



23rd August 2021

TL21/0823/1A

Muhammad Azam Khan,  
Principal Secretary to the Prime Minister of Pakistan,  
Prime Minister House,  
Islamabad.

**For Attention of Prime Minister**

**Subject: Allegations of \$753.7 million loss during the execution of the project by Chairman WAPDA in T4HPP-Tarbela Dam Project.**  
**Complaint against the Secretary MOWR's incorrect Response received from PM's Portal by email on 17 August 2021, stating that the PM agreed with Minister's recommendation that report is thereby recommended to be closed."**

Dear Sir,

Transparency International Pakistan on 17th August 2021 has received email from Pakistan Citizen Portal support.pmdu@pmo.gov.pk, **Annex-A**, informing that Secretary, Water Resources has closed your complaint (quoted below), on TI Pakistan letter no. TL21/0714/1A dated 14.7.2021, **Annex-B**, sent to the Prime Minister, stating that TI Pakistan do not agree with MOWR stand, that the Prime Minister ordered the inquiry to be to be closed on 8.5.2019.

**Quote**

"Following Officer (Secretary Water Resources) closed your complaint code (IS140721-88719364) with following status (Relief Granted). Please see the remarks."

**Unquote .**

At the outset, this is to state that the complaint of TI Pakistan dated 14.7.2021 was on the contradictory actions/clarifications taken by MoWR after 22.2.2019, on the Investigation Report of 22.2.2019, given in different letters quoted in para 7 below, by Secretary and other officers of Ministry of Water Resources, and now Secretary of MOWR has stated that on 8.5.2019 Prime Minister ordered the inquiry to be closed (which statement as can be seen is incorrect as per documents submitted in this letter **Annex-C**).

As the issue involves the officers of MOW R themselves, the Secretary of Water cannot be judge in his own cause, as it is against the principle of natural justice that no person can judge a case in which they have an interest.

Following issues related to Investigation Report dated 22.2.2019 needs to be probed by the Prime Minister's office.

1. On 5.9.2018 the News International published report that Premature Tarbela-IV launch has cost Rs25 bn. However, the Ministry of Water Resources is now considering to constitute an investigation committee to ascertain responsibility, a spokesman told The News. According to the sources, the Ministry of Water Resources was kept in the dark by WAPDA and the Ministry had reacted belatedly to media reports. The news report said that the Ministry had sought an explanation from WAPDA on August 29, 2018, and found its response, received on Monday, 3<sup>rd</sup> September 2018, to be unsatisfactory. Immediately after, the Ministry again wrote to WAPDA in an attempt to get to the bottom of the issue.





2. Office of the Prime Minister vide letter No. 3493/M/SPM/18 dated 5th & 6th September 2018 conveyed that the Prime Minister appointed a 6 member Investigation Committee headed by Secretary, Water Resources and including Secretary Planning, Development & Reforms, Additional Director General (FIA), representative of Pakistan Engineering Council, representative of NESPAK, and Joint Secretary MOWR as its members, with the following TORs.

- a). To examine whether the project was inaugurated in time or before the completion of all formalities.
- b). To assess whether any loss to national exchequer occurred due to the inauguration of the project before time.
- c) To identify those responsible for making the decision of inauguration before completion of all formalities if a loss to the national exchequer occurred, and
- d) To fix responsibilities and propose action.

3. The Investigation Committee conducted the investigation under the Prime Ministers Orders and completed the Investigation Report on 22.2.2019 and gave the following findings on the 4 TORs.

a) **IC Para 7.14.** "In the circumstances discussed above, the IC is of the opinion that the project was inaugurated before the completion of all formalities".

b) **IC Para 7.16 (xviii).** "All the members of the IC have unanimously determined that the sum total of loss occurred during the execution of this project on the above referred count comes to US\$753.7 million (\$350 million estimated and projected by Wapda for the years 2017 & 2018, \$48 million paid to the civil contractor on account of acceleration under the VO-02 R2 and \$5.7 million under CO-10). Besides, another loss of Rs70 million incurred by Wapda to lift the gates of draft tubes stuck in the mud after the refusal of the civil contractor".

c) **IC Para 7.18.** "Notwithstanding the above, it is also determined from the statements of M(P), Adviser Projects WAPDA, CE (O&M) and the PD T4HPP, that the date of inauguration was made without their consultation and also not at the Authority level of WAPDA, rather it was done at the level of Chairman WAPDA".

d) **IC Para 7.2** the IC proposes following action in this regards.

i) Necessary directions may be issued to the Auditor General of Pakistan for holding a comprehensive performance audit of T\$ HP within 60 days for determination of the following, among others, to carry out:

- a) An overall performance audit of the project.
- b) Specific to the matters spelled out and losses worked out vide para 7.16 above
- c) By fixing responsibility and apportioning the corresponding loss caused by the respective individual/entities.
- d) Any other matter relating to or/and ancillary to the above.

ii) In the light of the report of the performance audit, the decision for any criminal inquiry into the matter by FIA or NAB may be decided.

III) Forensic audit of the T4HP project by an independant third party of international repute having no financial interest involved with WAPDA.

4. Secretary, MOWR, who was also the Chairman of the IC and five members of the Committee finalized and signed the IC Report on 22.2.2019 and the Chairman sent the report to PSPM on





same day 22.2.2019, except the 6th member, as Mr. Shaikh Altaf Hussain Rep of NESPAK, who was in Lahore. IC Para 2.09 quoted. **“Besides above, due to indisposition of one IC Member Shaikh Altaf Hussain (SAH) and his inability to travel from Lahore to Islamabad and join the proceedings of the IC regarding final drafting and compilation of IC Report, the remaining five members continued deliberations, consultation and onerous task to come up with the consensus from 18<sup>th</sup> to 21<sup>st</sup> February 2019, often from evening till 2.00 am next day and until 6.00 am on occasions”.**

5. However, Mr. Shaikh Altaf Hussain sent an email to Chairman IC2 on 22.2.2019, stating that he does not agree with the IC Report. Mr. Shamail Ahmed Khawaja, who was retiring on Friday 22<sup>nd</sup> February 2019, as per requirement of the TOR and procedures, sent the Investigation Report with email of dissenting note of 6th IC Member, through two officers of MOWR and delivered the report the same day to the PSPM Office by 4.45 pm. We would like point out that similar procedure was used for the Sugar Inquiry Commission Report submitted on (9.3.2020) to the Prime Minister by Chairman of the Inquiry Commission DG FIA Mr. Wajid Zia, and not by the Ministry of Interior nor any recommendations to PM were made by the Minister of Interior. **Annex-D**.

5. As Saturday 23<sup>rd</sup> and Sunday 24<sup>th</sup> February, 2019 were holidays, and MOWR was without any Secretary, who had already retired, however, the IC Report had already been sent on 22<sup>nd</sup> February 2019 to PSPM by Chairman IC, who authorized any officer of MOWR to send to PSPM on Sunday 24<sup>th</sup> February 2019, the IC Report, which was signed by the 6th Member on 23<sup>rd</sup> February 2019, one day after the report was submitted.

6. The Minister of Water Resources, on receipt of IC Report on 24<sup>th</sup> Feb 2019, wrote a one page note to PSPM, along with a 10 page evaluation brief given by MOWR. In our view, the Minister should have taken the brief from the 6-member IC Committee, who by a majority decision had given detailed reports on the 4 TORs.

7. The Minister letter to PSPMs did not recommend to close the Investigation Report, as stated by Secretary, MOWR in their response on 17 August 2021. The following contradictory statements prove that no such recommendations were given by the Minister, nor accepted by the PM.

In the MOWR letter of 10 March 2020, different clarifications on PM's letter were given to Secretary Planning & Development. It was stated that “The Honorable PM, while considering the IC Report of T4 HPP agreed with the conclusions of the Federal Minister and returned the IC report in original vide PM Office letter No. 2(2)/DS(DS(Ext-1)/20119 dated 08-05-2019 (copy attached) without directing to take any further action; thus implying closure of the Inquiry.”

On 8 July 2021 MOWR took a different stand, saying that “it is important to highlight that the Investigation Committee was constituted on Prime Minister's orders, who instead of approving the Committee's above mentioned recommendations returned the report in original, on 8<sup>th</sup> May, 2019, without any directions, which implied closure of the case. Initiating any further action on recommendations was thus beyond this Ministry's mandate.”

8. The IC Report dated 22.2.2021, was prepared and signed by the highest serving officers, Mr. Shamail Ahmed Khawaja (BP 22), Secretary, Water Resources, Mr. Zafar Hasan (BPS 22), Secretary P&D, (now Secretary Communication), Chairman of the highest regulator of engineering, PEC, Mr. Jawad Salim Qureshi, Mr. Basharat M. Shahzad (EPS 21), Additional Director General FIA, Syed M Mehar Ali Shah JS MOWR and Mr. Shaikh Altaf Hussain of NESPAK, cannot be overruled by one person, may he be a minister.

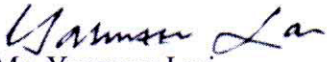


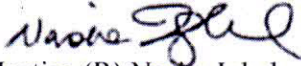


Prime Minister of Pakistan is requested to examine the TI Pakistan comments and opinion on the MOWR letter, IC Report dated 22.2.2019, MOWR letter on Feb and March 2022, and the MOWR stand, that the Prime Minister ordered the inquiry to be closed on 8.5.2019. A detailed action may be taken to find why MOWR has blamed the PM for ordering to close the inquiry.

Transparency International Pakistan is striving for across the board application of Rule of Law, which is the only way to stop corruption, and achieve Zero tolerance against Corruption,

With Regards,  
With Regards,

  
Ms. Yasmeen Lari  
Sitara-e-Imtiaz, Hilal-i-Imtiaz  
Chairperson  
Transparency International Pakistan

  
Justice (R) Nasira Iqbal,  
Sitara-e-Imtiaz  
Vice-Chairperson  
Transparency International Pakistan

**Encl: Annex-A,B,C &D.**

**Copies forwarded for the information with request to take action under their mandate,**

1. Chairman, Public Accounts Committee, NA, Islamabad.
2. Chairman, National Accountability Bureau (NAB), Islamabad
3. Secretary, MOWR, Islamabad,
4. Auditor General Pakistan, Islamabad
5. Registrar, Supreme Court of Pakistan

**Note:** The information is being requested by TI Pakistan under Article 19-A of the Constitution of the Islamic Republic of Pakistan 1973, which empowers the civil society to seek information and hold accountable public institutions.

Refer to the Lahore High Court Order by Jus. Syed Mansoor Ali Shah in Attaullah Khan Malik vs The Federation of Pakistan (2010 PLD Lahore 605) in which the following observation is given; "Right to information is another corrective tool, which allows public access to the working and decision making of the public authorities. It opens the working of public administration to public scrutiny. This necessitates transparent and structured exercise of discretion by the public functionaries. Article 19A empowers the civil society of this country to seek information from public institutions and hold them answerable. Article 19A, therefore, enthruses fresh life into Public Interest Litigation."





# Annex-A

Sayyed Gillani <gilaniadil@gmail.com>

## Your Citizen Portal Complaint is Resolved | آپ کے سٹیزن پورٹل کی شکایت حل ہوگئی ہے

Pakistan Citizen Portal <support.pmdu@pmo.gov.pk>

17 August 2021 at 12:48

To: ti.pakistan@gmail.com

Respected Citizen! / محترم شہری

Following Officer (**Secretary Water Resources**) closed your complaint code (**IS140721-88719364**) with following status (**Relief Granted**). Please see the remarks.

### Officer Remarks:

Dear Sir, the response to your questions is given below. 1- The Prime Minister returned the Investigation Committee's Report, vide U.O. dated 25-02-2019, duly agreeing to the Minister for Water Resources' conclusions. The Minister for Water Resources, while submitting the Investigation Committee's Report to the Prime Minister's Office, explicitly recommended as under: "The Report having addressed the basic TOR of determining the fact that there is no linkage of Inauguration with suspension of generation, is thereby recommended to be closed." Therefore, no further action was warranted on Ministry of Water Resources' part. 2- Same as above. 3- ECNEC, while approving PC-I of the Project, directed on the recommendations of the CDWP, that the Ministry of Water Resources would carry out a comprehensive Performance Audit of the Project, as recommended by the Investigation Committee. To this, Ministry of Water Resources took the stance that the Performance Audit should be delinked with the approval of the Project. This is a separate matter and the Ministry never requested ECNEC to close the enquiry as the same was already closed by the Prime Minister's Office. However, the ECNEC's directions stand complied with as the Ministry, vide letter dated 12-02-2020, shared the Performance Audit Report conducted by the Auditor General for Pakistan with the Ministry of Planning, Development & Special Initiatives. Thank you.

Email: [support.pmdu@pmo.gov.pk](mailto:support.pmdu@pmo.gov.pk)

پاکستان کی حکومت  
پاکستان کی حکومت





14<sup>th</sup> July 2021

TL21/0714/1A

Muhammad Azam Khan,  
Principal Secretary to the Prime Minister of Pakistan,  
Prime Minister House,  
Islamabad.

**For Attention of Prime Minister**

**Subject: Allegations total loss of \$753.7 million (around Rs100 billion) caused to exchequer during the execution of the project by Chairman WAPDA in Tunnel-4 of Tarbela Dam Project.**

Dear Sir,

Transparency International Pakistan has received letter No 2/2/2017-HP, dated 8 July 2021, from JS MOWR, as a response to TI Pakistan letter dated 24.6.2021. **Annex-A.**

**TI Pakistan would like to state at the outset that we reject MOWR assertion that the Prime Minister ordered the inquiry to be closed on 8.5.2019, which is clearly an attempt to divert the blame from themselves.**

The following are seriatim TI Pakistan comments on the clarifications submitted by MOWR:

**MOWR Para 2:** "An Investigation Committee was constituted on 5th September 2018, under Prime Minister's orders, headed by the Secretary Water Resources and including Secretary Planning, Development & Reforms, Additional Director General (FIA), representative of Pakistan Engineering Council, representative of NESPAK, and Joint Secretary MOWR as its members, to inquire into the matter of premature inauguration. The Committee in its report dated 22nd February 2019, unequivocally established that the inauguration of the Project was carried out having fulfilled all contractual formalities. The question of premature inauguration therefore, does not arise'.

**TIP Comment:** MOWR statement is incorrect that "the Committee in its report dated 22<sup>nd</sup> February 2019, unequivocally established that the inauguration of the Project was carried out having fulfilled all contractual formalities" According to report of Ansar Abbasi published in daily News, dated 2 March, 2019, **"The IC (6 member) also determined that the availability of water quality suitable for operating the units as being the foremost pre-requisite was not available, hence the operation of units in absence of favourable environment was a premature action decided by Wapda, consultants and contractors."** **Annex-B.**

This is substantiated by Para 7.14 of IC Report, which also states that **"In the circumstances discussed above, the IC is of the opinion that the Project was inaugurated before the completion of all formalities."**

**MOWR Para 5:** It is important to highlight that the Investigation Committee was constituted on Prime Minister's orders, who instead of approving the Committee's above mentioned recommendations returned the report in original, on 8th May, 2019, without any directions, **which implied closure of the Case.** Initiating any further action on recommendations was thus beyond this Ministry's mandate.

**TIP Comments:** MOWR statement "which implied closure of the Case" is erroneous.





According to Ansar Abbasi report published in daily News, dated 2 March, 2019 the IC Report states **“The Investigation Committee (IC), constituted by the prime minister on losses incurred because of pre-mature inauguration of Tunnel-4 of Tarbela Dam, unanimously determined that the total loss occurred during the execution of the project comes to \$753.7 million (around Rs100 billion). Annex-B**

The PSPM letter dated 8<sup>th</sup> May 2019 addressed to Secretary MOWR, refers to the Investigation Committee Report for T-4 HPP, and also to the Federal Minister for Water Resource’s D.O. letter of even number dated 25.02.2019. **Annex-C**

The PM letter states *“While considering the Investigation Committee’s Report for T-4 HPP, the Prime Minister is pleased to agree with the conclusion of the Minister for Water Resource. Accordingly the Investigation Committee’s Report is returned in Original.”*

However, it is clear in the DO letter dated 24 Feb 2019 by Mr. Faisal Vawda, Minister of MOWR, written within 2 days of the receipt of IC Report (dated 22 Feb 2019), that the minister did not present the true findings of IC for consideration of the Prime Minister. The findings of IC are as follows:

- 1) Both, 6 members Investigation Committee (IC) and 7 Member Technical Investigation Committee TIC determined in the Investigation Report that as per **Para 7.14 the Project was inaugurated before the completion of all formalities;** and,
- 2) **IC Report Para 7.18 states** *“The date of operation of Unit 17 stands established to be fixed through consultative process of parties to the Contract vis. The Employer (WAPDA), the Consultants (T4CJV) and the Contractors (Civil and EM Contractors). The unit 17 was subsequently inaugurated on 10/03/2018. Notwithstanding the above, it is also determined from the statements of Member (Power, Adviser Project WAPDA, C.E. (O&M) and PD T4HPP **that the date of inauguration was made without their consultation and also not at the Authority level of WAPDA, rather it was done at the level of Chairman WAPDA,** and,*
- 3) **IC Report Para 6.07(h) states:** *“**As mentioned above, without paying any heed to such unequivocal advices by IPOE ( Independent Panel of Experts) and the Bank, there seems no other motivation except any extraneous influence to bring the units in a position where it can be declared the Wet Commissioning has been completed, hence the Units are now in Commercial Operations-** at such a time when it was injurious to release the water into the turbines when the water was carrying heavy loads of sediments owed to successive decline of reservoir level at a faster pace due to release of stored water for Rabi crops, and the reservoir level being at the Dead Storage level.”*

**MOWR IC Report Para 7 states regarding** age limit of Chairman WAPDA:

*Regarding upper age limit for Chairman WAPDA, it is pointed out that neither WAPDA Act, 1958 and the regulations made thereunder nor decisions of the Apex Court put any such bar on the appointment in the public sector organizations.*

**TIP Comments: The statement is incorrect.** According to Government of Pakistan Cabinet Division Notification No 6/12/2007/RA-1 dated 6/12/2007, sent to all Secretaries, “The Chairman/Chief Executive shall unless he resigns from the office, hold office for a period of 3 years and shall be eligible for re-appointment for such term or terms as the Federal Government may determine, provided that the Chairman shall cease to hold office on attaining the age of sixty five years or expiry of the term, which ever is earlier. The subject of this notification is “terms of appointment and age limit of Chairmen and Members of government Regularity Authority, Corporation, Autonomous Bodies, Commissions etc. WAPDA is an Authority, Water & Power Development Authority, and this notification is also applicable on Chairman and Members of WAPDA. **Annex-D.**





**TI Pakistan Opinion.**

1. The Prime Minister never ordered to close the Investigation.
2. The PSPM letter states that the Prime Minister is pleased to agree with the conclusion of the Minister for Water Resource. However, Minister Vawda's DO letter did not recommend the closure of the investigation, and as such the findings of the IC report should have been implemented by MOWR.
3. If the Prime Minister had ordered to close the enquiry, the subsequent action of MOWR after nine months (Feb 2021 and March 2021) are questionable, which pertains to the withdrawal of the IC Report from DG Audit and for ECNEC to close the enquiry. **Annex-E & F.**
4. It is pertinent to note that the IC Report dated 22.2.2021, was prepared and signed by the highest serving officers, Mr. Shamail Ahmed Khawaja ( BP 22), Secretary, Water Resources, Mr. Zafar Hasan ( BPS 22), Secretary P&D, ( now Secretary Communication), Chairman of the highest regulator of engineering, PEC, Mr. Jawaid Salim Qureshi, Mr. Basharat M. Shahzad ( BPS 21), Add. Director General FIA, Syed M Mehar Ali Shah JS MOWR and Mr. Shaikh Altaf Hussain of NESPAK, which can not be overruled by one person, even though he may hold the high office of a federal minister.
5. After signing each page of over to page Investigation Report, Mr. Shaikh Altaf Hussain of NESPAK wrote a 3 page note of dissent, in which besides other objections, he stated that Syed M Mehar Ali Shah JS MOWR and Mr. Shaikh Altaf Hussain of NESPAK both disagreed with Para 7.03 of IC report.
6. Both Syed M Mehar Ali Shah JS MOWR (posted in MOWR on deputation from NESPAK since last several years) and Mr. Shaikh Altaf Hussain, Syed M Mehar Ali Shah JS MOWR and Mr. Shaikh Altaf Hussain are employees of NESPAK, which in 2018 was in process for bidding for the Consultancy Contracts of WAPDA, for Mohmand Dam and Bhasha Dam. **Annex-G**

Prime Minister of Pakistan is requested to examine TI Pakistan comments and opinion.

Transparency International Pakistan is striving for across the board application of Rule of Law, which is the only way to stop corruption, and achieve against Zero tolerance against Corruption,

With Regards,

Ms. Yasmeen Lari  
Sitara-e-Imtiaz, Hilal-i-Imtiaz  
Chairperson  
Transparency International Pakistan

Justice (R) Nasira Iqbal,  
Sitara-e-Imtiaz  
Vice-Chairperson  
Transparency International Pakistan

Copies forwarded for the information with request to take action under their mandate,

1. Chairman, National Accountability Bureau (NAB), Islamabad
2. Secretary, MOWR, Islamabad, This also refers to MOWR letter letter No. 2(11)/2017-Admn dated July 7<sup>th</sup>, 2021
3. Auditor General Pakistan, Islamabad
1. Registrar, Supreme Court of Pakistan



**Investigation Report  
on  
Tarbela 4<sup>th</sup> Extension Hydropower Project**

**By  
Investigation Committee Constituted by  
Prime Minister of Pakistan**

**Dated 22<sup>nd</sup> February, 2019**

No. 2(91)/2018-AC  
Government of Pakistan  
Ministry of Water Resources

\*\*\*\*\*

Islamabad, March 10, 2020

The Secretary  
Planning, Development and Special Initiative Division  
Islamabad

Subject: Minutes of CDWP Meeting Held on 18-11-2019 in regard to T4 HPP

I am directed to refer to Para 10 (i) of the subject minutes which stipulates, inter alia, "conduct of performance audit by the Auditor General of Pakistan in the light of findings of the Inquiry Committee constituted by the Prime Minister of Pakistan". Following submissions are made for the consideration of the ECNEC before the decision of the ECNEC is implemented based on recommendation of the CDWP:-

- a. An inquiry was ordered on the directions of the PM to probe whether Tarbela 4<sup>th</sup> Extension Hydropower Project (T4 HPP) was inaugurated prematurely prior to the completion of all formalities, or otherwise.
- b. The Investigation Committee (IC), while addressing the fundamental TORs, concluded that the inauguration of the project was carried out having fulfilled all contractual and technical formalities.
- c. The Federal Minister for Water Resources, after going through the IC report and technical evaluation brief by the Ministry, submitted the same to the Prime Minister (PM) office along with a D.O. letter addressed to the PM (copy attached).
- d. The Honorable PM, while considering the IC report of T4 HPP, agreed with the conclusions of the Federal Minister and returned the IC report in original vide PM Office letter No. 2(2)/DS(Ext-1)/2019 dated 08-05-2019 (copy attached) without directing to take any further action; thus implying closure of the Inquiry.

2. The facts narrated above amply endorse that the Inquiry has been reviewed and duly returned by the highest authority. The IC report stands settled and its recommendations cannot be implemented piece meal. Ordering of a performance audit by CDWP because it is one of the recommendations of the IC report and linking the approval of PC-I of T4 HPP with 'Performance audit in the light of findings of T4 HPP' is not in sync with the directive issued by the PM Office rather contradicts its essence.

PC-I




3. Perusal of the TORs of the Committee would reveal that the Committee had a limited mandate to look into particular aspect of the Project. It did not critically look into the entire gamut of the scope of work of the Project i.e. procurement, contract management, design, financial, physical implementation and above all the overall performance in terms of cost-benefit of the Project on its completion which are otherwise the aspects to be considered by the relevant fora mandated to approve the PC-I of the given project. Therefore, the Report would not serve as a reference for the performance audit; rather would vitiate the very objective of the independent and unbiased audit activity.

4. Apropos, following is suggested as a way forward to address the matter:-

- a. Performance Audit may be carried out as directed by the CDWP, however; the same may be carried out independently, without linking it with the findings of the IC report which neither fulfill the objective of third party evaluation nor conduct of performance audit of the Project. abs.
- b. The approval of PC-I may be delinked with the Performance Audit being two separate matters.
- c. The above submission may be made part of the position paper of the Project T4 HPP and may be placed before the ECNEC in its next meeting schedule for 16<sup>th</sup> of March, 2020 tentatively.

5. Further necessary action as requested above may accordingly be taken as the approval of the T4 HPP is pending despite recommendation of the CDWP.

  
(Fariha)  
Section Officer (Water)

Copy to:

Director General (Audit) WR, Lahore with the request to return the copy of the Inquiry Report along with its enclosures sent vide this office letter No. 3(1)/2019-B&F-Pt-I dated 10<sup>th</sup> February, 2020 till the matter is finally decided by the ECNEC in the light of above stated position of the Ministry of Water Resources. The letter under reference is also hereby cancelled.

  
(Fariha)  
Section Officer (Water)

CC:

1. Deputy Chairman, Planning Commission, Islamabad.
2. Chairman WAPDA, WAPDA House Lahore.
3. Joint Secretary (Cabinet Committees) Cabinet Division Islamabad.

BY UMS  
MOST IMMEDIATE/DAC

Government of Pakistan  
Ministry of Water Resources  
6-Attaturk Avenue, G-5/1,

Islamabad, the 10th February 2020


F.No.3 (1)/2019-B&F-Pt-I.

Director General (Audit) WR,  
Lahore

Subject: FORWARDING / VETTING OF INQUIRY REPORT REGARDING 4<sup>th</sup>  
EXTENSION TARBELA, WAPDA-DECISION OF CDWP HELD ON 18.11.19

I am directed to refer your office letter No. SAAS/WR/MISC.Corresp-03/256 dated 30<sup>th</sup> January 2020 and to enclose a copy of Investigation Committee's Report for the subject project duly seen/agreed by the Prime Minister for taking further necessary action at your end.

Encl: As above.

  
(Safdar Ali Malik)  
Accounts Officer (B&F)  
Cell No. 0332-5181608

C.C:-

- The DAG (CA&E) Office of Auditor General of Pakistan, Islamabad.
- DS (Water) MoWR, with reference to letter No. 2(2)/2017-HP dated 30.01.2020
- The Chief Auditor WAPDA, Lahore.
- PS to Secretary.
- APS to JS (Water)
- Inq. file

AD (AAC)

27/17/02/2020

Ordinary Diary No. 144  
Dated: 19-02-2020

Min. of Water Resources  
Diary No. 127  
Date: 18/02/2020  
@ AD SAAS  
11/04




PRIME MINISTER'S OFFICE  
ISLAMABAD

Subject: INVESTIGATION COMMITTEE'S REPORT FOR T-4 HPP

Reference. Ministry of Water Resources U.O No.2(2)/2017-HP, dated 24.02.2019, forwarding therewith Investigation Committee Report for T-4 HPP and Federal Minister for Water Resources' D.O letter of even number dated 25.02.2019, on the subject. (P-617)

2. While considering the Investigation Committee's Report for T-4 HPP, the Prime Minister has been pleased to agree with the conclusions of the Federal Minister for Water Resources.

