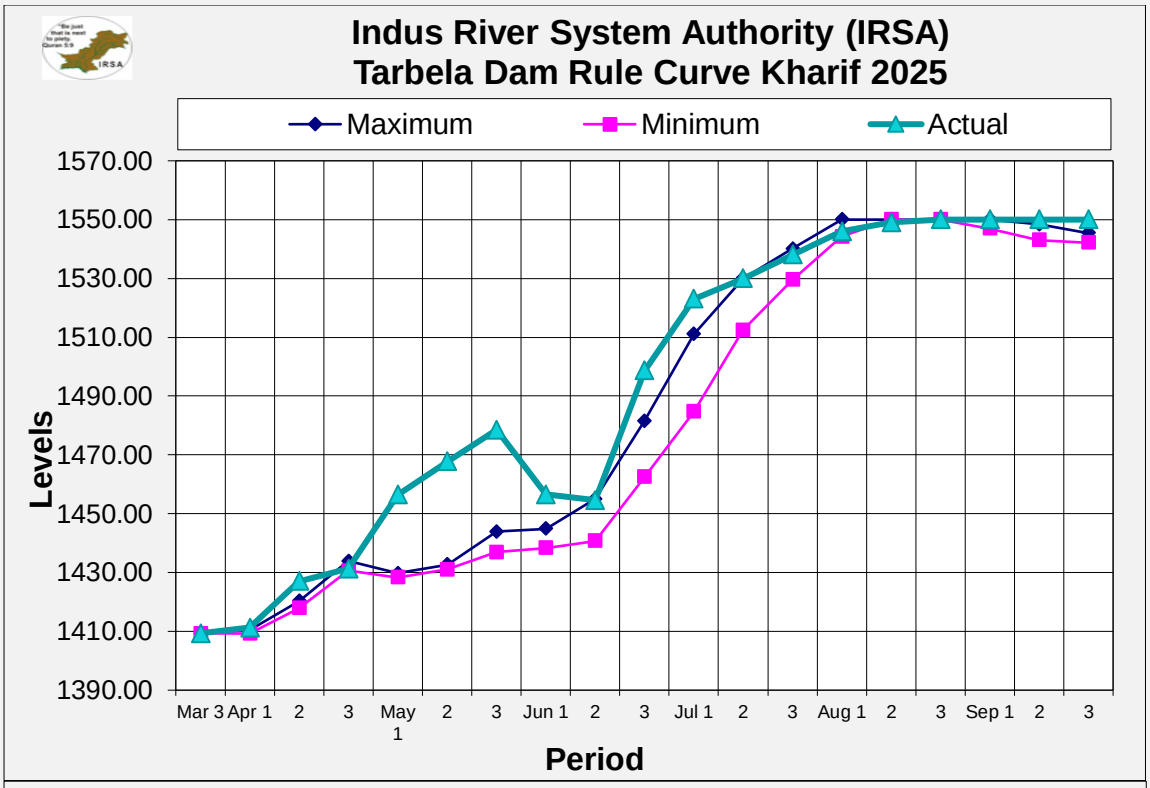
4.4.5 DOWNSTREAM KOTRI FLOWS

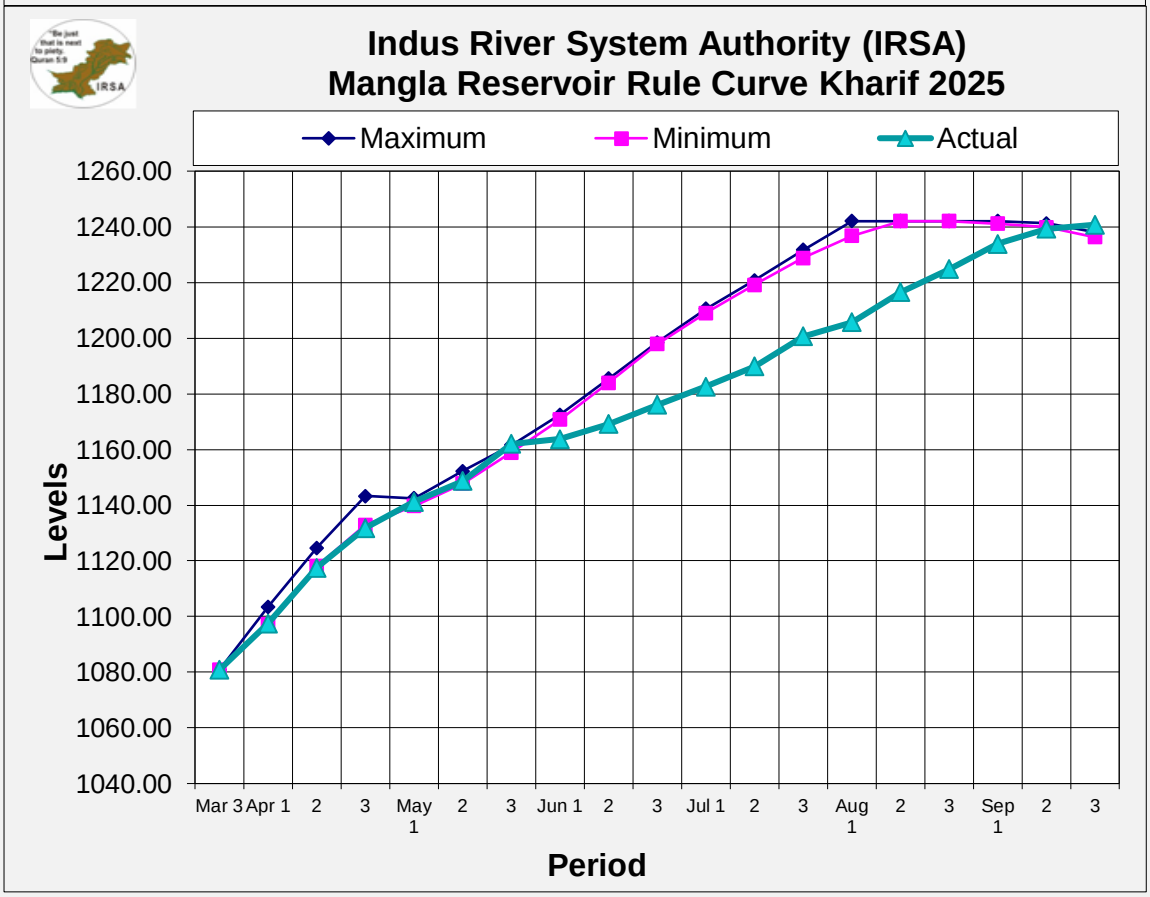
Due to exceptionally high floods in Chenab and Eastern Rivers, escapages downstream Kotri Barrage during Kharif 2025, measured as 30.848 MAF against anticipated volume of 9.956 MAF, which was 71% higher than the last five years average of 18.034 MAF.

(MAF)

Season	Last 5-years Average	Anticipated by IAC	Actual
Kharif 2025	18.034	9.956	30.848

4.4.6 Reservoirs Rule Curves for Kharif 2025, compared with actual operation of Dams





5. IRSA AUTHORITY DECISIONS

5.1 DECISIONS OF THE AUTHORITY

5.2 IRSA MEETING DATED 27.11.2024

5.2.1 Agenda (a): To Discuss the Draft Report Titled, "Water Utilization Cess Revenue Revision", Prepared by M/S NESPAK

DECISIONS

a) An IRSA Committee shall be formulated to study the Draft Report Titled, "IRSA Water Utilization Cess Revenue Revision", prepared by M/s NESPAK and to recommend practical way forward approaches to cover the short and long-term sustainability of IRSA operations, by duly accounting the accumulative inflation rates since 2011 and their future projections, increased prospective power generations from WAPDA, PAEC as well as IPPs, etc. The Committee shall submit its report within 2-3 weeks.

b) The composition of the above-mentioned committee shall be:-

Name of Committee Member	Designation/Role
Mr. M. Ehsan ul Haq Leghari	Member IRSA Sindh / Convenor Committee
Mr. Abdul Hameed Mengal	Member IRSA Balochistan/Member Committee
Mr. Muhammad Khalid Idrees Rana	Secretary/Dir (Opr), IRSA / Member Committee
Mr. Kaptan Gul Khattak	Sr. B&AO, IRSA/Member Committee
Mr. Masood Ahmed Saeed	A.D (Admn) / Member Committee

5.3 IRSA MEETING DATED 02.01.2025

5.3.1 Agenda (a): Review of Water Situation

DECISIONS

a) IRSA will review the water situation on fortnightly basis.

b) The request of Punjab to open the CJ Link Canal will be considered after annual canal closures keeping in view the zone-wise water availability and provincial shares within the parameters of water Accord.

5.3.2 Agenda (b): To discuss the extension of the project time frame and approval of updated design and layout for 78.8 KW solar PV system at IRSA headquarters building

DECISIONS

a) The Authority approved the updated "Design of the Contractor" and layout for the 78.8 KW Solar PV System at the IRSA Headquarters Building submitted by NESPAK on 30.12.2024.

b) The Authority granted an extension in the project completion period from 21.05.2024 to 31.01.2025 with imposing a penalty of 2% of the contract value.

5.3.3 Agenda (c): To discuss the matter of "Special Study /Performance Audit of Indus River System Authority"

DECISION

The Authority decided that Secretary, IRSA shall request Secretary, Ministry of Water Resources for a special meeting of the Authority Members wherein the matter shall be explained for reconsidering the IRSA's viewpoint and request already made.

5.4 IRSA MEETING DATED 16.01.2025

5.4.1 Agenda (a): Establishment of State-of-the-Art Telemetry Project Data Centre in IRSA HQs Building, Islamabad.

DECISIONS

a) The Data Centre and command & Control Room of the Telemetry Project shall be designed by the EPC Contractor on the international design principles of state-of-the-art by duly taking into consideration the suggestions offered by the participants. The redesigned architectural layouts and re-dimensioned constituent sections shall be presented by Project Director WAPDA to the Authority within a week. Further the latest and top of the line Media Walls be installed.

b) Renovation of existing IRSA building shall be carried out, taking care of all necessary items to be renovated. The EPC Contractor shall prepare a punch List of Renovation items in consultation with IRSA Engineers & Caretaker. Also, relocating the already installed Solar System at IRSA building shall be included.

c) The Authority took serious note of the variations of observed discharges w.r.t reported discharges at some of the sites and decided that in future, all matters related to Telemetry Project, including Flow

Measurement Mission (FMMs), shall be sent directly to Project Director WAPDA by the FPs. It was also decided that the letter of PID Punjab dated 13.01.2025 shall also be forwarded to Project Director WAPDA for necessary action. Furthermore, GM (HRM) WAPDA would be called to brief IRSA about WAPDA's gauging network and its discrepancies with observed discharges.

5.4.2 Agenda (b): New Account Opening (PKR) for the Project, namely, "Climate Resilient and Adaptive Water Allocation in Pakistan" (Project No. WAC/2022/152); Commissioned Organisation "CSIRO" – Intra-Seasonal Planning

DECISION

The Authority approved the opening of a separate Current Account in Pak Rupees for the Project, namely, Climate Resilient and Adaptive Water Allocation in Pakistan" (Project No. WAC/2022/152); Commissioned Organisation "CSIRO" – Intra Seasonal Planning.

5.4.3 Agenda (c): IRSA Water Utilization Cess Revision – Draft Report submitted by IRSA Committee formulated on 27.11.2024

DECISION

The Authority requested the Committee to reframe its recommendations in light of comments offered by the IRSA Members and to be put up in the next IRSA meeting.

5.4.4 Agenda (d): Operationalization of T4-LLO & Progress Review of Tarbela 5th Extension HPP Project

DECISIONS

a) It was decided that T4-LLO shall be made fully functional / operational by mid-April 2025 to meet with provincial indents during the critical Early Kharif 2025. WAPDA assured that capacity of 65,000 cfs out of the maximum outlet capacity of 75,000 cfs through T4 LLO shall be available before 31st March 2025.

b) WAPDA shall assure completion of T5 works within the stipulated time of 33 months without delay.

5.5 IRSA MEETING DATED 23.01.2025

5.5.1 Agenda (a): Appointment of Legal Consultant

DECISIONS

The Authority in principally agreed that the appointment of legal consultant is essential to be appointed with improved TORs. It was directed to the administration to prepare a detailed working paper which includes the recommendations after evaluating already received three Curriculum Vitae (CVs) and present in the next Authority meeting. Based on this recommendation/evaluation, the most suitable Legal Consultant will be selected and appointed to effectively handle IRSA's legal needs.

5.5.2 Agenda (b): Pension Scheme for IRSA Employees

DECISION

The agenda item was deferred with consensus of the Authority for further procedural clarifications.

5.5.3 Agenda (c): To discuss the Revision of Water Utilization Cess – Draft Report of IRSA Committee

DECISION

The agenda item was deferred with consensus for further discussion after receiving comments from the International Expert.

5.5.4 Agenda (d): Review of Water Situation

DECISION

It was decided with consensus that Operation Section will review the previous comparable year's data of Jhelum-Chenab Zone and operationalization of CJ Link canal and present before the IRSA Advisory committee (IAC) in next meeting for further deliberations & decision.

5.6 IRSA MEETING DATED 10.02.2025

5.6.1 Agenda (a): Review of Water Situation

DECISIONS

a) All Provinces be requested to place their rationalized indents for the remaining Rabi 2024-25 to avoid rapid depletion of the reservoirs due to tendency of below normal rainfall in the country and precarious Water Situation.

b) IRSA Authority meeting will be held on 25.02.2025 to review the Water Situation.

5.6.2 Agenda (b): Appointment of a Legal Consultant

DECISIONS

IRSA Authority approved the appointment of Mr. Iftikhar-ul-Hassan Shah as Legal Consultant, IRSA, on part time basis, on a lump sum monthly retainer ship of Rs. 150,000/- (including all taxes initially for a period of 6-month (extendable) along with the following amended/updated TORs:-

i. Appearance in courts of law (District, Sessions and High courts) for cases pertaining to IRSA on any matter.

ii. Provide legal opinion on issues referred to the Legal Consultant in accordance with IRSA act and as per directions of the Authority/Chairman.

iii. The Legal Consultant will not bill/charge any legal fees for appearing cases if he needs assistance from other lawyers, all such expenses will be paid by the consultant with no financial implication on the Authority.

iv. The Consultant will keep all matters confidential and will not discuss or disclose to any other party.

5.7 JOINT MEETING OF IRSA & WAPDA DATED 10.02.2025

5.7.1 Agenda (a): Establishment of State-of-the-Art Telemetry Project Data Centre at IRSA HQs Building, Islamabad.

DECISIONS

a) The Authority reviewed the Architectural layout designs of the Telemetry Control centre, prepared by the EPC contractor, in pursuance of decisions taken in IRSA meeting held on 16.01.2025 and gave specific instructions to update and modify the designs.

b) The construction of Control Room and renovation of existing IRSA Building shall be completed within the indicated seven months. The renovation of Existing IRSA building at Islamabad shall be undertaken simultaneously.

c) EPC contractor shall also optimise existing specify new space for vehicles parking due to substantially increased parking requirements.

5.7.2 Agenda (b): Discrepancies in River Discharges at Gauging Locations under Control of WAPDA

DECISIONS

a) The Authority noticed with concern that the discrepancy between the WAPDA gauging stations, especially at Besham Qila and Tarbela Dam was excessive. Also, the difference observed at Kabul River and Ghazi Barotha sites during Telemetry FMMs w.r.t reported discharges of WAPDA, as pointed out by Focal Person (FP) of PID Punjab vide letters dated 13.01.2025 and 06.02.2025, was significantly higher and therefore not acceptable.

b) GM (HRM) WAPDA Gauging stations, especially Besham Qila, Tarbela, etc, shall be updated on quarterly basis and communicated to IRSA forthwith.

c) As part of the activities to resolve the issue, a joint FMM shall be conducted by Project Director at Kabul River and Ghazi Barotha sites in February 2025 for rechecking purposes.

d) Telemetry sensors shall also be installed at Mangla Spillways by issuance of appropriate variation order by Project Director WAPDA in order to calculate complete water balance for the site.

5.8 IRSA MEETING DATED 26.02.2025

5.8.1 Agenda (a): Review of Water Situation

DECISIONS

a) It was decided that releases from Dams will be reduced taking into consideration the system gains in the wake of recent rainfall. The provincial shares will also be adjusted accordingly.

b) Is was also decided to write a letter to Punjab Sindh Provinces to rectify the discrepancies observed by IRSA representative at Taunsa, Guddu and Sukkur Barrages for smooth & transparent water distribution.

5.8.2 Agenda (b): Report of the Committee constituted by IRSA on "Revision of IRSA Water Utilization Cess (January 2025)"

DECISION

The Authority requested the Committee to make amendments in the Report proposed by the IRSA Members and draft final Report may be forwarded to WAPDA/Consultant M/s NESPAK for necessary action as per provision of PC-I of the Telemetry Project.

5.8.3 Agenda (c): Evolving of SOPs for efficient and disciplined performance of IRSA

DECISION

The Authority decided that in future no correspondence with any external department would be made without the approval of the Authority and any disagreement(s) will be discussed and resolved within the Authority.

5.9 IRSA MEETING DATED 16.04.2025

5.9.1 Agenda (a): Water Regulation and in this context PID Punjab's letters dated 07.04.2025 & 09.04.2025

5.9.2 Agenda (b): PID Sindh's letter dated 15.04.2025 & Member IRSA (Sindh)'s letter No. IRSA/M(S)/3239-41 dated 15.04.2025

DECISIONS

a) Committee comprising Member IRSA (Punjab), Member IRSA (Sindh) and Director (Operation), IRSA, is tasked to further deliberate on the referred letters of PIDs, Punjab and Sindh, and furnish its findings/recommendations for consideration of the Authority in its scheduled meeting to be held on April 22, 2025 at 11:00 hours, IRSA Headquarters, Islamabad.

b) Keeping in view the present water availability in Indus Basin and current provincial requirements, the Authority allowed the following water distribution as an interim arrangements with consensus: -

Punjab	@ Canals/ Barrages	Existing	Revised
	Thal	2000 cs	4500 cs
	CJ	Nil	Nil
	CRBC (Pb)	1000 cs	1000 cs
	D/S Chashma	6000 cs	9000 cs
Sindh	D/S Chashma	35000 cs	40000 cs

5.9.3 Agenda (c): Delegation of Financial Powers for the project namely, "Climate Resilient and Adaptive Water Allocation in Pakistan" (Project No. WAC/2022/152)

DECISION

The Authority under Chapter IV clause 4 of IRSA Act XXII of 1992 delegated full financial Powers to Secretary, IRSA for reimbursement of all kinds of expenditures incurred for the project namely "Climate Resilient and Adaptive Water Allocation in Pakistan" (Project No. WAC/2022/152) from the account dedicated for the Project.