3. Accordingly, the Investigation Committee's Report for T-4 HPP is returned in original.

  
(Muhammad Azam Khan)  
Secretary to the Prime Minister

✓  
Secretary, Water Resources Division, Islamabad.

F.NO. 2(2)/DS(EA-1)/2019 - Dated: 08-05-2019



Government Of Pakistan  
Ministry Of Water Resources

**Chief Minister**  
Federal Minister

Subject:

**INVESTIGATION COMMITTEE'S REPORT FOR T-4 HPP**

Islamabad: the 25<sup>th</sup> February, 2019

Dear Sir, Salam

I am privileged to write to you on the subject matter wherein the Investigation Committee (IC) submitted its report to your good office on 24-02-2019 with a copy marked to me for information.

2. After going through evaluation brief by the Ministry (Annex 1), I submit following as crux of the matter:-

**Inauguration:** While investigating the fundamental TOR whether the inauguration was carried out prematurely or not; it is concluded by the Committee that the inauguration of the Project was carried out having fulfilled all contractual and technical formalities, as mentioned at Para 7.03, of the report.

P-532  
C

It is clear that according to the findings of the majority Technical Members of the IC, the inauguration was made after fulfilling all the Technical and Contractual formalities successfully. This finding of the Technical Members could neither be refuted by other IC Members nor could they establish any contradictory finding except that the Project PC-1 was expired.

b. **Technical Formalities:** Para 7 of 1<sup>st</sup> Technical Report by Sub Committee submitted on 23<sup>rd</sup> Sep concludes: "The pre requisite for commissioning of Unit 17 were fulfilled according to the contract and by four inauguration". Whereas in the final IC Report of 27 Feb, 2019; out of three Technical Members, 2 members of the Committee have clearly established at Para 7.03 that the Project inauguration was made after completion of all the technical formalities.

P-532  
C

c. **Sticking of Draft Tube Gate:** The Report at para 7.13(c) states that sticking of the gate has no nexus with inauguration.

P-528  
C

d. **World Bank/IFPs:** World Bank in its Aide Memoir of June 2017 clearly directed for having the Unit ready in March/April 2018 to gain maximum generation in high flow period of 2018 and that is exactly how it was executed. IPCE in its recent visit termed the Project a success whereby they specifically mentioned that all the units of 14 project are operating at a higher efficiency level than was guaranteed during the design phase. Despite these clear findings of Technical Committee Members and IC Members, the Report contradicts it all, treating it differently.

i. ~~Best of all the conclusions of IC, the inauguration orders, program, and etc. are the guests of contract~~  
ii. ~~The Project having achieved the basic TOR of inauguration, the fact that there are some minor~~  
~~disagreements on the suspension of generation thereby, is recommended to be closed.~~

3. With this, I conclude by thanking you for your interest and extended support towards the development of water sector; being blessed of the people of Pakistan I assure you that I'll do my best to do my best to the best of our abilities and will stand up to the trust and confidence reposed by you, by working with the leader ship of the strategic portfolio of Water Resources.

Minister for Water Resources  
25/2/19

2/3



To Minister of Water Resources Report No  
2(2)/2017-HP.

Dated: 25-02-2017

Tarbela 4<sup>th</sup> Extension Hydro-Power Project

1. Pursuant to a news report published in newspapers on 05-09-2018 / regarding fault occurred in the subject project which was attributed to premature inauguration of the project, the Prime Minister's office constituted an Investigation Committee (IC) to probe into the fundamental fact as whether or not the Tarbela 4<sup>th</sup> Extension Hydropower Project (T4HP) was inaugurated before completing all the formalities.
2. The IC submitted its report to the PM office on 24-02-2019. In the said report several aspects have been examined and deliberated. The key elements of the report on which the IC has given its findings on the ToRs of the Investigation.
  - a. Defining formalities for inauguration, and the status of fulfillment of defined formalities
  - b. The decision making for inauguration of T4HP
  - c. Losses caused during execution of T4HP
  - d. Fixing responsibility

The outcomes of the above aspects as given in the IC report are given below:

(i) To examine whether the project inaugurated in time or before the completion of all formalities.

(i) Defining formalities: The IC defined the phrase 'all the formalities' comprising all legal, procedural, technical and financial formalities which were required under the Contract (RCCS), law, the P&D Manual and the Financing Agreement. Status of fulfilling the said formalities as determined by the IC is given below.

(ii) Legal Formality: With regard to its own defined formalities, the IC did not discuss any specific legal formality, hence there is no finding given by the IC on the legal formality to



Annex L  
To Ministry of Water Resources, Letter No. 262/2013  
Dated: 25-02-2014

determine whether the project was inaugurated before its fulfillment or otherwise.

- (iii) **Procedural Formality:** The IC has defined the existence of a PC-1 having valid period existed at the time of inauguration. It is stated that the project execution was started after the competent forum of the Government of Pakistan approved the PC-1. The IC considered that at the time of inauguration non-existence of a valid date duly approved in the PC-1 was a formality which can be said as not fulfilled. In this regard it is stated that the governing reference which provides the governmental guidelines on the project development/execution is the Manual for Development Projects of the Planning Development and Reform Division. This document states under its Section 4.14 (h) that as soon as the indication of increase in the project cost is visible, the executing agency should start work on revising the scheme and submit for the approval of competent authority (Annexure XIII of the Manual for Development Projects) without stopping the actual work. It further states that, however, if the increase in the cost is indicated due to delinking of the Pakistani Rupee from the Dollar, in such case there will be no need of fresh approval of the CDWP/ECNEC. With the said guideline given in the Manual for Development Projects which governs preparation and implementation of all Planning Commission projects including the PC-1, it appears that prima facie the executing agency did not enter into revision of PC-1 at the stage of inauguration as either the element of increase in cost was not the case in point at that time, or any increase in the project cost was within 15% of the total approved cost of the PC-1. The actual position in this regard came into the knowledge of the Ministry on 05.12.2013 when WAPDA submitted 1<sup>st</sup> Revised PC-1 according to which the increase in base cost was 5.2% from Rs 73,619 to Rs 77,490 million i.e. (Rs 3,880 million) whereas the limit

To Ministry of Water Resources, Hyderabad (No. 263)/2017-HP  
Annex-2 6  
dt: 25-02-2019.

increases pertain to upfront Donor fee and IDC as well as foreign exchange loss. The World Bank while jointly conducting a review mission of the Project with the International Panel of Experts has duly mentioned this achievement. It is, therefore, concluded that the requirement of having a PC-1 with a valid date of project completion - if taken as a formality - was not there, however, stalling the project operation due to non-fulfilment of a procedure could not be justified as in case the project operation was stalled due to this factor, it would have caused other financial implication like payment of delay claims to the Contractor and loss of benefit which otherwise became available due to the energy generated by T4 after its inauguration on 10-03-2018. This understanding is corroborated with the guideline of the Manual for Development Projects which does not advise to stop the project activities even if there is a need of revision of the PC-1.

- (iv) Technical Formality: According to the IC, the formalities required for successful completion of technical and contractual activities were successful completion of dry and wet testing, achieving partial removal of the downstream cofferdam, making informed decision that use of existing intake is safe while plugging the upper intake, taking cognizance of bad water quality for deciding as how and when the unit 17 of the project would be operated.
- (v) With regard to the above technical and contractual formalities, the IC at para 7.03 of its report stated that all members of the IC held the opinion that the contractual formalities were fulfilled before the Commissioning, viz. suitability of use of lower intake, partial removal of coffer dam, dry testing. With regard to wet testing two members of IC consider that wet testing was completed successfully



To Ministry of Water Resources  
#125/25/25

according to the Contract even not tested on the full load, while the IC considered it an essential component of a meaningful wet testing.

- A
- (vi) In the above finding, the finding of the two technical members concerning the successful completion of wet testing even not done on full load is based on the Contractual provision 3.32.12.1 and 3.32.12.2 of EM Contract Vol 2A as reproduced in the dissent note of one of the three technical members. Hence, the two out of the three technical members of the IC have established that the project inauguration was made after successful completion of all the technical formalities.
- (vii) The IC, while stating so, as referred above, also exhibit a contradictory stance that the advices rendered by the World Bank and the Int'l Panel of Experts (IPOE) were not accepted and followed by WAPDA, while relying upon its own inference drawn (mainly by one of the three technical members of the IC i.e. Chairman PEC which was accepted by the other three non-technical members) from the World Bank's advice which was strongly recommended by the IPOE as well as quoted in the Bank's Aide Memoire of June 2017 in which the World Bank advised on four things i.e. (i) to agree on a pragmatic timeline for commissioning of the plant such that to get the plant ready in March-April 2018, (ii) get all things ready for full generation during 2018 high flow season, (iii) the construction schedule of two contracts, Civil Works and E&M, should be updated and synchronised accordingly, and milestones should be agreed between the two contractors and the engineer, and (iv) WAPDA to approve the updated synchronized construction schedule.
- (viii) The two of the three technical members of the IC opined that the above four advices were strictly adhered to by WAPDA as



To Ministry of Water Resources No 2(2)/2017

is evident from the facts that the Unit 17 of 14 was made ready after successful completion of contractual formalities on 02-03-2018 – hence the first advice of the Bank and the IPOE of agreeing on a pragmatic timeline for commissioning of the plant such that to get the plant ready in March-April 2018 was followed and successfully completed (see Minutes of Meeting of 02-03-2018 of WAPDA, Consultants and the Contractor). The second advice relating to taking the benefit of high flow season June/July 2018 was also followed as is evident from the fact that the Unit 17 started generation from June 08, 2018 when the reservoir level increased above the safe level as declared by the Consultant as 1400 ft, therefore, the benefits accrued for next 23 days continuously under the commercial service until the reservoir level dropped to the safe level in the month of July 2018 which was otherwise advised as a high flow season by the WB and the IPOE; hence the second advice of the Bank and the IPOE of taking benefits by generating electricity in high flow season June/July 2018 was followed and successfully completed by operating the Unit 17 in June 2018. The third advice related to the construction schedule of two contracts, Civil Works and E&M, should be updated and synchronised accordingly, and milestones should be agreed between the two contractors and the engineer was also followed by having all the parties to the Contract agreeing on signing of the Revised Coordinated Construction Schedule (RCCS) according to which the commissioning dates of all the three Units was fixed as 25 Feb, 30 Apr and 30 May 2018, hence the third advice was also followed and achieved successfully. The fourth and the last advice was for WAPDA to approve the updated synchronized construction schedule, which was also followed when WAPDA Authority approved the RCCS in July 2018, only within a month of the advice rendered by the Bank. Therefore, it can be said that the said advices of the WB and the IPOE were adhered to and implemented.



(18) **Financial Formality:** The project financing is from the World Bank and from WAPDA's own sources as its equity. In this regard both the institutions had been providing finances which lead to successful completion of T4HP to a stage that it is generating electricity which in itself is an evidence that there was no issue with regard to non-fulfillment of any financial formality; hence financial formalities were all stood fulfilled. The five of the six members of the IC opined that owed to not having a valid PC-1, the financial transactions made in the project become irregular as the formality of having a valid PC-1 was not fulfilled. Whereas, the sixth member who submitted his dissent note opined that only those aspects required for commercial operation of the unit shall be considered which are covered under the contract.

(x) The other formalities enlisted by the IC are 'law', 'the P&D Manual' and the 'Financing Agreement'. All these have been discussed above and explained and substantiated.

(xi) **Water Quality:** Besides, the aspect of water quality was also deliberated by the IC as one of the aspect necessary to be kept in mind for making the decision of how and when the plant be operated. In this regard again two of the three technical members maintained that the element of water quality was taken into cognizance by all the parties to the Contract i.e. Employer, Consultant and the Contractor as recorded in Minutes of Meeting of 02-03-2013. In this regard, in first place it has been established by the two technical members of the IC that the completion of Wet Commissioning was achieved on 02-03-2013 which was the day on which Tarbela reservoir touched its dead level of 1386 ft. Although this level was higher than the level defined in the Contract i.e. 1378 ft, yet in view of silt noticed in the turbine flows, the Employer, Consultants and the Contractor agreed



To Ministry of Water Resources No. 2(2)/2017 <sup>HPD</sup> dt 20-2-18

to not to operate the Unit 17 for RTR which was a prudent decision to avoid damage to the turbine associated with the continuous operation as required under the RTR.

- (xii) On the aspect of Water Quality, the IPOE's advice was also examined by the technical members wherein the IPOEs advised in April 2017 that the Commissioning, Guarantee Testing and Operations can only commence during next year's high flow season i.e. June/July 2018. Accordingly, the RTR and Guarantee Testing operations were started during the high flow season of 2018. As far as Commissioning is concerned, the technical members have stated on the basis of examination of record that it was done when the reservoir level was above dead level and even above 1400 ft. By doing so the Unit was made ready for generation of electricity during high flow season which according to the Contract was considered as the commercial operation as rightly advised by the World Bank in its letter of June 20, 2017 addressed to the Secretary Ministry of Water & Power with copies endorsed inter alia to Chairman WAPDA. Hence the aspect of Water Quality was also kept in mind in making the decision of Commissioning which followed the inauguration.
- (xiii) On the above aspect the other four members of the IC opined that water quality was bad which was brought into the notice of the Employer but the Employer did not pay any heed to these advices and run the unit. While stating so the said members could not quantify the damage caused to the Unit of T4 due to operation of the Unit 17 and recommended to have the damage assessed during the planned shutdown of the unit. In this regard, the two of the three technical members maintained that due to bad water quality the cognisance was taken by WAPDA, Consultant and the Contractor and Accordingly the Unit was not operated as decided in their joint meeting held on 02.03.2018, therefore,



there was no damage caused to the Unit 17 during inauguration as when the Unit 17 was operated on 08-06-2018 (after 100 days of inauguration) it was operated without any trouble.

(xiv) Hence, all the technical and contractual formalities were fulfilled and the operation of the unit was not premature.

(c) TOR 2 -- To assess whether any loss to the national exchequer occurred due to the inauguration of the project before time.

(i) On this aspect the IC could not establish that any loss occurred due to inauguration of the project before time, yet it maintained under ToR-2 that the quantum of damage to the turbines associated with the inauguration due to ingress of bad water quality is required to be determined by conducting a detailed forensic inspection at the time of planned shutdown of the plant. It is not possible to determine the same at present as the units are presently put under operation. Such statement is beyond comprehension, particularly, when the majority of the technical members of the IC established, as stated above, that the Employer, Consultants and the Contractor agreed to not to operate the Unit 17 for RTR which was a prudent decision to avoid damage to the turbine associated with the continuous operation as required under the RTR.

(ii) While being unable to assess the loss/damage having nexus with inauguration, still the IC presented under ToR-2 the losses occurred while mentioning those which occurred during the 'execution' of the project. Such losses have clearly been attributed to the event of sticking of draft tube gates. The IC in this regard gave its unanimous finding in Section 7 that the trouble free resumption of the operation of Unit 17 on 08-06-2018 indicates that even after 100-day

9/67



To Ministry of Water Resources No. 2(1)/2018

discontinuation of operation of Unit 17 after the COD (02-03-2018) or the inauguration date 10-03-2018, there was no operational problems relating to operation of the plant, therefore, the COD or Inauguration did not have any nexus with the incident of gates jamming into the slit which occurred only after the Unit 17 was put on standby on 01-07-2018 due to low reservoir level (below 1400 ft).

(iii) Hence, remaining within the ToRs of the IC, the aspect of losses caused, if the project was inaugurated before time becomes irrelevant.

(iv) Never the less, as agreed by the IC unanimously, that there was no nexus of sticking of draft tube gates with the inauguration, yet the incident of sticking of draft tube gates/ caused losses/ because of restricting the generation of hydroelectric power for the period when the gates remained stuck in the mud, WAPDA has instructed the Consultant being the Engineer or the Contract Administrator to prepare and lodge a claim against the Contractor to recover the amount of loss occurred due to sticking of gates.

(c) ToR 3 To identify those who were responsible for making the decision of inauguration before completion of all formalities if a loss to the national exchequer occurred

(i) The IC under ToR-3 has stated that the date of operation of Unit 17 stands established to be fixed through a consultative process of the parties to the Contract i.e. the WAPDA, Consultants and both Civil and Electrical-Mechanical Contractors. With the above explanation, there was no fault in making the decision of inauguration as the inauguration was made after fulfilling all formalities and also duly taking cognizance of the prevailing environment of water availability and quality.



1. 2004 To Fix Responsibility and Propose Action

- (i) The IC in first instance has presented its limitation that the members of the committee comprised those who have been heading their respective departments at national level due to which they were heavily preoccupied. Despite that they have worked, day in and day out, beyond the call of duty and even on holidays all through the nights to conclude the job. With this situation, they stated their considered view that the task of fixing exact responsibility could not be ascertained as it required detailed interviews of a number of individuals across various organisations/entities and examination of a plethora of record spread over a long period of time.
- (ii) None the less, the IC held the Civil and the EIM Contractor directly responsible for the loss occurred to the national exchequer on account of non-generation of hydroelectric power. This loss has been again clarified by the IC as specific to the period when the units remained closed because of sticking of draft tube gates - an event which was caused due to puncturing of dewatering valve which triggered deposition of silt in tailrace area a consequence of inadequate non-removal of downstream cofferdam. It may be remembered that earlier the IC has unanimously established that sticking of draft tube gates has no nexus with the project completion before time.
- (iii) Besides, the IC also held the Consultant also directly responsible for preparing the payment bill under the VO-02 which enabled the Civil Contractor to get 50% payment associated with the downstream cofferdam activity restricting only to the construction of dewatering cofferdam, without assigning any obligation to removal of the cofferdam. Due to non-removal of cofferdam completely, the draft tube

Answer of

To Ministry of Water Resources (W) / 2017-18 / HP dt. 25/1/18

gates were stuck -- an event related to post inauguration, or having no nexus with before-time inauguration rather a fault which can occur to any hydropower project particularly in the Himalayan environment.

(iv) Recovery of the losses have been recommended by the IC to be effected from the Contractor and the Consultant.

4. In view of above, it becomes abundantly clear that according to the findings of the majority technical members of the IC, the inauguration was made after fulfilling all the technical and contractual formalities, successfully. This finding of the technical members could neither be refuted by the other IC members nor could they establish any contrary finding except the one that the Project PC-1 was expired.

5. Since, the inauguration of the project has been established as premature, the other ToIs becomes irrelevant as all those are contingent upon the condition that if the project inauguration was made before time.

While IC could not establish that the project inauguration was premature, it is agreed that the inauguration was made after completion of all technical and contractual formalities as explained above; it is noted that various points like nature of the project contract, the manner in which the administration made by the consultant, institutional capacity and experienced conducting audits by the A/P have been taken up as a reference to independent agency of international repute for consideration of the matter at all level.



SECRET



**INVESTIGATION REPORT**

**TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT**

By

**INVESTIGATION COMMITTEE CONSTITUTED  
BY THE PRIME MINISTER OF PAKISTAN**

**22<sup>ND</sup> FEBRUARY 2019**

SECRET



1. Introduction

1.01 Tarbela Dam has five tunnels outlet with Tunnels 1-3 provided with the hydropower generation facilities having combined capacity of 3478 MW. In order to increase the generation capacity of Tarbela Dam Project WAPDA embarked upon construction of 1410 MW (capacity) hydropower project comprising three turbines of 470 MW each to provide 3,840 GWh of energy (million units of electricity) from the irrigation releases made through the existing 4<sup>th</sup> tunnel (T4) of Tarbela Dam Project (Table A-1, Monthly Progress Report No. 60, March 2018) (Annex 1). The project was accordingly named as Tarbela 4<sup>th</sup> Extension Hydropower Project (T4EHP).

1.02 The project is being executed by:

(a) WAPDA as Employer and is an executing agency as provided in the PC-1

(b) Tarbela 4<sup>th</sup> Joint Venture (T4CJV) as Consultants comprising

(i) M/S Mott MacDonald Limited

(ii) M/S Coyne et Bellier,

*in association with*

a. M/S Mott MacDonald Pakistan

b. M/S Associated Consulting Engineers Pakistan

(c) Consultants for Monitoring and Evaluation (M&E) comprising

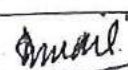
(i) SMEC International Pty. Ltd. (Australia)


a. Engineering General Consultants Pvt. Ltd. (Sub-Consultant)

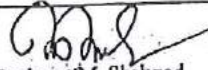
(d) M/S Power Construction Corporation of China Limited as Civil Contractor erstwhile Sinohydro (PCCC)

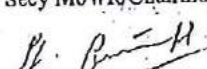
(e) M/S Voith Hydro GmbH and Company. KG and Voith Hydro Shang Hai Limited as Electrical and Mechanical (E&M) Contractor.

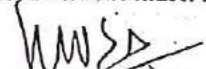
1.03 The other important and relevant entities having bearing on the project implementation are the International Panel of Experts (IPOEs) and the World Bank. The IPOEs comprising four foreigners and one of Pakistani origin, are appointed by WAPDA to

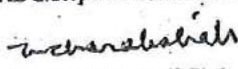
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC / fsc

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

examine and advise the Employer on the project implementation including the contract administration being undertaken by the Consultants and the Contractors. The role of IPoEs to exercise oversight over all the three Employer, Consultants and the Contractors.

1.04 The World Bank provides implementation support on advisory basis and issues No Objection Letters for procurement, contractual and financial management in accordance with the legal provisions.

1.05 In a media report<sup>1</sup> published on 4 September 2018<sup>1</sup> in The News, it was alleged that

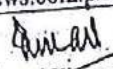
*"... The premature inauguration of the 1,410MW Tarbela Dam 4th extension hydro-power project (c) in March by the Water and Power Development Authority (Wapda) has culminated in operational losses of more than Rs25 billion over the three-month annual flood season, Wapda sources and officials at the Ministry of Water Resources said.*

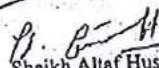
*Apparently, acting under political pressure, Wapda inaugurated the \$850 million Tarbela-IV project in March, despite warnings from the German engineering consultant, Yoith, not to operate the turbine of the fourth tunnel at Tarbela Dam while its reservoir was at the dead level.*

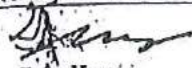
*However, the Wapda went ahead and ran the turbine for several hours during the inauguration of the project by the then prime minister, Shahid Khaqan Abbasi. As a result, mud and slurry from the practically empty reservoir filled part of the tunnel, rendering three turbines inoperable.*

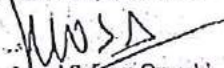
*The Wapda sources said that the draft tube connecting the turbine to the tail race channel is buried under tons of mud. All subsequent efforts by government agencies, including the Pakistan Navy, to remove the debris*

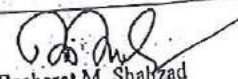
<sup>1</sup> <https://www.thenews.com.pk/print/363917-premature-tarbela-iv-launch-has-cost-rs25-bn>

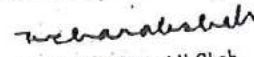
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafer Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saqem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shafiq  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



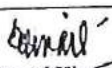
have failed and the three units of 1,410 MW capacity have been offline since July, during the annual filling of the Tarbela reservoir.

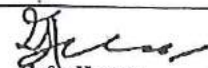
According to the sources, the power not generated resulted in lost revenue of Rs280 million a day, or Rs25.2 billion for the 90-day flood season. To date, the government is yet to order an inquiry into the Tarbela-IV debacle. However, the Ministry of Water Resources is now considering to constitute an investigation committee to ascertain responsibility, a spokesman told The News.

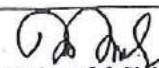
According to the sources, the Ministry of Water Resources was kept in the dark by Wapda and only reacted belatedly to media reports. They said the ministry had sought an explanation from Wapda on August 29 and found its response on Monday to be unsatisfactory. The ministry has again written to Wapda in an attempt to get to the bottom of the issue.

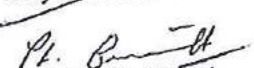
A Wapda spokesperson disputed the contention that Tarbela-IV had been prematurely inaugurated. The project was commissioned after reviewing the available hydrological data and the specifications recommended by the project consultants. Such major engineering projects are prone to technical teething problems and hydrological hiccups, which could be resolved with technical solutions, he said.

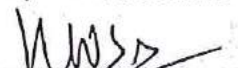
However, sources told The News that the Wapda officials had committed further errors while trying to remove the debris blocking Tarbela-IV. The mud and slurry was dumped close to the outlet gates, where it piled up. Nor did the Wapda remove the downstream coffer dam to evacuate the slurry, the sources said.

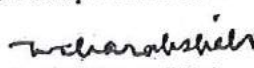
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FSC

  
Engr Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

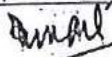
INVESTIGATION REPORT  
TARDELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

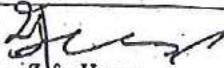
The inlet of Tunnel IV has two openings. The deeper one is meant to flush silt through the tunnel when electricity is not being generated. The other opening is located higher to ensure clean water passes through the power generation turbines.

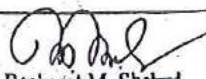
Since the Tarbela Dam reservoir was at the dead storage level in March, the only little water available for use during the inauguration ceremony was located in the flushing inlet and full of silt. "The result is before us now -- a daily loss of Rs280 million," the source said.

Some 110,000 cusecs of water is required for the full utilisation of the 14 older power generation units of Tarbela Dam, which have a maximum capacity of 3,300MW. For Tarbela-IV, a further 45,000 cusecs is required during the three flood months to generate 1,410MW. Since all three new units are non-functional, that water is going down the spillway without generating any power. The sources said that the scale of the repair work on Tarbela-IV was so great that the entire current flood season has been lost. Wapda would need to construct a temporary downstream coffer dam and then drain the area between the draft tube and coffer dam so that cranes and earth moving equipment could remove tons of debris and reach the embedded draft tubes. If the draft tubes are found damaged, as is apprehended, further costs would be incurred, the sources said.


By adopting the best engineering practices and undertaking heroic efforts, Wapda engineers, consultants and contractors managed to clear the gate of Unit 16 by Tuesday evening. Ongoing work on the other gates would likely take another 48 to 72 hours. This would lead to commencement of power generation from Tarbela-IV." Date

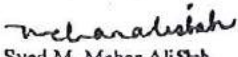
  
Shameel Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shaukat  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussein  
Rep of NESPAK/Member IC/TSC

  
Engr. Awed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



1.06 During construction and testing phase of the project, one dewatering valve of Unit 17 was punctured on 5<sup>th</sup> July 2018 which was repaired temporarily by the contractor on the same day. Subsequently on 8<sup>th</sup> & 9<sup>th</sup> July 2018 two dewatering valves of Units 16 were punctured due to which the testing was suspended and generation of electricity was stopped. Both the units were standby when the incident of puncturing occurred. For inspection and rectification of the fault the gates of the draft tube of Units 17 and 16 were lowered to drain the tunnel. The lowered gates of draft tubes of both the units were got stuck in the mud and lifted on September 07, 2018 (Unit 16) and September 12, 2018 (Unit 17).

## 2. Constitution of Investigation Committee (IC)

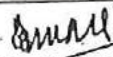
18 Aug 2018  
P.T.