5.10 IRSA MEETING DATED 24.04.2025

5.10.1 Agenda (a): Finding/Recommendations of the Committee Regarding PID Punjab's letters 07.04.2025 & 09.04.2025 and PID Sindh's letter dated 15.04.2025 PID Punjab's Letter dated 18.04.2025

DECISIONS

a) The committee comprising Member IRSA (Punjab), (Sindh) & Director (Operation), was assigned the task to visit key locations, including Chacharan Bridge, to resolve discrepancies in water reporting and outdated Rating tables, etc. The committee shall also submit its report on PID Punjab letter No. 43936 dated 18.04.2025.

b) A comprehensive report based on these findings shall be presented in the IRSA meeting for further appropriate action.

c) Regarding, Member Punjab objection on escapages d/s Kotri, a separate meeting will be arranged to discuss the issue.

5.10.2 Agenda (b): Review of Water Distribution for the Period April 1-20, 2025

DECISIONS

a) Following provincial shares were decided with consensus with immediate effect till further orders:-

(x 1000 Cs)

Provinces	*Indus	** Others	Total	Share	%(+)/(-)
Punjab	18.3	58.0	76.3	91.6	-16.7
Sindh	49.5	0.0	49.5	59.4	-16.7
KP (CRBC)	1.9	0.0	1.9	1.9	0.0
Balochistan	2.0	0.0	2.0	2.0	0.0
Total	**71.7**	**58.0**	**129.7**	**154.9**	**-16.2**

* Thal 6500 Cs, CRBC 800 Cs, GTC 2000 Cs, & d/s CSB 9000 Cs.

** Others include RQBS d/s +Jhelum-Chenab Zone Share for Punjab.

b) GTC shall open as per provincial indent w.e.f 25.04.2025. The outflows from reservoirs shall be adjusted accordingly.

5.10.3 Agenda (c): Grant of Honorarium /Cash Award to the Employees working in the Minister's office, MoWR

DECISION

The Authority approved two basic salaries as an honorarium to the Minister's Office Employees as recommended by the Federal Minister.

5.10.4 Agenda (d): Report Regarding Water Cess

DECISIONS

a) The Authority agreed to the rates recommended by the Consultant of Paisa 15 per kilowatt hour to be levied from WAPDA & PAEC and Paisa 90 per acre foot to be levied from the provinces with minor amendments in the summary of the cost.

b) Based on the above rates, a summary for seeking the approval of CCI as per revised levied shall be moved to the MoWR at the earliest.

5.11 IRSA MEETING DATED 23.06.2025

5.11.1 Agenda (a): Discussion on decision of the 52nd meeting of the Council of Common Interest (CCI) – Conveyed vide letter No. 2(6)/2024-CCI (52nd) dated 11th June, 2025

DECISIONS

IRSA decided the following team to ensure consultation as directed by CCI and may be forwarded to Ministry of Planning Development & Special Initiatives for further coordination with all the stakeholders in the best interest of national cohesion and to address all concerns until mutual understanding is reached amongst the stakeholders: -

S#	Name	Designation
i)	Mr. Amjad Saeed	Member IRSA (Punjab)
ii)	Mr. Mohammad Ehsan ul Haq Leghari	Member IRSA (Sindh)
iii)	Mr. Muhammad Khalid Idrees Rana	Secretary IRSA

5.12 IRSA MEETING DATED 10.07.2025

5.12.1 Agenda (a): To discuss and approve the Budget Estimates for the Financial Year 2025-26

DECISIONS

a) The Authority unanimously approved the 'Revised Budget estimates' (actual expenditure for the FY 2024-25, amounting to **Rs. 398.336 million** (Regular Expenditures Rs. 385.766 million and Development Expenditures Rs. 12.570 million.

b) The Authority unanimously approved the 'Budget Estimates FY 2025-26, amounting to **Rs. 734.004 million** (Regular Budget Rs. 474.004 million and Development Budget Rs. 260.000 million) for Telemetry Project.

5.12.2 Agenda (b): To discuss and decide the matter for Grant of Extension in Contract Appointment period of Mr. Shafiq Ali, Telemetry Project Support Consultant (TPSC), IRSA

DECISION

The Authority unanimously decided to extend the contract period of Mr. Shafiq Ali, TPSC IRSA for another term of six months from July 01, 2025 to December 31, 2025, and attached him with the DG (Monitoring) for his assistance. However, his salary shall be charged to the 'Telemetry Project' for extended period i.e. 01.07.2025.

5.12.3 Agenda (c): Regularization of Daily Wages Employees appointed against the Vacant Posts

DECISIONS

a) As per Federal Government Policy, daily wages employees shall not be considered for regularization under any circumstances regardless of the duration of their service or nature of duties performed.

b) All appointments that have been made on a daily wage basis against the vacant posts or over & above the existing strength will be rationalized.

c) The monthly salaries of daily wage employees working against the regular/vacant posts within IRSA will get salary from the budget of those regular posts.

d) The Daily wages employees appointed against operation HR get fixed pay of minimum daily wages as per Federal Government Policy.

e) In the light of above decisions, the office orders regarding the hiring of services of daily wages staff, shall be amended as per federal Government Policy for future hiring.

5.12.4 Agenda (d): To discuss the Report of "IRSA Discharge monitoring Team" dated 22nd May, 2025 constituted in IRSA meeting dated 22nd April, 2025 & IAC meeting dated 05th May, 2025 regarding Discrepancies in water reporting along with Member IRSA (Sindh), report/analysis submitted vide No. IRSA/M(S)/4164 dated May, 2025

DECISIONS

a) The IRSA Discharge Monitoring Team's Report dated 22.05.2025 shall be forwarded to PD Telemetry WAPDA and concerned provincial PIDs for perusal and further appropriate action.

b) The concerned provinces shall be requested to initiate formal proposals to PD office WAPDA for rehabilitation of Meter Flumes at DG and Muzaffargarh Canals RDs: 109 & 125.

c) PD Telemetry WAPDA shall complete a detailed study to ascertain actual lag-times within the existing/approved project.

5.12.5 Agenda (e): Pension approved for IRSA Employees

DECISIONS

a) The Authority decided to revoke its previous decisions regarding the pension scheme along with the office orders and notifications issued through Regulations in this regard nullifying them ab-initio.

b) IRSA's Notification No. IRSA/Admn/Gen190/5728-32 dated 31.08.2022 hereby stands withdrawn and the amendments made in Regulations of IRSA be corrected accordingly.

5.13 IRSA MEETING DATED 17.09.2025

5.13.1 Agenda (a): Review of Water Situation

DECISIONS

a) The Authority expressed satisfaction over the Water Situation.

b) It was decided that all efforts would be made to carry out the maximum storage in Rabi 2025-26 seasons for the better management of Rabi crops.

5.13.2 Agenda (b): Discussion on decision of the 52nd meeting of the Council of Common Interest (CCI) – Conveyed by MoWR vide letter No. 5(75)2025-Water dated August 20, 2025

DECISION

It was decided to withdraw the agenda item.

5.13.3 Agenda (c): Discussion on Proposal for the Establishment of National River Authority for Sustainable Development, conveyed by MoWR vide letter No. 1(01)2025-Water dated 20.08.2025

DECISION

It was decided that the draft comments shall be vetted by IRSA's Legal Consultant, before submitting it to Ministry of Water Resources.

5.13.4 Agenda (d): Extension in the Contract Period of Legal Consultant IRSA

DECISION

The Authority granted extension in the contract period of Legal Consultant IRSA for a period of Six months from 17th August 2025 to 16th February 2026 on the same terms and conditions already defined under letter No. IRSA/PF-341/1146-50 dated 17.02.2025.

5.13.5 Agenda (e): Appeal of IRSA Regular Employees for Grant of Compensation/Retirement Benefits

DECISIONS

a) It was decided to constitute the following committee to work out one-time Retirement package for the IRSA Employees: -

i) Member (Sindh), IRSA	Convenor of the Committee
ii) Member (Balochistan), IRSA	Member
iii) Secretary, IRSA	Member

b) The TORs of the Committee shall be as follows:
"The Committee shall explore and recommend one-time Retirement Package for IRSA's employees upon their retirement".

c) The Committee shall submit its report within a month to the Authority.

6. PARLIAMENTARY AFFAIRS

6.1 NATIONAL ASSEMBLY

6.1.1 NATIONAL ASSEMBLY (NA) QUESTIONS & CALLING ATTENTION NOTICES

6.1.2 NATIONAL ASSEMBLY QUESTION NO. 197 MOVED BY SYED HUSSAIN TARIQ

NA Question No. 197 moved by Syed Hussain Tariq	IRSA's Reply
a) Whether it is a fact that the country is facing a significant water scarcity issue, particularly affecting low-lying riparian areas like Sindh, resulting in difficulties for farmers to irrigate their crops and reports are indicating deviations from the Water Accord of 1991 in term of water flow; b) If so, the details and reasons for these changes;	Kharif 2024 Review: a) The Water Accord 1991 is implemented by Indus River System Authority (IRSA). During Early Kharif 2024, initially a shortage of about 27% was announced by IRSA's Advisory Committee (IAC), having representation from Chief Engineering Adviser (CEA) Ministry of Water Resources (MOWR), all provincial irrigation & agricultural departments & WAPDA. However, due to significantly better river inflows, the shortages were reduced to 0%. As such, indented supplies were released to all the Provinces. Rabi 2024-25 Anticipations: It is fact that the whole Indus Basin Irrigation System (IBIS) of the country – including all the provinces face water shortage. There are no deviations from the Water Accord 1991 in terms of water flows. The provinces will be getting their IAC approved share by equally sharing the system shortages of 16% during Rabi 2024. If more water is available compared to anticipated volume the shortages will be reduce, remaining within the Water Apportionment Accord. b) The water shortages in Early Kharif and Rabi seasons occur naturally if there are low river flows and insufficient storages to meet-with the demands. Unfortunately, due to

	significantly less inflows in Jhelum River during Kharif 2024 and Climate Change, Mangla Reservoir could not be filled to capacity.
c) Whether the Federal Government has engaged with the respective Provincial Governments regarding aforesaid matter; and	c) At the start of each cropping season, IRSA Advisory Committee (IAC) having representation from Chief Engineering Advisor (CEA) Ministry of Water Resources (MoWR), all provincial irrigation & agricultural departments & WAPDA, meets to discuss and approve the anticipated Water Availability. As such, IAC, in order to approve the Rabi 2024-25 Water Availability, met on 02.10.2024. It was unanimously decided that the IBIS was anticipated to face about 16% shortages. The respective provincial shares were also approved in the light of these anticipated shortages. Due to the uncertainties closely related to Climate Change phenomena, IAC decided to review the Water Availability in the first week of November, 2024. Additionally, IAC also approved for Punjab and Sindh to draw water in the month of October 2024 as per their indents – adjustable towards their overall seasonal shares to mature the Kharif 2024 crops, as the Kharif Crops is at maturity stage in some of the areas in the month of October.
d) What steps are being taken by the Government to ensure that Sindh receives its due share of water and to protect the interests of low-lying riparian areas?	d) As per detailed reply to above question (c), IRSA is entrusted with the task to safeguard the water interests of all provinces, including Sindh, by implementing the Water Accord 1991.

<table>
<tr><th>NA Question No. 208
moved by Umair Khan Niazi</th><th>IRSA's Reply</th></tr>
<tr><td>a) The details of share of water of each provinces as per Water Apportionment Accord 1991; and

b) How much command area is irrigated by canal water during the Kharif and Rabi season during the years 2020 to 2024?</td><td>a) The provincial water shares as per Para 2 of Water Accord 1991 are tabulated: -

<table>
<tr><th>Province</th><th>Kharif (MAF)</th><th>Rabi (MAF)</th><th>Total (MAF)</th></tr>
<tr><td>Punjab</td><td>37.07</td><td>18.87</td><td>55.94</td></tr>
<tr><td>Sindh *</td><td>33.94</td><td>14.82</td><td>48.76</td></tr>
<tr><td>Khyber Pakhtunkhwa (a) Gauge Canals</td><td>3.48</td><td>2.30</td><td>5.78</td></tr>
<tr><td>(b) Civil Canals **</td><td>1.80</td><td>1.20</td><td>3.00</td></tr>
<tr><td>Balochistan</td><td>2.85</td><td>1.02</td><td>3.87</td></tr>
<tr><td></td><td>77.34</td><td>37.01</td><td>114.35</td></tr>
<tr><td></td><td>+</td><td>+</td><td>+</td></tr>
<tr><td></td><td>1.80</td><td>1.20</td><td>3.00</td></tr>
<tr><td colspan="4">*Including already sanctioned Urban and Industrial uses for Metropolitan Karachi.</td></tr>
<tr><td colspan="4">** Un-gauged Civil Canals above the rim stations.</td></tr>
</table>

b) The information regarding command area irrigated by canal water falls under the domain of provincial irrigation/agriculture departments.</td></tr>
</table>

6.1.3 NATIONAL ASSEMBLY QUESTION NO. 208 MOVED BY UMAIR KHAN NIAZI

NA Question No. 208 Starred moved by Umair Khan Niazi	IRSA's Reply
a) The details of share of water of each provinces as per Water Apportionment Accord 1991; and b) How much command area is irrigated by canal water during the Kharif and Rabi season during the years 2020 to 2024?	a) Reply already submitted vide our letter No. IRSA/CE(O)/95/6845-49 dated 04.10.2024. b) The information regarding command area irrigated by canal water falls under domain of provincial irrigation / agricultural departments. However, information obtained from Ministry of National Food Security and Research's latest publication titled, "Agricultural Statistics of Pakistan 2022-23 on Page 120 is reproduced

below:-

(Area in Million Hectares)

Year	Canals		Total
	Govt.	Private	
2020-21	5.31	0.36	5.67
2021-22	5.47	0.40	5.87
2022-23	5.54	0.35	5.89

6.1.4 NATIONAL ASSEMBLY STARRED ADMITTED LISTS OF QUESTION No. 83 FOR ANSWERING (12TH SESSION – 3RD ROTA DAY SITTING)

NA Question No. 83	IRSA's Reply
a) Whether during the last five years, in the meeting of the Indus River System Authority (IRSA), the Sindh Province opposed the issuance of No Objection Certificate (NOC) for some projects for Punjab; and	a) On request of Punjab, last five years IRSA considered Water Availability Certificate (WAC) for Cholistan canal only during its meeting held on 17.01.2024. The matter was opposed by Member IRSA (Sindh) whereas Authority approved the request with 4:1 majority.
b) The detail of IRSA issued NOC for which projects of Punjab during the last five years despite the opposition of Sindh?	b) During the last five years, only one project was issued NOC/WAC of Cholistan Canal project with a 4:1 majority. Cholistan Canal is a **non-perennial** canal which would draw 77% (0.448 MAF) water of Punjab's surplus Flood Flows share as per Para 4 and about 23% (0.132 MAF) from Punjab's share as per Para 14(d) of Water Apportionment Accord (WAA) 1991.

6.1.5 IRSA'S REPLY TO MOTION UNDER RULE 259 REGARDING SMALLER CHOLISTAN PROJECT

Brief Description of the Project

1. The Smaller Cholistan Project conceived for extension of irrigated Agriculture for Smaller Cholistan in Punjab covers a gross area of about 696,819 acres (CCA 610,237 acres), comprising of Smaller Cholistan and abandoned areas on tail of right distributary of Hakra Branch. It is located in Bahawalnagar and Bahawalpur districts and is contiguous to the canal commands of Eastern Sadiqia Canal and Bahawal Canal.

2. The major constraint in land of Cholistan is lack of water and the challenge is to find workable options to overcome this constraint. To meet the water requirements of this project, reliance would be made mostly on the

expected flood-water share of the Punjab and it would also be necessary to bring flood water to Cholistan from by constructing appropriate conveyance systems.

3. Irrigation water to Project area is to be conveyed by an independent Cholistan Flood Feeder with capacity of 4,122 cusec, running on left side of Eastern Sadiqia Canal, with its separate head regulator to be located at Sulemanki Barrage.

4. The existing arrangements of inter river water transfer through rehabilitation & upgrading of Rasul Qadirabad (RQ), Qadirabad Balloki (QB) and Balloki Sulemanki (BS) Link Canals shall be utilized to convey the flood supplies to Sulemanki Barrage, which is an integral part of Cholistan Flood Feeder.

5. The water to Project area will be brought by lined feeders with a total length of 154 miles. The command area in Smaller Cholistan and abandoned tail right distributary has been planned to be fed through four canals (New Fateh Canal, New Murad Canal, New Hakra Canal & New Haran Canal), off-taking from the feeders.

6. Punjab Irrigation Department submitted the case of issuance of Water Availability Certificate for Smaller Cholistan to IRSA on 01.01.2024 with the total proposed water requirements of 0.580 MAF (Flood Flows of 0.448 MAF + Para 14(d) adjustment of 0.132 MAF). PID Punjab mentioned that the requirements shall be met out of the existing Punjab share, under the provisions of Para (40, Para (8) and Para 14(d) of the Water Apportionment Accord 1991. However, if in any 10-daily period the flood supply under Para (4) is not available, the requirements of this project would be met under the provisions of Para 14 (d) of the Accord.

7. The matter was discussed in detail in IRSA meeting held on 17.01.2024 and in accordance with sub-section (1)(g), Section (8) of IRSA Act XXII of 1992, IRSA issued the No Objection Certificate (NOC) for Smaller Cholistan vide letter dated 25.01.2024 by 4:1 majority (Member IRSA Sindh dissented).

Relevant Clauses of WAA 1991

Para 4

Balance river supplies (including flood supplies and future storages) shall be distributed as below:

Punjab	Sindh	KP	Balochistan	Total
37%	37%	14%	12%	100%

Para 8

There would be no restrictions on the Provinces to undertake new projects within their agreed shares.

Para 14 (d)
The provinces will have the freedom within their allocations to modify system-wise and period-wise uses.