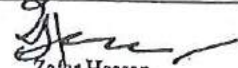
2.01 The Prime Minister's office vide its letter No. 3493/M/SPM/18 dated 5<sup>th</sup> & 6<sup>th</sup> September, 2018 conveyed that the Prime Minister of Pakistan has been pleased to approve the constitution of an Investigation Committee (IC) to inquire into the reported premature inauguration of the 1410 MW Tarbela Dam 4<sup>th</sup> Extension Hydro-Power Project in March, 2018. The composition of the IC is as below:

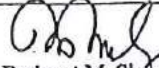
- |                                 |                    |
|---------------------------------|--------------------|
| a. Secretary MoWR,              | (Chairman)         |
| b. Secretary MoPDR              | (Member)           |
| c. Addl. DG FIA                 | (Member)           |
| d. One Representative of PEC    | (Member)           |
| e. One Representative of NESPAK | (Member)           |
| f. Joint Secretary MoWR         | (Member/Secretary) |

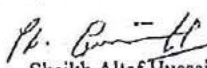
2.02 The Committee was empowered to co-opt other members. The ToRs of the Committee as conveyed by the Prime Minister's office are as follows:

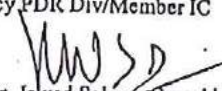
- a. To examine whether the project was inaugurated in time or before the completion of all formalities


  
Shamail Ahmad Khawaja,  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shauzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

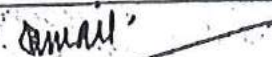
- b. ~~To assess whether any loss to the national exchequer occurred due to the inauguration of the project before time;~~
- c. ~~To identify those who were responsible for making the decision of inauguration before completion of all formalities; if a loss to the national exchequer occurred; and,~~
- d. ~~To fix responsibilities and propose action.~~

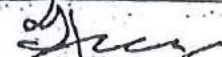
2.03 The IC was accordingly notified, vide MoWR Notification bearing No. 2(2)/2017-HP, dated 6<sup>th</sup> September, 2018, and nominations were sought from the Pakistan Engineering Council (PEC) and NESPAK.


2.04 PEC nominated Engr. Jawed Saleem Qureshi, Chairman PEC and NESPAK nominated Engr. Sheikh Altaf Hussain, Adviser NESPAK as Members of the IC. Besides, the IC co-opted Mirza Asif Baig, former Pakistan Commissioner for Indus Waters (PICW), presently working as Adviser NESPAK on 6<sup>th</sup> September 2018. Subsequently, Mr. Naseer Ahmad Gilani Senior Chief (Technical) Planning, Development and Reform Division was also co-opted on 28-09-2018 by the IC as proposed by the Secretary PD&R Division because of his institutional memory and technical understanding of the matter. The IC held its first meeting on 6<sup>th</sup> September 2018 and inter-alia decided as follows:

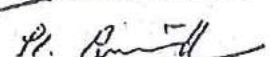
a. Next meeting of the Committee will be held on 07-09-2018 in the MoWR.

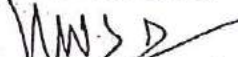
~~WAPDA is to submit a detailed and comprehensive report latest by 07-09-2018 on all the aspects raised in the ToRs of the Committee including, but not limited to, all the relevant documents, data, facts, photographs, maps, drawings, etc. duly signed by at least the Project Director of TAHPP.~~

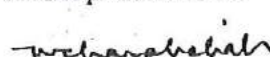
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

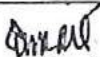
  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



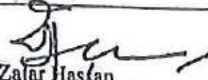
SECRET

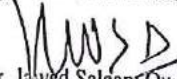
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

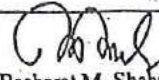
- 2.05 The IC held its second meeting, accordingly, on 7<sup>th</sup> September 2018, wherein all the members of IC including the nominees of NESPAK and PEC participated. Besides, co-opted member Mirza Asif Baig also attended the meeting.
- 2.06 WAPDA's Project Director for T4EHP, Mr. Arfan Miana made a presentation (Annex 2) and furnished a report (Annex 3) in response to the decisions made in the first meeting of the IC. The Members of the IC confronted him with the questions.
- 2.07 Following decisions were taken in the second meeting of the IC:
- a. The Committee scheduled to conduct inspection of the Project and hold its third meeting on 08-09-2018 at the site of T4HPP.
  - b. Prepare questionnaire for WAPDA's Chairman, Members, Chief Engineer (O&M) T4, Chief Engineer/Project Director T4HP, the Consultants and the Contractors.
  - c. On the request of Chairman PEC, the site inspection was scheduled in the morning to depart from Islamabad at 9:30 a.m. while allowing the Secretary MoPDR to attend the Chinese delegation visiting Pakistan on CPEC Project and join the IC later in the day.
  - d. Since the matter involved the whole array of technical issues, a Technical Sub-Committee (TSC) was constituted to ascertain all technical details for which it was decided that the IC Secretariat will notify it.

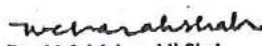
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hasnain  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



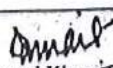
**SECRET**

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

2.08 The IC conducted total fifteen meetings as per the following schedule:

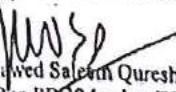
Meeting	Date	Venue
1 <sup>st</sup>	06-09-2018	Islamabad
2 <sup>nd</sup>	07-09-2018	Islamabad
3 <sup>rd</sup>	08-09-2018	Tarbela
4 <sup>th</sup>	13-09-2018	Islamabad
5 <sup>th</sup>	26-09-2018	Islamabad
6 <sup>th</sup>	27-09-2018	Islamabad
7 <sup>th</sup>	28-09-2018	Islamabad
8 <sup>th</sup>	29-09-2018	Lahore
9 <sup>th</sup>	04-10-2018	Islamabad
10 <sup>th</sup>	07-10-2018	Islamabad
11 <sup>th</sup>	08-10-2018	Islamabad
12 <sup>th</sup>	12-10-2018	Islamabad
13 <sup>th</sup>	13-10-2018	Lahore
14 <sup>th</sup>	04-01-2019	Islamabad
15 <sup>th</sup>	19-02-2019	Islamabad

2.09 Besides above, due to indisposition of one IC Member Sheikh Altaf Hussain (SAH) and his inability to travel from Lahore to Islamabad and join the proceedings of IC regarding final drafting and compilation of the IC Report, the remaining five members

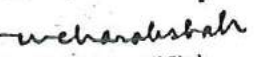
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep BEC/Member TSC/C

  
Basharat M. Shanzad  
ADG/Rep FIA/Member IC

  
Syed M. Mchar Ali Shah  
JS MoWR/Member/Secy IC



of IC continued deliberations, consultation and onerous task of coming up with a consensus report from 18<sup>th</sup> to 21<sup>st</sup> February, 2019 often from evening till 2:00 am next day and until 6:00 am on to occasions.

### 3. Constitution of Technical Sub-Committee (TSC)

3.01 The TSC was accordingly notified as under, vide IC Secretariat's Notification bearing No. 2(2)/2017-HP, dated 9<sup>th</sup> September, 2018.

- 4
- a. Mirza Asif Baig, Adviser NESPAK (Convener)
  - b. Mr. Javed Saleem Qureshi, Chairman PEC (Member)
  - c. Mr. Sheikh Altaf Hussain, Adviser NESPAK (Member)
  - d. Syed M. Mehar Ali Shah, Joint Secretary MoWR (Member)

7

3.02 The TSC was also empowered to co-opt any member for its assistance. The TSC on the recommendation of the Chairman PEC co-opted following two members:

- 3
- a. Meer Abdul Qayyum Babar Representative of PEC
  - b. Mr. Gouhar Sharif Representative of PEC
  - c. Mr. Naseer Ahmed Gillani, Senior Chief Water PD&R

3.03 The ToRs of the TSC are as follows:

- a. Examine all the technical details including, but not limited to, documents, reports, test sheets, data logs, certifications, protocols, contract agreements relating to T4EHP's non-operation after inauguration.
- b. Ascertain the negligence regarding the decision to operate the first unit of the project in the absence of raised intake.
- c. Ascertain what were the reservoir levels, inflows and forecasted flows since January 2018 till the date of constitution IC, and whether the operation of T4 was done according to the contract and SOPs in view of the inflows, outflows, reservoir levels and sediment concentrations.

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Zafar Hassan  
Secy PDR Div/Member IC

Engr Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



- Control room of Energy*
- d. Ascertain whether the quality assurance was undertaken of all the project components before starting energy generation.
  - e. Ascertain whether the project was in a position to be inaugurated even at the time when the IC was constituted in view of status of completion of various parts of the project.
  - f. Compare the actual generation of T4 with the projections shown by Wapda to the CCoE held in May 2018 and ascertain merits of WAPDA's response on the matter.
  - g. Evaluate whether the contract administration was undertaken diligently for taking decision of making the T4 operational in Feb 2018 and when it was inaugurated.
  - h. Evaluate the facts concerning suspension of power generation from units 16 and 17 of T4EHP.
  - i. Evaluate the energy loss due to suspension of energy generation (financial loss) and the damage occurred to the facility as well as future energy loss due to continued suspension of T4's operation.
  - j. Identify those responsible for this happening and of premature inauguration of T4EHP.
  - k. Determine whether such similar incident of silt intrusion was experienced in T3 project?
  - l. Any other issue having bearing, even remotely, directly or indirectly on and relevance to the above subject matter /ToRs.

3.04 The TSC convened twenty meetings from 09-09-2018 to 01-10-2018 and finally submitted its report on 06-10-2018 to the Secretary IC.

3.05 Pursuant to submission of the TSC's first report on 26-09-2018, the TSC's report was reviewed by the IC during four exhaustive sessions held on 26, 27, 28 and 29 September, 2018.

3.06 The IC during the review found the report deficient, inadequate, superfluous, with no findings on the ToRs, and with the consensus and with a firm sense of conviction,

*Shamail*  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

*Sheikh Altaf Hussain*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

*Zafar Hassan*  
Zafar Hassan  
Secy PDR Div/Member IC

*Engr. Javed Saleem Qureshi*  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

*Basharat M. Shahzad*  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

*Syed M. Mehar Ali Shah*  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

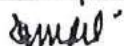


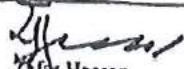
SECRET


INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

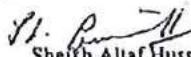
observed that the four consecutive sessions of the IC had been held only to consider the TSC report, spanning over long marathon sessions, given the gross inadequacies, serious gaps and omissions to take into account vital and even basic documents, non-recording of important witnesses and non-conducting due cross examination on several queries made from the witnesses who appeared before the TSC, not taking all TSC members on board by the Convener on certain points as reflected in the minutes, drawing of inferences/findings/conclusions without taking input of the all TSC members, and demonstration of lack of ownership by the TSC members on many issues/findings presented to the IC by the Convener TSC, amongst others, as spelled out in detail in the minutes of IC 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> meeting. It will be a sheer waste of time to further grope into the dark and further review the remaining part of the briefing which, at times, does not even conform to the written TSC's report submitted to the IC. The IC further observed that there were no recommendations made in the TSC report after the conclusions drawn. There were no specific findings made w.r.t. the ToRs while providing the same in a generic manner with no referencing to make the findings self-contained. The gaps found in the report included:

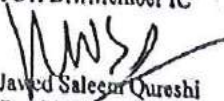
- a. On a number of queries made by the Members, the Convener responded by giving his personal knowledge/information/view on which he was reminded by the IC that the Convener is required to present the report of the TSC and opinions of the TSC members and not his personal views or import his personal knowledge to substantiate TSC findings/report.
- b. Non adherence to the detailed SoPs/ToRs/Guidelines issued vide IC Sectt. letter No. 1(1)/PS/Secy(WR)/2018, dated 09-09-2018, whereby amongst others, it was unequivocally directed that all documents needed/relied upon by witness/demanded by the sub-committee, shall be exhibited/attached, as such, nothing could be left to any individual's personal viewpoint/knowledge.
- c. The Convener was relying upon evidence, when questioned by the IC members, which was neither part of the report, nor annexed therewith.
- d. Lack of mention of the background of the fixing the date of inauguration and by whom the date was fixed?

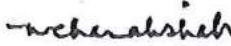
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEQ/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

Dissent Note (DN) attached



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

e. In response to specific queries made by Co-opted Member, Mr. Naseer Gillani, the Convener and all TSC members expressed their ignorance about the very existence of any such incident reports let alone as to whether or not the incidents of 1997, 2000 and 2015 were taken into account by the TSC while preparing its report when sediment induced shutdown of existing units of Tarbela happened resulting into damages. They further conceded that these incidents have come to their knowledge now and they shall take them into account.

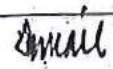
f. With regard to the World Bank's response of 13-09-2018 on MoWR's letter of 09-09-2018 not covered in the TSC report, the Convener gave his personal views, on which the IC confronted him that personal view of Convener TSC was not warranted particularly when WAPDA did not respond to the Bank's email wherein the justification of CO-10 was asked in November 2017, among others. Other contents of WB letter were also not attended to by the TSC. The Convener conceded that he and the TSC did not take into account the WB letter of 13-09-2018 and IPoE's reports as referred to in the said WB's letter while preparing their report and if given time, they will now consider the same.

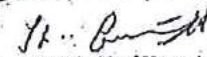
g. No deliberations were made in the TSC Report as to whether the PC-1 of the project was still valid or not, on the date of inauguration. Was this formality of having an approval/valid project document fulfilled?

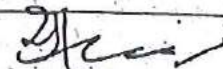
h. Whether or not, in lieu of 51 MUSD paid extra, the project acceleration was achieved? This was not deliberated as to who was the competent authority to approve the acceleration programme?

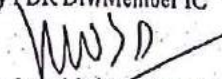
i. There is an audit para in which recovery of the amount paid for acceleration has been raised; that needs to be taken into account in the TSC's report. In this regard the audit observed that "In 4<sup>th</sup> extension Power Project Tarbela, a variation order No.02 was issued at the initial stage of the contract for acceleration of the project activities to obtain the early benefits of generation in the flood season of 2017. An amount of Rs. 2,033.76 million and US\$ 6.24 million was paid to the contractor on account of this VO up to milestone No.12 despite delays of 61 days to 166 days which was unjustified. Non adherence to the contract clause resulted in unjustified payment of Rs. 2,033.76 million (US\$ 6.29 million) to the contractor without achieving of milestone during the financial year 2016-17. The matter was taken up with the management in January, 2017. It was replied that the para would be referred to Engineer for proper reply. No further progress was intimated. Audit recommends that the management needs to investigate the matter for fixing responsibility regarding payment made to the contractor without achieving the milestone."


Pong  
51  
may 2017

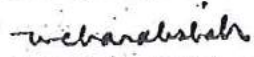
  
Shamaal Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

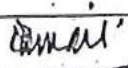
  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

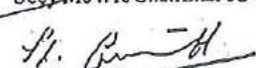


SECRET


INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

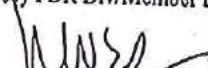
- J. Why and how repeated alarms/warnings/advice not to operate the plant in February/March 2018 being tendered by the IPoEs and the World Bank were disregarded by WAPDA and under what circumstances was it operated?
- k. Findings given against different TORs remain unsubstantiated and not supported by the requisite materials/evidence for instance, at Para 6.77 of the TSC report, no IRSA data was indicated/reproduced/annexed/discussed but an overriding finding was given on TOR(f) at Page 41 of 47 of the Report.
- l. In response to a query made w.r.t: the authenticity of a Table 4 (P.25-3) exhibited in the TSC Report, the Convenor first made effort to find the source of the author/provider but afterwards conceded that the Table had been prepared by the TSC itself i.e. Table-4 at (P25-3), though not so indicated in the Report. On this, when observed by the IC as to why was it done without referring to the primary sources of table's contents, despite specifically desired in the Guidelines/SOPs conveyed in writing and verbally reiterated time and again to the TSC to substantiate every finding/argument with original/primary source. No reliance, therefore, could be placed on such referrals, being inadmissible and in total disregard of the SOPs spelled out for the TSC.
- m. List of all related witnesses and relevant documents were required to be urgently prepared as per the guidelines, however, the same had not been done which had led to the exclusion of ex-PD T4HPP Mr Sohail Khan as witness, as was decided by the IC in its 2<sup>nd</sup> meeting, since majority of construction work, after start of the project, was undertaken in his tenure until Jan 2018, i.e. joining month of the current PD, as well as exclusion of the World Bank letter dated 13.09.2018 and IPoE Reports. The list of the required interviewees was reiterated to be prepared to ensure that no relevant person is missed from the interviews.
- n. WAPDA's request (Annex A) to IRSA for maintaining the reservoir water level at 1400 ft for completing the testing of T4 and the response furnished by IRSA (Annex B) were also not examined by the TSC which were also needed to be considered by the TSC.
- n. Response of T4CJV to the questionnaire of TSC was also not done which needed to be obtained by the TSC.

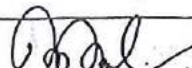
  
Shamail Ahmad Khanwaja  
Secy MoWR/Chairman IC

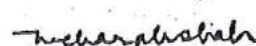
  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

(DN attached)

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr Jawed Saleem Qureshi  
Chairman/Rep BEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

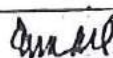
  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

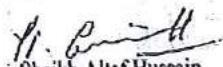


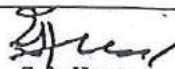
SECRET

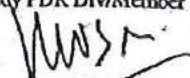
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

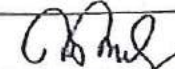
- o. Relevant references are missing in the TSC's Report being presented by the Convener.
- p. The recent reference of WAPDA asking for restructuring of loan, was needed to be examined to evaluate its bearing, if any, on the investigation.
- q. In response to the query of the Senior Chief (Technical) PD&R Division, as to whether or not the reports of monitoring consultants were considered by the TSC, if not, the same may be considered by the TSC, the Convener and all members of TSC expressed their ignorance of even on the very existence of the appointment of the Monitoring Consultant in the T4 Project. The TSC was advised by the IC to incorporate such an important witness and his role, in the report.
- r. All core issues were found to be substantiated with the verifiable documentary evidence as per the SoP/guidelines.
- s. FIA may analyse the relevant documents by conducting forensic analysis and certify the genuineness of the documents being provided by WAPDA on demand of TSC.
- t. The IC directed that if response was not received from the T4CJV despite all efforts made at the level of Chairman WAPDA, the matter needed to be reported to the IC.
- u. Water Wing to provide all the relevant documents to the TSC/IC, having any bearing on the investigation, for the purpose of comprehensive investigation.
- v. The preferred course of ensuring 100% Quality Assurance of the Wet Testing at the full load or at the marginal loads was to be addressed. Status of successful completion of 'Pre-Commissioning' (Dry Testing) and 'Commissioning' (Wet Testing) was not clearly defined.

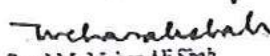
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC /TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saieem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shauzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehtar Ali Shah  
JS MoWR/Member Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

- w. Is fixing of 25 February 2018 as Commissioning date of Unit 17 a political or a purely technical decision?
- x. The sanctity and due diligence of firming up of 25 February 2018 date for the operation of Unit 17, and scheduling wet testing in the lean period, when it was absolutely confirmed that the reservoir would be likely to be at dead level and carrying out Wet Testing not at the full load but up to 65% of load.
- y. What prompted fixing the date of commissioning of Unit 17 in the month when the reservoir was believed to be at the dead level and it will not precede Wet Testing at full load, whereas the World Bank's letter of 13-09-2018 eluded to scheduling of the same as reproduced below:

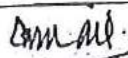
*"... commissioning, guarantee testing and operations can only commence during next year's high flow season, i.e. June/July 2018"*

- z. World Bank's query to WAPDA in its email of 10-08-2017 as reproduced below, was also not addressed in the report:

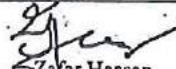
*"The main question that is to be answered is what is the benefit of bringing one unit online in February 2017 vs the cost that would be incurred?"*

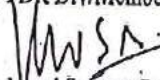
- aa. World Bank's Aide Memoire dated June 21, 2017 where the Bank gave following advice in paragraph 3.4 of the Aide Memoire, was also not addressed in the report:

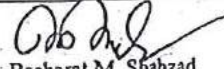
*"The mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPOE) without any benefits as*

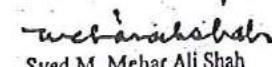
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

there is no water available during that period for incremental generation from T4HP – in fact the water to operate all units simultaneously would become available in July 2018 for incremental generation from T4HP."

bb. The reasons for stoppage of Unit 17 on 3<sup>rd</sup> and 5<sup>th</sup> May, 2018 was also not explained which could not be operated as agreed by the Employer, Consultants and the EM Contractor in their meeting of 02-03-2018.

cc. The aspect of use of lower intake was also not addressed.

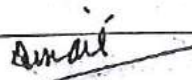
dd. When it was decided to defer civil works related to Tunnel No. 3 & 4 completion date shifted to 2019/20 from August 2018, as an Owner, did WAPDA serve a negative change order to the Civil Contractor?

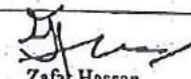
ee. The aspect relating to payment of signing Change Order 10 of USD 5.7 million with EM Contractor M/S Voith on July 31, 2017 on which World Bank did not give NOL; status of payment under the said CO-10; if payments made, under what authority in the absence of NOL from the Bank; justification of increased cost.

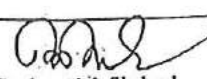
ff. Past evidences of effect of sedimentation on operation of Tarbela Power Station in 1997 and 2000.

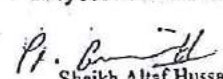
gg. Aspect related to complete non-removal of downstream coffer dam.

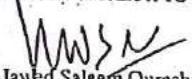
3.07 It was further noted that the said report also surpassed the dissent note of the two members of the TSC. The IC, therefore, found the report of the TSC not worthy of consideration.

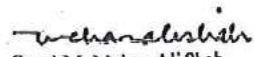
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

Agreement  
MoWR 13.18

Ve  
CO-10  
Bang?



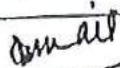
## 4. The TSC Report

- 4.01 The TSC accordingly reassembled and attempted a fresh report after convening series of sessions and submitted its report to the IC on 04.10.2018. The TSC report is attached as Annex 4 and the conclusions drawn in the said TSC report are in the ensuing section.

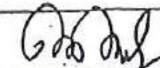
## 5. Conclusions and Findings of TSC


- 5.01 Ref para 4.63 of TSC's report: *whereas* during the month of March the water quality remains poor – as was observed in 1997 – due to which Units 11-14 were shut down because of excessive water leakage observed from the turbine shaft seals of Unit 13 & 14 and the cooling water system of Units 13 & 14 got badly choked thus forcing shutdown of the said Units.
- 5.02 Ref para 4.20 (i) & (iii) of TSC's report: *whereas* the World Bank and the IPOE were pointing out that the water would not be available for running the unit and thus no benefit of bringing one unit on line in February 2018.
- 5.03 Ref para 4.23 – 4.42 of TSC's report: *whereas* the EM Contractor and T4 CJV (Consultants) pointed out towards the bad quality of water and the EM Contractor provided evidence of bad quality water as damaging of seals, wearing rings, choking of cooling water system.
- 5.04 The commissioning date of Unit 17 of T4 HPP should have been fixed in June/July vis. high flow season of 2018 instead of 25 February 2018, to avoid low reservoir level which causes movement of sediment into the turbines.
- 5.05 Ref para 4.61 – 4.67 of TSC's report: Incomplete removal of downstream cofferdam caused sticking of draft tube gates in mud as attributed by WAPDA itself.
- 5.06 Ref para 4.56 of TSC's report: The IPOE conveyed no objection to initial operation of the T4 powerhouse with the lower intake and the upper intake plugged with the properly designed temporary bulkhead capable of resisting transient pressures.
- 5.07 Ref para 4.54 of TSC's report: IPOE recommended that the bottom intakes of T4 and T3 be closed within the current construction period, namely June 2020 subject to determining the feasibility of irrigation releases at 421m (or close to this figure).


- 5.08 [The three members of TSC vis. MAB, SAH and MAQB held divergent view on water quality and fulfilment of formalities to operate Unit 17 which is given below:


  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawad Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

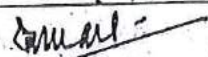



SECRET

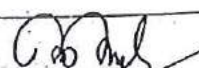
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

602


- (i) In view of determinations by following divergent views expressed in Paras 4.59 and 4.60 of TSC's report, regarding water quality, we hold the view that instead of vague terms the quality of water should have been assessed on the basis of contractual provisions which are given in the Contract in terms of total annual load passing T4 for the condition that the sediment delta has not reached the dam. The effect of sediments on tunnel, penstocks and turbine parts depends upon the total sediment passing the tunnel and its gradation. The effect does not depend upon high concentration sediments passing the tunnel in short duration pulses of less than or about one hour. As Unit 17 remained closed for long duration (about 100 days) during the current high flow season, due to low reservoir levels, it is assessed that the total sediment load that passed through T4 did not exceed the amount of load specified in the Contract, hence water quality condition specified in the contract was not violated.
- (ii) As per discussion given in Paras 4.38 to 4.42 of TSC's report, the breakage of seals of TU Shaft Seal Water Pump (mechanical seal) was not damaged due to poor water quality but because of its misalignment/ fitting problems and/or because of poor material of the seal. The problems of cooling water systems were usual O&M issues and after cleaning of strainers and hydro-cyclones were done the system performed without any problem.
- (iii) As per discussion in Para 4.59 (j) of TSC's report, the reduction in discharge of the pump was due to mixing of sediments with bushes and wood pieces in the strainer and hydro-cyclones of the cooling water system when the water level approaches minimum operating level of the reservoir. These are maintenance issues which are frequently encountered on hydropower stations.
- (iv) In view of the above, water quality cannot be taken as the determining factor for short duration operations of the unit (Unit 17) of T4HPP, though it would be an important factor in case the operations are for sustained durations. It was


  
Shemajil Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehr Ali Shah  
JS MoWR/Member/Secy IC

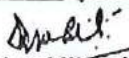


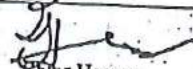
SECRET

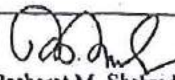
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

decided in the meeting of 02 March 2018 that Reliability Test Run (RTR) would be implemented only with favourable reservoir level conditions i.e. when the reservoir level would be 426.7 m (1400 ft) or above. Thus, necessary care was exercised by the decision makers in meeting of 02 March, 2018.

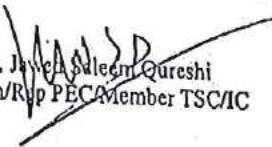
- (v) Ref para 4.73 of TSC's report, it is clear that IPOE does not have any objection on the initial operation of the existing lower intake of T4.
- (vi) Ref paras 4.68 of TSC's report, it is clear that downstream coffer dam was demolished partially, which was an obstacle in the flow of water flowing through draft tubes. This obstruction was responsible for increase in tail water level which would decrease the head over the Turbine. As the decrease in head did not result in lowering of the head beyond the lower limit of the head specified in the contract, it is clear that contractual provisions defining key parameters of turbines were not violated by partial removal of coffer dam. Hence, this aspect also cannot be considered as a pre-requisite of defining Commissioning of Unit 17.
- (vii) Ref para 4.69 of TSC's report: Notwithstanding above, MAB, SAH and MAQB agree with the fact that sticking of draft tube gates is associated with the complete non-removal of downstream cofferdam and that sticking of draft tube gates in the mud has no connection with operation of the unit in the period 27 February to 10 March 2018 or the event of inauguration and the loss caused by non-operation of the plant due to sticking of gates in September 2018 is not attributable to the operation of the plant from 27 February to 10 March 2018.
- (viii) Ref paras 6.29 to 6.35 of TSC's earlier report of September 2018, it has been found that pre-commissioning tests (dry testing) and Commissioning tests (wet testing) were completed on 02 February 2018. Hence, all formalities required to be fulfilled were fulfilled on 02 February 2018 for declaring the Unit 17 fit for 'Commercial Operation'.

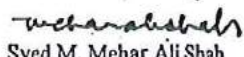
  
Shamail Ahmad Khanwaja  
Secy MoWR/Chairman IC

  
Zahir Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PECA/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

(ix) Ref paras 6.39 & 6.70 of TSC's earlier report of September 2018, the operation of Unit 17 from 02 March to 10 March 2018 was done in a prudent manner to protect the Unit from any possible damage;

(x) Hence, we conclude that the operation of unit 17 for inauguration on 10 March 2018 was not premature.]

5.09 Findings of TSC on ToR (a):

(i) In view of ensuing facts, TSC gave its findings while stating that TSC was of the considered opinion that the Commissioning & Inauguration of the Plant was premature.

(ii) The formalities to start operation of the unit comprise:

(a) Availability of operational environment comprising availability of good quality water (free of hazardous amount of sediment and wood/bushes/roots) in required quantity

(b) Suitability of existing intake vs. raised intake

(c) Removal of downstream cofferdam

(d) Pre-commissioning and commissioning

(iii) The status of fulfilment of the above formalities is as below:

(a) Water quality: Refer following paras;

- History / Lesson Learnt from past – paras 4.63, 4.81
- IPoE reports – para 4.20 e (iii), 4.56
- World Bank advices – para 4.20 e (i) to (ii), 4.3(ii)
- Water level – para 4.3(a)
- T4CJV letter 27-02-2018 – para 4.05 and 4.45
- T4CJV letter 27-03-2018 – para 4.53

❖ The above references provide ample evidence that quality of water during the months of February and March was of such quality which carried sediments and wood/bushes/roots which frequently cause choking of cooling water system leading to shutdown of units. Hence the formality for having free of hazardous

Shamail Ahmed Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Javed Waqar Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



amount of sediment and wood/bushes/roots establishes was not fulfilled that formality of having putting the turbines.

❖ Existence of low reservoir level in February either at or in the vicinity of dead level coupled with the sediment build-up in front of the intake (as reported by the IPOE under para 4.56) because of no release of water from T4 during last four years of construction period leaves no doubt that the water quality was bad.

❖ In spite of the history, available data and reports of 1997, WAPDA did not learn from mistakes and it went ahead with the commissioning of the plant in adverse conditions of silty / muddy water and low/ dead reservoir level.

❖ Independent panel of Experts (IPOE) advised in their Apr-2017 Report, "..... Commissioning, Guarantee Testing and Operations can only commence during next year's high flow season i.e. June/July 2018".

❖ World Bank advised (Paragraph 3.4); "The mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPOE) without any economic benefit as there is no water available during that period for incremental generation from T4HP - in fact, the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4HP". Ref: World Bank Letter dt 13-Sept-18

❖ Quite true to World Bank, IPOE and Consultant's advices, it was observed that reservoir level remained below 1400ft from 25<sup>th</sup> February to 4<sup>th</sup> June 2018. Onwards it was above 1400ft for smooth and sustained operation till 2<sup>nd</sup> July 2018. It would have been prudent to carry out wet commissioning in June - July period, as advised, for uninterrupted sustained operation without giving any acceleration to contractors.

❖ Wet testing of unit 17 was started on 20<sup>th</sup> February and completed on 1<sup>st</sup> March 2018 on short runs of turbine mostly ranging from 00:03 minutes to 00:45 minutes on silty and muddy water flowing through it. Turbine remained out of operation from 3<sup>rd</sup> March to 7<sup>th</sup> March 2018 and was in operation on 8<sup>th</sup> March for 0:02 & 0:35 minutes and on 9<sup>th</sup> March for 0:46 minutes.

❖ On the day of Inauguration, the turbine was synchronized only for 3 minutes and remained shut till 7<sup>th</sup> June 2018. If the whole operation from 20<sup>th</sup> February till 10<sup>th</sup> March was not forced, then why was the turbine remained shut till 6<sup>th</sup> June 2018.

❖ The unit was supposed to be in operation for RTR and generating electricity after COD but because of the water at dead level, sustained operation could not take place. Hence the hurry to declare COD on 2<sup>nd</sup> March 2018 gives clear

*Detail*  
*WB Ctr*

*Shamail Ahmad Khanwaja*  
Shamail Ahmad Khanwaja  
Secy MoWR/Chairman IC

*Zafar Hassan*  
Zafar Hassan  
Secy PDR Div/Member IC

*Basharat M. Shahzad*  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

*Sheikh Altaf Hussain*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC /isc

*Engr. Javed Saleem Qureshi*  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEG/Member TSC/IC

*Syed M. Mehar Ali Shah*  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

he  
nd  
em  
ous

in



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

understanding that WAPDA was targeting 10<sup>th</sup> March inauguration by all means as the plant remained out of operation after synchronizing for just 3 minutes from 10<sup>th</sup> March to 7<sup>th</sup> June 2018.

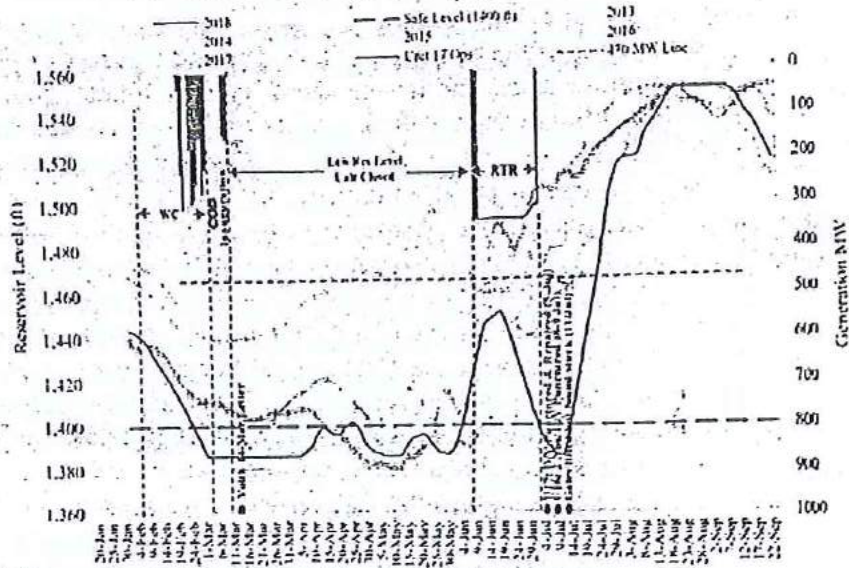


Chart: Tarbela reservoir levels, Unit 17 operation and relevant events during Feb-Sep 2018

TSC is clear that WAPDA's decision to go for the Commissioning/ Inauguration of the plant was in utter disregard of significant concerns on the project. TSC while finalizing the report and conclusions gave due consideration to interviews and documents provided by the stakeholders, specifically the following aspects to reach to the decision;

iii b. Suitability of raised vs existing intake: Refer following paras;

Refer para 4.73: vis. IPOE dt: 30-06-2017; IPOE on confirmation of T4CJV to WAPDA that both the concrete lining of the shaft as well as the bulkhead have been designed to withstand the additional 10 m pressure due to load rejection, IPOE has no objection to initial operation of the T4 powerhouse with the lower intake and the upper intake plugged with the properly designed temporary bulkhead ...

iii c. Removal of downstream cofferdam: Refer paras 4.61 to 4.67 and 4.69, it stands established that partial removal of cofferdam ceased sediment transport from the tailrace area which eventually caused sticking of draft tube gates. Before start of the Unit 17, coffer dam should have been completely removed.

*Shamail*  
Shamail Ahmed Khawaja  
Secy MoWR/Chairman IC

*Zafar*  
Zafar Hassan  
Secy PDR Div/Member IC

*Basharat*  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

*Sheikh*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

*Javed*  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

*Mehar*  
Syed M. Mehar Ali Sheh  
IS MoWR/Member/Secy IC



RT  
CT  
AS  
M

- (iii) d. Pre-commissioning and commissioning: Refer paras 4.20 (a) to (d) and up to (j) the pre-commissioning and commissioning was completed successfully to the extent of dry and wet tests however disregarding the other formalities/pre-requisites mentioned at "a", "b" and "c".

MAB, SAH and MAQB hold the opinion in view of their evaluations given in the preceding paragraphs under Section 4 of this report, that it is determined that project was inaugurated after completion of all formalities.

- (1) To assess whether any loss to the national exchequer occurred due to the inauguration of the project before time.

(a) Finding of TSC on ToR (b)?

(i) Due to sticking of draft tube gates, electricity generation from 14<sup>th</sup> July to 8<sup>th</sup> September, 2018 remained suspended from Unit 17. According to Minimum Water Scenario of IRSA for the year 2018, WAPDA estimated that T4EHP would generate 387 MW to 944 MW during May to September period with average value of 673 MW, which means energy of 826 million units. Actual units generated in this period by T4HPP 210 million units; the difference being 616 million units is the loss to national exchequer.

(ii) If advices of WB and IPOE have been considered and project was commissioned in June-July period, then most of the VOs for acceleration program would have not been required.

(iii) Besides inauguration; refer to para 4.84 to 4.94, the financial basis of payment of US\$ 51 million for acceleration of project completion from March 2018 to June 2017 predicated on the potential to realize additional revenue in the 2017 high-flow season of approximately US\$ 300 million have been fully lost because no single unit of T4HPP could generate electricity during the high flow season of 2017.

MAB, SAH and MAQB hold the opinion that no loss to the national exchequer occurred because of operation of the Unit 17 for inauguration.

**5.10** Recommendations of TSC: Extra Cost incurred due to these miss-operations and subsequent shut downs needs to be quantified. This requires Forensic Audit by a 3<sup>rd</sup> Party who is not directly/ indirectly a beneficiary of the parties involved so that the question of conflict of interest does not arise.

**5.11** Beneficiary companies/ Employees / Ex-Employees should not be a part of any inquiry where the outcomes can be influenced by authorities.

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shanzad  
ADG/Rep FIA/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

Gen loss.  
14/7  
8/9  
VO - ST will = 200 WDP  
+ CP - present  
Page detail

Pay available  
near PDR

3/17

5.10



6. Examination of TSC's Conclusions and the Available Record by IC.

6.01 The IC examined the report of TSC of October 2018, deliberations those followed during 5<sup>th</sup> to 14<sup>th</sup> meeting of IC and the available record in the IC Secretariat obtained from WADPA by the TSC during its proceedings.

6.02 During IC deliberations, two perspectives came under consideration. One was to focus on the formalities embedded in the RCCS alone whereas the other perspective focused on the letter and spirit of the TOR-1 of the IC vis. "To examine whether the project inaugurated in time or before the completion of all formalities" which unequivocally underlined "completion of all formalities". It was resolved with consensus that the TOR neither state explicitly nor implicitly "contractual formalities" rather it underscores in so many words and without any ambiguity "all formalities".

6.03 In order to address the first TOR, the IC considered following aspects relevant as formalities:

- a. Valid Approved PC-1 of the Project
- b. Approvals/No Objection from the World Bank (NoL) on Variation/Changes
- c. Approval of Revised Coordinated Construction Schedule (RCCS).
- d. Availability and Quality of Water
- e. Aspect relating to Completion of Raised Intake as one of the Formalities for Unit 17
- f. Removal of Downstream Cofferdam
- g. Pre-Commissioning and Commissioning Decision 4 and 5 of the MOM of March 02, 2018.

4. Parties agreed to run Unit 17 on SNL (3-7 March, 2018) on alternate days between 17:00 to 18:00 Hours to ensure its availability for inauguration proposed on 10 March, 2018.

5. On 8<sup>th</sup>, 9<sup>th</sup> March 2018 (between 17:00 to 18:00 Hours for duration of up to one hour) and on 10<sup>th</sup> March, 2018 (time to be defined), the Unit 17 will be synchronized with the system under the supervision of Voith.

6.04 Besides above, IC considered the aspect of decision making in terms of who and how the decision of fixing date of inauguration i.e. 10-03-2018 was made.

6.05 Similarly, the aspect of sticking of draft tube gates in July 2018 has also been examined to see its nexus with the earlier activities in the project.

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Jawed Saleem Qureshi  
Chairman/Rep/PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

6.06

Another aspect relevant to overall T4 HPP implementation is Implementation and Implication of Accelerated Program of the Project, (USD \$1 million)

6.07

The above noted aspects have been examined and the analysis made in this regard is given in the ensuing paragraphs.

a. Valid Approved PC-1 of the Project:

- i. The TSC in its report at para 4.99 has discussed this matter and has summed up that "the PC-1 of the project stood expired since September 2017 onwards, which was not submitted by WAPDA to the MoWR for approval and continued expenditure. In this regard, it is important to mention that the WAPDA has also asked for restructuring on which the EAD has raised the same point of expiry of the PC-1 and refused to entertain the request of WAPDA unless the competent forum extends the project implementation duration."
- ii. IC's Consideration on the aspect of PC-1: The IC took note of the above finding of the TSC and information so provided along as well as by the water wing of the MoWR, according to which the project was approved by ECNEC on 16-08-2012 at total estimated cost of Rs 83,601.04 million comprising Rs 65,865.37 million as FEC @ US\$ 1 = PKR 90. The Administrative Approval was issued by the then Ministry of Water and Power on 11-09-2012. According to the PC-1 submitted by WAPDA, the commencement date was January 2012, which was however approved in August 2012 and accordingly the works commenced on 29-09-2013, after award of the Contract. The completion date in the submitted PC-1 was December 2016 i.e. 60 months or 5 years. The implementation period starts from issuance of Administrative Approval, accordingly, the project completion date became September 2017 after which the project approval was required to be obtained that was, however, not obtained until February 2019. In this regard, the Manual for Development Projects states that "As soon as the indication is visible, the executing agency should start work on revising the scheme and submit for the approval of competent authority (Annexure-XIII) without stopping the actual work." It further states that "However, increase in the cost due to delinking of the Pakistani Rupee from the Dollar will not need fresh approval of the CDWP/ECNEC. The sponsoring agency shall however intimate the revised cost due to the depreciation of Pakistani currency to the Cabinet Division, Planning and Development Division and Finance Division (Annexure-XVI)." The 1<sup>st</sup> Revised PC-1 of T4HPP is currently under the process of approval on which the replies of WAPDA on the observations of the MoWR have been received which are under examination. The 1<sup>st</sup> Revised PC-1 will be forwarded to the Planning Commission for further process of approval from the competent forum i.e. ECNEC. The PC-1 with valid approval did not exist at the time of inauguration.

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shanzad  
ADG/Rep FIA/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

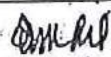


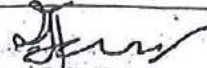
SECRET

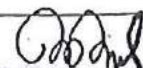
INVESTIGATION REPORT  
TABELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


b. Approvals/No Objection from the World Bank on Variation/Changes:

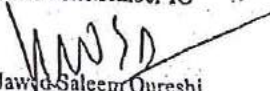
- i. The TSC did not address the aspect of approvals/No Objection from the World Bank on Variation/Changes, despite specifically referred as per details contained vide para 3.06 (f), above.
- ii. IC's Consideration on the aspect of Approvals/No Objection from the World Bank on Variation/Changes: The IC in this regard examined the World Bank letter dated 13-09-2018 addressed to the MoWR whereby it was informed that the World Bank did not issue NoL despite WAPDA's request made by PD T4HPP, vide his email dated 03-08-2017, for grant of NoL for Change Order - 10 (CO-10) to Voith at the cost of USD 5.7 million to ensure implementation of CCS and achievement of agreed CoDs of the units for commercial operation during 2018 with Unit 17 on 25/Feb, Unit 16 on 25/Apr and Unit 15 on 30/May, 2018 with 10 days grace period on each unit (Annex 5)
- iii. The Bank's task Team Leader Mr Masood Ahmad replied on 10-08-2017 wherein he questioned the benefit of bringing one unit on line in February 2017 versus the cost that would be incurred. He further questioned that how benefits would be affected if first unit comes on line later say March or April and all the units come on line in May/June 2018, what is the consequence in cost terms and any commercial settlement that is being discussed. He finally asked WAPDA to expand on inter alia the above referred questions and clarify in particular so the Bank can proceed with the discussion further.
- iv. WAPDA responded to the queries of the Bank raised in the above referred email of 10-08-2017, vide PD T4HP's email of 02-10-2017. WAPDA explained its contention that CO-10 is quintessential for locking up the contractor through contractual binding for implementation of an agreed Coordinated-Construction Schedule of the project to avoid a situation of 'time at large', achieve generation during high flows season of 2018 and to provide ample time before flood season for reliability test run and final adjustments needed during the RTR (if any). In this regard, WAPDA attached a document in its email to the Bank, providing detailed clarifications to the comments of the World Bank's Task Team Leader and again requested the bank to give NoL for CO-10.
- v. It is to state that despite asking for NoL on the CO-10 again in October 2017, WAPDA's Authority approved signing of CO-10 with Voith vide its decision made in the meeting held on 28-07-2017, as referred to in PD T4 HPP's letter of 31-07-2017 vide which he conveyed the decision of the Authority to the T4 CJV for further necessary action. The decision of the WAPDA Authority is as below:

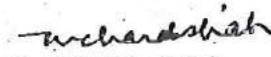
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shazad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawad Saleem Qureshi  
Chairman/Rep PEO/Member TSC/IC

  
Syed M. Mehar Shah  
JS MoWR/Member Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

*"The Authority accorded approval for completion of remaining works as per revised Coordinated Construction Schedule (CCS) and Revised CO-10 of E&M works in the interest of the Project to achieve CODs of Units 17, 16 & 15 on 25-02-2018, 25-04-2018 and 30-05-2018 with grace period of 10 days for each unit respectively."*

- vi. Perusal of above contents taken from the available record it is observed that the Bank did not give its NoL. WAPDA, in this regard, proceeded on the basis of the decision of WAPDA Authority approving CO-10 with Voith on 28-07-2017 while mentioning it in the interest of the Project.

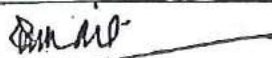
c. Approval of Revised Coordinated Construction Schedule (RCCS)

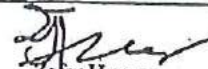
- i. There is no discussion specifically made with regard to RCCS in the TSC report.

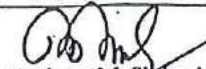
- ii. IC's Consideration on the aspect of Approved RCCS: The IC, while considering the importance and relevance of the RCCS, observed that approval and availability of project completion schedule in case of T4 HPP by the competent forum is ECNEC as well as concurrence by the WB. In this case, as has been observed vide para 6.06 (a), above, the implementation schedule was up to September 2017, however, after expiry of the PC-1, implementation period has not been extended nor extension sought so far. In this backdrop, the requisite approval of the revised PC-1 by the ECNEC and NOL from the Bank on CO-10 is not available, whereas the RCCS was approved by the WAPDA Authority on its own.


- iii. According to the letter of PD T4 HPP vide No. CE/PD/T4HP/VO2 R2/2017-1847 dated 25-07-2017, addressed to the Project Manager of T4CJV it was conveyed that "WAPDA Authority has been pleased to accord approval on 25<sup>th</sup> July 2017 through circulation for completion of remaining works and approval of VO-2 R2 of Civil Works in the interest of the Project to achieve CODs of Units 17, 16 & 15 on 25<sup>th</sup> February 2018, 25<sup>th</sup> April 2018 and 30<sup>th</sup> May 2018 respectively." The same was accordingly was conveyed to the World Bank vide email 02-02-2017 titled as 'Report on 4-Party Programme Workshop of May-June 2017 and Commercial Agreements with Contractors in July 2017'. (Annex 6)

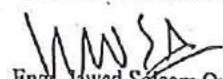
- iv. In the said 4-Party Report WAPDA apprised the Bank at para 7 about the arrangement with Civil Contractor for Implementation of Revised Coordinated Construction Schedule (RCCS) by stating that "WAPDA has been successful to convince the Civil Contractor to agree for implementation of RCCS with a total cost of USD 48 million including already paid USD 43.5 million against VO2 and VO2-R1. Accordingly, inter-contract milestone dates as given at Annex 6 referred to above have been mutually agreed by both the Civil & E&M

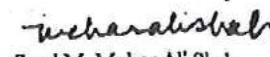
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC / fsc

  
Engg. Jawed Saifem Qureshi  
Chairman/Rep i/EC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

Contractors. Similarly, revised RCCS has been signed by all parties including Client, Consultants Civil and E&M Contractors. To make the RCCS contractually binding upon Civil Contractor VO-2 R2 was issued on 25<sup>th</sup> July 2017.

- v. The World Bank vide its letter addressed to the MoWR dated 13-09-2018, inter alia apprised that

"... commissioning, guarantee testing and operations can only commence during next year's high flow season i.e. June/July 2018".

The World Bank conducted a mission in May 3-26, 2017. In World Bank's Aide memoire dated June 21, 2017, the Bank gave the following advice (Paragraph 3.4);

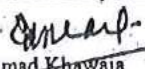
"The Mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPOE) without any benefits as there is no water available during that period for incremental generation from T4 HP - in fact the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4 HP".

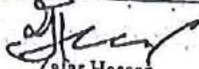
The Bank further apprised that "WAPDA went ahead with further discussions with contractors during June and July 2017 and agreed a coordinated construction schedule with Voith and Sinohydro with the following Commercial Operation Dates: Unit 17 - February 25, 2018, Unit 16 - April 25, 2018, and Unit 15 - May 30, 2018. The agreement included a revised CO-10 of \$5.7 million, which was issued to Voith on July 31, 2017.


Details of the process from contract start to issuing of CO-10 is described in detail by WAPDA Report<sup>2</sup> August 2017, and in Quarterly Progress Reports. The request for NOL for CO-10 was forwarded to the World Bank via email on August 3, 2017. The Bank did not issue a NOL, questioning the benefits of the increased cost. In email from Bank Task Team Leader on August 10, 2017 to Project Director for Tarbela 4, one of the major comments raised by the Bank was:

"The main question that is to be answered is what is the benefit of bringing one unit on line in February 2017 versus the cost that would be incurred. There would not be water available for running the unit and thus no benefit. In fact, real testing under full head would be done only in July/August 2018 when reservoir is at design level for these units."

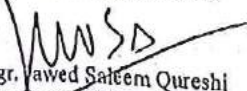
<sup>2</sup> Report on 4-Party Programme Workshop of May-June 2017 and Commercial Agreements with Contractors in July 2017, Issuance of Change Order No. 10 to E&M Contractor, August 2017

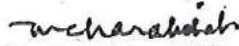
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahid  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC /TSC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep TEC/Member TSC/IC

  
Syed M. Mchar  
JS MoWR/Member/Secy IC



## d. Availability and Quality of Water:

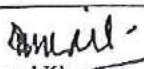
- i. The TSC in its report from para 4.04 to 4.60, spread over forty pages (page 15-45), has discussed at length the issue of water vis. minimum operating reservoir level and water quality, while considering the documents listed at para 4.03 from (a) to (k) of the TSC report had drawn conclusions and findings in the subsequent paras against each document so referred, as under:
- ii. With regard to (a) vis letter of T4 CJV dated 27-02-2018, on minimum reservoir operating level and water quality, as referred to at para 4.05 (a) to (c) of the TSC report as quoted below

"(a) This letter by the PM T4 CJV warns about the water quality carrying large quantity of silt which was bad and not suitable for handling trial and continuous operation under RTR during the last few days due to reservoir level at its minimum level which is likely to continue till end May 2018.

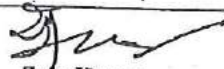
(b) He then points out that water quality could prove quite injurious for turbine components like shaft seals, wearing rings and cooling water system. Choking of open loop heat exchangers could not be ruled out which may result in disruption of Unit 17.

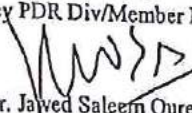
(c) The Consultants suggest to the Employer "please look into the possibility to raise the minimum reservoir level by 2 meters as soon as possible to avert the interruption of handling trial / reliability run of Unit 17 and wet testing of other two Units"


- iii. The TSC based on replies from OEM who happens to be the EM Contractor i.e. Voith stated that "the OEM has certified that the Commissioning and stands by with the warranty and the guarantee according to the Contract." (Annex 7)
- iv. Regarding (b) vis Reply of PD T4 HPP WAPDA to PM T4 CJV dated 28-02-2018 on minimum reservoir operating level and water quality, the TSC ascertained that the PD did not deal the letter according to the gravity of the situation where he in first instance deflected the warning of the consultants given in 27-02-2018 letter about bad quality of water by mentioning the contractual provisions to say that the prevailing conditions are better than the extreme conditions mentioned in the contract in terms of minimum head design requirement for operation. The TSC however noticed that the PD in the last sentence of the letter further referred to hold further discussion during forthcoming meeting.

  
Shamaail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

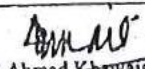
v. (c); Minutes of Meeting dated 02-03-2018 amongst Consultant, Contractor and WAPDA

vi. Four members of the TSC at para 4.20 (q) of their report were of the opinion that based on the perusal of the statements of Chairman and Adviser WAPDA related to fixing of Commissioning of T4 HPP,

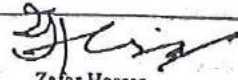
"it is clear that after slippage of Commissioning of Unit 17 on August 14, 2017 the new dates were fixed in a manner that the project may be Commissioned during the tenure of the previous elected government which was due to be completed on May 31, 2018. On the contrary, the advice from the World Bank and the IPOE was to plan the commissioning in June/July high flow season of 2018. As stated above, without having the foresight as how the hydrology and other physical efforts would make it possible to commission the project in February 2018, there appears no other reason to achieve a target which was being warned by many as not to do so."

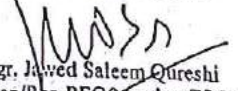
vii. After finalisation of TSC report and 13<sup>th</sup> IC meeting proceedings held on 13-10-2018 whereby all members finally recorded their opinions for preparation of IC Report, the JS(W)/Member IC has now is of the view that perusal of the Aide Memoire dated 21-06-2017 referred to in the World Bank letter of 13-09-2018 sated at para 2.2 (i) that:

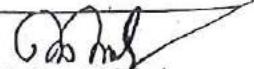
*"it is essential to agree on a pragmatic timeline for commissioning of the plant. Since Tunnel 4 will only be operated during the months July-October, the plan should be adjusted to get the plant ready in March-April 2018 and get all things ready for full generation during 2018 high flow season. The construction schedule of two contracts, Civil Works and E&M, should be updated and synchronised accordingly, and milestones should be agreed between the two contractors and the engineer for approval by WAPDA. This action was also strongly recommended by the IPOE at their recent visit." It revealed that the Bank asked for making the unit ready in March April 2018 to get benefits in high flow season of 2018 by agreeing the milestones between the two contractors followed by its approval by WAPDA. The said advice of the Bank was adhered to and the timelines were agreed by the two contractors with WAPDA which was got approved by WAPDA Authority and accordingly Unit 17 was made ready in March 2018 for getting energy benefit in high flow season of 2018 as is evident from the generation logs of Unit 17 where the energy was generated from 08-06-2018 onwards until the unit was out on standby when the reservoir level dropped below 1400 ft."*

  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/Sec

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PECA/Member TSC/IC

  
Basharat M. Shazad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

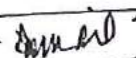
It is clarified that JS(W) brought the above stated fact from the record to assist in ascertaining the truth even up to the last moment until the report was not finalised and submitted to the competent authority.