8. Under Clause 8 (1) (g) of IRSA Act XXII of 1992, the substantiated Water Account submitted by the Punjab is as under:-

Sr.No.	Description	MAF
A	Average Escapages below Kotri (1976-2022)	27.09
	Deductions	
B	Mandatory releases below Kotri	8.60
C	Water Accord/Average Uses difference	11.00
D	Total deductions	19.60
E	Net balance availability (A-D)	7.49
F	Punjab Share of flood supply @ 37%	2.77
	Commitments to new Projects	
G	Grater Thal Canal	0.62
H	Remodeling existing Thal Canal	0.46
I	Jalalpur Canal Project	0.16
J	Development in Greater Cholistan	0.18
K	Development in Smaller Cholistan	0.45
L	Total Additional requirements (G to K)	1.87
M	Balance available for further development (F-L)	0.90

6.1.6 NATIONAL ASSEMBLY STARRED QUESTION No. 185 FIXED FOR 7TH ROTA DAY SITTING (14TH SESSION)

<table>
<tr><th>Query raised on NA Question</th><th>IRSA's Reply</th></tr>
<tr><td>Is there any affect i.e. short fall observed in surface water supplies during the current Rabi Season as compared to previous years in relation to the question posed?</td><td>Rim-Stations inflows position for Rabi Season from 1st October, 2024 to 10th Mar, 2025 as compared with last year and 10-year average is tabulated below: -
(MAF)
<table>
<tr><th>River/Station</th><th>This Year 2024-25</th><th>2023-24</th><th>10-year Average</th></tr>
<tr><td>Indus at Tarbela</td><td>7.664</td><td>7.262</td><td>7.791</td></tr>
<tr><td>Kabul at Nowshera</td><td>4.164</td><td>3.064</td><td>3.016</td></tr>
<tr><td>Jhelum at Mangla</td><td>2.166</td><td>2.726</td><td>3.645</td></tr>
<tr><td>Chenab at Marala</td><td>2.629</td><td>3.229</td><td>3.576</td></tr>
<tr><td>Total</td><td>16.623</td><td>16.281</td><td>18.028</td></tr>
</table>
As can be seen, surface water supplies of 16.623</td></tr>
</table>

	MAF at the Rim-Stations during the current Rabi 2024-25, were 8% less than 10-year historical average and were 5% in excess of previous year's inflows.

6.1.7 NATIONAL ASSEMBLY SECRETARIAT'S STARRED QUESTION MOVED BY MR. NAVEED QAMAR, MNA

<table>
<tr><th>Sr #</th><th>National Assembly Secretariat's Starred Question moved by Mr. Naveed Qamar, MNA</th><th>IRSA's Reply</th></tr>
<tr><td>a)</td><td>What is the current status of canals being constructed under Green Pakistan Initiative, give position of each canal separately including approvals, budgets, release etc;</td><td>The requisite details of the strategic canals included in Green Pakistan Initiative are as under:-
<table>
<tr><th>Sr .#</th><th>Province</th><th>Name of Canal</th><th>Status</th><th>Remarks</th></tr>
<tr><td>1</td><td>Punjab</td><td>Greater Thal Canal</td><td>IRSA issued Water Availability Certificate on 08.05.2002</td><td>Non-Perennial Canal</td></tr>
<tr><td>2</td><td>Sindh</td><td>Rainee Canal</td><td>IRSA issued Water Availability Certificate on 03.09.2002</td><td>Non-Perennial Canal</td></tr>
<tr><td>3</td><td>Balochistan</td><td>Kachhi Canal</td><td>IRSA issued Water Availability Certificate on 04.10.2003</td><td>Perennial Canal</td></tr>
<tr><td>4</td><td>Khyber Pakhtunkhwa</td><td>CRBC (L&G)</td><td>IRSA issued Water Availability Certificate on 04.04.2005</td><td>Perennial Canal</td></tr>
<tr><td>5</td><td>Punjab</td><td>Smaller Cholistan Canal</td><td>IRSA issued Water Availability Certificate on 25.01.2024</td><td>Non-Perennial Canal</td></tr>
<tr><td>6</td><td>Sindh</td><td>Thar Canal</td><td>NOC not applied</td><td>-</td></tr>
</table></td></tr>
</table>

<table>
<tr><td>b)</td><td>Which link canals will be used to supplement the canals in Cholistan area from the Indus River System provide;</td><td>As per Provincial Irrigation Department (PID) Punjab proposal, the existing arrangement of inter-river water transfer through rehabilitation & upgrading of Rasul Qadirabad (RQ), Qadirabad Balloki (QB) and Balloki Sulemanki (BS) Link canals shall be utilized to convey the supplies to Cholistan Canal.</td></tr>
<tr><td>c)</td><td>What are the historic flows are Sutlej river into Pakistan, give year wise and where applicable month wise report during the last 10 years; and</td><td>The 10-Year Historic Flows of Sutlej River at Sulemanki are as under: -
<table><tr><th>Year</th><th>Historic Flows (MAF)</th></tr><tr><td>2014-15</td><td>0.19</td></tr><tr><td>2015-16</td><td>2.16</td></tr><tr><td>2016-17</td><td>0.36</td></tr><tr><td>2017-18</td><td>1.34</td></tr><tr><td>2018-19</td><td>0.87</td></tr><tr><td>2019-20</td><td>2.54</td></tr><tr><td>2020-21</td><td>0.96</td></tr><tr><td>2021-22</td><td>0.13</td></tr><tr><td>2022-23</td><td>0.41</td></tr><tr><td>2023-24</td><td>8.12</td></tr></table>Data Source: Provincial Irrigation Department Punjab</td></tr>
<tr><td>d)</td><td>What are the flows of Indus River downstream Kotri Barrage during the last ten years?</td><td>The 10-Year Historic Flows of Kotri Barrage Downstream are as under: -
<table><tr><th>Year</th><th>Historic Flows (MAF)</th></tr><tr><td>2014-15</td><td>6.86</td></tr><tr><td>2015-16</td><td>36.61</td></tr><tr><td>2016-17</td><td>10.57</td></tr><tr><td>2017-18</td><td>9.49</td></tr><tr><td>2018-19</td><td>1.79</td></tr><tr><td>2019-20</td><td>12.66</td></tr><tr><td>2020-21</td><td>15.25</td></tr><tr><td>2021-22</td><td>2.11</td></tr><tr><td>2022-23</td><td>42.15</td></tr><tr><td>2023-24</td><td>14.29</td></tr></table>Data Source: Provincial Irrigation Department Sindh</td></tr>
</table>

6.1.8 NATIONAL ASSEMBLY STARRED QUESTION NO. 132 MOVED BY MS. SHARMILA SAHIBA FARUQUI HASHAAM

Sr #	Starred Question No.132 moved by Ms. Sharmila Sahiba Faruqui Hashaam	IRSA's Reply
a)	Whether the Government has acknowledged the worsening water crises, which is evident from the Tarbela and Mangla Dams reaching dead storage levels, a 50% reduction in water supply to Sindh and projected significant shortfall in water system during the summer months along with a notable decline in per capita water availability over the year;	The storages at Tarbela and Mangla reservoirs reach dead levels in the month of March being a routine phenomenon and water requirement is met against the rivers inflows. IRSA Advisory Committee, having representation from all the Provincial Irrigation and Agriculture Departments, WAPDA and Pakistan Meteorological Department, during its meeting held on March 26, 2025, decided 43% shortfall for the month of April 2025, taking into account the anticipated water availability. However, with improved inflows of the rivers, storage levels in Tarbela and Mangla Dam have increased considerably and resulted in gradual decrease of the shortfall from 43% to 27% on April 30, 2025. IRSA Advisory Committee is to be held again in the 1st week of May, 2025 to reconsider the scenario and finalize the water distribution amongst the provinces for the remaining months (Kharif Season 2025).
b)	If so, the details thereof including expected consequences of these shortages on individuals and their livelihoods, particularly in relation to the agricultural sector; and	Pertains to Provincial Irrigation and Agriculture Departments.
c)	What measures are being taken by the Government to address this situation and improve water management and infrastructure to prevent potential adverse effects, including a food crisis?	Does not pertain to IRSA.

6.1.9 NATIONAL ASSEMBLY STARRED QUESTION NO. 219 MOVED BY MS. SHARMILA SAHIBA FARUQUI HASHAAM

Sr #	National Assembly Secretariat's Starred Question No. 219 moved by Ms. Sharmila Sahiba Faruqui Hashaam	IRSA'S Reply
a)	What steps are being taken by the Government to expedite the construction of new reservoirs as outlines in Clause 6 of the 1991 Indus Water Apportionment Accord;	Clause 6 of Water Apportionment Accord (WAA) 1991, clearly envisages the need for new storages and is reproduced below: - **"The need for storages, whenever feasible on the Indus and other rivers was admitted and recognized by the participants for planned future agriculture development".**
b)	How will these developments address the current water shortages, particularly in Sindh; and	After the construction of reservoirs (Tarbela, Mangla & Chashma), the total designed live storage capacity was 15.74 MAF. At present, after Mangla raising the total live storage capacity has been reduced to 13.32 MAF due to siltation. Therefore, in future, after construction of the new water reservoirs, the additional storage will help in decrease of shortages.
c)	Given the importance of ecological protection under Clause 7, whether the Government provides a clear time line for the implementation of minimum downstream water flows to protect Sindh's delta and prevent further degradation of the coastal region?	Para 7 of Water Apportionment Accord (WAA) 1991, clearly envisages the minimum downstream water flows of Kotri is reproduced below: - **"The need for certain minimum escapages to sea, below Kotri, to check sea intrusion was recognized. Sindh held the view, that the optimum level was 10 MAF, which was discussed at length, while other that further studies indicated lower/higher figures. It was, therefore decided that further studies would be undertaken to establish the minimal escapages needs downstream Kotri".** The Federal Government in 2005 conduced three studies through International Consultants duly vetted by International Panel of Experts (IPOE), namely: - Study I: Water escapages below Kotri Barrage to check seawater intrusion; Study II: Water escapages downstream of the Kotri Barrage to address environmental concerns; Study III: Environmental concerns of all the

		four provinces. However, the aforementioned studies have not been approved from appropriate forum till date.

6.1.10 NATIONAL ASSEMBLY STARRED QUESTION NO. 219 MOVED BY MS. SHARMILA SAHIBA FARUQUI HASHAAM

Sr #	National Assembly Secretariat's Starred Question No.219 moved by Ms. Sharmila Sahiba Faruqui Hashaam	IRSA's Reply
a)	What steps are being taken by the Government to expedite the construction of new reservoirs as outlines in Clause 6 of the 1991 Indus Water Apportionment Accord;	Clause 6 of Water Apportionment Accord (WAA) 1991, clearly envisages the need for new storages and is reproduced below: - **"The need for storages, whenever feasible on the Indus and other rivers was admitted and recognized by the participants for planned future agriculture development".** Currently, construction of two mega dams Diamer-Basha & Mohmand with live storage capacities of 6.400 MAF & 0.676 MAF respectively is underway. After the construction of these two dams, the additional live storage capacity of 7.076 MAF will be available in Indus Basin Irrigation System (IBIS).
b)	How will these developments address the current water shortages, particularly in Sindh; and	Presently, the total live storage capacity of reservoirs (Tarbela, Mangla & Chashma) 13.32 MAF. A comparison of original & current live storage capacities of reservoirs is given below: - **(MAF)** Reservoir / Original Live Storage / Current Live Storage Tarbela 9.68 5.73 Mangla 5.34 7.28 Chashma 0.72 0.31 Total 15.74 13.32 • After the construction of new reservoirs namely Diamer-Basha and Mohmand Dam, the total storage capacity of approximately 20.376 MAF will be available which will help reducing the shortages in Sindh as well as throughout the country.

c)	Given the importance of ecological protection under Clause 7, whether the Government provides a clear time line for the implementation of minimum downstream water flows to protect Sindh's delta and prevent further degradation of the coastal region?	Para 7 of Water Apportionment Accord (WAA) 1991, clearly envisages the minimum downstream water flows of Kotri is reproduced below: - **"The need for certain minimum escapage to sea, below Kotri, to check sea intrusion was recognized. Sindh held the view, that the optimum level was 10 MAF, which was discussed at length, while other studies indicated lower/higher figures. It was, therefore decided that further studies would be undertaken to establish the minimal escapages needs downstream Kotri".** • The Federal Government in 2005 conduced three studies through International Consultants duly vetted by International Panel of Experts (IPOE), namely: - **Study I:** Water escapages below Kotri Barrage to check seawater intrusion; **Study II:** Water escapages downstream of the Kotri Barrage to address environmental concerns; **Study III:** Environmental concerns of all the four provinces. The IPoE unanimously recommended that "a total of 25 MAF in any 5 years (an annual equivalent of 5 MAF) to be released as concentrated flood flows…." • It is pertinent to state that as per hydrology of the Indus River, any system surplus flows for a period of approximately ninety days during the months of June, July and August, whereas during remaining nine months the flows are short than irrigation requirements. As such, the recommended additional daily flows of 5000 cfs would require additional releases downstream of Kotri Barrage during the nine low flow months and that could only be managed by constructing additional storages. • Resultantly, it is emphasized that without saving water during the high flow flood season by constructing new reservoirs, it would not be possible to release flows of 5000 cfs daily downstream Kotri to check sea water intrusion and environmental

		concerns to protect Delta and further degradation of the coastal region. However, on an average annually more than 5 MAF water is being released downstream of Kotri Barrage.

6.1.11 NATIONAL ASSEMBLY STARRED QUESTION NO. 129 MOVED BY MS. SHARMILA SAHIBA FARUQUI HASHAAM

Sr #	National Assembly Secretariat's Starred Question No. 129 moved by Ms. Sharmila Sahiba Faruqui Hashaam	IRSA's Reply
a)	Why Indus River System Authority (IRSA) conflict resolution fund has remained frozen at Rs. 12 billion since 2020, despite a 38% surge in inter provincial water disputes (Council of Common Interests 2025), does this static funding reflect neglect of constitutional mandates, under article 154 of the Constitution of Islamic Republic of Pakistan.	No such fund exists in IRSA.
b)	How will the Ministry address escalating tensions between provinces.	All inter provincial water related matters are resolved at IRSA level under IRSA Act No. XXII of 1992, under the umbrella of Ministry of Water Resources MoWR).
c)	Whether the Rs. 4 Billion allocated a "Telemetry system" can resolve Sindh's claims of 72% under-counting at key barrages; and	Total cost of Telemetry System is Rs. 23,834.707 Million and allocation for this Financial Year (2025-26) is Rs. 4.4 Billion. It is hoped that after completion of this project most of the water distribution issues will be resolved.
d)	What technical safeguards will ensure real-time, tamper-proof data to restore trust in water distribution?	Telemetry System being installed primarily aimed at real-time tamper-proof data. All provinces have been associated with the execution of this project from the beginning. WAPDA is executing this project.

6.1.12 NATIONAL ASSEMBLY STARRED QUESTION FOR 03RD ROTA DAY (20TH SESSION)

Sr #	National Assembly Secretariat's Starred Question for 03rd Rota Day (20th Session)	IRSA's Reply
79	b) Whether the situations worsening due to climate change, upstream water diversions, and inadequate storage capacity; and	It is fact that the situation is worsening due to climate change. Altered rainfall patterns: more erratic monsoons, longer dry spells, heavier rainfall when it comes (flash floods), accelerated glacier melt in the Himalayas / Karakoram/ Hindu Kush feeding the Indus: this can temporarily increase flows (and flood risk), but threatens long-term reliability especially as glaciers recede. In connection with that rising temperatures may increase evaporation, reduce water availability, strain both surface and groundwater. There are also cross-border impacts: for instance, water variations from Indian dams may affect river behavior in Pakistan. Besides, inefficient irrigation (canals with seepage, traditional flood irrigation, etc.), lack of water conservation, overuse of groundwater is also impacting the water availability in the Indus Basin Irrigation System. Regarding upstream water diversions, the proposed or ongoing diversion projects (like canals) may reduce downstream flow. Loss of reservoir capacity due to siltation has reduced Pakistan's live storage significantly. Major dams (like Tarbela, Mangla, and Chashma) have lost around 15% or more of their live storage capacity over decades. Presently, the total live storage capacity of reservoirs (Tarbela, Mangla & Chashma) is 13.32 MAF. A comparison of original and current live storage capacities of reservoirs is given below: -

		(MAF) Reservoir / Original Live Storage / Current Live Storage Tarbela 9.68 5.73 Mangla 5.34 7.28 Chashma 0.72 0.31 Total 15.74 13.32 To resolve the sensitive water issues and develop an equitable transparent water accounting mechanism as per Water Apportionment Accord (WAA) 1991, IRSA planned to install Telemetry system on 27 sites of Indus Basin Irrigation System (IBIS). WAPDA is the executing agency of the Project. Total cost of the Project is Rs. 23,834.707 Million with completion date of June 2028. It is hoped that after completion of this Telemetry Project most of the water distribution issues will be resolved.
158	a) The details of the Government's current and planned initiatives to restore the Indus River Delta and protect the livelihoods of the approximately 1.2 million people displaced due to environmental degradation and sea water intrusion?	A) The Para 7 of Water Apportionment Accord (WAA) 1991 clearly envisages the minimum downstream water flows of Kotri. The Federal Government in 2005 conducted three studies through International Consultants duly vetted by International Panel of Experts (IPoE). The IPOE unanimously recommended that: - "…a total volume of 25 MAF in any 5 years period (an annual equivalent of 5 MAF) to be released in a concentrated way as flood flow (Kharif period) …." together with a minimum daily escapages of 5000 cfs throughout the year downstream Kotri Barrage. It is pertinent to state that as per hydrology of the Indus River, we have surplus flows only for a period of approximately ninety days during the months of June, July and August. During the remaining nine months the flows are short than irrigation requirements. Therefore, the above recommended additional daily flows of 5000 cfs would require additional releases downstream of Kotri Barrage during the nine low flow months and that could only be managed by constructing additional storages.

6.2 SENATE

6.2.1 ADJOURNMENT MOTION TAKEN UP IN THE SESSION OF THE SENATE MOVED BY SENATOR SHERRY REHMAN

Motion moved by Senator Sherry Rehman	IRSA's Reply
"The decision of the Government to build several Barrages, Dams and link canals on the Indus River for Commercial Commodity farming causing unrest and insecurity amongst farmers of Lower Riparian Provinces where there is already shortages of water".	IRSA as per provisions of Water Apportionment Accord (WAA) of 1991 and through the Power vested by IRSA Act of 1992 regulates and monitors the distribution of surface water resources of Indus River System amongst the Provinces. As such, the matter of building Barrages, Dams and Link Canals on the Indus River do not fall under the domain of IRSA.