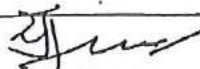
The above referred Aide Memoire of 20-06-2017 remains valid and may not be termed as foregone for the reason that the Bank during its mission held from May 3, 2017 to May 26, 2017 determined that the target date of Commissioning of Unit 17 in August 2017 was not possible, and also further questioned WAPDA's reported target date of December 2017, only because of which the Bank cautiously advised to adjust the schedule and agree on a pragmatic schedule by making the units ready by March April 2018 to get benefits of high flow season of 2018 i.e. June/July 2018; the same was eventually followed by WAPDA, accordingly.

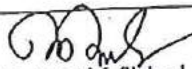
Moreover, the element of IPOE's advice referred to by the Bank mentioning bringing the plant in operation in December 2017 or January 2018 is fraught with danger and great risk, the perusal of record reveal that the phrase of fraught with danger was used by the IPOE with regard to use of plug on raised intake without providing requisite structural strength for the lining of the raised intake to withstand additional pressure of 10m in case of load rejection.

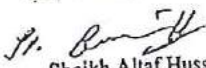
- viii. With regard to the above opinion of the JS(W), the IC observes that it is too belated an opinion after signing of TSC Report by JS(W) himself as member of the TSC and also associating himself as Member IC subsequently especially in the 13<sup>th</sup> meeting of IC dated 13-10-2018, wherein, he too recorded his final opinion contrary to what has been stated above as recorded in the minutes as well as in the audio recording of the proceeding annexed herewith. Besides, the IC draft report is under preparation by him since over two months and never this aspect has been raised before the IC in any of the meetings held subsequently. Even otherwise, perusal of the referred Aide Memoire, it is evident from para 2.1 (i) that this Aide Memoire pertain to the planned commissioning of Unit in August 2017, which the Bank observed that the target date will not be met and WAPDA informed that the new target date is December 2017. Besides, vide para 2.2 of the referred Aide Memoire, the Bank clearly advised and observed that it is not possible to meet the envisaged commissioning.


This is a globally established principle of interpretation of documents that a fair opinion could only be formed by taking all relevant documents of the particular matter with reference to the context and it is most likely to be perilous to single out one particular document, disregarding all others by the same authors/scribe/agency holding the contrary viewpoint, as such the World Bank's view point, advice, warnings, alerts and unquestionable decline to issue NOL for the reasons given in this particular paras are to be taken as their final

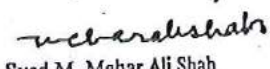
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



**SECRET**

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

determinant and standpoint. Therefore, one particular reference, since no more relevant in the current discussion, is of no effect.

Besides, another universally accepted principle of interpretation is that a prior opinion formed by any institution, if subsequently reviewed or revisited, is to be relied upon in so far as the final opinion of that particular institution is concerned. Quoting and referring to any statement in isolation and piecemeal, by disregarding to the overall context and the predominant and ultimate view point of that agency is untenable. Therefore, Bank's earlier suggestion is of no consequence whatsoever in this regard.

As such this is a foregone matter and the current matter of the target timelines emanate from the RCCS and CO-10 which spelled out the COD of Units 17, 16 and 15 as 25 Feb, 30 Apr and 30 May, 2018 and therefore, basing now a belated opinion contrary to what has earlier been recorded in the TSC report as well as in MoM of IC dated 13-10-2018 is incomprehensible. Further, referring to Aide Memoire dated 21-06-2017 which also recorded in paragraph 3.4 following advice of WB mission as under:

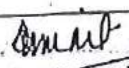
*"The mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPOE) without any benefits as there is no water available during that period for incremental generation from T4HP - in fact the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4HP."*

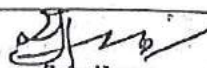
Even earlier to the referred Aide Memoire dated 21-06-2017, the Bank vide its letter dated 13-09-2018 addressed to the JS(W) MOWR, did refer to the following advice of the IPOE:

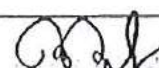
*"the Independent Panel of Experts (IPOE) conducted their third visit to Tarbela 4 in March 2017. In their report issued in April 2017 they advised that "...commissioning, guarantee testing and operations can only commence during next year's high flow season i.e. June/July 2018."*

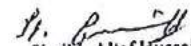
Subsequently, the Bank in view of the above, unequivocally refused to issue NOL for the revised CO-10 of US \$ 5.7 million, questioning the benefits of the increased cost.

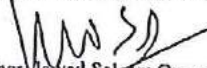
Further, in email from Bank Task Team Leader on August 10, 2017 to Project Director for Tarbela 4, one of the major comments raised by the Bank was:

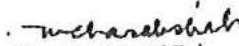
  
Shamil Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zahir Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shabbaz  
ADG/Rep FIA/Member IC

  
Sheikh Atof Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Dawed Saleem Qureshi  
Chairman/Rep. PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

"The main question that is to be answered is what is the benefit of bringing one unit on line in February 2017 versus the cost that would be incurred. There would not be water available for running the unit and thus no benefit. In fact, real testing under full head would be done only in July/August 2018 when reservoir is at design level for these units.

Once again in a subsequent WB mission dated September 21 – October 20, 2017 and as late as February 02 – 28, 2018, observed that

"the removal of the downstream coffer dam was on the critical path (Management Letter dated November 7, 2017) as it would be complicated to remove it in time for commissioning of Unit 17."

In view of the above discussion and series of references to which no rebuttal or even response from WAPDA has been produced before the IC or the TSC, it is abundantly clear and manifestly established that the WB had never agreed and allowed the referred dates by the JS(W) in his additional note and resultantly declined to issue NOL.

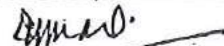
- ix. While disagreeing with the four members, the other three members of the TSC were of the opinion that

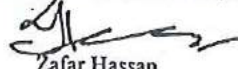
"fixing the date of before June provides the opportunity of benefitting from the entire high flow season. In case it is delayed for a few days, the benefit of commercial operation would be denied for that many days. Hence it is not fair to cast aspersions on the intentions of the parties that jointly fixed the dates of commissioning given in RCCS. Thus, questioning the RCCS at a time when the project is achieving its targets and has started producing energy is not appropriate."

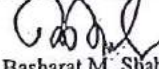
- x. With regard to decisions 4 and 5 of the MOM, the end of wet commissioning and start of RTR was contingent upon the afore referred decision 1-3 of the MOM, that despite repeatedly required and ascertained, no one on behalf of Employer/PD and Consultant ever responded or confronted the contents of the subject letter of the Contractor.


- xi. The VOITH, vide its letter dated 14.03.2018, addressed to T4 CJV, did highlight the non-compliance of decision 4 of the MOM, as under:


"1). Item 4 (cooling water low flow): The first run of Unit 17 after CoD was performed on Monday March 5<sup>th</sup> as agreed in the MOM of March 2<sup>nd</sup>, 2018. We had to stop operation due to very low open loop cooling water flow (<200 m<sup>3</sup> of each pump). The Unit was performing well until that date, but suddenly the flow was reduced without affecting the pressure at all. We have tried two and three pump operation, only one, two or three heat exchanger operation

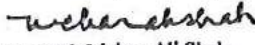
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/F.S.I

  
Engt. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



and two or three cyclone operation to check if the reduced flow is related to any mechanical issue. We found that the system was not plugged, but the water quality has been changed drastically to highly polluted water and this was the root cause of the difficulties."



Fig. 1: Draft tube water in GW open loop system



Fig. 2: cooling water open loop water discharge point

"When the discharge flange of the filter 3 was opened, we found that the water is contaminated with impurities, probably clay and/or others and this fact was hindering the pumps from performing (please refer to the pictures Fig. 1 and Fig. 2)"

"It is clear that these impurities will lead to system disturbances and sooner or later it will affect the turbine operation and will make it impossible.

"Affected from operation with dirty water are the components, such as TU shaft seal water pump, open loop and close loop cooling water pumps (total six pumps)."

"We have also found that the close loop water is contaminated; as well the filling pumps for the potable water tank on the roof of control building are also not available. In the day of the visit of Prime Minister and two days before that event close loop pumps were clogged as well and we saw the same symptoms as of the open loop pumps."

"As you are aware, closed loop water should be potable as specified, the muddy water in the elevated tank on the top of control building is not potable at all. Affected from closed loop impurities are all the heat exchangers, such as Generator, GSU-transformers and governor coolers."

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Sheikh Altaf Hussain  
Rep of NBS/PAK/Member IC/rsc

Zahar Hussain  
Secy PDR Div/Member IC

Engr. Jawed Saleem Qureshi  
Chairman/Rep PIC/Member TSC/IC

Basharat M. Shafiq  
ADG/Rep PIA/Member IC

Syed M. Mohar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARDELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

"All these pumps have mechanical seals (carbon rings) and it is only a question of time when these will break. TU shaft seal water pump mechanical seal has been damaged already three times and at present we do not have any more spares (please refer to Fig.3). We have already ordered spares just to make the operation of U17 possible. But U16 and U15 don't have currently any operational shaft seal pumps. All existing ones are leaking."

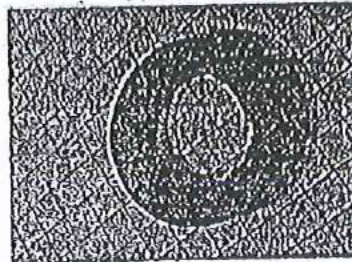


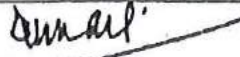
Fig. 3 Broken mechanical seal of TU Shaft seal water pump

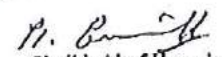
- xii. According to decision 4 of MOM of March 2, 2018, it was agreed amongst the parties to run Unit 17 on SNL (3-7 March 2018) on alternate days between 17:00 to 18:00 hours to ensure its availability for inauguration proposed on 10 March, 2018. According to the compliance status of the instant decision obtained from PD T4 HP,

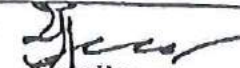
*"Unit 17 was operated as follows:*

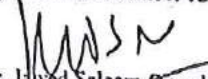
*On 3 March 2018, the unit was not operated due to Wet Commissioning permit was cancelled on 03 March 2018. Not operated on 04 March because of fixing of grid at outlet of head cover balancing pipe. On 5 March 2018, start plus given. As per starting sequence/logic, cooling water starts earlier than unit running. Since cooling water flow was less than required flow and Position sensor Auto Lock close, therefore, unit was not run on 05 March 2018. On 07 March 2018, Unit 17 was run up to the SNL from 1645 Hrs. to 1746 Hrs."*


- xiii. The above admitted fact by all reveals beyond shadow of doubt that neither was water available nor was of quality and that Decision No. 4 of MOM which was a prerequisite to ensure Unit 17 ready for inauguration, was not implemented.
- xiv. With regard to decision 5 of MOM of March 2, 2018, it was agreed amongst the parties that "on 8<sup>th</sup>, 9<sup>th</sup> March 2018 (between 1700 to 1800 hour for duration of up to one hour) and on 10<sup>th</sup> March 2018 (time to be defined), the unit 17 will be synchronized with the system under the supervision of Voith."
- xv. While providing the compliance status of decision 5 of MoM of 02-03-2018, he apprised that "Unit 17 was operated on 8<sup>th</sup> March 2018, which remained synchronized with the system from 1620 Hrs. to 1632 Hrs. and 1716 Hrs. to

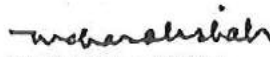
  
Shamaal Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEG/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARDELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

1800 Hrs. On 9th March 2018, Unit 17 was operated, remained synchronized with the system from 1614 Hrs. to 1701 Hrs. On 10th March 2018, Unit 17 was operated on No Load from 1315 to 1505 Hrs. on load from 1505 to 1508 and shut down at 1511 Hrs."

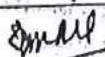
- xvi. The above compliance status indicates that the agreed action to operate the Unit 17 on alternate days for ensuring the unit available on the day of inauguration was not complied.
- xvii. (d); Voith letter dated 14-03-2018, read with preceding Trouble Reports of earlier dates vis. 06 March 2018 issued by Chief Engineer (O&M) of WAPDA.
- xviii. The TSC at Paras 4.29 to 4.36 of its report quoted the contents of the VOITH Letter dated March 14, 2018, wherein, inter alia, it was quoted that

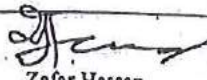
*"the current water quality is far away from the values of the contract. At the same time, we are also perturbed on resorting to correspondence on matters which were discussed and clarified during the occurrence. Please be informed that the VOITH does not take any responsibility for the damages to the equipment due to such bad water quality."*

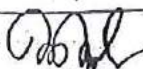
- xix. The majority four members of the TSC therefore established that letter of EM Contractor provided a clear evidence of bad water quality which was causing damage to various parts of the unit 17 and warn that these impurities will lead to system disturbance and sooner or later, it will affect the turbine operation and will make it impossible. The TSC, therefore, finds that the water quality was of extremely poor and not fit for putting the unit in operation.

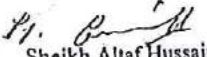
- xx. The TSC vide paras 4.47 - 4.50 have established by referring to contradictory statements made by PM T4 CJV at different occasions notably his letters dated 03-03-2018, 27-02-2018 and his statements made before the TSC wherein he had been issuing warnings to avert the interruption inter alia in wet testing of other two units whereas in his written statements made before the TSC, he tried to change his earlier position and justify the operation of the plant in Feb-March 2018. The TSC, therefore, concluded vide para 4.51- 4.52 as under:

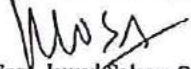
*"During U17 wet commissioning, we observed the water came from upstream penstock and intake was quite dirty with slit, sand and others debris, which had been flushed into some equipment through passage way; and as a result, three water supply pumps of shaft seal were damaged due to the extremely bad water quality."*

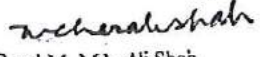
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shazad  
ADG/Rep FI/Member IC

  
Sheikh Altaf Hussain

  
Eng. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mubir Ali Shah  
JS MoWR/Member Secy IC

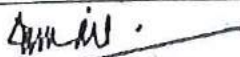



SECRET


INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


*Potential risks are foreseen especially for MIV maintenance seal since the operating chambers of movable seal ring was fully filled by the dirty water currently. Therefore, in order to operate the 3 MIVs safely and avoid any hidden risks."*

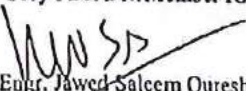
- xxi. The other three members of the TSC dissented with the above stating that since Unit 17 started and synchronized intermittently from 06-03-2018 to 10-03-2018 and afterwards on 08 June 2018 to 01 July 2018, and also, Unit 17 remained in operation satisfactorily till to date, therefore, the stated bad quality of water did not cause any damage to Unit 17.
- xxii. The JSW/Member TSC while reviewing now his earlier finding given in TSC report has now recorded contrary view that "It is also observed from the log sheets and the compliance status provided by PD T4 HP as given in (x) above, despite such non-compliance the Unit 17 was operated on the day of inauguration for 3 minutes. Such limited duration operation was to avoid any damage to the turbine from the silty water which was taken into cognisance at decision 3 of MoM of 02-03-2018."
- xxiii. (e); letter of PM T4CJV dated 27-03-2018
- xxiv. Discussion and contents appearing in (v) – (xvi), being relevant to item (e), may be read as an integral part of this aspect also.
- xxv. The four members of the TSC, on this aspect, opined vide para 4.55 – 4.56 that this letter of T4CJV is primarily an evidence about the bad water quality causing damage to the machines, as well as IPoE's report of May 2018 stated that "*8 Problem with Silt at the Unit 16 MIV*". This problem was duly witnessed by the IPoE reported in its meeting of May 2018 to WAPDA.
- xxvi. The other three members were also of the opinion that the observation of IPOE is justified, it is the same observation that was given by PM T4CJV in his letter of 27 February 2018 wherein he asked PD WAPDA to look into the possibility to raise the water level of reservoir to 426.7 m (1400 ft). This is also the stance taken by all three participants of the meeting of 02 March 2018, wherein they decided not to carry out sustained operation of Unit 17 after achieving the status of 'commercial operation' but permitted the intermittent operation of the unit for a few hours up to 10 March 2018. The three members of the TSC, therefore, did not agree with the conclusion drawn by the other four members of the TSC that the quality of water was poor, hence one of the pre-requisites of the formalities to be fulfilled for Commissioning of the unit (Unit 17) was not met, on the following grounds.
- xxvii. On this statement Mr. Gouhar Sharif and Engr. Jawed Saleem Qureshi however considered that the facts reported at paras 4.32 and 4.33 do not relate

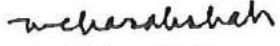
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

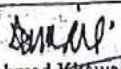



**SECRET**

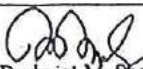
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


to the ToRs of the TSC leading up to operation of Unit 17 dated 02-03-2018 and inauguration on 10-03-2018 and subsequent shutdown.

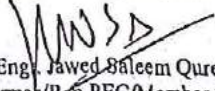
xxviii. IC's Consideration on Quality and Availability of Water: After examining the work done by the TSC, the IC observes on the aspect of Quality and Availability of Water that the quality of water during the months of February and March was such which carried sediments and wood/bushes/roots and frequently caused choking of cooling water system leading to shutdown of units. In this regard, the decision taken in the Minutes of the Meeting of 02-03-2018 regarding "End of Wet Commissioning and Start of Commercial Operation of Unit 17", as depicted below, needs to be looked into.

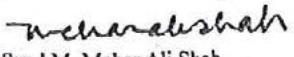
  
Shamail Ahmad Khan  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Bashaifat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Chairman/Rep MRCPAK/Member IC

  
Eng. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT



Subject: Unit 17 ready for start of Commercial Operation/Handing over of Control Room for Operation (Meeting with Voith and WAPDA)

Project Title	Tarbela 4th Extension Hydropower Project		Division	Project Management
Subject	Unit 17 ready for start of Commercial Operation/Handing Over of Control Room for Operation (Meeting with Voith and WAPDA)		Project No.	3D118
Location	T4CJV Meeting Room		Date of Meeting	02 Mar 2018
Present	1. WAPDA 2. T4CJV 3. VOITH	See Attendance Sheet	Attached	
Recorded By The Project Manager	Distribution by:	The Project Manager T4CJV Office, Tarbela 4 <sup>th</sup> Extension Hydro Power Project, Tarbela		

Item	Points Discussed/Agreed	Action By	Date
	<b>End of Wet Commissioning and Start of Commercial Operation of Unit 17</b>		
	<p>1. T4CJV informed that as per Sub-Clause 3.32.13.2 (Vol. 2A Chapter 3-General Project Requirements) Unit 17 is required to be run by Employer's staff during reliability test period under the supervision of Contractor. Furthermore as per CO 10, Unit 17 wet commissioning (ready for Reliability Run) is one of the Milestones and requested WAPDA to take over the Control Room for Commercial Operation and Reliability Run of Unit 17.</p> <p>2. Parties (VOITH, T4CJV and WAPDA) agreed that Wet Commissioning tests on Unit 17 have been completed and;</p> <ul style="list-style-type: none"> <li>Unit 17 is ready by 02 Mar 2018 for start of Commercial Operation and Reliability test as per Contract and CO 10.</li> <li>Control Room is already handed over today 02<sup>nd</sup> March 2018 afternoon to WAPDA for Operation.</li> </ul>		

*Handwritten signature and date: 17/3/18*

*Shamail Ahmad Khawaja*  
Secy MoWR/Chairman IC

*Zafar Hassan*  
Secy PDR Div/Member IC

*Basharat M. Shahzad*  
ADG/Rep FIA/Member IC

*Sheikh Altaf Hussain*  
Rep of NESPAK/Member IC/TSC

*Engr. Jawed Saleem Qureshi*  
Chairman/Rep PEC/Member TSC/IC

*Syed M. Mehar Ali Shah*  
JS MoWR/Member/Secy IC



**SECRET**

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

17

en	Points Discussed/Agreed	Action By	Date
	<p>3. Employer, however, stated that under the prevailing circumstances (Non availability of water and Reservoir being almost at dead level), it is not advisable to carry out the reliability test for safety of the new Turbine. Parties agreed for a suitable time, subject to favorable conditions, to start the reliability test on Unit 17. Date to be agreed mutually as per prevailing circumstances. Employer will inform about one week before the start of Reliability Test.</p> <p>4. Parties agreed to run Unit 17 on SNL (3-7 March 2018) on alternate days between 17:00 to 18:00 hours to ensure its availability for inauguration proposed on 10 March 2018.</p> <p>5. On 8<sup>th</sup>, 9<sup>th</sup> March 2018 (between 17:00 to 18:00 hours for duration of up to one hour) and on 10<sup>th</sup> March 2018 (time to be defined), the Unit 17 will be synchronized with the system under the supervision of Voith.</p>		

*Sh. Shamail M.*  
1. VOITH.

*[Signature]*  
2. WAPDA  
2/3/18

*[Signature]*  
3. TSC/JV

*[Signature]*  
11/3/18

Tarbela 4 Consultants a Joint Venture of Mott MacDonald Limited and Coyne & Bellier in association with KBR and ACE  
T/C/M/S/04/01/02/03/04/05/06/07/08/09/10/11/12/13/14  
Phone: +92-918-271313-14  
E-Mail: S/04@kbr.com

*Shamail*  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

*Zafar*  
Zafar Hassan  
Secy PDR Div/Member IC

*Basharat*  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

*Sheikh Altaf*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

*Engr. Jawed Saleem*  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PDR/Member TSC/IC

*Syed M. Mehar Ali*  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARDELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

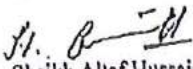
xxix. The TSC's findings on the above minutes as given under para 4.20 (a) to (j) are given below.

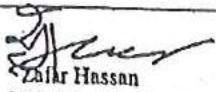
- a. Prima facie the Consultants (T4CJV) informed in the meeting that as per CO-10, Unit 17 wet commissioning (ready for Reliability Run) is one of the Milestones and required WAPDA to take over the Control Room for Commercial Operation and Reliability Run of Unit 17.
- b. Parties (VOITH, T4CJV and WAPDA) agreed that Wet Commissioning tests on Unit 17 had been completed and;
  - i. Unit 17 was ready by 02 Mar 2018 for start of Commercial Operation and Reliability test as per Contract and CO 10.
  - ii. Control Room was already handed over today 02<sup>nd</sup> March 2018 afternoon to WAPDA for Operation.
- c. The parties also recorded their agreement to run Unit 17 on SNL (3-7 March 2018) on alternate days between 17:00 to 18:00 hours to ensure its availability for inauguration proposed on 10 March 2018.
- d. It was finally recorded that on 8<sup>th</sup>, 9<sup>th</sup> March 2018 (between 17:00 to 18:00 hours for duration of up to one hour) and on 10<sup>th</sup> March 2018 (time to be defined), the Unit 17 will be synchronised with the system under the supervision of Voith.
- e. Before commenting on above, following documents are essential to take into account:

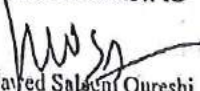
- i. World Bank's email of 10 August 2017 written by Mr. Masood Ahmad to Mr. Sohail the Project Director T4 HPP (copy attached) where the Bank in response to the email of Chief Engineer/Project Director T4 HPP dated August 03, 2017 raised one of the fundamental questions, as quoted below:

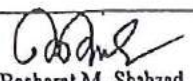
*"The main question that is to be answered is what is the benefit of bringing one unit on line in February 2017 versus the cost that would be incurred. There would not be water available for running the unit and thus no*

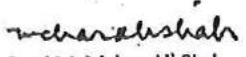
  
Shamaul Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zahid Hassan  
Secy PDR Div/Member IC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

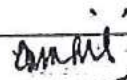
*benefit. In fact, real testing under full head would be done only in July/August 2018 when reservoir is at design level for these units. How benefits would be affected if first unit comes on line later say March or April the all units come on line in May/June 2018, what is the consequence of that in cost and any commercial settlement that is being discussed."*


- ii. The above point was inter alia intimated by the Bank to the MoWR vide its letter dated September 13, 2018 when the MoWR requested the Bank to provide certain information vide its letter bearing No. 2(2)/2017-HP dated 09-09-2018.
- iii. Moreover, the Bank also referred to, in its above referred letter of September 13, 2018, its advice given vide Paragraph 3.4 of its Aide Memoire dated June 21, 2017 which is quoted below:

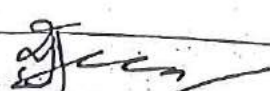
*"The mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPOE) without any benefits as there is no water available during that period for incremental generation from T4HP - in fact the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4HP"*

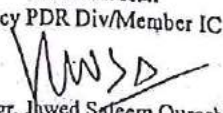
f. In order to understand the above proposition in the complete context given above, vis.


- i. Whereas, the Bank was in first instance circa June 2017 giving its clear advice to WAPDA on its efforts to bring the plant in operation in December 2017 or January 2018 that WAPDA's said plan is fraught with danger and great risk (as advised by IPOE) without any benefit as there is no water available during that period for incremental generation from T4HP - in fact the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4HP, and

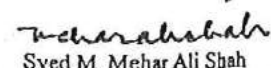
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saieem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

- ii. subsequently in August 2017 questioning WAPDA about the benefit of bringing one unit on line in February 2018 the TSC is unable to comprehend WAPDA's motivation to fix the Commissioning date of its all three units before June/July – the high flow season of 2018

Unit 17: 25 Feb 2018

Unit 16: 25 Apr 2018

Unit 15: 30 May 2018

- g. The above observation of TSC can be better understood only without taking benefit of hindsight as it was not available to WAPDA's decision makers in July 2017. The only wisdom available with WAPDA and its consultants in July 2017 were the advices rendered by the IPOE in March 2017 and the World Bank in June 2017.
- h. As mentioned above, without paying any heed to such unequivocal advices by the IPOE and the Bank, there seems no other motivation except any extraneous influence to bring the units in a position where it can be declared that Wet Commissioning has been completed, hence the Units are now in Commercial Operation – at such a time when it was injurious to release the water into the turbines when the water was carrying heavy loads of sediments owed to successive decline of reservoir level at a faster pace due to release of stored water for Rabi crops, and the reservoir level being at the Dead Storage level.
- i. Besides above, the TSC also obtained from the PD T4HPP the status of compliance of the decisions of meeting of three parties vis. WAPDA, T4CJV and VOITH recorded as items 4 & 5, wherein the PD provided the compliance status which is given as follows:

Point	Description	Compliance Status
4	Parties agreed to run unit 17 on SNL (3-7 March 2018) on alternate days between 17:00 to 18:00 hours to ensure its availability for	Unit 17 was operated as follows: 1. On 3 March 2018, the unit was not operated due to Wet Commissioning permit was cancelled on 03 March 2018. Not operated on 04 March because of fixing of grid at outlet of head cover balancing pipe.