6.2.2 ADJOURNMENT MOTION TAKEN UP IN THE SESSION OF THE SENATE MOVED BY SENATOR SHERRY REHMAN

Motion moved by Senator Sherry Rehman	IRSA's Reply
"The decision of the Government to build several Barrages, Dams and link canals on the Indus River for Commercial Commodity farming causing unrest and insecurity amongst farmers of Lower Riparian Provinces where there is already shortages of water"	The matter of building Barrages, Dams and Link Canals on the Indus River is related to WAPDA and the Provinces. Inter alia, IRSA's duties only includes issuance of Water Availability Certificates (WAC) as per provision of Water Apportionment Accord (WAA) of 1991 for all new water projects against the allocated shares of the Provinces for the assistance of ECNEC, in accordance with Section (8) sub-section (l)(g) of IRSA Act 1992.

6.2.3 SENATE ADMITTED QUESTION NO. 11 MOVED BY SENATOR MOHSIN AZIZ

Senate Admitted Question No. 11 moved by Senator Mohsin Aziz	IRSA's Reply
a) Whether it is fact that Tarbela Dam has reached to dead level and the hydropower generation has dropped to 1100 MW, if so, the reasons thereof indicating also the steps being, taken by the Government to ensure power	It is fact that Tarbela Dam's Reservoir touched Minimum Operating Level (MOL) i.e. 1402.00 ft on 20.03.2025; however, as of today i.e. 15.04.2025 due to improved inflow Tarbela Dam level is 1417.14 ft and storage at this level is 0.209 MAF.

supply stability and prevent future water crises in the country; and	Furthermore, matter of hydropower generation pertains to WAPDA.
b) The steps taken/being taken by the Government to manage water resources in the country efficiently?	Under Water Apportionment Accord (WAA) & IRSA Act 1992, available water resources being managed by IRSA for irrigation purposes. However, WAPDA is working on construction of Mohmand and Diameer Basha Dams to enhance the storage of water and subsequent increase in hydel power generation.

6.2.4 MOTION UNDER RULE 218 MOVED BY SENATOR KAMRAN MURTAZA

Motion moved by Mr. Senator Kamran Murtaza

"The house may discuss the establishing of new water canals from Indus River, which has created among the Provinces."

IRSA's Reply

Sr. No.	Provinces	Name of Canal	Status	Remarks
1.	Punjab	Greater Thal Canal	IRSA issued Water Availability Certificate on 08.05.2002	Non-perennial Canal
2.	Sindh	Rainee Canal	IRSA issued Water Availability Certificate (WAC) on 03.09.2002	Non-perennial Canal
3.	Balochistan	Kachhi Canal	IRSA issued WAC on 04.10.2003	Perennial Canal
4.	Khyber Pakhtunkhwa	CRBC (L&G)	IRSA issued WAC on 04.04.2005	Perennial Canal
5.	Punjab	Smaller Cholistan Canal	IRSA issued WAC on 25.1.2024	Non-perennial Canal
6.	Sindh	Thar Canal	NOC not applied	-

6.2.5 CALLING ATTENTION NOTICE

Calling Attention Notice	IRSA's Reply
"the drought-like situation drastically affecting the agriculture sector of Pakistan….	The storage at Tarbela and Mangla Reservoirs reach dead levels in the month of March and water requirement was met against the rivers inflows. IRSA Advisory Committee, having representation from all the Provincial Irrigation and Agriculture Deportments, WAPDA and Pakistan Metrological Deportment, during its meeting held on 26.03.2025, decided 43% shortfall for the month of April 2025, taking into account the anticipate water availability. However, with improved inflows of the rivers, storages levels in Tarbela and Mangla Dams have increased considerably and resulted in gradual decrease of the shortfall from 43% to 27% on April 30.2025. On 05.05.2025, IRSA Advisory Committee (IAC) again reviewed the water situation for the remaining Early Kharif (May-June 10) & late Kharif (June 11 – Sep) decided an overall shortages of 21% for remaining Early Kharif and 7% for late Kharif. However, the situation would be monitored on a daily basis.

6.2.6 ADJOURNMENT MOTION TAKEN UP IN THE SESSION OF THE SENATE MOVED BY SENATOR KAMRAN MURTAZA

Adjournment Motion moved by Senator Kamran Murtaza	IRSA's Reply
"the serious water scarcity in the country, especially in two major Dams i.e. "Mangla and Tarbela" which will affect the poor masses as well as agriculturists in the country".	The storage at Tarbela and Mangla Reservoirs normally reach dead levels in the month of March and water requirements are met against the available rivers inflows. IRSA Advisory Committee (IAC), having representation from all the Provincial Irrigation and Agriculture Departments, WAPDA and Pakistan Meteorological Department, during its meeting held on 26.03.2025, decided 43% shortfall for the month of April, 2025, taking into account the anticipated water availability. However, with improved in flows in the rivers as a result of snowmelt, storage levels in Tarbela and Mangla Dams have been increasing considerably since then, resulting in gradual decrease of the shortages for Early Kharif (April 1 to June 10, 2025) from 43% to 27% as reviewed and approved by IAC on 05.05.2025. However, due to the improved Water situation, IRSA has started releasing indented water supplies to the provinces from 01.05.2025. The Provincial Indents vs. Releases on 12.05.2025, are as under:

Province	Indent	Releases	% Shortages
Punjab	102.3	102.3	0
Sindh	90.0	90.0	0

6.2.7 SENATE SECRETARIAT ADMITTED THE STARRED QUESTIONS LISTED FOR ANSWERING

Question No.	Content of Question	IRSA's Reply
105	a) Whether it is fact that in Kharif Season, country is facing an unprecedented water shortages due to low river flows, empty dams and insufficient snow deposits on mountains, so, the details thereof; and	At the beginning of Kharif 2025 season available storage of all the reservoirs was 0.083 MAF on 1st April, 2025 and the shortfall of water at canal heads was about 65%. IRSA Advisory Committee (IAC) in its meeting dated 26.03.2025, approved a water shortfall of 435 (at canal heads) for the month of April, 2025 (the actual shortage remained at 42%). IAC reconsidered the water availability criteria on 5th May, 2025, and approved the anticipated likely shortfall of 21% for the balance Early Kharif (May 01-June 10) period. The shortages for the period June 11-Sep 30, are anticipated to be 7%.
	b) The step taken or being by the Government to mitigate impact of the said water crisis on agriculture and provincial water distribution?	Presently, the Water Situations Outlook for Early Kharif 2025 has improved significantly and all the provinces are getting their indented supplies.
117	a) Will the Minister for Water Resources be pleased to state whether it is fact at that per capita water availability in the country has declined steadily over the years, if so, the detail and reasons thereof indicating also the steps taken or being taken by the Government to address the issue?	This does not pertain to IRSA.

6.2.8 SENATE SECRETARIAT ADMITTED STARRED QUESTIONS LISTED FOR ANSWERING

Question No.	Content of Question	Updated IRSA's Reply
105	a) Whether it is fact that in Kharif Season, country is facing an unprecedented water shortages due to low river flows, empty dams and insufficient snow deposits on mountains, so, the details thereof; and	The reasons of very low water availability in the rivers and reservoirs of Indus River System at the start of Kharif 2025, include significantly below average rainfall and snowfall during winter 2024-25, exacerbated by climate change as per PMD. The winter rainfall and snowfalls were 465 and 15% less than average respectively, due to which the river inflows plummeted below anticipations, especially after January 2025 leaving almost empty reservoirs. At the beginning of Kharif 2025 season available storage of all the reservoirs was 0.083 MAF on 1st April, 2025 and the shortfall of water at canal heads was about 65%. IRSA Advisory Committee (IAC) in its meeting dated 26.03.2025, approved a water shortfall of 43% (at canal heads) for the month of April, 2025 (the actual shortage remained at 42%). IAC reconsidered the water availability criteria on 5th May, 2025 and approved the anticipated likely shortfall of 21% for the balance Early Kharif (May 01-June 10) period. The shortages for the period June 11-Sep 30, are anticipated to be 7%. However, with increase in temperatures during Early Kharif 2025 river inflows rose above averages also increasing the storages substantially.
	b) The step taken or being by the Government to mitigate impact of the said water crisis on agriculture	Presently, the Water Situations Outlook for Early Kharif 2025 has improved significantly and all the provinces are getting their

	and provincial water distribution?	indented supplies.
	a) Will the Minister for Water Resources be pleased to state whether it is fact at that per capita water availability in the country has declined steadily over the years, if so, the detail and reasons thereof indicating also the steps taken or being taken by the Government to address the issue?	This does not pertain to IRSA.

6.2.9 ADMITTED QUESTIONS LIST NO. 4 (GROUP-5) FOR 354TH SENATE SESSION

<table>
<tr><th>Question No.</th><th>Moved by Senator Poonjo Bheel</th><th>IRSA's Reply</th></tr>
<tr><td>62</td><td>a) Will the Minister for Water Resources be pleased to state the quantity of water discharged downstream to Sindh during the last five years, with year-wise break-up?</td><td>Year-wise break-up of water discharged downstream to Sindh from Taunsa and Panjnad Barrages is as under: -
Million Acre feet (MAF)
<table>
<tr><th>Year</th><th>Taunsa Barrage D/S</th><th>Panjnad Barrage D/S</th><th>Total</th></tr>
<tr><td>2020-21</td><td>65.95</td><td>10.24</td><td>76.20</td></tr>
<tr><td>2021-22</td><td>54.21</td><td>5.51</td><td>59.72</td></tr>
<tr><td>2022-23</td><td>67.63</td><td>6.81</td><td>74.44</td></tr>
<tr><td>2023-24</td><td>61.32</td><td>10.29</td><td>71.61</td></tr>
<tr><td>2024-25</td><td>69.51</td><td>5.06</td><td>74.57</td></tr>
</table></td></tr>
</table>

7. COUNCIL OF COMMON INTERESTS's (CCI) DELIBERATIONS & DECISIONS

7.1 IRSA'S ARRANGEMENT TO RESOLVE THE ISSUE OF WATER DISTRIBUTION AMONGST PROVINCES

1. Water distribution issue has been deliberated upon since long, however, after signing of Water Apportionment Acord 1991 (WAA) the issue was discussed and decided in Inter Provincial Coordination Committee (IPCC) in May 1994 when country was subjected to shortfall after 1991. The IPCC decided to distribute shortfalls on Historic Uses (1977-82). Subsequently, because of heavy flooding in Indus Basin in 1994 the issue died down. Provinces received indented supplies till 1999-2000.

2. The country again faced shortfalls in 1999-2000, IRSA started water distribution under Para 14 (b) of the WAA i.e. as per Actual Average system uses of 1977-82 with exemption to smaller stakeholders under Para 3 of WAA.

3. Punjab agreed to water distribution under Para 14 (b) of the WAA, however, Sindh termed this distribution violation of the WAA and contended for water distribution as per Para 2 without exemption to any stakeholder.

4. The issue remained under discussions at different forums, including a reference to Law Division for interpretation of concerned clauses of WAA.

5. Punjab was demanding water distribution as per Para 14 (b) of the WAA till construction of new dams, while Sindh held the view that distribution other than Para 2 was violation of WAA. IRSA in its Advisory Committee meeting held in April 2003, considering the different MoMs of CCI & contentions of both the Provinces, while preparing the water distribution plan for the Kharif 2003, with consensus of all the stakeholders derived a '3-Tier Formula' duly based on Para 14 (b), Para 2 & Para 4 of the WAA which is given as under:-

Scenario I
If
Water Availability *is less than* Actual Average System Uses 1977-82 (102.73 MAF)
Distribute
According to Para 14 (b) of the Accord '91.

Scenario II
And if
Water Availability *is more than* Actual Average System Uses but *less than* Para 2 of WAA 1991 (114.35 MAF)
Distribute
(i) Up to 102.73 MAF as per Para 14(b) to protect Actual Average Uses (1977-82)
(ii) Balance available according to Para 2 i.e. 10-daily approved by CCI.

Scenario III
And if
Water Availability *is more than* Para 2 of the Accord (114.35 MAF)
Distribute
(i) Para 2 i.e. 10-daily approved by CCI shall be protected.
(ii) Balance as per Para 4 of the Accord.

Note: In application of the above formula KP & Balochistan are exempted from sharing of shortages due to lack of developed infrastructure.

6. The application of 3-Tier formula continued for distribution of water by IRSA since 2003 which is still in vogue. Sindh Province has, however, strong reservation on distribution of water based on the '3-Tier Formula' and exempting KP and Balochistan from sharing of shortages. Sindh considers the formula out of the sphere of the Accord.

7. The issue of Sindh's objection to application of 3-Tier Formula was referred to Council of Common Interests (CCI) for decision.

8. 38th CCI meeting was held on 27.05.2018 and the following decision has been taken:-

"The Council of Common Interests decided to constitute a committee headed by Attorney General of Pakistan and comprising one representative from each Province. The committee will look into the current issues of availability of water and its distribution in the country and present its recommendations for consideration of the CCI. The committee shall also consult the record of proceedings that resulted in approving Water Accord, 1991"

9. The report of Attorney-General dated 19.06.2019 was discussed in 42nd meeting of CCI held on 06.08.2020, and following decision was take:-

"The CCI directed to reconstitute the committee under Attorney General for Pakistan which would have equal number of representatives from all the Provinces. The committee will firm up its recommendations within one month of its notification and submit the same to CCI Secretariat."

10. In pursuance of the above decision, Attorney General of Pakistan issued a letter to Secretary, MoWR dated 28.06.2021 and the extract of letter is as under:-

"After examining the position of all four Provinces, it is the opinion of the Attorney-General that the issue is more political than legal and the safest course is to resolve it amicably through deliberations between the Provinces rather than on the basis of legal opinion which, as witnessed earlier from the opinion of the former Attorney-General, Mr. Anwar Mansoor Khan, could not resolve the issue given the different positions taken by the Provinces. The Attorney-

General has therefore recommended that the matter be placed before the CCI for further guidance and directions. The direction of the CCI is awaited."

11. 49th CCI Meeting was held on 13.01.2022 and the CCI decision is reproduced as under:-

"While considering the recommendation of the earlier committee under Attorney General for Pakistan and divergent views of provinces, the CCI decided to set up a committee chaired by Federal Minister for Water Resources (Convener) and comprising Irrigation Minister of the Provincial Governments, to firm up recommendations to address the concerns of provincial governments regarding distribution of water. The CCI also decided to refer the opinion of Attorney General for Pakistan to Ministry of Law and Justice for opinion. Recommendations of the Ministers committee together with opinion of Ministry of Law & Justice will be submitted by Ministry of Water Resources in the next meeting of the CCI."

12. In compliance of the decisions of 49th CCI meeting, a meeting was held in MoWR under the Chairmanship of Federal Minister for Water Resources on 31.01.2022 and directed Member IRSA Federal to furnish the views/comments of all IRSA Members on the following three items:-

i. Para 2, Para 3 & 3-tier Formula + Quantification in MAF as per Paras 2 & 14(b) (1Dry, 1 Wet, 1 Average Year)
ii. Minutes of CCI dated September 16, 1991
iii. Attorney General's Report dated 19.06.2019 on the direction of CCI

13. Member IRSA (Federal) submitted the Report to MoWR dated 07.02.2022.

14. The 1ST Meeting of Minister's Committee constituted by the CCI was held on 31.07.2024, to firm up the recommendations to address the concerns of the provincial governments on distribution of water, wherein it was concluded that another meeting would be convened, which would allow further detailed opinion from all stakeholders. Minutes of the Meeting are as under:-

7.2 MINUTES OF 1ST MEETING OF MINISTER'S COMMITTEE DATED 31.07.2024

Government of Pakistan
Ministry of Water Resources
*****

MINUTES OF THE 1ST MEETING OF MINISTER'S COMMITTEE CONSTITUTED BY THE CCI, TO FIRM UP THE RECOMMENDATIONS TO ADDRESS THE CONCERNS OF THE PROVINCIAL GOVERNMENTS ON DISTRIBUTION OF WATER.

The subject meeting was held, under the Chairmanship of Federal Minister for Water Resources (MoWR), on July 31, 2024, in the Committee Room of the MoWR, Islamabad. List of participants is at Annex-A.

2. The Chair welcomed the participants. After brief introduction, the Chair invited Secretary, MoWR to briefly describe the background of the case. Secretary MoWR, explained that CCI in its 49th meeting held on 13.01.2022, decided to set up a committee chaired by Federal Minister for Water Resources and comprising Irrigation Ministers of the Provincial Governments, to firm up recommendations to address the concerns of Provincial governments regarding distribution of water. He further explained that recommendations of the Committee, together with opinion of Ministry of Law and Justice on the Attorney General's report is required to be submitted to CCI by Ministry of Water Resources.

3. The Chair emphasized the need to consider all technical, legal and political perspectives to come up with a practical way forward. The Chair then requested all Provincial Irrigation Ministers to present their point of views on the matter. Minister of Irrigation, Sindh, stated that Para 2 of the Water Apportionment Accord (WAA) 1991 is the only agreed upon instrument which apportions the waters of the Indus River System (IRS). Para 14 (b), on the other hand, was just an explanation of the mechanism which was to be subsequently employed to adjust the ten-daily Average System Uses of 1977-82 to the indicated and agreed seasonal allocations in Para 2. These 10-daily allocations (adjusted pro-rata) were later ratified by CCI in its meeting of 16.09.1991 and were made part of WAA with the consent of all the provinces. The Three-Tier Formula is an invention of IRSA which is not at all supported by any Para of the Accord.

4. Minister of Irrigation, Khyber Pakhtunkhwa stated that the Water Apportionment Accord 1991 was agreed upon by all the provinces. 8.78 MAF was allocated to the Province of Khyber Pakhtunkhwa including share of Civil Canals. The province has not been fully utilizing its share, due to infrastructure constraints. He added that the Federal Government may support the province for development

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of the required infrastructure. Minister of Irrigation, Balochistan, stated that Balochistan under Para 2 of the Accord has been allocated 3.87 MAF. Its Irrigation infrastructure is under developed, limiting its ability to utilize its share. Both KP and Balochistan face difficulties because of under developed irrigation system, and as a result, they are exempt from sharing shortages under the three tier Formula.

5. Minister of Irrigation, Punjab stated that Para 2 of the Accord describes the quantum of waters of the Indus River System apportioned among the four provinces for both Kharif and Rabi seasons. Crop- wise allocations given in Paraghraph-2 denote the entitlement of the provinces corresponding to the presumed availability of 114.35 MAF. Apportionment among the provinces in accordance with Para 2 will only happen once all the 10-dailies' allocations corresponding to 114.35 MAF are fully available at canal head during the respective crop seasons. As per Section 8(1)(a) and (f) of IRSA Act, IRSA has the exclusive mandate to lay down the basis for regulation and distribution of surface water among the provinces in accordance with the allocations and policies spelt out in the Accord, and also to settle any question that may arise between two or more provinces in respect of distribution of river and reservoir waters. The Three-Tier formula was thus lawfully adopted by IRSA in its meeting dated 9/4/2003.