*Shamail*  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

*Zafar*  
Zafar Hasjan  
Secy PDR Div/Member IC

*Basharat M. Shahzad*  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

*Sheikh Altaf Hussain*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

*Eng. Jawed Saleem Qureshi*  
Eng. Jawed Saleem Qureshi  
Chairman/Rep TSC/Member TSC/IC

*Syed M. Mehar Ali Shah*  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

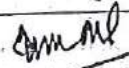
	inauguration proposed on 10 March 2018	<ol style="list-style-type: none"><li>2. On 5 March 2018, start plus given. As per starting sequence/logic, cooling water starts earlier than unit running. Since cooling water flow was less than required flow and Position sensor Auto Lock close, therefore, unit was not run on 05 March 2018.</li><li>3. On 07 March 2018, Unit 17 was run up to the SNL from 1645 Hrs. to 1746 Hrs.</li></ol>
5	On 8 <sup>th</sup> , 9 <sup>th</sup> March 2018 (between 1700 to 1800 hour for duration of up to one hour) and on 10 <sup>th</sup> March 2018 (time to be defined), the unit 17 will be synchronized with the system under the supervision of Voith.	<p>Unit 17 was operated as follows:</p> <ol style="list-style-type: none"><li>1. On 8<sup>th</sup> March 2018, Unit 17 was operated, remained synchronized with the system from 1620 Hrs. to 1632 Hrs. and 1716 Hrs. to 1800 Hrs.</li><li>2. On 9<sup>th</sup> March 2018, Unit 17 was operated, remained synchronized with the system from 1614 Hrs. to 1701 Hrs.</li><li>3. On 10<sup>th</sup> March 2018, Unit 17 was operated on No Load from 1315 to 1505 Hrs. on load from 1505 to 1508 and shut down at 1510</li></ol>

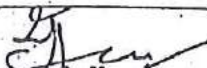
j. Perusal of above status indicates that according to the agreement between the parties the unit had to be operated on alternate days from 3<sup>rd</sup> to 7<sup>th</sup> March 2018 whereas according to the compliance status furnished by the PD it was run only on 7<sup>th</sup> March 2018 and remained closed on 3<sup>rd</sup> and 5<sup>th</sup> March 2018, in which the non-operation on 5<sup>th</sup> of March was due to non-performance of Auto lock. With regard to non-operation on 3<sup>rd</sup> March, it was stated because the permit of wet commissioning was valid until the 3<sup>rd</sup> March 2018.

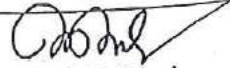
xxx. Concluding the discussion, the TSC has given its finding on the water quality vide para 6.01 (iii) (a)

Water quality: Refer following paras;


- History / Lesson Learnt from past – paras 4.63, 4.81
- IPoE reports – para 4.20 e (iii), 4.56
- World Bank advices – para 4.20 e (i) to (ii), 4.3(ii)
- Water level – para 4.3(a)

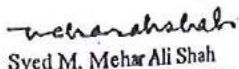
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FLA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FS

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



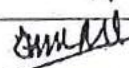
52

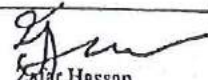
SECRET

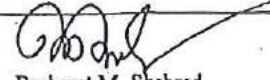
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

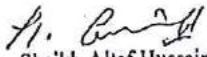
SPORT  
OBJECT

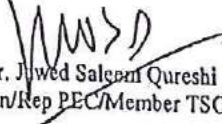
- T4CJV letter 27-02-2018 – para 4.05 and 4.45
- T4CJV letter 27-03-2018 – para 4.53
- ❖ The above references provide ample evidence that quality of water during the months of February and March was of such quality which carried sediments and wood/bushes/roots which frequently cause choking of cooling water system leading to shutdown of units. Hence the formality for having free of hazardous amount of sediment and wood/bushes/roots establishes was not fulfilled that formality of putting the turbines in operation.
- ❖ Existence of low reservoir level in February either at or in the vicinity of dead level coupled with the sediment build-up in front of the intake (as reported by the IPOE under para 4.56) because of no release of water from T4 during last four years of construction period leaves no doubt that the water quality was bad.
- ❖ In spite of the history, available data and reports of 1997, WAPDA did not learn from mistakes and it went ahead with the commissioning of the plant in adverse conditions of silty / muddy water and low/ dead reservoir level.
- ❖ Independent panel of Experts (IPoE) advised in their Apr-2017 Report, "..... Commissioning, Guarantee Testing and Operations can only commence during next year's high flow season i.e. June/July 2018".
- ❖ World Bank advised (Paragraph 3.4); "The mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPoE) without any economic benefit as there is no water available during that period for incremental generation from T4HP - in fact the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4HP". Ref: World Bank Letter dt 13-Sept-18
- ❖ Quite true to World Bank, IPOE and Consultant's advices, it was observed that reservoir level remained below 1400ft from 25<sup>th</sup> February to 4<sup>th</sup> June 2018. Onwards it was above 1400ft for smooth and sustained operation till 2<sup>nd</sup> July 2018. It would have been prudent to carry out wet commissioning in June - July

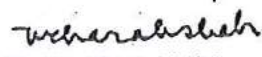
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FSC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

(DN attached)



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>th</sup> EXTENSION HYDROPOWER PROJECT

period as advised, for uninterrupted sustained operation without giving any acceleration to contractors.

- ❖ Wet testing of unit 17 was started on 20th February and completed on 1<sup>st</sup> March 2018 on short runs of turbine mostly ranging from 00:03 minutes to 00:45 minutes on silty and muddy water flowing through it. Turbine remained out of operation from 3<sup>rd</sup> March to 7<sup>th</sup> March 2018 and was in operation on 8<sup>th</sup> March for 0:02 & 0:35 minutes and on 9<sup>th</sup> March for 0:46 minutes.
- ❖ On the day of Inauguration, the turbine was synchronized only for 3 minutes and remained shut till 7<sup>th</sup> June 2018. If the whole operation from 20<sup>th</sup> February till 10<sup>th</sup> March was not forced, then why was the turbine remained shut till 6<sup>th</sup> June 2018.
- ❖ The unit was supposed to be in operation for RTR and generating electricity after COD but because of the water at dead level, sustained operation could not take place. Hence the hurry to declare COD on 2<sup>nd</sup> March 2018 gives clear understanding that WAPDA was targeting 10<sup>th</sup> March inauguration by all means as the plant remained out of operation after synchronizing for just 3 minutes from 10<sup>th</sup> March to 7<sup>th</sup> June 2018.

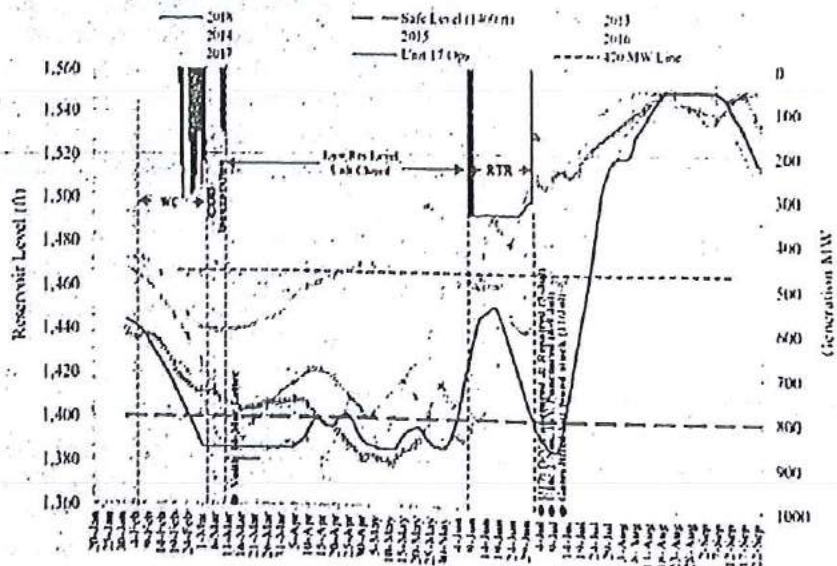


Chart: Tarbela reservoir levels, Unit 17 operation and relevant events during Feb-Sep 2018

*Shamail Ahmad Khawaja*  
Secy MoWR/Chairman IC

*Zafar Hassan*  
Secy PDR Div/Member IC

*Basharat M. Shahzad*  
ADG/Rep FIA/Member IC

*Sheikh Altaf Hussain*  
Rep of NESPAK/Member IC/TSC

*Engr. Javed Saleem Qureshi*  
Chairman/Rep PRC/Member TSC/IC

*Syed M. Mehar Ali Shah*  
JS MoWR/Member/Secy IC

( DN 1110 1111 1111 )



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

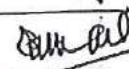
- ❖ TSC is clear that WAPDA's decision to go for the Commissioning/ Inauguration of the plant was in utter disregard of significant concerns on the project. TSC while finalizing the report and conclusions gave due consideration to interviews and documents provided by the stakeholders, specifically the following aspects to reach to the decision"


- xxxii. Besides what has been stated above under para xxx regarding the TSC Report, the IC further took note of other materials and observe that the World Bank's email of 10 August 2017 written by Mr Masood Ahmad to Mr Sohail the Project Director T4 HPP where the Bank in response to the email of Chief Engineer/Project Director T4 HPP dated August 03, 2017 raised one of the fundamental questions, as quoted below:

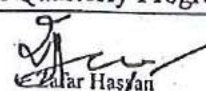
*"The main question that is to be answered is what is the benefit of bringing one unit on line in February 2017 versus the cost that would be incurred. There would not be water available for running the unit and thus no benefit. In fact, real testing under full head would be done only in July/August 2018 when reservoir is at design level for these units. How benefits would be affected if first unit comes on line later say March or April the all units come on line in May/June 2018, what is the consequence of that in cost and any commercial settlement that is being discussed."*

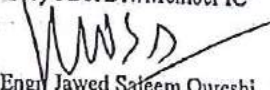
- xxxiii. Foregoing in view, it is incomprehensible as to how had WAPDA Authorities gone ahead with the project's Revised Co-ordinated Construction Schedule fraught with danger and most likely losses being forecasted and conveyed to the WAPDA, in the absence of NoL from the Bank. WAPDA despite having been confronted has not been able to give any reasoning/justification in this regard. The relevant excerpts of the World Bank's letter dated 13-09-2018 are as under.

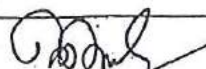
"WAPDA went ahead with further discussions with contractors during June and July 2017 and agreed a coordinated construction schedule with Voith and Sinohydro with the following Commercial Operation Dates: Unit 17 - February 25, 2018, Unit 16 - April 25, 2018, and Unit 15 - May 30, 2018. The agreement included a revised CO-10 of \$5.7 million, which was issued to Voith on July 31, 2017. Details of the process from contract start to issuing of CO-10 is described in detail by WAPDA Report1, dated August 2017, and in Quarterly Progress Reports."

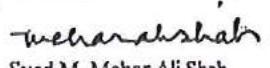
  
Shaimail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hasyan  
Secy PDR Div/Member IC

  
Eng. Jawed Sateem Qureshi  
Chairman/Rep/PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

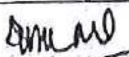
"The request for NOL for CO-10 was forwarded to the World Bank via email on August 3, 2017. The Bank did not issue a NOL, questioning the benefits of the increased cost. In email from Bank Task Team Leader on August 10, 2017 to Project Director for Tarbela 4, one of the major comments raised by the Bank was:

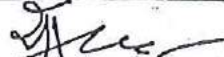
*"The main question that is to be answered is what is the benefit of bringing one unit on line in February 2017 versus the cost that would be incurred. There would not be water available for running the unit and thus no benefit. In fact, real testing under full head would be done only in July/August 2018 when reservoir is at design level for these units."*

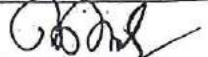
"The Bank missions of September/October 2017 and February 2018 highlighted the delayed completion of the raised intakes for Tarbela 4 and Tarbela 3 (see Management Letters dated November 7, 2017 and March 6, 2018). WAPDA presented a solution to finalize the two raised towers in dry season 2019/2020, without losing the production of power during the high-flow seasons. The Bank has informed WAPDA that the current IDA credit covering the civil works for raising the towers is closing on December 31 2018, and WAPDA, via EAD, needs to send a request for extension to utilize the remaining funds."

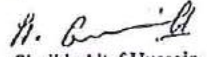
"The Management Letter dated March 6, 2018 requested further analysis to inform decision on the future operation of the intakes. The fourth IPOE visit in May 2018 confirmed this request. The recent problem with accumulated silt and mud at the outlet of the draft tube gates has accentuated the importance of sediment management for the Tarbela dam and its operation. The Bank would recommend that the IPOE and appropriate technical experts examine the causes for the accumulated sediment at the draft tube outlets, which will provide guidance for decisions on future operation of the intakes and generation units."


xxxiii. The most worrisome aspect of the entire above extremely alarming state of affairs is that the saner voice and expert advice of Independent International Panel of Experts' especially engaged on hefty payments from the national exchequer with acclaimed global contemporary technical knowledge and insight as well as of-reputed series of explicit and unequivocal warnings


  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Suleed  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/ISC

  
Engr Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

administered by the World Bank not only were utterly disregarded and project timelines were not rescheduled to the flood season of 2018 i.e. June/July 2018, in order to doubly reassure smooth and hazard free operations.

- xxxiv. Another matter of concern is that WAPDA did not even bother to respond to any of their above communications as is evident from the following excerpt of the World Bank letter dated 13-09-2018.

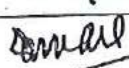
*"The Bank has since then not received further information on the matter. The Bank via email requested an update on August 17, 2018, but with no response."*

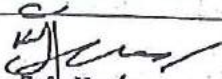
- xxxv. Another relevant aspect of the matter considered by the TSC is Tarbela Reports of 1997 and 2000 on Sedimentation. In this regard, the four members of the TSC gave finding vide para 4.81- 4.82 of TSC report that the historic lessons were available with WAPDA which were adequate to know the fact that during the month of March in those years when water availability is less and reservoir level reaches to its dead level, the problem due to sediments and trash poses serious threats to the system. The TSC therefore finds that this factor should have been taken care of while deciding the dates for wet testing/commissioning of Units of T4 HPP. The operation of Unit 17 indicates that while experiencing the problem of sediments and trash/wood/bushes the operation during wet commissioning was made for shorter intervals. Despite the said care, the choking of cooling water system was noticed reported vide Voith letter dated 14-03-2018 as discussed above.

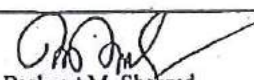
- xxxvi. The IC perused the TSC's reports as well as examined the record comprising documents, correspondence etc. and determined that the findings of the four members of the TSC which are based on the conclusions given at para 5.01 above read with 4.03 to 4.20 of TSC's report of October 2018 are plausible and the contractual formalities to put the Unit 17 in operation were fulfilled without taking into consideration the compromised water quality that is associated with the low water level in the reservoir which caused entry of wood bushes and rots in to the turbine and caused choking of cooling water system.

- xxxvii. The said water quality was confirmed by the Employer, Consultant and the Contractor as not fit for turbines' operation in para 3 of the minutes of their meeting held on 02-03-2018, as reproduced below:

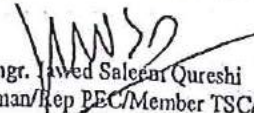
- xxxviii. "Employer, however, stated that under the prevailing circumstances (Non-availability of water and Reservoir being almost at dead level), it is not advisable to carry out the reliability test for safety of the new Turbine. Parties agreed for a suitable time, subject to favourable conditions, to start the reliability rest on Unit 17. Date to be agreed mutually as per prevailing

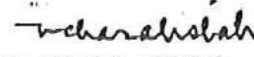
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hasan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

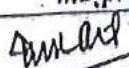


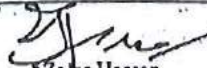
**SECRET**

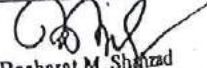
INVESTIGATION REPORT  
TARBELA 4<sup>th</sup> EXTENSION HYDROPOWER PROJECT

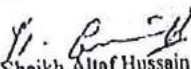
circumstances. Employer will inform about one week before the start of Reliability Test."

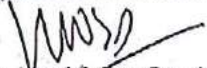
- xxxix. Forgoing in view, the IC is unable to comprehend the motivation for declaring the COD for Unit 17 on March 02, 2018 when the energy generation was only expected in June/July 2018 as is evident from the record that the Unit 17 remained closed for 100 days due to non-availability of water/reservoir level with effect from 02-03-2018 to
- xl. 08-06-2018 (see chart contained in para 5.01 (a) (iii) a) as well as forecast and timely conveyed by the WB and IPOE.
- xli. Besides, the IC also holds the opinion that the decision of completing the Wet Commissioning to declare the Commercial Operation Date was made in July 2017 while disregarding the advices of IPOE and the World Bank who alerted at that time that in the month of February 2018 the water will not be available. World Bank also enquired WAPDA to explain the reason based on cost-benefit analysis for fixing the Units operation date before the high flow season of 2018 i.e. June/July 2018.
- xlii. The above observation can be better understood only without taking benefit of hindsight as it was not available to WAPDA's decision makers in July 2017. The only wisdom available with WAPDA and its consultants in July 2017 were the advices rendered by the IPOE in March 2017 and the World Bank in June 2017.
- xliii. Another important formality which was required to be fulfilled was removal of downstream coffer dam – a temporary obstruction created to cordon off the area for keeping it free from water for undertaking construction activities below the powerhouse. Due to non-removal of the cofferdam, the silt which was being released from the turbines continued accumulating in the tailrace pond of the T4 HPP and eventually caused blocking of gates of the draft tubes when the plant was shut down on 05-07-2018 after the incident of puncturing of dewatering valves.
- xliv. The IC, therefore, determines that the availability of water quality suitable for operating the units as being the foremost pre-requisite was not available, hence the operation of units in the absence of conducive environment was a premature action decided by WAPDA, Consultants and the Contractors.
- xlv. The four-members of the TSC vide para 4.82. of the TSC Report gave their finding on water quality that *"The TSC therefore finds that this factor should have been taken care of while deciding the dates for wet testing/commissioning of Units of T4 HPP. The operation of Unit 17 indicates that while experiencing the problem of sediments and trash/wood/bushes the operation during wet*

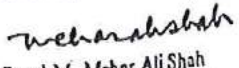
  
Shameil Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zakir Hassan  
Secy PDR Div/Member IC

  
Basherat M. Shaukat  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Chairman/Rep/PEC/Member TSC/IC

  
Engr. Jawed Safem Qureshi  
Chairman/Rep/PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

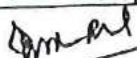


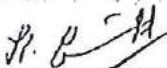
SECRET

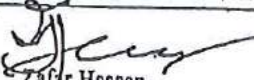
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


*commissioning was made for shorter intervals. Despite the said care, the choking of cooling water system was noticed reported vide Volth letter dated 14-03-2018 as discussed above."*

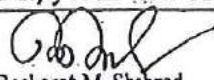
- xlvi. Contrary to the opinion of the majority four members, the three members of the TSC gave their view vide para 4.83 of TSC report that "necessary care was exercised by deciding that the Unit 17 will be operated on 'Speed No Load' on alternate days up to 3-7 March 2018, and subsequently for short durations on 8-10 March 2018. Further the lower performance of cooling water system was due to lack of cleaning of strainers and hydro-cyclones, which are usual O&M matters. It is to be noted that after cleaning was done the cooling water system performed perfectly without any problem."
- xlvii. In view of the above discussion on water availability and quality, the IC endorse the opinion the majority four-member viewpoint of TSC as recorded vide xxxii above, whereas two members of the IC vis SAH and JS(W) dissented with the other four IC members. SAH maintained his earlier viewpoint as recorded vide para xlvi, above. Besides, the JS(W) added his additional note as given in the ensuing paras of this aspect. With regard to the below additional note the JS(W) explained that he had reviewed his earlier opinion given in the TSC Report, after examining in detail the relevant material and information and he felt inclined towards the finding given by the minority members of the TSC as plausible based on the following reasons.
- The parties including mention of the fact that prevailing conditions are not suitable for RTR reflects that the project authorities along with the Consultants and Contractors taken cognisance of bad water quality. Hence the Plant was not operated after 10-03-2018 until the water level increased to 1400 ft in June 2018; the plant operation after 10-03-2018 restarted on 08-06-2018 without any trouble.
  - Existence of low reservoir level in February either at or in the vicinity of dead level coupled with the sediment build-up in front of the intake (as reported by the IPOE provided under para 4.56 of TSC's report) because of no release of water from T4 during last four years of construction period leaves no doubt that the water quality was bad. It is however observed that given such bad quality Plant was kept stand by to avoid any damage.
  - In view of the history, available data and reports of 1997, and the conditions observed when the Wet Commissioning was completed, WAPDA did not operate the Plant to avoid damages associated with the silty / muddy water and low/ dead reservoir level. The completion of Wet Commissioning was achieved on 02-03-2018 which was the day on which Tarbela reservoir touched its dead level of 1386 ft. Though this level was higher than the level defined in the Contract i.e. 1378 ft, yet in view of silt

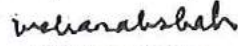
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Aatif Hussain  
Rep of NESPAK/Member IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

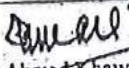
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

noticed in the turbine flows, the Employer, Consultants and the Contractor agreed to not to operate the Unit 17 for RTR which was a prudent decision to avoid damage to the turbine associated with the continuous operation as required under the RTR.


- d. Independent Panel of Experts (IPoE) advised in their Apr-2017 Report, "..... Commissioning, Guarantee Testing and Operations can only commence during next year's high flow season i.e. June/July 2018". To this effect, as described above, RTR and Guarantee Testing operations were started during the high flow season. As far as Commissioning is concerned, it was done before when the reservoir level was above dead level and even above 1400 ft. By doing so the Unit was made ready for generation of electricity during high flow season which according to the Contract was considered as the commercial operation as rightly advised by the World Bank in its letter of June 20, 2017 addressed to the Secretary Ministry of Water & Power with copies endorsed inter alia to Chairman WAPDA in which the Bank stated as follows:

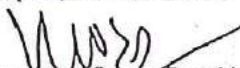
*"Consolidation of Acceleration Program for Completion of T4HP. Since it is not possible to meet the envisaged commissioning of one unit on August 14, 2017 or in January 2018 as now being proposed, it is essential to agree on a pragmatic timeline for commissioning of the plant. Since T4 tunnel will only be operated during July-October 2017 for producing incremental electricity from Tarbela hydropower plant, the plan should be adjusted to get the plant ready in March-April 2018 and prepare for full generation during 2018 high flow season. ..."*

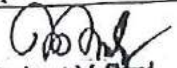
- e. World Bank advised vide 13-09-2018 and Paragraph 3.4 of TSC's report; "The mission was informed that WAPDA is trying to bring the plant in operation in December 2017 or January 2018. This is fraught with danger and great risk (as advised by IPoE) without any economic benefits there is no water available during that period for incremental generation from T4HP - in fact the water to operate all units simultaneously would become available only in July 2018 for incremental generation from T4HP". Ref: World Bank Letter dt 13-Sept-18. This aspect is true as Commercial operation of Unit 17 could only be started when it completed Commissioning in March 2018 i.e. before the high flow season of 2018. The operation of Unit 17 was started accordingly in the high flow season i.e. on 08-06-2018 when the water was available and importantly the Unit 17 was ready due to completion of Commissioning as advised by the Bank earlier on 20-06-2017 written to the then Secretary Ministry of Water & Power a day before issuance of the aide-memoire i.e. on June 20, 2017, wherein the Bank inter-alia stated that "Consolidation of Acceleration Program for Completion of T4HP: Since it is not possible to meet the

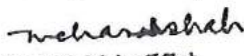
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altof Hussain  
Rep of NESPAK/Member IC/ISC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

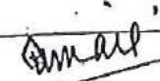
  
Basharat M. Shah  
ADG/Rep FIA/Member IC

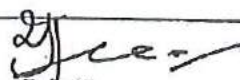
  
Syed M. Mcham Shah  
JS MoWR/Member Secy IC

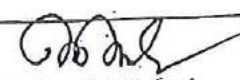


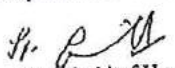
envisaged commissioning of one unit on August 14, 2017 or in January 2018 as not being proposed, it is essential to agree on a pragmatic timeline for commissioning of the plan. Since Tunnel 4 will only be operated during July – October 2017 for producing incremental electricity from Tarbela hydropower plant, the plan should be adjusted to get the plant ready in March-April 2018 and power for full generation during 2018 high flow season. The independent panel of experts (IPoE) strongly recommended, and the Bank fully supports, this view which strictly advised (i) not to operate the T4HP plant with top intake plugged with a temporary plug as proposed under the revised accelerated program; and (ii) not to do simultaneous operation of the T4HP from both intakes at low and high levels. Since commissioning of T4HP in January 2018 does not bring any benefits taking extraordinary construction risks for the purpose are not justifiable.”

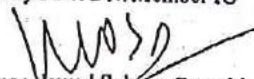
- f. In view of above, the Bank's advice was permissive to get the Units ready in March, April 2018 to get the full generation in high flow season of 2018. The log sheets of Unit 17 examined by the IC indicate that pre-commissioning and commissioning were completed and on 02-03-2018, as it was announced in the meeting that the Unit 17 was ready for power generation. Subsequently, the power generation from the Unit 17 was started on 08-06-2018 which is the high flow season of 2018. Hence, the Bank's advice was adhered to. By following the Bank's advice WAPDA became able to start RTR in June 2018 after having the Unit 17 ready in March 2018.
- g. Wet testing of unit 17 was started on 20<sup>th</sup> February and completed on 1<sup>st</sup> March 2018 on short runs of turbine mostly ranging from 00:03 minutes to 00:45 minutes on silty and muddy water flowing through it. Turbine remained out of operation from 3<sup>rd</sup> March to 7<sup>th</sup> March 2018 and was in operation on 8<sup>th</sup> March for 0:02 & 0:35 minutes and on 9<sup>th</sup> March for 0:46 minutes.
- h. On the day of Inauguration, the turbine was synchronized only for 3 minutes and remained shut till 7<sup>th</sup> June 2018, which is consistent with the situation as not to operate the Unit for sustained operation due to silt in the water.
- i. The unit was supposed to be in operation for RTR and generating electricity after COD but because of the water at dead level, sustained operation was not undertaken as per the decision of Employer, Consultants and the Contractor on 02-03-2018. Hence making the Unit ready before the onset of high flow season in fact served the benefit of generation of electricity in the high flow season as in case the Unit would have been

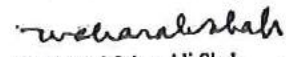
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

made ready in the high flow season, it would have delayed the commercial operation.

e. Aspect relating to Completion of Raised Intake as one of the Formalities for Commissioning of Unit 17

- i. The TSC vide para 4.73 of its report stated that the matter of use of existing intake had been under discussion between WAPDA, World Bank, T4CJV and Independent Panel of Experts (IPOE). The matter was resolved when IPOE in its correspondence "REPLY TO WORLD BANK COMMENTS RE IPOE REPORT" sent via email dated 30 June 2017 to the GM Tarbela Dam Project Mr. Arshad Pervaiz, informed as follows:

*"As T4CJV has confirmed to WAPDA that both the concrete lining of the shaft as well as the bulkhead have been designed to withstand the additional 10 m pressure due to load rejection, IPOE has no objection to initial operation of the T4 powerhouse with the lower intake and the upper intake plugged with the properly designed temporary bulkhead which is stated in the T4CJV report to be capable of resisting transient pressures."*

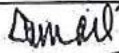
- ii. The TSC vide para 6.01 (I) (b) has given its finding as under


*"Refer para 4.73 vis. IPOE dt: 30-06-2017; IPOE on confirmation of T4CJV to WAPDA that both the concrete lining of the shaft as well as the bulkhead have been designed to withstand the additional 10 m pressure due to load rejection; IPOE has no objection to initial operation of the T4 powerhouse with the lower intake and the upper intake plugged with the properly designed temporary bulkhead ..."*


- iii. IC's Consideration on Use of Intake: The above proposition indicates the vital fact that until May 2018 when IPOE gave its report two months after the inauguration, the decision for plugging the lower intake was not finalised and was contingent upon a study. Notwithstanding, with regard to safety of use of lower intake for operation of unit 17, the IPOE conveyed their satisfaction vide their report dated 30-06-2017, as quoted above.


f. Aspect Relating to Removal of Cofferd Dam:


- i. The four members of TSC opined that WAPDA being owner of the T4 project determined itself the reason for jamming of draft tube gates as the partial removal of cofferdam which is although rejected by the Civil Contractor, however, WAPDA's own determination is an adequate reference keeping in view WAPDA's realisation of the importance of removal of coffer dam

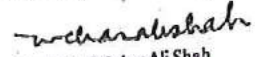
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/ISC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PRC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

recorded in the form of series of letters written by PD T4HPP to the T4 CJV since 06-12-2016 to 17-07-2018.

ii. Whereas the other three members had opined differently, while stating that that complete removal of downstream coffer dam is not one of the pre-requisites required to be met for 'Commissioning' of Unit 17, as its non-removal or partial removal would only cause increasing the tail water level; the increased tail water level would cause decrease in the minimum head of the reservoir, which should not decrease beyond the minimum head defined in the Contract (design range of head 75.7 m to 137 m), Ref. Table 8-2 'Key Turbine Parameters', page 8-7 of EM Contract Vol 2A. The minimum head during the process of Commissioning was  $(1386-1112=274 \text{ ft})$  83.5 m, which is more than the minimum specified head given in the Contract of 75.7 m. Thus, meeting this requirement of the Contract stands met, for the operation of Unit 17.

iii. The TSC, however, vide para 4.69 agreed unanimously that sticking of draft tube gates was associated with the complete non-removal of downstream cofferdam.

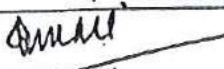
iv. The TSC vide para 6.01 (I) (c) has given its finding as under

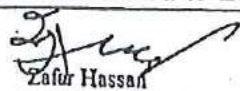
*"Refer paras 4.61 to 4.67 and 4.69, it stands established that partial removal of cofferdam ceased sediment transport from the tailrace area which eventually caused sticking of draft tube gates. Before start of the Unit 17, coffer dam should have been completely removed."*

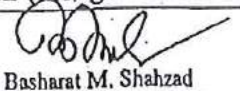
v. After examination of series of correspondence between Employer (WAPDA), Consultant and Contractor, referred to here under the IC observed that:

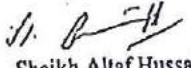
a) The aspect of removal of downstream coffer dam is also important to be considered. The schedule of activities signed by the Employer, the Consultants and the Contractors, partial removal of coffer dam was planned for operation of Unit 17 at activity number 'M1038' titled "Trench excavation / partial removal of d/s cofferdam at side to balance water level for wet commissioning".

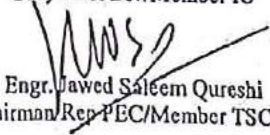
b) As per the RCCS of July 2017, the Project authorities (PD T4HPP) vide his letters 31-01-2018, 01-02-2018, 06-02-2018, 23-02-2018, 28-02-2018 had been repeatedly insisting upon the PM T4CJV to ensure submission of method statement for cofferdam removal which had also been emphasised in the aide-memoire of the World Bank Mission visited T4 project on 12-02-2018. He emphasised that the downstream cofferdam has been excavated to El. 337-338 m (though without the

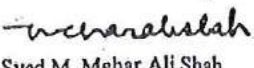
  
Sharnail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

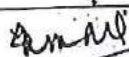
  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

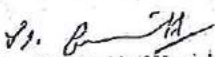


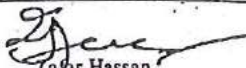
SECRET

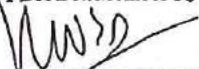
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

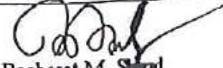
approval of the method statement): Further removal will be challenging job and would require close monitoring. The PD T4 HPP in his letter of 06-02-2018 addressed to the PM T4 CJV stated that "Unit 17 was tested on no load dated 05-02-2018 at 2100 hours. Tailrace water level increased overflowing right side of cofferdam. The trench on left side excavated for the purpose was not able to discharge design flow of a turbine even at SNL. Enlargement of trench to pass design flow of a single machine, is utmost important for Unit 17 COD. M/S POCL may be directed to increase pace of work to achieve required dimension of the trench before 25-02-2018, please." The PD T4 HPP in his further letter of 23-02-2018 addressed to the PM T4 CJV stated that "Today again, while testing unit-17, tailrace water level rose to El: 341 inundating remains of d/s cofferdam, though unit was not run on design capacity. Raising of tailrace level not only reduces generation capacity but is also detrimental to the machines. SNL run of unit-16 us following soon." Even as late as end of February i.e. 28-02-2018 the pace of work on removal of d/s c/dam was very slow. The activity seemed to have been abandoned for the last several days and Employer's concern in this regard had been communicated several times. Apart, the damming impact of the c/dam is also interfering with measuring turbine efficiency. The PD further emphasised the PM T4 CJV to insist upon the Contractor to come with a workable solution and inject required level of resources to complete the work in time. There is no evidence produced before the TSC or IC that as per the RCCS, the Unit 17 was not ready for COD, regardless of other variables, the dismal status of removal of even partial removal of c/dam as of 28-02-2018. It is thus abundantly clear that as per para 2 of the PD's letter of 28-02-2018 the Contractor had not provided any workable solution to the issue of removal of d/s c/dam nor got approved from the Engineer of the workable solution and nor injected the required level of resources to complete the work in time (Annex 8). The aforesaid reveals that as per RCCS, the partial removal of coffer dam, as a pre-condition for COD of Unit 17 was not done by the Contractor. The certification of partial removal of c/dam has not been produced before the IC or TSC to establish the completion of partial removal of d/s c/dam being one of the formalities. The root cause of Contractor's failure and complacency has been underlined by the PD himself vide his letter dated 17-03-2018, as "Basic flaw seems originating from meeting held dated 27-02-2014 fixing mode of payment for lump sum items. As per said meeting, the Contractor was able to get away with 90% cost the lump sum item without having to bother for the tricky job of removal of the same. This vanished Contractor's interest in removal activity lacking financial charm. Now after suffering from so much, the Engineer is requested again to seek method statement from the Contractor for complete removal of the structure, please. Without complete removal of

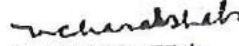
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/ISC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Saeed  
ADG/Rep FIA/Member IC

  
Syed M. Mehar  
JS MoWR/Member Secy IC



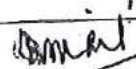
SECRET

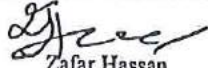
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


cofferdam, the DT gates seems to be position permanent challenge during O&M phase of the project."

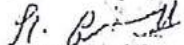
- 11
- c) The above referred partial non-removal of coffer dam has also been taken due note by the World Bank Mission (Feb 02-28, 2018) observing that "the removal of the downstream coffer dam was on the critical path as it would be complicated to remove it in time for commissioning of Unit 17. This has been further underlined by the World Bank Country Director's letter responded to the IC at page 2 vide letter dated 13-09-2018.
- d) Vide PD T4 HPP letter dated 12-06-2018 while referring to ten earlier references of letters the PD T4 HPP stated that basic essence of VO2-R2 was to get the generation of all three units which is only possible after removal of d/s c/dam. It is manifest that the complete removal of the coffer dam had also not been done as per the RCCS by 13-07-2018 and the said default was also observed by the IC during its visit to the T4 project site on 08-09-2018 and no activity in this regard was in progress on the site even two months after the due date had elapsed, which single factor, amongst others, as per the afore referred letter of PD had defeated "basic essence of VO2-R2 to get the generation of all three units". The aforesaid, therefore clearly establishes that both the acceleration programme (VO2-R2 and CO-10 (RCCS) could not achieve the planned/targeted timeline/achievement/dividends by advancing the COD of three units at the additional payments made of USD 48 million and USD 5.7 million, respectively, for reaping the benefits envisaged worth USD 350 million and estimated generation for year 2018 as 2,525 million units worth Rs. 22.72 billion as depicted in para 2.13 and 2.14, and energy generation of 3,840 million kWh generating revenue of USD 366 million (a reference slide No. 42 of WAPDA's presentation to CCOE dated 19-12-2016). Besides, the cost escalation due to delay in project completion would result into estimated amount of Rs 14 billion as per the draft 1<sup>st</sup> Revised PC-1 submitted by WAPDA in November 2019. As per WAPDA's draft 1<sup>st</sup> Revised PC-1 the extension of time is being asked up to 2021 as against the original completion of the project in March 2018.

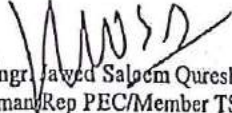
vi. During prolonged proceeding of IC spread over near 5 months as well as TSC proceedings and examination, no formal document or evidence was produced before them establishing the partial removal of coffer dam although this is correct that as per RCCS, partial removal is specified for operation of unit 17

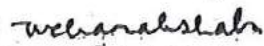
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FLA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

and not the complete removal as was perceived by the four members of TSC, which was however required for operation of all three units.

vii. Monitoring Reports by the Monitoring Consultants: The TSC examined the 34<sup>th</sup>, 35<sup>th</sup> and 36<sup>th</sup> monthly monitoring reports pertaining to the months February, May and June 2018 as well as 13<sup>th</sup> Quarterly report of March 2018 prepared by the Monitoring Consultants which stated that wet commissioning had been completed successfully. Subsequently, the commercial operation was suspended/plant not operated until the reservoir reached to a certain level. With regard to removal of coffer dam the monitoring report was quoted by the TSC which stated that removal of downstream coffer dam remained suspended due to commercial operation of T4 powerhouse it is expected that removal will be completed after September 2018 subjected to stoppage of commercial operation of T4 Power units.

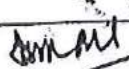
viii. The TSC therefore concluded that that this is evidence from the Monitoring Consultants that the removal of downstream cofferdam was not achieved even in June 2018 which was a pre-requisite for the commercial operation.

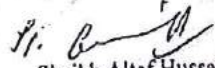
(g) IC's Finding on Pre-Commissioning and Commissioning:

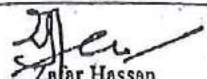
i. The IC endorses the TSC's findings as contained in its report vide para 6.01 (I) (d) as under:

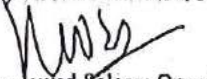
"Refer paras 4.20 (a) to (d) and up to (j) the pre-commissioning and commissioning was completed successfully to the extent of dry and wet tests however disregarding the other formalities/pre-requisites mentioned at "a", "b" and "c". [i.e. (a) Water Quality, (b) Suitability of existing vs. raised intake, and (c) Removal of downstream cofferdam]

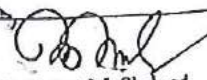
ii. The IC, however, found that the finding concerning the pre-requisite "b" relating to the use of existing intake was complied with according to the explanation given in the TSC report. As such the same may be considered accordingly.

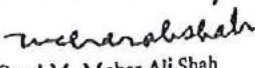
  
Shamail Ahmad Khawaje  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC


  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

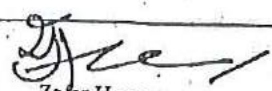


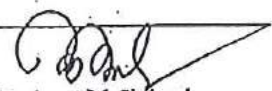
**SECRET**

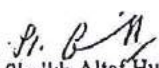
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


- iii. Further, the IC also took serious note of the proven fact that the wet testing was not conducted on full load due to non-availability of the requisite water levels as was being advised, warned both by the IPOEs and the WB repeatedly and finding no response whatsoever from the Employer. The wet testing was done only to 364 MW only on one day i.e. 22-02-2018 for 21 and 15 minutes, respectively. Whereas, for most of the time during wet commissioning it was on a load less than 270 MW and could not be tested at full load i.e. 470 MW. The aforesaid manifestly prove the sanctity of the recurring and repeated advice and warning being regularly issued by the IPOEs and the WB to the Employer that the WAPDA's untenable and abortive plan to carry out the aforesaid exercise was not possible in the month of February and testing on full load could only possible in June/July 2018. As such the wet commissioning could not be conducted at full load and COD was declared after completing the Commissioning at partial load. The JS(W), however, stated that according to Contract Wet Commissioning is not associated with full load testing.
- iv. The COD was built in the T4 Contract and accordingly so declared which was exceptional in case of T4, whereas, in all other contemporary hydropower projects COD is declared after RTR, i.e. the stage defined in the contract of the T4 as deemed to be achieved after completion of Commissioning (Wet Testing) which is exceptional in the case of T4 only. The aforesaid exceptional provision of contract was not even accepted by WAPDA itself in its daily hydropower generation reports being submitted to the Ministry until the investigation was in progress as late as September 2018, wherein WAPDA was reporting that the COD for T4 will be achieved after the conduct of RTR (Annex 9). When during the proceedings of the IC meetings, the JS(W)/Member IC was asked to call the Member (Power) WAPDA to ascertain as to when the COD is declared on which he responded that the COD is declared after the completion of RTR. When further asked as to how had the COD taken place in case of T4 prior to conduct of RTR and WAPDA is still reporting on daily basis that the COD had yet to take place after the RTR, he sought time to ascertain and revert to JS(W). Amidst the meeting the Member (Power) called back and informed that in case of T4, COD had been defined in the T4 Contract after the Wet Testing as an exceptional case. When further enquired, he confirmed that COD in case of Neelum Jhelum Hydropower Project COD is defined after completion of RTR. The aforesaid, therefore, makes it crystal clear and beyond every shadow of doubt that the unusual and exceptional clause built in the Contract of T4, which needs to thoroughly probed.
- v. However, the three members of the TSC namely MAB, SAH and MAQB differed with the finding of other four members and held the opinion that in view of their evaluations given in the preceding paragraphs under Section 4

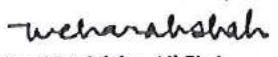
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain

  
Engr. Javed Saleem Qureshi

  
Syed M. Mchar Ali Shah



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT


of the TSC report, that it is determined that project was inaugurated after completion of all formalities."

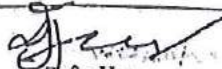
- vi. Pursuant to the fact that for operation of Unit 17 complete removal of cofferdam was not a pre-requisite, however, complete removal of cofferdam was required for operation of all the three units. Given the fact, that Unit 17 was operated on 02-03-2018 after fulfilment of formality of partial removal of cofferdam.
- vii. The IC also took serious notice on the pointation of ADG FIA regarding making 90% payment to the Civil Contractor for the activity "Completion of downstream cofferdam (Dewatering complete)" as one of the milestone payments under the VO-02 of USD 51 million vis acceleration program, at the time of completion of downstream cofferdam only without apportioning the payment of cofferdam activity into two stages vis construction and removal as the activity of removal of cofferdam. With this lopsided schedule of lump sum payment, the Contractor's lack of motivation to remove the cofferdam at the set target of July 2018 was natural which eventually caused the loss of sticking of draft tube gates. This aspect has been duly highlighted by the PD vide his letter dated 17-08-2018 addressed to the PM T4 CJV stating as under:

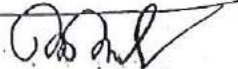
*"Basic flaw seems originating from meeting held dated 27-02-2014 fixing mode of payment for lump sum items. As per said meeting, the Contractor was able to get away with 90% cost the lump sum item without having to bother for the tricky job of removal of the same. This vanished Contractor's interest in removal activity lacking financial charm.*


*Now after suffering from so much, the Engineer is requested again to seek method statement from the Contractor for complete removal of the structure, please. Without complete removal of cofferdam, the DT gates seems to be position permanent challenge during O&M phase of the project."*

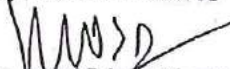
- viii. In view of the above, the IC fully agreed with the view of the ADG FIA that setting up of partial removal of cofferdam at a belated stage even for the operation of a single Unit 17 before 25-02-2018 was inherently an undesirable lower threshold for the contractor with whom the Employer had already agreed milestone, for complete removal of cofferdam, fixed in the original VO-02 of USD 51 million (the acceleration program) which warranted complete removal of cofferdam before 30-06-2017. The travesty of the whole episode is that even the Contractor failed to submit even a method statement as late as 17-08-2018.


  
Shamil Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Bsharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member Secy IC

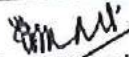


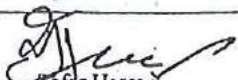
ix. The upshot of the above discussion is that setting a milestone for partial removal of cofferdam under the RCCS before 25-02-2018 was inherently wrong and instead the Employer and the Consultant should have fixed complete non-removal of cofferdam at the time of operation of Unit 17 and no concession should have been given to the Contractor to remove the cofferdam completely in a piecemeal manner extended up to July 2018, which ultimately caused serious loss of energy generation in July and August 2018 associated with the sticking of Draft Tube gates in mud after puncturing of dewatering valves in July 2018. Moreover, on one hand Contractor failed even to fulfil his obligation of complete removal of cofferdam even in July 2018 and on the other hand refused to lifting up of the stuck gates which was a damage caused because of complete non-removal of cofferdam agreed in July 2018. Due to refusal of Contractor to lift the draft tube gates, the Employer hired a private contractor at a cost of Rs 70 million to lift the stuck Draft Tube gates. The loss caused to the national exchequer in the form of denied generation of hydroelectric power during the months of July and August 2018 equivalent to Rs. 22.72 billion as per details given vide para 7.16 (i) below, and the additional payment of Rs 70 million made to the private contractor is recoverable from the Civil Contactor, Consultant and Employer proportionate to their respective roles, recommended to be determined through a detailed probe by any agency, owing to the paucity of time and the magnitude of the task involved which IC could not carry out within the available time.

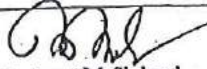
6.08 The aspect of decision making in terms of who and how the decision of fixing date of inauguration i.e. 10-03-2018 was made: The TSC in its para 4.20 to 4.27 discussed the matter in view of the replies of Chairman WAPDA and Member (Water) WAPDA and also considered World Bank's letter of 13-09-2018 which includes references to IPOE's report and Bank's correspondence with WAPDA on fixing of Commissioning date while referring to no benefit in bringing the Unit 17 online in February 2018 when practically there would be no water available for generation of hydroelectric power. However, the TSC has not made mention as to whether there is any other statement of any witness or materials produced before the IC/TSC, having bearing to determine the question involved that *who made the decision*.

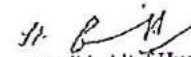
6.09 The TSC had recorded its findings in this regard vide para 4.20 (q) and 4.21 to 4.27 and gave its finding as under:

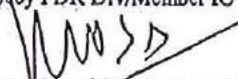
"4.20 (q) The perusal of above statements (of Chairman WAPDA and Adviser Projects WAPDA) related to fixing of Commissioning of T4 HPP, it is clear that after slippage of Commissioning of Unit 17 on August 14, 2017 the new dates were fixed in a manner that the project may be Commissioned during the tenure of the previous elected government which was due to be completed on May 31, 2018. On the contrary, the advice from the World Bank and the IPOE

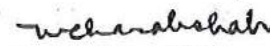
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Kafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shabzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

was to plan the commissioning in June/July high flow season of 2018. As stated above, without having the foresight as how the hydrology and other physical efforts would make it possible to commission the project in February 2018, there appears no other reason to achieve a target which was being warned by many as not to do so."

6.10

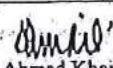
In view of the above, the three members (MAB, SAH, MAQB) relied on the ground that "the decision brought the project from the status of 'time at large' to agreed definite completion dates. The World Bank (WB) on an earlier proposal of WAPDA which intended to bring the three units in December 2017/January 2018 had commented that it would not be beneficial to do so as at this point in time as there would be no water available to get any extra generation. The comment was valid; however, the proposal which was adopted in RCCS was different which intended to bring all the units before June 2018" and gave finding that "it is clear that WB has been taking contradicting positions with respect to the fixing of dates of Commissioning of the units of T4. Fixing the date of before June provides the opportunity of benefitting from the entire high flow season. In case it is delayed for a few days, the benefit of commercial operation would be denied for that many days. Hence it is not fair to cast aspersions on the intentions of the parties that jointly fixed the dates of commissioning given in RCCS. Thus, questioning the RCCS at a time when the project is achieving its targets and has started producing energy is not appropriate."

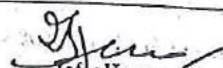
6.11

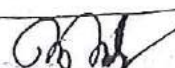
In this regard, on queries made and information/report provided by the JS(W)/Secretary IC/Member TSC, it reveals that the TSC considered the statements given by the Chairman WAPDA and the Adviser Projects only, however, rather any conclusion was drawn nor finding given to this effect. The Secretary IC stated that as per the Chairman WAPDA's statement of 17-09-2018, "Conducting of inauguration is not based on my personal decision. It is an institutional decision and was determined keeping in view the milestone set in the coordinated construction schedule signed by the contractors and consultants in July, 2017. According to which dry and wet commissioning of first unit was successfully completed between 28<sup>th</sup> January to 02<sup>nd</sup> March, 2018. The unit was available for inauguration. Accordingly, the PM inaugurated the project on 10<sup>th</sup> March, 2018." The Secretary IC added that as per the Adviser Projects (WAPDA) statement, "Dry and wet testing was done as per schedule and Unit 17 was synchronised on Feb 20, 2018. Thereafter, date of inauguration was fixed. However, I was not involved in fixation of Inauguration date." (Annex 10)

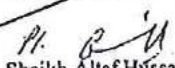
6.12

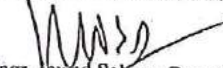
Secretary IC added that other relevant statements of Member (Power), CE (Operations) Tarbela, PD T4 HPP were also obtained by the TSC during the interviews, however, those could not be considered by the TSC. On perusal of the afore referred statements of M(P), CE (O&M) and PD T4 HPP, it transpired that when asked "Whether the inauguration date was fixed in consultation with Member

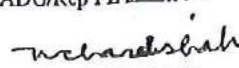
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shazid  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESP/Member IC/TSC

  
Engr. Jawed Saifem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehrez Shah  
JS MoWR/Member Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

Power?", the Member (Power) (M(P) WAPDA responded that the "the Prime Minister office communicated the inauguration date to the Chairman WAPDA office and Chairman WAPDA shared this date with Authority members."

6.13

Similarly, PD T4HPP, vide his written statement (Annex 11), submitted to the TSC that the *decision making regarding inauguration doesn't fall in his purview*. When further asked by the TSC, "were you contacted by superior office/offices about readiness for inauguration of T-4 project?", he responded that "I as PD-T4 was working under the administrative control of GM Power Tarbela (Mr. Sher Afzal Khan). The matter of inauguration was dealt at head office level. As to the best of my knowledge at the moment, I was not asked by the superior office/officers about the readiness of inauguration of T-4 project."

6.14

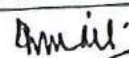
With regard to the statement of GM Power Tarbela, the Secretary IC informed that the TSC did not interview the GM Power Tarbela as he had retired and his charge was entrusted to Chief Engineer (O&M); the TSC interviewed the Chief Engineer (O&M), who when enquired on the aspect of institutional decision making, "Have the CE (O&M) played any role in inauguration of Unit 17? Any correspondence made on this subject by your office may also be provided.", he responded that "the role of CE(O&M) in inauguration of Unit 17 was limited to the extent to ensure that Unit is successfully synchronised by the Prime Minister (PM) of Pakistan on the date of inauguration. ...", as such, he explicitly and impliedly denied having been part of the decision making process concerning fixing of date for inauguration. It is important to mention that as per his statement (Annex 12), Chief Engineer is overall in charge (Technically & administratively) of T4 units; (O&M), the responsible officer in charge from WAPDA's side to operate the Units after the Consultants certified that the Unit has completed pre-commissioning and commissioning and handed over the Control Room (Unit 17) on 02-03-2018 to WAPDA for operation, as recorded in the Minutes of the Meeting held on 02-03-2018 among WAPDA, Consultants and the Contractor (Annex 13).

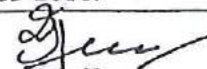
6.15

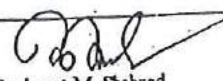
Besides, the Maj (Retd.) Tariq Mahmood Executive Secretary to Chairman WAPDA also submitted on 09-09-2018 his written statement voluntarily where the TSC did not ask for his statement. With regard to decision of fixing date for inauguration, in his statement, he provided that "In context of T4 Hydropower Project Chairman WAPDA office received letter from Ministry of Water resources on 5<sup>th</sup> March 2018 (Annex-I) for provision of documents. Accordingly, required documents were received by concerned offices and were sent to Ministry on 08<sup>th</sup> March 2018 (Annex-II) by PSO office. In same context further on ground and office coordination for conduct of inauguration was carried out by my office in coordination specifically with PR & PSO office. In same context as per earlier approved date of inauguration (10<sup>th</sup> March 2018) call was received from Prime Minister's office for reconfirmation of date."


6.16

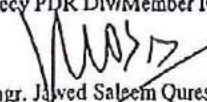
In the above statement, it is not clarified that by whom the decision was taken to fix the date of inauguration as 10-03-2018.

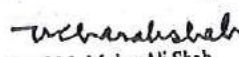
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

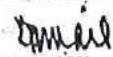
  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

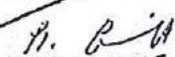


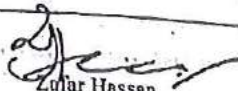
SECRET

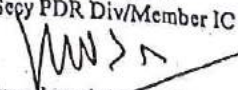
INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

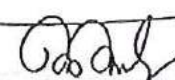
- 6.17 JS(W) further certified that there was no other statement or document on the aspect of decision making process of fixing the date of inauguration of Unit 17.
- 6.18 As stated above, the statements of Chairman WAPDA and Adviser Projects WAPDA provide that the project completion dates were fixed to save the project from the conditions of time at large and these dates were fixed in July 2017 stating inter alia the completion of Unit 17 on 25-02-2018. With this in view, the date of operation of Unit 17 stands established to be fixed through a consultative process of the parties to the Contract vis. the Employer (WAPDA), the Consultants (T4CJV) and the Contractors (Civil and EM Contractors). The unit 17 was subsequently inaugurated on 10-03-2018. Notwithstanding above, it is also determined from the statements of M(P), Adviser Projects WAPDA, CE (O&M) and the PD T4HPP that the date of inauguration was made without their consultation and also not at the Authority level of WAPDA, rather, it was done at the level of Chairman WAPDA.
- 6.19  The aspect of "Incident of draft tube gates stuck closed when lowered on 09-07-2018" was also examined by the TSC and unanimously found at para 4.103 that the incident of sticking of the draft tube gates in mud was precipitated by the puncturing of dewatering valves, as described in the excerpt from the WB letter referred to by the TSC, coupled with the partial removal of the downstream cofferdam as attributed by WAPDA itself to as the reason for sticking of draft tube gates in mud vide WAPDA's series of correspondence mentioned under paras 4.51 and 4.52, above.
- 6.20  IC's Consideration on the aspect of Sticking of Draft Tube Gates: The IC endorses the determination of TSC.
- 6.21 Implementation and Implication of Accelerated Program of the Project (USD 51 million)
- 6.22 The TSC vide paras 4.93 – 4.95 considered the matter and found that, notwithstanding the fact that in first place VO-2 should not have been signed; when, in April 2016, WAPDA came to know the fact that achieving the targets set in VO-2 had become impossible, the VO-2 should have been aborted, so as to reduce the sunk cost – the cost which had been paid/being paid since March 2015 till date, to the contractor out of the acceleration program – that is neither recoverable through any incremental benefit from the project nor from the contractor due to 'time at large situation'.
- 6.23 Non initiation and conduct of inquiry into the occurrences relating to T4 HP project: During the course of investigation in the third IC meeting held at T4 site, response to a query made by the IC, the employer responded that no inquiry has so far been held or ordered to ascertain the facts and causes and fix responsibility, if any, with regard to the alarms and concerns raised and reporting accrual of damage and absolving itself of responsibility from any damage to the turbines by Voith vide letter dated 14-03-2018.