6. After listening to the divergent views of Provinces and keeping in view the sensitivity of the matter the chair concluded that another meeting would be convened, which would allow further detailed opinion from all stakeholders.

7. The meeting ended with vote of thanks to and from the Chair.

7.3 DECISIONS OF THE 52ND MEETING OF THE COUNCIL OF COMMON INTERESTS (CCI) DATED 28.04.2025

- The 52nd meeting of the CCI was held on 28.04.2025 in Prime Minister's House, Islamabad regarding "construction of new canals". Minutes of the meeting are as under:-

Immediate
By Special Messenger/By UMS
SECRET

GOVERNMENT OF PAKISTAN
SECRETARIAT OF THE COUNCIL OF COMMON INTERESTS
5th Floor, Kohsar Block, Pak. Secretariat

No.2(6)/2024-CCI(52nd) Islamabad, the 11th June, 2025

Subject: **DECISIONS OF THE 52nd MEETING OF THE COUNCIL OF COMMON INTERESTS (CCI).**

The 52nd meeting of the Council of Common Interests (CCI) was held on 28th April, 2025, in the Prime Minister's House, Islamabad.

2. The Decisions of the meeting, duly approved by the Prime Minister /Chairman, CCI, are circulated herewith, in terms of rules 6 and 11 of the Rules of Procedure of the CCI, 2010, for necessary action and implementation.

3. Action to implement the aforesaid decisions should be initiated under intimation to this Secretariat accordingly.

4. The enclosed certificate of acknowledgment of receipt of the CCI's Decisions may be returned, duly completed and signed.

(Syed Mudassar Hussain Shah)
Deputy Secretary (CCI)
Ph: 051-9103532

1.	Secretary, Secretariat of Council of Common Interests	Case No.CCI.1/1/2025 Case No.CCI.2/1/2025 Case No.CCI.3/1/2025 Case No.CCI.4/1/2025
2.	Secretary, Cabinet Division	Case No.CCI.5/1/2025
3.	Secretary, Ministry of Planning, Development and Special Initiatives	Case No.CCI.6/1/2025
4.	Secretary, Ministry of Water Resources	Case No.CCI.6/1/2025
5.	Chairman, NEPRA	Case No.CCI.5/1/2025
6.	Chairman, IRSA	Case No.CCI.6/1/2025

Copy for information to:

1. Advisor to the Prime Minister, Prime Minister's Office, Islamabad.
2. Special Secretary, Prime Minister's Office, Islamabad.
3. Additional Secretary-I, Prime Minister's Office, Islamabad.

(Syed Mudassar Hussain Shah)
Deputy Secretary (CCI)
Ph: 051-9103532

SECRET

Case No.CCI.6/1/2025 Dated 28th April, 2025	**Construction of New Canals: Reference Prime Minister's Public Statement dated 25th April, 2025 and direction for convening the meeting of CCI as per Rule 5(1) of Rules of Procedure of CCI**

Decisions:

23. The Council of Common Interests endorses the policy of the federal government as given below:

"Federal Government has decided that no new canals will be built without mutual understanding from CCI. It has been decided that the Federal Government will not move further until mutual understanding is evolved among the provinces.

It is engaging all provincial governments to chart out a long-term consensus roadmap for development of agriculture policy & water management infrastructure across Pakistan.

Water rights of all provinces are enshrined in the Water Apportionment Accord-1991 and Water Policy-2018; with the consensus of all stakeholders.

To allay the concerns of all provinces and to ensure Pakistan's food and ecological security, a committee is being formed with representation from the federation and all provinces.

The committee will propose solutions to Pakistan's long term agriculture needs and water use of all provinces in line with the two consensus documents.

Water is one of the most precious commodities and the makers of the Constitution recognized this, mandating all water disputes to be resolved amicably through mutual understanding and concerns of any province shall be addressed through due diligence amongst all stakeholders"

24. In view of the above, and after deliberations, the Council decided that the provisional ECNEC approval dated 7 February 2024 for construction of new canals and the IRSA water availability certificate issued in its meeting dated 17 January 2024 be returned. Planning Division and IRSA are directed to ensure consultation with all stakeholders, in the interest of national cohesion and to address any and all concerns until mutual understanding is reached."

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- The aforementioned decision was discussed in IRSA Meeting dated 23.06.2025 and constituted the following team of IRSA to ensure consultation in coordination with the Ministry of Planning Development & Special Initiatives as per directions of CCI:-

S#	Name	Designation
i)	Mr. Amjad Saeed	Member IRSA (Punjab)
ii)	Mr. Mohammad Ehsan ul Haq Leghari	Member IRSA (Sindh)
iii)	Mr. Muhammad Khalid Idrees Rana	Secretary, IRSA

8. PRIVATE HYDEL POWER GENERATION PROJECTS (PHPGPs) & WATER AVAILABILITY CERTIFICATES (WACs)

Note: During the period from 01.09.2024 to 31.10.2025 no matters related to PHPGPs & WACs were referred to IRSA.

9. NEW INITIATIVES

9. IRSA PROJECTS

9.1 INDUS BASIN IRRIGATION SYSTEM (IBIS) – AUTOMATION OF 07 PILOT KEY SITES FOR DISCHARGE MONITORING

1. Indus River System Authority (IRSA) - constituted under an Act of Parliament - is responsible for *"the regulation and distribution of surface waters among Provinces according to the allocations and policies spelt out in the Water Accord" (1991).* In order to enable IRSA to perform its monitoring role more rigorously and maintain the provincial water accounts in a transparent manner, IRSA decided to initiate a study named *"Indus Basin Irrigation System (IBIS) - Automation of 07 Key Sites for Discharge Monitoring"* which will subsequently be replicated on all stations.

2. It is worthwhile to mention that in National Water Policy approved by Council of Common Interest (CCI) the installation of Telemetry System is also envisaged in section *"28.4(v) Real-time monitoring of river flows by IRSA is to be ensured through inter alia telemetric monitoring to maintain transparent water accounting system and to check the increasing trend of unaccounted-for-water in the Indus System of Rivers. This task should be completed before the end of 2021".*

3. As per the Cabinet decision and as provided in the National Water Policy approved by the Council of Common Interests (CCI), Indus River System Authority (IRSA) in collaboration with Water & Power Development Authority (WAPDA) will install the Telemetry System on key locations for the establishment of accurate, transparent water accounting and for efficient management of the Indus Basis Irrigation System (IBIS).

4. On April 24, 2020 Ministry of Water Resources informed IRSA that the telemetry project would be executed by WAPDA as deposit work sponsored by IRSA. Initially, it was decided with consensus that the telemetry system will be installed on the 07 key locations where standardization of discharge measurement has already been done under Phase-I of the WCAP project which will subsequently be replicated on all remaining stations. WAPDA prepared the PC-I of the project and the CDWP approved the Telemetry project in its meeting held on 04.06.2022 at a total project cost of Rs. 2,399.572 million (including Rs. 500 million shares of IRSA from its own resources). The duration of the project was 42 months.

9.2 INSTALLATION OF TELEMETRY SYSTEM FOR REAL-TIME DISCHARGE MONITORING AT 27 KEY SITES ON IBIS

5. Revised PC-I, namely, **"Installation of Telemetry System for real-time Discharge Monitoring at 27 key sites on IBIS"** has been approved by ECNEC on Feb 07, 2024.

9.2.1 PROJECT FEATURES

- Location: 27-Key Monitoring Sites
- Sponsoring Agency: MoWR
- Executing Agency: WAPDA
- Ownership of project: IRSA
- Stakeholders: IRSA, PIDs, MoWR, WAPDA
- Commencement: August 01, 2022
- Completion Date: June 30, 2028
- Cost: 23,834.707 (Million)

9.2.2 PROJECT OBJECTIVES

- **Scope**
  - Real time telemetry system and installation, testing and commissioning on all sites.
  - Access to data by all the stakeholders.
- **Main Aims**
  - Simultaneous availability of online, accurate and reliable information.
  - Confidence of all stakeholders.
  - The database to be used for analysis, planning and audit purposes.
  - Analyze losses/ gains in different reaches to be established.

9.2.3 TELEMETRY SITES

Sr. No.	Site	Sr. No.	Site	Sr.No.	Site
01.	Marala Barrage	10.	Jinnah Barrage	19.	Balloki Headworks
02.	Chashma Barrage	11.	Sukkur Barrage	20.	Sidhnai Barrage
03.	CRBC (Ramak)	12.	Kotri Barrage	21.	Suleimanki Headworks
04.	Taunsa Barrage	13.	Mangla Dam	22.	Islam Headworks
05.	Guddu Barrage	14.	Rasul Barrage	23.	Uch Canal
06.	Garang (Kirther Canal)	15.	Khanki Headworks	24.	Manuthy Canal
07.	Pat Feeder Canal (RD 109)	16.	Qadirabad Barrage	25.	Kachhi Canal at RD 1005
08.	Tarbela Dam / Ghazi Barrage	17.	Trimmu Headworks	26.	Indus River at Chachran Bridge (b/w Taunsa & Guddu)
09.	Kabul @ Nowshera	18.	Punjnad Headworks	27.	Greater Thal Canal Head-Regulator

From Serial # 8 to 27 are 20-Key additional sites included in the Revised PC-1

9.2.4 UPDATED STATUS OF THE PROJECT

1. The Project Consultant, M/s NESPAK, in collaboration with the contractor, has initiated the development of the IRSA Database and Reference Data Screens within the Management Information System (MIS) application to ensure structured and efficient data management.

2. Proof of Concept (PoC) demonstration was conducted on 16.05.2025, at Kotri Barrage in the presence of key stakeholders. The demonstration showcased the operational capabilities of the telemetry system, including real-time water level and gate position monitoring. The objective was to validate the system's integration and data accuracy, thus confirming the technical feasibility of the proposed telemetry solution prior to large-scale deployment.

3. From May 20 to May 29, 2025, the FAT for Gate Position Sensors (Absolute Encoders) and Remote Terminal Units (RTUs) was carried out at the vendor's facility in Germany. The tests verified performance standards, interface compatibility with SCADA systems, and adherence to quality standards. The successful completion of FAT marks a critical milestone before shipment and site installation.

4. The Factory Acceptance Test (FAT) for supporting angles, cable trays, and cable tray covers for the Balloki site was conducted at Fazal Engineering Limited, Lahore, on July14, 2025. The test was carried out to verify the galvanization thickness. Representatives from the Consultant, Contractor, and WAPDA were present during the FAT, and the results were found satisfactory, leading to its approval.

5. As the part of confidence Building measures Project Consultant, M/s NESPAK conducted technical session on "*Rating Curve Development and Discharge Coefficients working*" held at Karachi on 18.07.2025.

6. The meeting was attended by representative from IRSA, WAPDA, Consultants and Contractors under the Chairmanship of Special Secretary, Government of Sindh, Sindh Irrigation Department (SID), at the PMO, Sindh Barrages Improvement Project (SIBP) Office, on July 19.2025 regarding "*Simultaneously Installation of Telemetry System at Punjab and Sindh Barrages*".

7. Joint comprehensive survey, comprising representatives of WAPDA, NESPAK, IRSA Telemetry Project, Provincial Irrigation Department (Punjab) and the Contractor were conducted at Panjnad Headwork's, Sidhnai Barrage, Islam Barrage and Sulemanki Headwork's (October 21-24, 2025) for finalizing cable tray routes, RTU positioning and telemetry sensor integration plans.

8. WAPDA Authority accorded approval of Change Order Establishment of State of the Art Data Centre at IRSA Headquarter, Islamabad amounting to Rs. 2,407.00 Million on 30.10.2025.

9. WAPDA attended a meeting at Headquarter 45 Engineering Division, Rawalpindi on 30.10.2025, along with stakeholders including IRSA, Project Consultants M/s NESPAK, and representatives of EPC Contractor, to discuss progress of Civil Works and the Telemetry System, project timelines and technical issues related to the project.

10. Installation of Telemetry equipment by the Contractor at Balloki Barrage, Trimmu & Khanki Headworks, Jinnah Barrage, Taunsa Barrage, Islam Barrage and Greater Thal Canal during October 2025.

11. Civil works continued at 27 key project sites during October 2025. Ongoing construction activities including control rooms of telemetry equipment installation, security huts for enhanced site safety and bachelor hostel facilities to accommodate on site staff.

- **Physical Progress** **41.54%**
- **Financial Progress** **60.08%**

10. TELEMETRY PROJECT IBIS: DECISIONS OF PROJECT STEERING COMMITTEE (PSC)

10.1 DECISIONS OF PROJECT STEERING COMMITTEE (PSC)

10.1.1 PSC MEETING DATED 19.11.2024

10.1.2 Agenda (a): Compliance of Decisions Taken in PSC

DECISIONS

a) Project Director WAPDA shall ensure circulation of reports of Flow Measurement Mission (FMMs) & Technical Session, within 15 days positively, to enable all the stakeholders to forward their comments before start of the next FMM/Technical Session.

b) Project Director WAPDA shall plan & finalize the phasing of the Project in consultation with the Provinces, in synchronization with the PC-I timelines.

c) Project Director WAPDA must resolve all TA/DA issues and ensure that TA/DA is disbursed to the participants on the spot at the end of FMM/Ts activities.

10.1.3 Agenda (b): Updated Status/Overall Progress of the Project

DECISIONS

a) Activity-wise planning/execution schedule in the form of CPM shall be prepared by Project Director WAPDA to take stock of individual and overall critical activities of the Project.

b) Project Director WAPDA after studying the compatible International Telemetry Projects would submit the report containing names of the countries and proposed participants for the final approval of PSC.

c) Project Director WAPDA shall decide the site selection & methodology of Proof of Concept (POC) in consultation with the Provinces.

d) Project Director WAPDA shall plan the clustering/phasing of activities in consultation with Provinces. However, in Cluster/Phase-I, Greater Thal Canal (GTC) shall be included desired by the Planning Commission.

10.1.4 Agenda (c): PID Punjab letter dated 02.07.2024 regarding Simultaneous Installation of Telemetry System

DECISIONS

Project Director WAPDA shall resolve such like issues in consultation with the Provinces to ensure smooth implementation of the Project with its spirit.

10.1.5 Agenda (d): Establishment of PD, Telemetry Office

DECISIONS

Project Director WAPDA is directed to proceed the matter in line with the approved parameters of the PC-I. Furthermore, keeping in view subsequent O&M of the Project to be taken by IRSA, the official building shall be designed as such to accommodate IRSA O&M setup after completion of the Project.

10.1.6 Agenda (e): Upgradation of Telemetry Project's Post of Director Monitoring to Director General (DG) Monitoring

DECISIONS

Considering in view enhanced scope as well as Project area the PSC approved the upgradation of the position from Director Monitoring to Director General (Monitoring) PPS-10 with the condition that the financial implication shall be accommodated within the approval cost of PC-I.

10.1.7 Agenda (f): Establishment of Project Management Unit (PMU) of IRSA and Core Staff

DECISIONS

a) The PSC decided that IRSA shall initiate recruitment process of 27 number of Project core staff as per approved provisions of the PC-I through the following Selection Committee for the selection process:-

Sr.#	Selection Committee Member	Position
1	Member IRSA Sindh	Coordinator/Convenor
2	Member IRSA Federal	Member
3	Representative of MoWR	Member
4	Representative of MoPD&SI	Member
5	Representative of MoF	Member
6	Representative of Engr Div 45 Crops	Member
7	PD/CE WAPDA	Member
8	Dir (Opr)/Secretary IRSA	Secretary

b) Besides providing monitoring office setup at Lahore, Project Director WAPDA shall also accommodate Camp office for DG Monitoring IRSA within the premises of Islamabad Mega Hydel Complex /G-7 Mini WAPDA House.

c) All the expenses of this Project management Unit (PMU) will be met out of the Project cost, as reflected in the PC-I.

10.1.8 Agenda (g): Proportionate Financing of Telemetry Project – IRSA Component

DECISIONS

Project Director WAPDA shall account for all expenditures being incurred by IRSA as well as Project authorities and reconciled figures shall be reflected in monthly & quarterly progress report of the Project in future.

11. INTERNATIONAL COLLABORATION WITH ACIAR & CSIRO

11.1 IRSA – CSIRO WAA-TOOL IN SEASONAL & INTRA-SEASONAL WATER PLANNING

Under the Australia–Pakistan Memorandum of Understanding (MoU) on Water Management, the WAA-Tool was jointly developed by Pakistani (MoWR, IRSA, WAPDA, PIDs) and Australian (Commonwealth Scientific & Industrial Organization (CSIRO) & Australian Centre for International Agricultural Research (ACIAR) entities over 2018–2022. Since December 2020, it has been actively used in Pakistan for seasonal planning, reservoir operations and inter-provincial water distribution under WAA 1991 and has been the tool of choice for such purposes.

2. The Tool forecasts 10-daily Rim-Station inflows and performs system operation by running the reservoirs on set rules keeping in view the operation constraints, routing the flows in the river network with accompanying losses / gains, allocating shares to the provinces on different sharing options and estimation of downstream Kotri escape, subject to the water availability in IBIS. The tool also harmonizes operation of Tarbela and Mangla Reservoirs across 10-day periods, balancing the resources between Jhelum-Chenab and Indus Zones and simultaneously balancing and sharing shortfalls between Punjab & Sindh Provinces across time. The Tool has the capacity to calculate and present different permutation & combinations of system operation scenarios, which previously consumed considerable effort and time, while doing it manually.

3. The Tool is predominantly designed to be used for pre-season water allocation planning just prior to the start of each cropping season; March for Kharif and September for Rabi. It steps the user through the allocation process, while making it easy to move back and forward between steps, and trial different settings to arrive at an optimised system operation & sharing arrangement.

11.2 CLIMATE RESILIENT AND ADAPTIVE WATER ALLOCATION IN PAKISTAN

4. The said project was signed between the Government of Australia and the Government Pakistan under the subsidiary arrangement on 10th October, 2024. Subsequently the designated agencies nominated IRSA as the Implementing Agency on the behalf of Economic Affairs Division (EAD) and CSIRO on the behalf of ACIAR. For the implementation of the project the agreement was signed between IRSA and CSIRO on 17th October, 2024. The Tool is currently being upgraded under the said project to cater for the intra-seasonal planning with technical and financial help from the Government of Australia. Its spatial resolution is currently at Province and IBIS management (i.e. Jhelum-Chenab and Indus) zone scale. This will be refined to river-reach down to canal command scale. River-reach scale allows for accounting for water losses/gains along the river reaches. These finer spatial resolutions will

be built into the pre-season planning tool, and the (new) intra-season planning tool to support continuous use of the Tool (not just at start of season).

5. The ability to simulate a broader range of water management options will be included in this package of upgrades to the Tool. This will allow water planners of IRSA to explore the impacts of a range of water management options designed to build resilience to adapt to Climate Change shocks. It is anticipated that these scenarios will mainly focus on supply management options that lead to 'doing more with reliable available water'.

12. WATER APPORTIONMENT ACCORD (WAC) 1991

APPORTIONMENT OF THE WATERS OF THE INDUS RIVER SYSTEM BETWEEN THE PROVINCES OF PAKISTAN

21st March, 1991, will go down in the history of Pakistan as a pivotal breakthrough in its leap towards the 21st century and turning point in its march towards national consolidation. On that day was unraveled a dispute that had been festering in this part of the subcontinent for the past seventy years. As a follow-up to the meeting of the Chief Ministers at Lahore on March 3, 1991, a meeting of the representatives of the four provinces was held at Lahore on March 04, 1991. Another meeting was held at Karachi on March 16, 1991. The list of participants is attached.

The participants agreed on the following points:-

1. There was an agreement that the issue relating to Apportionment of the Waters of the Indus River System should be settled as quickly as possible,

2. In the light of the accepted water distributional principles the following apportionment was agreed to:-

PROVINCE	KHARIF	RABI	TOTAL
PUNJAB	37.07	18.87	55.94
SINDH*	33.94	14.82	48.76
KHYBER PAKHTUNKHWA (a) (b) CIVIL CANALS**	3.48 1.80	2.30 1.20	5.78 3.00
BALOCHISTAN	2.85	1.02	3.87
TOTAL	77.34 + 1.80	37.01 +1.20	114.35 +3.00

* Including already sanctioned Urban and Industrial uses for Metropolitan Karachi.
** Unguaged Civil Canals above the rim stations.

3. KP / Balochistan Projects which are under execution have been provided their authorized quota of water as existing uses.

4. Balance river supplies (including flood supplies and future storages) shall be distributed as below:-

Punjab	Sindh	Balochistan	KP	Total
37%	37%	12%	14%	100%

5. Industrial and Urban Water supplies for Metropolitan city, for which there were sanctioned allocations, will be accorded priority.

6. The need for storages, wherever feasible on the Indus and other rivers was admitted and recognized by the participants for planned future agricultural development.

7. The need for certain minimum escapage to sea, below Kotri, to check sea instrusion was recognized. Sindh held the view, that the optimum level was 10 M.A.F., which was discussed at length, while other studies indicated lower/higher figures. It was, therefore, decided that further studies would be undertaken to establish the minimal escapage needs downstream Kotri.

8. There would be no restrictions on the Provinces to undertake new projects within their agreed shares.

9. No restrictions are placed on small schemes not exceeding 5000 acres above elevation of 1200 ft. SPD.

10. No restrictions are placed on developing irrigation uses in the Kurram / Gomal / Kohat basins, so long as these do not adversely affect the existing uses on these rivers.

11. There are no restrictions on Baluchistan, to develop the water resources of the Indus right bank tributaries, flowing through its areas.

12. The requirements of LBOD will be met out of the flood supplies In accordance with the agreed sharing formula.

13. For the implementation of this accord, the need to establish an Indus River System Authority was recognized and accepted.

14. It would have headquarters at Lahore and would have representation from all the four provinces.

    a. The system-wise allocation will be worked out separately, on ten daily basis and will be attached with this agreement as part and parcel of it.
    b. The record of actual average system uses for the period 1977-82, would form the guide; line for developing a future regulation pattern. These ten daily uses would be adjusted pro-prata to correspond to the indicated seasonal allocations of the different canal systems and would form the basis for sharing shortages and surpluses on all Pakistan basis.
    c. The existing reservoirs would be operated with priority for the irrigation uses of the Provinces.
    d. The provinces will have the freedom within their allocations to modify system-wise and period-wise uses.
    e. All efforts would be made to avoid wastages. Any surpluses may be used by another province, but this would not establish any rights to such uses.

13. IRSA ACT XXII OF 1992

THE GAZETTE OF PAKISTAN
EXTRAORDINARY PUBLISHED BY AUTHORITY
ISLAMABAD, THURSDAY, DECEMBER 10, 1992

PART -I

Acts, Ordinances, President's Orders and Regulations
SENATE SECRETARIAT

Islamabad, the 10th December, 1992

The following Acts of Majlis-e-Shoora {Parliament} received the assent of the President on, the 6th December, 1992, and are hereby published for general information:

Act No. XXII OF 1992

An Act to provide for the establishment of the
Indus River System Authority

WHEREAS it is expedient to establish the Indus River System Authority for regulating and monitoring the distribution of water sources of Indus River in accordance with the Water Accord amongst the Provinces and to provide for matters connected therewith and ancillary thereto:

It is hereby enacted as follows:-

CHAPTER I

PRELIMINARY

1. Short title, extent and commencement

(1) This Act may be called the Indus River System Authority Act, 1992.

(2) It shall come into force at once.

2. Definitions

In this Act, unless there is anything repugnant in the subject or context:-

(a) "Authority" means the Indus River System Authority established under section 3;

(b) "Chairman" means the Chairman of the Authority;

(c) "Member" means a member of the Authority;

(d) "prescribed" means prescribed by rules made under this Act;

(e) "rules" means rules made under this Act; and

(f) "Water Accord" means the agreement entitled "Apportionment of the Water of the Indus River System Between the Provinces" signed by the Provinces on the sixteenth day of March, 1991, and approved by the Council of Common Interests on the twenty-first day of March, 1991.

CHAPTER II

AUTHORITY AND ITS FUNCTIONS

3. Constitution of the Authority

(1) As soon as may be after the commencement of this Act, the Federal Government shall, by a notification in the official Gazette, establish an authority to be known as the Indus River System Authority for carrying out the purposes of this Act.

(2) The Authority shall be a body corporate having perpetual succession and a common seal with power subject to provisions of this Act to acquire and hold property, both moveable and immoveable, and shall sue and be sued by the name assigned to it under sub-section (1).

4. Appointment and term of office of Chairman and members

(1) The Authority shall consist of five members, one each to be nominated by each Province and the Federal Government from amongst high-ranking engineers in Irrigation or related engineering fields.

(2) The first Chairman shall be the member nominated by the Government of Balochistan to be followed by the nominees of the Governments of North-West Frontier Province, Punjab, Sindh and the Federal Government and thereafter in that order.

(3) The term of office of the Chairman shall be one year and that of a member three years.

(4) Any member shall be eligible for re-appointment for one or more term or of such shorter term as the Provincial Government or, as the case may be, the Federal Government may decide.

(5) The Chairman and any member may, by writing under his hand, addressed to the Secretary to the Government of Pakistan, Water and Power Division, resign from his office:

Provided that the resignation shall not take effect until it is accepted by the Federal Government;

(6) In the absence of the Chairman, the member next due for appointment as Chairman shall act as the Chairman.

(7) In the absence of a member representing a Province, the Secretary, Irrigation Department of the Province shall represent that Province.

(8) In the absence of member nominated by the Federal Government the Chief Engineering Adviser or his nominee shall represent the Federal Government.

(9) The Chairman of the Water and Power Development Authority and Chief Engineering Adviser or their nominees shall be ex-officio members of the Authority, but they shall have no right to vote.

5. Remuneration and conditions of service

The Chairman and every member shall receive such salary and allowances and be subject to such Conditions of service as may be prescribed and shall perform such duties and functions as are assigned to them under this Act or by rules.

6. Removal of Chairman or Members

The Federal Government may, by notification in the official Gazette, after providing an opportunity of being heard and in consultation with the Provincial Government concerned, remove the Chairman or any member, where:-

(a) he refuses or fails to discharge or, in the opinion of the Federal Government, becomes incapable of discharging his responsibilities;

(b) he is declared insolvent by a competent court; or

(c) he is declared to be disqualified for employment in, or has been dismissed from, the service of Pakistan or of Province, or has been convicted by a competent court of an offence involving moral turpitude.

7. Meetings of the Authority

(1) The Authority shall meet at least once in every month at such time and in such manner as may be specified by regulations:

Provided that until regulations are made in this behalf, such meetings shall be convened by the Chairman as he deems necessary.

(2) The Chairman and two other members entitled to vote shall constitute quorum for a meeting of the Authority.

8. Powers and Duties of the Authority

1. The duties of the Authority shall be to:

(a) lay down the basis for the regulation and distribution of surface waters amongst the Provinces according to the allocations and policies spelt out in the Water Accord;

(b) review and specify river and reservoir operation patterns and periodically review the system of such operation;

(c) coordinate and regulate the activities of the Water and Power Development Authority in exchange of data between the Provinces in connection with the gauging and recording of surface water-flows;

Explanation:- Actual observation and compilation of the data shall be the responsibility of the respective Provinces, Water and Power Development Authority and other allied organizations, while the process shall be monitored by the Authority;

(d) determine priorities with reference to sub-clause (c) of clause 14 of the Water Accord for river and reservoir operations for Irrigation and hydro-power requirements;

(e) compile and review canal withdrawal indents as received from the Provinces on 5-daily or, as the case may be, on 10-daily basis and issue consolidated operational directives to Water and Power Development Authority for making such releases from reservoirs as the Authority may consider appropriate or consistent with the Water Accord;

Explanation:- The directives issued under this clause shall be binding upon Water and Power Development Authority and the Provinces, and shall be followed in letter and spirit;

(f) settle any question that may arise between two or more Provinces in respect of distribution of river and reservoir waters; and

(g) consider and make recommendations on the availability of water against the allocated shares of the Provinces within three months of receipt of fully substantiated water accounts for all new water projects for the assistance of the Executive Committee of the National Economic Council.

2. Any question in respect of implementation of Water Accord shall be settled by the Authority by the votes of the majority of members and in case of an equality of votes the Chairman shall have a casting vote.

3. A Provincial Government or the Water and Power Development Authority may, if aggrieved by any decision of the Authority, make a reference to the Council of Common Interests.

CHAPTER III

ADVISORY COMMITTEE

9. Advisory Committee

The Authority shall have an Advisory Committee consisting of the following:

(a) Chairman of the Authority, who shall also be the Chairman of the Advisory Committee;

(b) Members of the Authority; .

(c) Chief Engineering Adviser to the Government of Pakistan;

(d) Members, Water and Power Development Authority, in-charge of Water and Power Wings;

(e) Secretaries, Agriculture Departments of the Provinces; and

(f) Secretaries, Irrigation Departments of the Provinces.

10. Meetings of the Committee

The Advisory Committee shall meet at such time and place to consider such matters as the Authority may from time to time, refer to it;

Provided that the Advisory Committee shall, at the start of each cropping seasons of Kharif and Rabi, hold its meetings without such reference.

CHAPTER IV

ESTABLISHMENT

11. Headquarter of the Authority

The Authority shall have its headquarters at Lahore*.

12. Employment of officers and staff

(1) The Authority may from time to time, employ such officers and other members of staff or appoint such experts and consultants as it may consider necessary for the performance of its functions, as it may be prescribed.

(2) The Authority shall prescribe the procedure for appointment, terms and conditions of service of its officers and members of staff, experts and consultants and shall be competent to take disciplinary action against its officers and members of staff.

13. Immunity of the Authority and its employees

(1) The Chairman, members, officers and members of staff shall, be deemed to be public servants, within the meaning of section 21 of the Pakistan Penal Code (Act XLV of 1860).

(2) No suit, prosecution or other legal proceedings shall lie against the Authority, the Chairman, members or officers and members of staff of the Authority in respect of anything done or intended to be done in good faith under this Act.

14. Delegation of powers to and by Chairman

The Authority may, by general or special order, delegate to the Chairman, a member or officer of the Authority, all or any of its powers, duties or functions under this Act subject to such conditions as it may consider fit to impose.

*Now in Islamabad vide Presidential Ordinance No. XLI of 2000, dated September 4, 2000.

CHAPTER V

REPORTS AND STATEMENTS

15. Submission of yearly reports and returns

(1) The Authority shall, after the close of each cropping seasons of Kharif and Rabi, furnish a Water Account Report to the Federal Government with copies thereof to the Provincial Governments and Water and Power Development Authority indicating Summary of the quantities of inflows and supplies utilised by the Provinces in relation to their authorized shares.

(2) Observations on the seasonal water forecast reports prepared by Water and Power Development Authority and other issues faced during all seasons shall be incorporated in the Water Accounts Report.

(3) As soon as may be, after the end of every financial year but before the last day of September next following, the Authority shall submit to the Federal Government, a report with copies thereof to the Provincial Government on the conduct of its affairs for that year.

(4) The Federal Government may require the Authority to furnish it with:-

(a) any return, statement, estimate, statistics or other information regarding any matter under the control of the Authority; and

(b) copies of every documents in the charge of the Authority.

CHAPTER VI

FINANCING

16. Fund of Authority

(1) There shall be a fund to be knows as the "Authority Fund" vested in the Authority which shall be utilised by it to meet all expenses and charges in connection with its functions under this Act including the payment of salaries and other remunerations to the Authority and to its officers and members of staff.

(2) The Authority Fund shall consist of:-

(a) Grants made by the Government;

(b) Loan obtained by the Authority; and

(c) all other sums received by the Authority.

17. Limited Liability

The liability of the Federal Government to the creditors of the Authority shall be limited to the extent of grants made by the Federal Government and the loans raised by the Authority as guaranteed by the Federal Government.

18. Maintenance of Accounts

The Authority shall maintain complete and accurate books of accounts in the form to be prescribed by the Auditor-General of Pakistan.

19. Annual Statement of Accounts

In the month of January each year, the Authority shall submit to the Federal Government, for approval, a statement of the estimated receipts and expenditures in respect of next financial year.

20. Audit

(1) The accounts of the Authority shall be audited every year by the Auditor-General of Pakistan in such manner as may be specified.

(2) Copies of the audit report shall be sent to the Authority which shall, along with its comments, present to the Federal Government and shall also make it available for public inspection.

(3) The Authority shall carry out any directive issued by the Federal Government for rectification of an audit objection.

CHAPTER VII

MISCELLANEOUS

21. Rules

The Federal Government may make rules to carry out the purposes of this Act.

22. Regulations

(1) The Authority may make regulations consistent with this Act and the rules framed there under for the purpose of giving effect to the provisions of this Act.

(2) In particular and without prejudice to the generality of the aforegoing provisions, such regulations may provide for all or any of the following matters, namely:

(a) the manner in which the meetings of the Authority may be convened and held and the procedure to be followed thereat; and

(b) formation of committees and conduct of business in such committees.

14. POST TARBELA (1976-77 TO 2024-25) SURFACE WATER DATA

14.1 Post Tarbela Rim station Inflows (1976-77 to 2024-25)

POST TARBELA RIM STATION INFLOWS
WESTERN & EASTERN RIVER INFLOWS & KOTRI DOWNSTREAM

(MAF)

Years	Western Rivers												Eastern Rivers						Total			Kotri D/S		
	Indus @ Tarbela			Kabul @ Nowshera			Jhelum @ Mangla			Chenab @ Marala			* Ravi @ Balloki			** Sutlej @ Sulemanki								
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
1976-77	46.97	7.78	54.74	18.10	3.59	21.69	20.62	4.03	24.64	25.44	3.74	29.18	9.84	1.11	10.95	6.97	1.61	8.57	127.92	21.86	149.78	64.05	5.03	69.08
1977-78	49.45	8.42	57.88	13.52	4.50	18.02	14.54	5.09	19.63	21.62	4.98	26.59	6.92	1.58	8.50	3.44	0.56	4.00	109.50	25.12	134.62	29.00	1.39	30.39
1978-79	60.19	8.63	68.82	19.50	4.88	24.38	19.73	4.89	24.62	26.91	5.37	32.27	6.89	2.46	9.35	9.59	1.03	10.62	142.82	27.26	170.08	75.03	5.57	80.60
1979-80	48.26	7.97	56.23	18.26	4.79	23.06	15.51	5.20	20.71	20.32	3.96	24.29	2.63	0.84	3.47	1.56	0.08	1.64	106.55	22.85	129.40	29.38	0.43	29.81
1980-81	47.84	8.33	56.17	15.88	4.17	20.05	17.73	5.71	23.44	20.48	5.71	26.19	5.05	1.96	7.01	1.72	0.12	1.83	108.70	25.99	134.69	18.74	1.36	20.10
1981-82	50.09	7.86	57.95	18.29	3.56	21.86	18.37	4.22	22.59	23.45	4.64	28.09	4.81	1.75	6.56	0.47	0.20	0.67	115.48	22.24	137.72	33.53	0.26	33.79
1982-83	41.03	7.72	48.75	11.13	3.61	14.74	15.65	5.68	21.32	22.88	4.92	27.79	3.50	1.59	5.09	0.66	0.22	0.87	94.84	23.72	118.56	9.43	0.25	9.68
1983-84	51.51	8.49	60.00	19.37	3.99	23.35	22.72	3.50	26.22	26.20	3.62	29.82	4.71	0.91	5.62	1.25	0.63	1.88	125.76	21.14	146.90	43.81	2.09	45.90
1984-85	54.75	7.38	62.13	17.31	3.32	20.63	15.66	3.01	18.67	21.28	2.80	24.08	3.39	0.88	4.28	0.36	0.08	0.44	112.76	17.48	130.24	28.64	0.91	29.55
1985-86	44.86	8.12	52.99	11.52	3.42	14.94	12.07	5.57	17.64	19.37	4.86	24.23	2.96	1.57	4.54	1.16	0.22	1.38	91.95	23.76	115.71	10.93	0.04	10.97
1986-87	50.80	8.95	59.75	16.10	4.87	20.97	20.62	7.22	27.84	22.19	5.51	27.70	3.82	1.41	5.23	0.73	0.38	1.11	114.25	28.34	142.59	26.72	0.18	26.90
1987-88	48.03	10.05	58.08	16.05	4.29	20.34	21.38	6.45	27.83	20.41	4.80	25.21	1.58	1.08	2.67	0.30	0.04	0.35	107.75	26.72	134.47	17.45	0.08	17.53
1988-89	63.15	8.47	71.62	18.14	3.42	21.56	19.74	4.24	23.98	27.46	5.23	32.69	6.21	2.77	8.99	4.05	3.55	7.60	138.75	27.68	166.43	44.17	8.69	52.86
1989-90	46.10	9.44	55.53	14.05	4.38	18.43	18.01	6.70	24.71	19.74	5.67	25.42	1.66	0.65	2.31	0.54	0.16	0.70	100.10	27.00	127.10	16.85	0.37	17.22
1990-91	61.85	10.83	72.68	18.01	5.57	23.58	19.71	7.69	27.39	23.42	6.56	29.98	3.28	1.67	4.94	4.66	0.30	4.96	130.91	32.62	163.53	38.20	4.14	42.34
1991-92	58.31	9.23	67.54	28.22	6.02	34.24	25.13	5.98	31.11	23.26	5.55	28.80	2.50	1.52	4.02	0.51	0.14	0.65	137.92	28.45	166.37	50.05	3.24	53.29
1992-93	55.22	10.15	65.37	27.98	6.21	34.19	25.18	6.82	32.00	22.60	5.18	27.78	4.96	0.70	5.66	3.48	0.33	3.82	139.43	29.40	168.83	69.19	12.30	81.49
1993-94	44.49	8.59	53.08	17.90	2.79	20.69	18.71	3.99	22.70	19.51	3.45	22.96	3.47	0.12	3.58	2.81	0.05	2.85	106.88	18.99	125.87	28.47	0.63	29.10
1994-95	65.12	8.82	73.94	18.91	3.31	22.21	20.78	5.67	26.46	24.56	5.64	30.20	4.80	0.43	5.23	7.31	0.34	7.65	141.48	24.22	165.70	88.21	3.65	91.86
1995-96	53.18	9.39	62.56	19.24	4.39	23.63	21.91	6.17	28.08	26.38	5.36	31.74	6.89	0.79	7.68	6.88	0.70	7.58	134.48	26.80	161.28	61.09	1.72	62.81
1996-97	59.24	9.05	68.30	16.78	3.73	20.51	25.01	4.10	29.12	27.49	4.41	31.89	5.14	0.47	5.61	2.48	0.46	2.94	136.14	22.22	158.36	44.77	0.68	45.45
1997-98	46.37	8.99	55.36	17.74	5.10	22.84	16.96	7.17	24.13	21.70	6.55	28.26	3.91	1.99	5.90	1.79	1.68	3.47	108.47	31.49	139.96	16.97	3.77	20.74
1998-99	55.26	9.00	64.26	19.61	5.17	24.78	18.10	3.72	21.82	23.12	4.78	27.90	3.40	1.20	4.60	4.08	3.58	7.66	123.58	27.44	151.02	32.57	2.66	35.23
1999-00	56.15	8.83	64.98	12.80	2.45	15.25	11.23	3.19	14.42	18.70	4.35	23.06	0.97	0.26	1.24	1.15	0.17	1.33	101.01	19.26	120.27	8.73	0.11	8.84
2000-01	45.65	7.17	52.82	9.41	1.76	11.17	10.27	2.28	12.55	17.21	2.73	19.94	0.56	0.11	0.67	0.30	0.10	0.41	83.40	14.15	97.55	0.72	0.01	0.74
2001-02	41.47	6.62	48.09	10.06	2.31	12.38	8.20	3.65	11.85	16.00	2.90	18.90	0.93	0.54	1.46	0.01	0.01	0.02	76.67	16.03	92.71	1.92	0.00	1.92
2002-03	48.28	7.94	56.22	12.01	2.57	14.58	12.31	5.10	17.40	17.98	5.47	23.45	0.41	0.45	0.87	0.00	0.03	0.03	91.00	21.55	112.55	2.10	0.05	2.15
2003-04	55.09	8.54	63.63	15.67	3.24	18.90	17.66	5.01	22.67	21.50	4.36	25.86	0.85	0.09	0.95	0.02	0.09	0.12	110.79	21.33	132.13	20.10	0.07	20.17
2004-05	42.06	9.51	51.57	11.13	5.94	17.07	11.74	6.72	18.46	14.90	6.42	21.32	0.39	0.40	0.80	0.00	0.04	0.04	80.23	29.03	109.26	0.21	0.08	0.29
2005-06	56.00	9.54	65.53	23.01	4.97	27.98	17.73	5.47	23.19	21.11	4.02	25.13	0.70	0.14	0.84	0.31	0.04	0.35	118.85	24.18	143.04	24.38	0.14	24.53
2006-07	55.07	9.98	65.04	14.36	5.70	20.05	16.44	6.78	23.21	21.38	6.33	27.71	1.16	0.35	1.52	0.07	0.08	0.15	108.47	29.21	137.68	20.16	1.56	21.72
2007-08	49.16	8.25	57.41	20.09	3.93	24.02	13.52	4.18	17.70	16.95	3.62	20.57	1.18	0.24	1.43	0.16	0.04	0.20	101.06	20.26	121.32	15.77	0.05	15.82
2008-09	46.93	9.06	55.98	14.08	3.85	17.93	13.38	5.88	19.25	16.21	3.61	19.82	1.59	0.28	1.87	2.17	0.02	2.19	94.35	22.70	117.05	5.67	0.15	5.82
2009-10	46.77	9.27	56.04	18.36	4.44	22.80	16.48	4.56	21.04	14.46	3.39	17.85	0.11	0.18	0.29	0.00	0.01	0.01	96.18	21.84	118.02	4.00	0.06	4.06
2010-11	62.29	9.97	72.26	22.71	6.21	28.92	20.31	5.43	25.74	21.03	4.78	25.81	1.38	0.33	1.71	1.87	0.36	2.23	129.59	27.08	156.67	50.50	4.01	54.51
2011-12	48.78	8.89	57.67	14.08	3.34	17.42	15.28	4.17	19.45	18.83	3.60	22.44	1.48	1.08	2.56	3.57	0.22	3.79	102.03	21.30	123.33	11.96	2.28	14.24
2012-13	44.98	9.05	54.03	16.19	5.36	21.56	14.70	5.38	20.08	17.12	4.42	21.55	0.97	0.72	1.69	0.15	0.02	0.17	94.13	24.95	119.07	5.31	0.70	6.01
2013-14	53.27	9.60	62.87	20.29	4.42	24.70	15.22	5.07	20.29	18.69	4.45	23.14	3.79	0.99	4.78	2.27	0.04	2.31	113.52	24.58	138.10	18.15	0.13	18.28
2014-15	42.97	8.63	51.60	18.95	5.28	24.22	19.94	6.39	26.33	21.14	5.46	26.59	2.64	1.29	3.92	0.13	0.06	0.19	105.75	27.10	132.85	5.03	1.83	6.86
2015-16	54.67	9.93	64.61	20.56	5.13	25.70	20.69	7.87	28.56	22.83	4.48	27.32	3.00	0.94	3.95	2.02	0.14	2.16	123.78	28.50	152.29	36.24	0.37	36.61
2016-17	53.87	9.03	62.89	17.61	4.00	21.61	15.14	4.57	19.72	18.05	3.99	22.04	1.67	0.79	2.46	0.12	0.24	0.36	106.45	22.62	129.07	10.49	0.08	10.57
2017-18	53.42	7.93	61.35	14.56	2.44	17.02	15.80	2.41	18.21	20.71	2.84	23.55	2.24	0.63	2.88	0.40	0.95	1.34	107.15	17.20	124.35	9.42	0.07	9.49
2018-19	43.28	8.06	51.34	14.05	2.71	16.75	11.18	4.72	15.89	16.82	4.77	21.59	2.51	1.09	3.60	0.21	0.66	0.87	88.04	21.99	110.03	1.75	0.04	1.79
2019-20	48.55	9.15	57.70	20.09	4.24	24.33	16.55	6.55	23.10	19.63	5.99	25.63	1.92	0.95	2.87	2.03	0.51	2.54	108.78	27.39	136.17	11.65	1.01	12.66
2020-21	44.91	8.86	53.77	18.51	3.13	21.64	16.14	4.68	20.81	18.41	3.56	21.97	2.19	0.44	2.63	0.75	0.22	0.96	100.90	20.88	121.79	14.70	0.56	15.25
2021-22	43.25	8.72	51.97	13.07	2.25	15.32	15.30	4.82	20.12	15.81	5.21	21.03	0.94	0.76	1.70	0.02	0.10	0.13	88.39	21.86	110.26	1.85	0.26	2.11
2022-23	47.79	8.70	56.49	15.73	4.03	19.76	11.54	4.09	15.63	16.65	3.41	20.06	1.24	0.88	2.12	0.31	0.11	0.41	93.26	21.22	114.47	38.31	3.84	42.15
2023-24	47.02	8.04	55.06	14.43	3.71	18.13	15.10	3.66	18.76	18.67	3.78	22.45	2.71	2.90	5.62	7.65	0.46	8.12	105.59	22.55	128.14	13.79	0.50	14.29
2024-25	50.46	8.45	58.91	23.12	4.78	27.91	15.14	2.98	18.12	17.12	3.04	20.16	0.97	0.79	1.76	0.34	0.22	0.56	107.15	20.26	127.41	21.52	0.47	22.00
Avg	50.70	8.76	59.46	17.07	4.11	21.18	16.96	5.07	22.02	20.57	4.58	25.14	2.87	0.96	3.84	1.89	0.44	2.33	110.06	23.91	133.97	25.14	1.59	26.73

* Ravi Component = Balloki Upstream - Upper Chenab Canal Tail - Marala Ravi Tail - Qadirabad Balloki Tail.
** Sutlej Component = Sulemanki Upstream - Balloki Sulemanki - I & Balloki Sulemanki - II Tails.

15. POST IRSA (1992-93 TO 2024-25) PROVINCIAL CANAL WITHDRAWALS

15.1 Post IRSA Provincial Canal withdrawals (1992-93 to 2024-25)

Post IRSA Provincial Canal Withdrawals (MAF)

Period	Punjab								Sindh			Balochistan			*Khyber Pakhtunkhwa			Total		
	Jhelum Chenab Zone			Indus Zone			Total													
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
1992-93	16.89	11.24	28.12	14.40	10.04	24.43	31.28	21.27	52.56	27.2	15.6	42.82	0.97	1.00	1.97	3.62	2.39	6.00	63.11	40.24	103.35
1993-94	18.71	10.93	29.64	16.50	7.84	24.34	35.21	18.77	53.98	33.0	14.7	47.74	1.17	0.89	2.06	4.06	3.30	7.36	73.48	37.66	111.14
1994-95	17.88	11.51	29.39	14.88	8.97	23.85	32.76	20.48	53.23	21.8	14.3	36.13	0.82	0.70	1.52	4.08	3.27	7.34	59.47	38.75	98.23
1995-96	17.08	12.11	29.20	14.22	8.85	23.08	31.31	20.97	52.27	28.5	16.0	44.45	1.13	0.68	1.81	4.01	2.15	6.16	64.90	39.79	104.69
1996-97	18.68	11.41	30.09	16.50	8.48	24.99	35.19	19.90	55.08	33.4	16.2	49.59	1.49	0.49	1.98	3.90	2.67	6.58	73.94	39.29	113.23
1997-98	16.60	10.15	26.75	16.28	8.29	24.58	32.88	18.45	51.33	30.7	14.9	45.58	1.36	0.76	2.12	3.71	1.61	5.33	68.63	35.72	104.35
1998-99	18.08	10.54	28.62	16.94	8.40	25.34	35.02	18.94	53.95	31.8	15.2	47.01	2.01	1.16	3.17	3.63	2.02	5.65	72.49	37.30	109.79
1999-00	19.04	9.70	28.75	17.41	6.68	24.09	36.46	16.38	52.83	31.7	12.3	43.98	2.02	0.98	3.00	3.73	2.12	5.85	73.93	31.73	105.66
2000-01	16.64	6.87	23.51	14.85	4.49	19.34	31.49	11.36	42.85	25.6	8.5	34.06	1.81	0.92	2.73	3.84	2.27	6.11	62.70	23.06	85.76
2001-02	13.92	5.85	19.77	13.32	3.95	17.27	27.24	9.81	37.04	24.5	7.1	31.57	2.11	0.91	3.02	3.82	1.79	5.61	57.64	19.61	77.24
2002-03	16.50	7.38	23.88	15.62	6.49	22.11	32.12	13.87	45.99	27.6	9.7	37.35	2.20	0.93	3.13	2.87	1.74	4.61	64.83	26.26	91.09
2003-04	18.12	9.45	27.57	17.68	7.73	25.41	35.80	17.17	52.97	27.3	12.9	40.21	1.92	0.87	2.79	3.11	2.05	5.16	68.17	32.96	101.13
2004-05	15.66	6.02	21.68	14.68	5.52	20.19	30.33	11.54	41.88	25.6	10.4	36.05	2.18	0.72	2.90	3.23	1.87	5.10	61.39	24.54	85.92
2005-06	17.91	9.35	27.26	18.53	7.05	25.58	36.44	16.40	52.83	31.2	12.1	43.31	2.16	0.89	3.05	3.25	2.09	5.34	73.02	31.51	104.53
2006-07	17.50	8.19	25.70	17.42	8.09	25.50	34.92	16.28	51.20	25.1	13.8	38.85	2.03	0.73	2.75	3.21	1.84	5.05	65.25	32.61	97.85
2007-08	18.16	8.97	27.13	19.51	6.28	25.79	37.66	15.25	52.92	30.3	11.2	41.50	1.75	0.78	2.52	3.35	2.18	5.53	73.05	29.41	102.47
2008-09	17.49	7.84	25.32	16.75	5.45	22.20	34.23	13.28	47.52	29.5	10.3	39.81	2.13	0.61	2.73	3.16	2.19	5.35	69.03	26.38	95.41
2009-1	17.35	8.11	25.46	17.22	5.26	22.48	34.57	13.36	47.93	29.6	10.2	39.83	2.11	0.79	2.90	3.65	2.43	6.08	69.91	26.83	96.74
2010-11	16.06	10.54	26.60	12.94	8.19	21.13	29.00	18.73	47.73	22.6	14.5	37.11	1.21	0.88	2.08	2.98	2.22	5.19	55.79	36.33	92.12
2011-12	16.92	10.12	27.04	17.37	7.49	24.86	34.29	17.61	51.90	23.3	10.1	33.42	1.86	1.12	2.98	3.49	2.67	6.16	62.93	31.53	94.46
2012-13	15.66	9.28	24.94	14.09	7.86	21.95	29.75	17.14	46.89	25.4	13.6	39.01	1.62	0.64	2.26	3.50	1.98	5.48	60.28	33.36	93.64
2013-14	17.20	9.72	26.92	16.63	7.72	24.35	33.83	17.44	51.27	29.2	13.6	42.71	1.61	1.08	2.69	3.55	2.32	5.86	68.14	34.39	102.53
2014-15	16.57	8.79	25.36	18.58	8.29	26.87	35.15	17.09	52.23	31.3	14.5	45.81	1.89	1.03	2.91	3.53	2.54	6.07	71.87	35.15	107.02
2015-16	16.72	8.61	25.34	15.81	8.26	24.07	32.53	16.87	49.41	30.6	14.6	45.13	1.62	0.98	2.60	3.31	2.38	5.69	68.02	34.80	102.82
2016-17	17.72	8.78	26.50	18.66	7.15	25.82	36.39	15.93	52.31	32.13	12.04	44.17	1.93	1.10	3.03	3.76	2.65	6.41	74.20	31.72	105.92
2017-18	17.52	7.36	24.88	17.99	5.40	23.39	35.51	12.76	48.27	31.37	9.75	41.12	2.07	1.12	3.19	3.58	2.34	5.92	72.54	25.97	98.51
2018-19	14.88	7.46	22.34	14.31	5.79	20.09	29.19	13.25	42.43	27.75	10.10	37.85	1.69	0.97	2.66	3.47	2.03	5.50	62.10	26.34	88.44
2019-20	16.48	7.29	23.77	17.94	7.38	25.31	34.42	14.67	49.08	28.04	12.92	40.96	1.87	1.24	3.12	3.55	1.86	5.41	67.87	30.70	98.57
2020-21	15.83	8.41	24.24	17.61	9.01	26.62	33.44	17.42	50.86	28.80	12.01	40.82	2.02	1.22	3.23	3.78	1.93	5.72	68.04	32.58	100.62
2021-22	16.53	8.44	24.97	16.60	6.21	22.81	33.13	14.65	47.78	28.96	11.08	40.04	1.94	1.00	2.94	3.11	1.80	4.91	67.14	28.53	95.67
2022-23	14.99	8.72	23.71	11.15	7.24	18.38	26.14	15.96	42.09	15.56	12.31	27.87	0.80	0.80	1.60	2.43	1.65	4.08	44.94	30.71	75.64
2023-24	15.70	9.15	24.84	15.73	7.46	23.18	31.42	16.61	48.03	28.00	12.41	40.41	1.57	0.94	2.51	2.80	1.70	4.51	63.79	31.66	95.46
2024-25	15.72	8.54	24.26	16.05	7.02	23.07	31.77	15.56	47.33	26.16	12.15	38.32	1.59	1.04	2.64	2.84	2.05	4.89	62.36	30.81	93.18
Average	16.87	8.99	25.86	16.19	7.22	23.41	33.06	16.22	49.27	27.99	12.45	40.44	1.72	0.91	2.62	3.45	2.19	5.64	66.21	31.76	97.97

* Above & Below Rim Stations including Civil Canals.

16. UPDATED RESERVOIR STORAGE CAPACITY TABLES

16.1 TARBELA RESERVOIR CAPACITY TABLE

TARBELA
RESERVOIR CAPACITY TABLE
APPLICABLE FROM 10-03-2026

T/GROSS 6.086
DEAD STG. 0.506
LIVE STG. 5.580

According to S.E (S&H) Letter No.SE(S&H)/TDP/232/2026-86 Dated 10-03-2026

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
			1410	0.073	0.015	1440	0.720	0.029
			1411	0.088	0.015	1441	0.749	0.029
			1412	0.103	0.015	1442	0.778	0.029
			1413	0.119	0.015	1443	0.807	0.029
			1414	0.134	0.015	1444	0.837	0.029
			1415	0.150	0.018	1445	0.866	0.029
			1416	0.167	0.018	1446	0.895	0.029
			1417	0.185	0.018	1447	0.924	0.029
			1418	0.202	0.018	1448	0.953	0.029
			1419	0.220	0.018	1449	0.982	0.029
			1420	0.237	0.022	1450	1.011	0.032
			1421	0.259	0.022	1451	1.044	0.032
			1422	0.280	0.022	1452	1.076	0.032
			1423	0.302	0.022	1453	1.108	0.032
			1424	0.324	0.022	1454	1.141	0.032
			1425	0.345	0.022	1455	1.173	0.032
			1426	0.367	0.022	1456	1.206	0.032
			1427	0.388	0.022	1457	1.238	0.032
			1428	0.410	0.022	1458	1.270	0.032
			1429	0.432	0.022	1459	1.303	0.032
			1430	0.453	0.027	1460	1.335	0.034
			1431	0.480	0.027	1461	1.369	0.034
1402	0.000	0.005	1432	0.507	0.027	1462	1.403	0.034
1403	0.005	0.005	1433	0.533	0.027	1463	1.437	0.034
1404	0.009	0.005	1434	0.560	0.027	1464	1.471	0.034
1405	0.014	0.012	1435	0.587	0.027	1465	1.505	0.034
1406	0.026	0.012	1436	0.613	0.027	1466	1.539	0.034
1407	0.038	0.012	1437	0.640	0.027	1467	1.572	0.034
1408	0.049	0.012	1438	0.667	0.027	1468	1.606	0.034
1409	0.061	0.012	1439	0.693	0.027	1469	1.640	0.034

TARBELA RESERVOIR CAPACITY TABLE

TARBELA
RESERVOIR CAPACITY TABLE
APPLICABLE FROM 10-03-2026

T/GROSS 6.086
DEAD STG. 0.506
LIVE STG. 5.580

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
1470	1.674	0.041	1500	2.959	0.048	1530	4.451	0.055
1471	1.715	0.041	1501	3.007	0.048	1531	4.507	0.055
1472	1.755	0.041	1502	3.055	0.048	1532	4.562	0.055
1473	1.796	0.041	1503	3.103	0.048	1533	4.617	0.055
1474	1.836	0.041	1504	3.151	0.048	1534	4.673	0.055
1475	1.877	0.041	1505	3.199	0.048	1535	4.728	0.055
1476	1.917	0.041	1506	3.247	0.048	1536	4.784	0.055
1477	1.958	0.041	1507	3.294	0.048	1537	4.839	0.055
1478	1.998	0.041	1508	3.342	0.048	1538	4.894	0.055
1479	2.039	0.041	1509	3.390	0.048	1539	4.950	0.055
1480	2.079	0.042	1510	3.438	0.050	1540	5.005	0.058
1481	2.121	0.042	1511	3.488	0.050	1541	5.063	0.058
1482	2.164	0.042	1512	3.538	0.050	1542	5.120	0.058
1483	2.206	0.042	1513	3.587	0.050	1543	5.178	0.058
1484	2.248	0.042	1514	3.637	0.050	1544	5.235	0.058
1485	2.290	0.042	1515	3.687	0.050	1545	5.293	0.058
1486	2.332	0.042	1516	3.736	0.050	1546	5.350	0.058
1487	2.375	0.042	1517	3.786	0.050	1547	5.408	0.058
1488	2.417	0.042	1518	3.836	0.050	1548	5.465	0.058
1489	2.459	0.042	1519	3.885	0.050	1549	5.523	0.057
						1550	*5.580*	
1490	2.501	0.046	1520	3.935	0.052			
1491	2.547	0.046	1521	3.987	0.052			
1492	2.593	0.046	1522	4.038	0.052			
1493	2.639	0.046	1523	4.090	0.052			
1494	2.684	0.046	1524	4.142	0.052			
1495	2.730	0.046	1525	4.193	0.052			
1496	2.776	0.046	1526	4.245	0.052			
1497	2.822	0.046	1527	4.296	0.052			
1498	2.868	0.046	1528	4.348	0.052			
1499	2.913	0.046	1529	4.400	0.052			

16.2 MANGLA RESERVOIR CAPACITY TABLES

MANGLA
RESERVOIR CAPACITY TABLE
APPLICABLE FROM 03-05-2024

T/GROSS 7.297
DEAD STG. 0.021
LIVE STG. 7.277
(AT 1242)

According to S.E (Hydrology) Mangla Letters No.SE/Hyd-04(Reports)/796 Dated 03-05-2024.

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
			1071	0.057	0.007	1101	0.366	0.017
			1072	0.064	0.007	1102	0.383	0.017
			1073	0.071	0.007	1103	0.400	0.017
			1074	0.077	0.007	1104	0.418	0.017
			1075	0.084	0.007	1105	0.435	0.017
			1076	0.091	0.007	1106	0.452	0.017
			1077	0.097	0.007	1107	0.469	0.017
			1078	0.104	0.007	1108	0.487	0.017
			1079	0.111	0.007	1109	0.504	0.017
1050	0.000		1080	0.117	0.007	1110	0.521	0.017
1051	0.002	0.002	1081	0.127	0.010	1111	0.543	0.021
1052	0.004	0.002	1082	0.137	0.010	1112	0.564	0.021
1053	0.006	0.002	1083	0.146	0.010	1113	0.585	0.021
1054	0.007	0.002	1084	0.156	0.010	1114	0.607	0.021
1055	0.009	0.002	1085	0.166	0.010	1115	0.628	0.021
1056	0.011	0.002	1086	0.175	0.010	1116	0.650	0.021
1057	0.013	0.002	1087	0.185	0.010	1117	0.671	0.021
1058	0.015	0.002	1088	0.195	0.010	1118	0.693	0.021
1059	0.017	0.002	1089	0.204	0.010	1119	0.714	0.021
1060	0.019	0.002	1090	0.214	0.010	1120	0.735	0.021
1061	0.022	0.003	1091	0.227	0.013	1121	0.763	0.027
1062	0.025	0.003	1092	0.241	0.013	1122	0.790	0.027
1063	0.028	0.003	1093	0.254	0.013	1123	0.817	0.027
1064	0.031	0.003	1094	0.268	0.013	1124	0.844	0.027
1065	0.035	0.003	1095	0.281	0.013	1125	0.871	0.027
1066	0.038	0.003	1096	0.295	0.013	1126	0.898	0.027
1067	0.041	0.003	1097	0.308	0.013	1127	0.925	0.027
1068	0.044	0.003	1098	0.322	0.013	1128	0.952	0.027
1069	0.047	0.003	1099	0.335	0.013	1129	0.980	0.027
1070	0.051	0.003	1100	0.348	0.013	1130	1.007	0.027

MANGLA RESERVOIR CAPACITY TABLES

MANGLA
RESERVOIR CAPACITY TABLE
APPLICABLE FROM 03-05-2024

T/GROSS 7.297
DEAD STG. 0.021
LIVE STG. 7.277
(AT 1242)

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
1131	1.039	0.033	1161	2.165	0.047	1191	3.710	0.060
1132	1.072	0.033	1162	2.212	0.047	1192	3.770	0.060
1133	1.105	0.033	1163	2.259	0.047	1193	3.830	0.060
1134	1.137	0.033	1164	2.305	0.047	1194	3.890	0.060
1135	1.170	0.033	1165	2.352	0.047	1195	3.950	0.060
1136	1.203	0.033	1166	2.398	0.047	1196	4.010	0.060
1137	1.235	0.033	1167	2.445	0.047	1197	4.070	0.060
1138	1.268	0.033	1168	2.492	0.047	1198	4.129	0.060
1139	1.301	0.033	1169	2.538	0.047	1199	4.189	0.060
1140	1.333	0.033	1170	2.585	0.047	1200	4.249	0.060
1141	1.370	0.037	1171	2.636	0.051	1201	4.315	0.065
1142	1.407	0.037	1172	2.687	0.051	1202	4.380	0.065
1143	1.444	0.037	1173	2.738	0.051	1203	4.446	0.065
1144	1.480	0.037	1174	2.789	0.051	1204	4.511	0.065
1145	1.517	0.037	1175	2.840	0.051	1205	4.577	0.065
1146	1.554	0.037	1176	2.891	0.051	1206	4.642	0.065
1147	1.591	0.037	1177	2.942	0.051	1207	4.708	0.065
1148	1.627	0.037	1178	2.993	0.051	1208	4.773	0.065
1149	1.664	0.037	1179	3.044	0.051	1209	4.839	0.065
1150	1.701	0.037	1180	3.095	0.051	1210	4.904	0.065
1151	1.743	0.042	1181	3.151	0.055	1211	4.974	0.070
1152	1.785	0.042	1182	3.206	0.055	1212	5.044	0.070
1153	1.826	0.042	1183	3.261	0.055	1213	5.113	0.070
1154	1.868	0.042	1184	3.317	0.055	1214	5.183	0.070
1155	1.910	0.042	1185	3.372	0.055	1215	5.253	0.070
1156	1.952	0.042	1186	3.428	0.055	1216	5.322	0.070
1157	1.993	0.042	1187	3.483	0.055	1217	5.392	0.070
1158	2.035	0.042	1188	3.539	0.055	1218	5.462	0.070
1159	2.077	0.042	1189	3.594	0.055	1219	5.531	0.070
1160	2.119	0.042	1190	3.650	0.055	1220	5.601	0.070

MANGLA RESERVOIR CAPACITY TABLES

MANGLA
RESERVOIR CAPACITY TABLE
APPLICABLE FROM 03-05-2024

T/GROSS	7.297
DEAD STG.	0.021
LIVE STG.	7.277
(AT 1242)	

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
1221	5.675	0.074	1231	6.416	0.078
1222	5.749	0.074	1232	6.493	0.078
1223	5.822	0.074	1233	6.571	0.078
1224	5.896	0.074	1234	6.648	0.078
1225	5.970	0.074	1235	6.726	0.078
1226	6.043	0.074	1236	6.803	0.078
1227	6.117	0.074	1237	6.881	0.078
1228	6.191	0.074	1238	6.959	0.078
1229	6.264	0.074	1239	7.036	0.078
1230	6.338	0.074	1240	7.114	0.078
			1241	7.195	0.081
			1242	7.277	0.081

MANGLA RESERVOIR CAPACITY TABLES

MANGLA
JARI RESERVOIR CAPACITY TABLE
FROM 1050 FT. TO 1140 FT.
APPLICABLE FROM 03-05-2024

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
1050	0.000							
1051	0.000	0.000	1081	0.027	0.002	1111	0.088	0.003
1052	0.001	0.000	1082	0.029	0.002	1112	0.092	0.003
1053	0.001	0.000	1083	0.030	0.002	1113	0.095	0.003
1054	0.001	0.000	1084	0.032	0.002	1114	0.098	0.003
1055	0.002	0.000	1085	0.034	0.002	1115	0.101	0.003
1056	0.002	0.000	1086	0.035	0.002	1116	0.104	0.003
1057	0.002	0.000	1087	0.037	0.002	1117	0.107	0.003
1058	0.003	0.000	1088	0.038	0.002	1118	0.110	0.003
1059	0.003	0.000	1089	0.040	0.002	1119	0.113	0.003
1060	0.004	0.000	1090	0.041	0.002	1120	0.116	0.003
1061	0.004	0.001	1091	0.043	0.002	1121	0.119	0.003
1062	0.005	0.001	1092	0.045	0.002	1122	0.123	0.003
1063	0.006	0.001	1093	0.046	0.002	1123	0.126	0.003
1064	0.007	0.001	1094	0.048	0.002	1124	0.129	0.003
1065	0.008	0.001	1095	0.049	0.002	1125	0.132	0.003
1066	0.008	0.001	1096	0.051	0.002	1126	0.135	0.003
1067	0.009	0.001	1097	0.052	0.002	1127	0.139	0.003
1068	0.010	0.001	1098	0.054	0.002	1128	0.142	0.003
1069	0.011	0.001	1099	0.056	0.002	1129	0.145	0.003
1070	0.012	0.001	1100	0.057	0.002	1130	0.148	0.003
1071	0.013	0.001	1101	0.060	0.003	1131	0.153	0.005
1072	0.014	0.001	1102	0.063	0.003	1132	0.159	0.005
1073	0.016	0.001	1103	0.066	0.003	1133	0.164	0.005
1074	0.017	0.001	1104	0.068	0.003	1134	0.169	0.005
1075	0.019	0.001	1105	0.071	0.003	1135	0.174	0.005
1076	0.020	0.001	1106	0.074	0.003	1136	0.180	0.005
1077	0.022	0.001	1107	0.077	0.003	1137	0.185	0.005
1078	0.023	0.001	1108	0.080	0.003	1138	0.190	0.005
1079	0.024	0.001	1109	0.083	0.003	1139	0.195	0.005
1080	0.026	0.001	1110	0.085	0.003	1140	0.200	0.005

MANGLA RESERVOIR CAPACITY TABLES

MANGLA
MAIN WITHOUT JARI RESERVOIR CAPACITY TABLE
FROM 1050 FT. TO 1140 FT.
APPLICABLE FROM 03-05-2024

RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:	RES. ELEV:(FT)	LIVE CON:	PROG: DIFF:
1050	0.000							
1051	0.002	0.002	1081	0.100	0.008	1111	0.454	0.018
1052	0.003	0.002	1082	0.108	0.008	1112	0.472	0.018
1053	0.005	0.002	1083	0.116	0.008	1113	0.491	0.018
1054	0.006	0.002	1084	0.124	0.008	1114	0.509	0.018
1055	0.008	0.001	1085	0.132	0.008	1115	0.527	0.018
1056	0.009	0.002	1086	0.140	0.008	1116	0.546	0.018
1057	0.011	0.002	1087	0.148	0.008	1117	0.564	0.018
1058	0.012	0.001	1088	0.156	0.008	1118	0.582	0.018
1059	0.014	0.002	1089	0.164	0.008	1119	0.601	0.018
1060	0.015	0.002	1090	0.172	0.008	1120	0.619	0.018
1061	0.017	0.002	1091	0.184	0.012	1121	0.643	0.024
1062	0.020	0.002	1092	0.196	0.012	1122	0.667	0.024
1063	0.022	0.002	1093	0.208	0.012	1123	0.691	0.024
1064	0.025	0.002	1094	0.220	0.012	1124	0.715	0.024
1065	0.027	0.002	1095	0.232	0.012	1125	0.739	0.024
1066	0.029	0.002	1096	0.244	0.012	1126	0.763	0.024
1067	0.032	0.002	1097	0.256	0.012	1127	0.787	0.024
1068	0.034	0.002	1098	0.268	0.012	1128	0.811	0.024
1069	0.037	0.002	1099	0.279	0.012	1129	0.835	0.024
1070	0.039	0.002	1100	0.291	0.012	1130	0.858	0.024
1071	0.044	0.005	1101	0.306	0.014	1131	0.886	0.027
1072	0.049	0.005	1102	0.320	0.014	1132	0.913	0.027
1073	0.055	0.005	1103	0.335	0.014	1133	0.941	0.027
1074	0.060	0.005	1104	0.349	0.014	1134	0.968	0.027
1075	0.065	0.005	1105	0.364	0.014	1135	0.996	0.027
1076	0.070	0.005	1106	0.378	0.014	1136	1.023	0.027
1077	0.076	0.005	1107	0.392	0.014	1137	1.051	0.027
1078	0.081	0.005	1108	0.407	0.014	1138	1.078	0.027
1079	0.086	0.005	1109	0.421	0.014	1139	1.106	0.027
1080	0.091	0.005	1110	0.436	0.014	1140	1.133	0.027

16.3 CHASHMA RESERVOIR CAPACITY TABLE

CHASHMA RESERVOIR CAPACITY TABLE

Effective From 04.07.2024

Hydrographic Survey of 2022 by Wapda

Minimum Operating Pool Level	= 638.15	Designed Live Storage (MAF)	= 0.717
Maximum Operating Pool Level	= 649.00	Current Live Storage (MAF)	= 0.311

Elevation	Live Capacity MAF	Elevation	Live Capacity MAF	Elevation	Live Capacity MAF	Elevation	Live Capacity MAF
638.15	0.000	641.10	0.045	644.10	0.115	647.10	0.217
638.20	0.002	641.20	0.047	644.20	0.118	647.20	0.221
638.30	0.004	641.30	0.049	644.30	0.121	647.30	0.226
638.40	0.005	641.40	0.051	644.40	0.124	647.40	0.230
638.50	0.006	641.50	0.053	644.50	0.126	647.50	0.235
638.60	0.007	641.60	0.055	644.60	0.129	647.60	0.240
638.70	0.009	641.70	0.057	644.70	0.132	647.70	0.244
638.80	0.010	641.80	0.059	644.80	0.135	647.80	0.249
638.90	0.011	641.90	0.061	644.90	0.138	647.90	0.253
639.00	0.012	642.00	0.063	645.00	0.141	648.00	0.258
639.10	0.014	642.10	0.065	645.10	0.144	648.10	0.263
639.20	0.015	642.20	0.068	645.20	0.148	648.20	0.269
639.30	0.017	642.30	0.070	645.30	0.151	648.30	0.274
639.40	0.018	642.40	0.072	645.40	0.154	648.40	0.280
639.50	0.019	642.50	0.075	645.50	0.157	648.50	0.285
639.60	0.021	642.60	0.077	645.60	0.161	648.60	0.291
639.70	0.022	642.70	0.079	645.70	0.164	648.70	0.296
639.80	0.024	642.80	0.081	645.80	0.167	648.80	0.302
639.90	0.025	642.90	0.084	645.90	0.171	648.90	0.307
640.00	0.026	643.00	0.086	646.00	0.174	649.00	0.311
640.10	0.028	643.10	0.089	646.10	0.178		
640.20	0.030	643.20	0.091	646.20	0.182		
640.30	0.031	643.30	0.094	646.30	0.185		
640.40	0.033	643.40	0.096	646.40	0.189		
640.50	0.035	643.50	0.099	646.50	0.193		
640.60	0.036	643.60	0.102	646.60	0.197		
640.70	0.038	643.70	0.104	646.70	0.201		
640.80	0.040	643.80	0.107	646.80	0.204		
640.90	0.041	643.90	0.109	646.90	0.208		
641.00	0.043	644.00	0.112	647.00	0.212		

17. PICTURES GALLERY

IRSA Technical Committee Meeting Rabi 2024-25 dated 26.09.2024

IRSA Technical Committee Meeting Kharif 2025 dated 25.03.2025

IRSA Advisory Committee Meeting Kharif 2025 dated 26.03.2025

2nd IRSA Advisory Committee Meeting Kharif 2025 dated 05.05.2025

Workshop on "Climate Resilient and Adaptive Water Allocation in Pakistan" in collaboration with ACIAR, CSIRO, MoWR, PCRWR & PIDs dated 09.04.2025