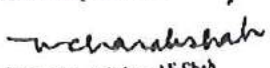
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shehraz  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member Secy IC



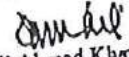
6.24 ✓ Sticking of gates on which the contractor absolved himself from such occurrence and refused to lift gates thus forcing the employer/WAPDA Authority to undertake the lifting of gates and allied works from its own resources by incurring Rs 70 million, reportedly approved by the WAPDA Authority and without having served any formal notice to the contractor under the relevant contractual provisions; WAPDA failed to provide any written response on it. However, verbally it was informed that the Contractor has refused to take up the task as it was not due to his fault. To this WAPDA, however, mentioned that the consultant has been asked to prepare a counter-claim.

6.25 **Audit Paras Relating to T4 HPP:** IC further noted the serious nature of observations and audit objections regarding the following 37 Nos. paras of various nature amounting to Rs. 39.48 billion.


Nature/Category of Audit Paras	No. of Paras	Amount of Para (million rupees)
Violation of PPRA Rules	02	13.87
Violation of Income Tax Ordinance	03	762.02
Violation of Contract Provisions	12	14,199.64
Violation of GFR	12	18,211.74
Cases of Accidents and Negligence	04	1,138.25
Miscellaneous (stolen material, irregular payments against milestones, recovery, etc.)	04	5,156.25
<b>Total</b>	<b>37</b>	<b>39,481.77</b>

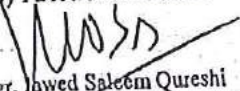
6.26 The said paras are being examined at DAC level. With regard to project completion, the audit observed in para 1775/2017-18 titled as "Loss due to undue favour to Contractor regarding variation order - Rs. 5,040 million", as follows:

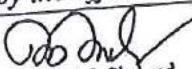
*"According to Section-III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982 (amended up to June 01, 2001), "all losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in*

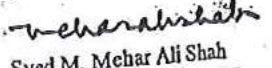
  
Shamaal Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Araf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

whose charge they were, to fix the cause of the loss and the amount involved".

In the office Chief Engineer/Project Director 4<sup>th</sup> Extension Power Project Tarbela, a package of Rs. 5,040 million (US\$48 x Rs.105) was approved for advancement of units completion dates with civil Contractor M/s Sino Hydro Ltd vide VO-02A. A comparison of completion dates given in the PC-I and VO-02A showed that there was a minor difference in these dates for which such a huge amount was approved illogically. This scenario indicated that undue favour to the tune of Rs.5,040 million was given to contractor which was a huge loss to the Authority.

Non adherence to the Authority's instructions resulted in loss of Rs. 5,040 million due to undue favour given to the contractor up to the financial year 2016-17.

The matter was taken up with the management in June, 2017. The management replied that the para had already been taken in Audit Report for the year 2015-16. The reply was not acceptable as no documentary evidence was provided to substantiate reply. Audit recommends that the management needs to investigate the matter for fixing responsibility besides making the loss good."

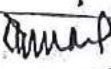
6.27

Similarly, the audit observed under PDP 42/2018-19 titled as "Non-removal of cofferdam by the Contractor- Rs. 313.30 million as follows:

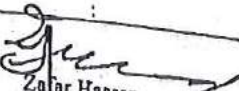
"In scope of work delineated in clause 9.1 of the Contract Agreement of Tarbela 4th Extension Hydropower Project (HPP), the contractor not only agreed upon initial construction of downstream cofferdam at the powerhouse but also upon its removal after completion of work. In Tarbela 4th Extension HPP, cofferdam was constructed at a cost of Rs.313.30 million. After construction of powerhouse, cofferdam was required to be removed from the site for smooth drainage of water and silt, whereas, it was not removed. Due to non-removal of cofferdam, silt accumulated and plant stopped generating electricity. Moreover, no inquiry was conducted to fix the responsibility."

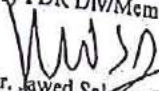
6.28 WAPDA responded to the audit on the above audit observation as below:

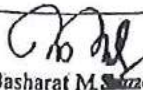
"Cofferdam is constructed in hydraulic structures/hydropower project to delineate water body from construction area and project dry working conditions for construction activities.

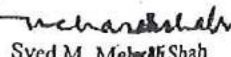
  
Shamil Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Sarad  
ADG/Rep FIAC/Member IC

  
Syed M. Mehr Ali Shah  
JS MoWR/Member Secy IC



T-4 powerhouse is located in Ghazi Barrage pond. Accordingly, it was necessary to construct downstream (d/s) cofferdam which was included in Civil Work Contract BoQ, with bid price of Rs. 349.49 million. This cost also includes removal of cofferdam as well.

- The Civil Work Contractor successfully constructed d/s cofferdam in February, 2015. It successfully served its purpose of reclaiming (temporarily) dry land for T-4 Powerhouse construction activities. T-4 powerhouse was completed successfully in 2017, so the cofferdam has served its purpose.

- As per agreed mode of payment, Rs. 313.30 million was paid to the contractor for erection of cofferdam.

Therefore, the contention in PDP-42 that Rs. 313.30 million were wasted, is not valid because the cofferdam has served its purpose.

- The Audit Para further says that non-removal/partial removal of cofferdam led to silt accumulation, stoppage of plant and loss of generation to the Authority.

In this regards, it is submitted that T-4 powerhouse (02 units) was operated successfully from 08.06.2018 till 01.07.2018 (when level dropped below El: 1400 ft and machines were stopped). T-4 Powerhouse (02 units) were again operated from 08.09.2018 and third unit from 22.09.2018 successfully. Since then, it has generated more than 850 million units of electricity, which is otherwise of audit's contentions. Had partial removal of cofferdam to obstruct plant operation ability, T-4 machines should not have run at all during high flow season of 2018.

- The Audit further recommends holding inquiry to fix responsibility and make good the loss i.e. Rs. 349.49 million.

As elaborated above, cofferdam has served the purpose to reclaim dry land for T-4 powerhouse construction which has successfully been constructed, so the payment of Rs. 313.30 million to the contractor is not wasted. There is no loss to Authority."

6.29

The above reply of WAPDA given to audit is evasive and does not address the very fact pointed out by audit that sticking of gates in mud was due to non-removal of downstream coffer dam completely as per the schedule agreed upon under the RCCS. It is, however, to mention that since complete non-removal of coffer dam was due in July 2018 which could not be accomplished by the Civil Contractor while making the reason of high flow season being dangerous for the labour to dive into the deep water. Such non-compliance of RCCS contributed towards sticking of draft tube gates as the same was attributed by the PD in his letter vide dated 17-08-2018 addressed to the Consultant. It is important to state that the audit's observation on complete non-removal of coffer dam is attributed to the loss occurred in the form of sticking of draft tube gates which was an event happened in July 2018, four months after the inauguration of the plant. During this period the Unit 17 was put in operation from 08-06-2018 (when the reservoir level exceeded 1400 ft) to 01-07-2018 when the water level dropped below 1400 ft).

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

- 6.30 Another proposed draft para bearing number 43/2018-19 titled as "Loss due to leakages of substandard Penstock Dewatering Valves-Rs. 425.60 million" has also been reviewed where the audit states as quoted below:

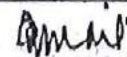
*"According to Section III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982, "all losses whether of public money or of store, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and the amount involved".*

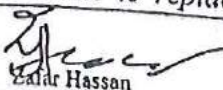
*In Tarbela 4th Extension Hydropower Project (HPP), three valves of plant leaked within 5 days despite the fact that plant was not fully operational, whereas, the expected life of the valves was supposed to be above 30 years. Silt on upstream of the Main Inlet Valve (MIV) and at draft tube got accumulated due to leakage of valves; consequently, T-4 Unit-17 stopped electricity generation causing a loss of Rs.425.60 million including cost of removal of silt. No inquiry was conducted to fix the responsibility of loss."*

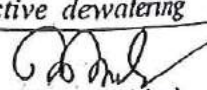
- 6.31 WAPDA management responded to the above para as quoted below:

*"The lower of two Penstock dewatering valves (dia. 0.5m) of Unit 17 leaked from its casting body on 05.07.2018. Further, lower and upper Penstock dewatering valves of Unit 16 leaked from their body on 08.07.2018 and 09.07.2018 respectively. As an interim arrangement, defective valves were plugged by Voith with blind flanges. With this arrangement Unit 17 and 16 in parallel, have satisfactorily been tested independently and jointly for load rejection tests for 470 MW (max. capacity) individually and 940 MW jointly. Now the units are in operation as per SOP/IRSA demands. Subject valves have been procured and installed by Voith under EM Contract, Vol-2A, Section 5.1 and in line with Technical Specifications, Vol-2A, Section 12.2.4. Valves are under Defect Liability Period. As per GCC Clause 27, if during the Defect Liability Period any defect should be found in the design, material and workmanship of the plant supplied or of the work executed by Contractor, the Contractor shall promptly, in consultation and agreement with the Employer regarding appropriate remedying of the defects, and its cost, repair, replace or otherwise make good as the Contractor shall determine at its discretion...."*

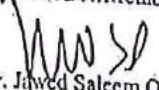
*Facility Completion Certificate was issued and Drainage & Dewatering system was Taken-Over by WAPDA on 15.01.2018. As per GCC Clause 27.2, Defect Liability Period is 540 days from the date of Completion of the Facilities or one year from the Operational Acceptance (OAC) of the Facilities. It lies under the Contractual obligation of the Contractor to make defective dewatering valves good as the same are under DLP. EM Contractor has submitted schedule to replace the defective dewatering*

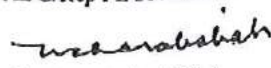
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shatrad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PECA/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

valves with more reliable and good quality valves, procurement is under process by Voith from its sub-contractor in China.

Regarding the financial loss due to non-operation of units after failure of Penstock dewatering valves (under DLP). On behalf of Employer, T4 Project Consultants vide letter No. PM/T4CJV/Site/15815 dated: 31.07.2018 (Ref.02) have already intimated notice of claim to EM Contractor. As subject revenue loss is in fact Employer's claim against EM Contractor, the matter is under correspondence and being pursued with T4 Project Consultants."

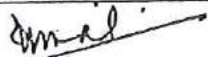
- 6.32 The above noted proposed draft para made by the audit and the reply given by WAPDA will also be examined by the DAC. However, without waiting for the aforesaid, the losses determined by the IC after thorough investigation as discussed above vide para 6.07 needs to be recovered, responsibility fixed and those found delinquent be proceeded against.

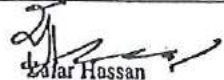
## 7 Findings and Conclusions of the IC

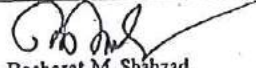
- 7.01 The IC has examined all the record provided by and/or obtained from the stakeholders and others, highlighting the subject matter, gone through the replies offered against the questionnaire served upon concerned persons as well as the reply to the queries made by the individuals examined including those involved in the execution of the project in different capacities and documents/other material produced before the IC/TSC. IC has also conducted the site visit to inspect the project and witness the ground realities.

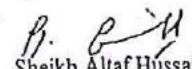
- 7.02 The majority members of the IC are of the opinion that an International Panel of Experts (IPoE) comprising four foreigners and one Pakistani engineer was appointed by the employer (WAPDA) against hefty remunerations to examine and advise on the project implementation including the contract administration being undertaken by the consultant and the contractors. IPoE was further entrusted with the responsibility to exercise oversight on the functioning of employer, consultants and the contractor. But contrary to it, the employer (WAPDA) did not act upon the advice of the IPoE as well as the World Bank experts and even warnings and alerts generated by the Consultants as well as the contractor while taking the crucial decisions related to the execution and commercial benefits (Ref. WB letter dated September-13, 2018). The employer failed to exercise due diligence/common prudence even when pointed out by the stakeholders at the relevant time. TSC, in its final report, has highlighted areas of serious concerns which are specifically mentioned in the following Clauses/Annexures of TSC Report:

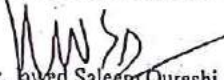
- i. History / Lesson learnt from past – 4.75 to 4.82— WAPDA's Report: "Tarbela Hydro Electric Power Station, Operational Problem and its Solution at Low

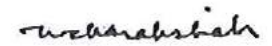
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Faraz Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FSC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

Reservoir Level" which clearly narrates the experiences in the years 1997 and 2000 while operating the Units in the month of March, which resulted in chocking of cooling water strainers causing Non Operation of Tarbela Unit 11 to 14.

- (ii) World Bank-4.19(b), 4.3(ii) — Advising to the employer not to bring the Unit 17 online in February 2018 and wait till June/July for availability of Water to generate Hydro Electric Power.
- (iii) IPoE reports - 4.2e(iii)---Also advising employer that "This is fraught danger and great risk without any benefits as there is no water available during that period".
- iv. Water level - 4.44, 4.46, 4.47 and 4.53
- v. Consultant T4JV - 4.45
- vi. Removal of d/s Coffor Dam - 4.61 to 4.65
- vii. Water quality - 4.43, 4.55, 4.56
- viii. EM Contractor (Voith) - 4.28 to 4.37

However, all members of the IC are of the opinion that the contractual formalities were fulfilled before the Commissioning vis suitability of use of lower intake, partial removal of coffer dam, dry testing. With regard to wet testing two members of IC consider that wet testing was completed successfully according to the Contract even not tested on the full load, while the IC considered it an essential component of a meaningful wet testing.

7.04 ToR-1: To examine whether the project inaugurated in time or before the completion of all formalities.

7.05 The IC deliberated to define the word "Inauguration" and "All formalities" mentioned in the ToR-1.

7.06 (a). Inauguration means, the talking points of Prime Minister of Pakistan prepared by WAPDA at the occasion of inauguration dated 10-03-2018 (Annex 14) which was as under at bullet point 2.

"Commissioning of Tarbela 4<sup>th</sup> Extension Hydropower Project is yet another historic milestone achieved by the Government to add 1410 MW in the National Grid."

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Sheikh Altaf Hussain  
Rep of NESPAC/Member IC/TSC

Zafar Hassan  
Secy PDR Div/Member IC

Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Syed M. Mchar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

(b). All formalities mean, all legal, procedural, technical and financial formalities which were required under the Contract (RCCS), law, the P&D Manual and the Financing Agreement.

7.08

In view of the above, the IC found following deficiencies in the formalities on the date of inauguration on 10-03-2018:

PC-1

a. The project PC-1 expired in January, 2017 as such a valid PC-1 was not in existence at the time of inauguration 10<sup>th</sup> March, 2018. The revised PC-1 has now been submitted by WAPDA in January 2019, after responding on the queries of office CEA/CFFC which is under examination.

NOL - W.B  
Ch. Order - 10

b. Approval/No Objection Letter (NOL) from the World Bank on Variation/Changes was not accorded by the WB on issuance of Change Order, 10 of USD 5.7 million despite the clarifications provided by WAPDA on queries made by the Bank on the matter, however, it was approved by the WAPDA Authority which was not competent a forum to approve in the absence of a valid PC-1 and NOL from the Bank. It is also worth mentioning that the Raised Intake was not constructed and yet full payment for the VO-02 R2 of US\$ 48 million was released, whereas the gravity of this whole matter is accentuated by the fact that the revised PC-1 now under submission by WAPDA is targeting completion of raised intakes by the year 2021, whereas the Contractor, in lieu of receipt of an additional colossal sum of US\$ 48 million was obligated to have it completed by June 2017 (i.e. the requisite timeline is now to be met after lapse nearly four years and that to by an additional estimated funds of Rs 14 billion, now being demanded under the proposed 1<sup>st</sup> Revised PC-1.)

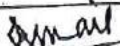
Raised Intake  
(pending)  
full pay → 48 mil

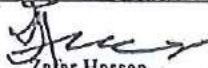
c. Approval of Revised Coordinated Construction Schedule (RCCS) was accorded by WAPDA Authority, specifying inter-contract milestones i.e., 25-02-2018, 30-04-2018 and 30-05-2018 for units 17, 16 and 15, respectively, with a grace period of 10 days. In the absence of a valid PC-1 and NOL from the Bank, however, the validity of the RCCS would be subject to approval by the ECNEC of the revised PC-1.

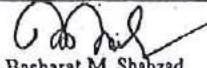
d. Availability and Quality of Water; the IC members were of the view that since the entire technical matters including that of water quality were entrusted by the IC to a seven-member TSC, comprising all technical experts, as such, they being non-technical members are not in a position to overrule the majority (four-member) view.

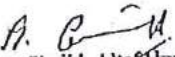
The JS(W) as one of the four-member majority group in TSC in first place opined at para 4.37 of TSC Report that:

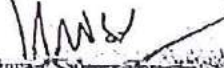
"The above letter of EM Contractor provides a clear evidence of bad water quality which was causing damage to various parts of the unit

  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shanzad  
ADG/Rep FIA/Member IC

  
Sheikh Akaf Hussain  
Rep of WAPDA/Member IC

  
Faqir Hussain  
Rep of WAPDA/Member IC

  
Wajid Hussain  
Rep of WAPDA/Member IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

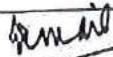
17 and warn that these impurities will lead to system disturbance and sooner or later, it will affect the turbine operation and will make it impossible. The TSC, therefore, finds that the water quality was of extremely poor and not fit for putting the unit in operation.


The JS(W) in this regard after re-examining the documents in detail opined that the above quoted opinion based on Voith Letter of 14-03-2018 was not understood water quality was noticed as bad due to roots and bushes and heavy silt after completion of wet commissioning when the reservoir level dropped to dead level, therefore, to avoid any damage the Employer, Consultants and Contractors agreed to restrict the operation of Unit 17 for a limited time after wet testing (for inauguration) and not to operate continuously under handling trial and RTR. Since the Unit 17 was not operated continuously owed to bad water quality under RTR, the element of bad water quality cannot be called as a formality which was not fulfilled. In this regard, IC is not in possession of any information/record whereby it can certify that no damage occurred to the turbines/pumps/ancillaries, etc. as per available record. Above all the OEM which happens to be the EM Contractor as well, in response to IC Secretariat's email of 01-10-2018 has categorically stated as under with regard to damage caused or likely to have been caused and absolved himself of any guarantee or warrantee in case the cause of damage was outside the Contractual Specifications and Operational Instructions.


- e. Aspect relating to Completion of Raised Intake as one of the Formalities for Unit 17; the TSC vide para 6.01 (I) (b) gave its finding that the existing intake was used after intimation of satisfaction by the Int'l Panel of Experts. This aspect has to be seen in the overall scenario keeping in view all the advices of International Panel of Experts (IPoE).
- f. Removal of Downstream Cofferdam; IC's finding is as recorded vide clause above.
- g. Pre-Commissioning and Commissioning Decision 4 and 5 of the MOM of March 02, 2018 between parties WAPDA, Consultant and Contractors:

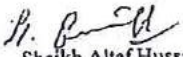
"4. Parties agreed to run Unit 17 on SNL (3-7 March, 2018) on alternate days between 17:00 to 18:00 Hours to ensure its availability for inauguration proposed on 10 March, 2018.


5. On 8<sup>th</sup>, 9<sup>th</sup> March 2018 (between 17:00 to 18:00 Hours for duration of up to one hour) and on 10<sup>th</sup> March, 2018 (time to be defined), the Unit 17 will be synchronized with the system under the supervision of Voith."

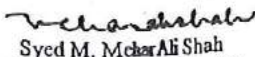
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Afzar Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shabzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Engr. Jawad Saleem Qureshi  
Chairman/Rep PEE/Member TSC/IC

  
Syed M. Mchar Ali Shah  
JS MoWR/Member Secy IC



*Investigation Report*

SECRET

7.09 Besides above, IC considered the aspect of decision making in terms of who and how the decision of fixing date of inauguration i.e. 10-03-2018 was made. IC is of the opinion that the advice to the Prime Minister to proceed with the commissioning and subsequent inauguration was contrary to the advices of World Bank/IpOE.

7.10 Similarly, the aspect of sticking of draft tube gates in July 2018 has also been examined to see its nexus with the earlier activities in the project. It is worth mentioning that a 3<sup>rd</sup> party Contractor instead of EM Contractor was mobilized to carry out the rectification.

7.11

Another aspect relevant to overall T4 HPP implementation is "Implementation and Implication of Accelerated Program of the Project (USD 51 million)". The fact to ascertain the effective utilization of this amount towards intended purpose need to be investigated thoroughly.

7.12

Though the contractual requirements were fulfilled to the extent of available water level, the commissioning & inauguration of the Plant was premature given the fact that available water was not of the quality to operate the Unit 17 as the reservoir was at dead level. The issue of quality and availability of water has to be seen in the context of earlier incidences of similar nature in 1997 and 2000 where in Unit 11 to 14 were shut down in the same scenario. Incident reports were available with WAPDA for consultation and yet Unit 17 was commissioned in complete disregard to the effect.

7.13

The technical formalities to start operation of the unit comprise and their findings are recorded corresponding to each:

i. Availability of operational environment comprising availability of good quality water (free of hazardous amount of sediment and wood/bushes/roots) in required quantity:

a. The four-members of the TSC vide para 4.82 of the TSC Report gave their finding on water quality that "The TSC therefore finds that this factor should have been taken care of while deciding the dates for wet testing/commissioning of Units of T4 HPP. The operation of Unit 17 indicates that while experiencing the problem of sediments and trash/wood/bushes the operation during wet commissioning was made for shorter intervals. Despite the said care, the choking of cooling water system was noticed reported vide Voith letter dated 14-03-2018 as discussed above." This comment is not in line with TSC Report.

b. Contrary to the opinion of the majority four members, the three members of the TSC gave their view vide para 4.83 of TSC report that "necessary care was exercised by deciding that the Unit 17 will be operated on 'Speed No Load' on alternate days up to 3-7 March 2018, and subsequently for

*Shamail*  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

*Zafar*  
Zafar Hassan  
Secy PDR Div/Member IC

*Basharat M. Shahzad*  
Basharat M. Shahzad  
ADG/Rep FIAM/Member IC

*Sheikh Altaf Hussain*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FSC

*Eng. Jawed Saleem Qureshi*  
Eng. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

*Syed M. Mehar Ali Shah*  
Syed M. Mehar Ali Shah  
IS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

short durations on 8-10 March 2018. Further the lower performance of cooling water system was due to lack of cleaning of strainers and hydro-cyclones, which are usual O&M matters. It is to be noted that after cleaning was done the cooling water system performed perfectly without any problem."

c. In view of the above discussion on water availability and quality, the IC endorse the opinion the majority four-member viewpoint of TSC as recorded vide xxxii above, whereas two members of the IC vis SAH and JS(W) dissented with the other four IC members. SAH maintained his earlier viewpoint as recorded vide xxxiii above.

ii. Suitability of existing intake vs. raised intake

Refer para 4.73 of TSC's report, vis. IPOE dt: 30-06-2017, IPOE on confirmation of T4CJV to WAPDA that both the concrete lining of the shaft as well as the bulkhead have been designed to withstand the additional 10m pressure due to load rejection, IPOE has no objection to initial operation of the T4 powerhouse with the lower intake and the upper intake plugged with the properly designed temporary bulkhead ...

iii. Removal of downstream cofferdam

Partial removal of cofferdam ceased sediment transport from the tailrace area which eventually caused sticking of draft tube gates. Before start of the Unit 17, coffer dam should have been completely removed.

iv. Pre-Commissioning and Commissioning Decision 4 and 5 of the MOM of March 02, 2018

(a) "4. Parties agreed to run Unit 17 on SNL (3-7 March, 2018) on alternate days between 17:00 to 18:00 Hours to ensure its availability for inauguration proposed on 10 March, 2018.

The unit operation on alternate days was not carried out as per the decision.

(b) 5. On 8<sup>th</sup>, 9<sup>th</sup> March 2018 (between 17:00 to 18:00 Hours for duration of up to one hour) and on 10<sup>th</sup> March, 2018 (time to be defined), the Unit 17 will be synchronized with the system under the supervision of Voith."

The unit was operated on 8<sup>th</sup> and 9<sup>th</sup> March as per decision.

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

Zafar Hassan  
Secy PDR Div/Member IC

Engr. Jawed Saleem Qureshi  
Chairman/Rep DEC/Member TSC/IC

Basharat M. Shabzad  
ADG/Rep FIA/Member IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



be defined), the Unit 17 will be synchronized with the system under the supervision of VOITH."

The unit was operated on 8<sup>th</sup> and 9<sup>th</sup> March as per decision.

Refer paras 4.20 (a) to (d) and up to (j) of TSC's report, the pre-commissioning and commissioning was completed successfully to the extent of dry and wet tests, however, disregarding the other formalities/pre-requisites mentioned at "a" and "c".

v. Sticking of Draft Tube Gates: When the Units 17 and 16 were standby, on 05-07-2018 the downstream dewatering valve of Unit 17 was punctured which was repaired on the same day by the Contractor, however two days later the two dewatering valves of Unit 16 were also punctured which required depressurizing of the tunnels. The tunnels were depressurized, and the temporary repair was carried out after which when the Unit 17 was put back in operation, it was found that the gates of the draft turbines were got stuck in mud. The matter related to puncturing of valves and sticking of gates in mud needs to be thoroughly investigated by the International Panel of Experts. The trouble free resumption of the operation of Unit 17 on 08-06-2018 indicates that even after 100-day discontinuation of operation of Unit 17 after the COD (02-03-2018) or the inauguration dated 10-03-2018, there was no operational problems relating to operation of the plant, therefore the COD or inauguration did not have any nexus with the incident of gates jamming into the silt which occurred only after the Unit 17 was put on standby on 01-07-2018 due to low reservoir level (below 1400 ft). Extra Cost incurred due to these mis-operations and subsequent shut downs needs to be quantified. This requires Forensic Audit by a 3rd Party who is not directly/ indirectly a beneficiary of the parties involved so that the question of conflict of interest does not arise.

vi. The World Bank in its letter of 13-09-2018 also narrated the incident of sticking of draft tube gates as follows:

"WAPDA on August 7, 2018 via email informed the Bank on the current issue relating to the Draft tube gates: "Regarding progress, presently Draft Tube Gates (Lower Sections) of all the three units are stuck up in silt / mud, hence there is no generation after 1st January 2018 when Wet Commissioning of Unit 16 was completed. Brief account of the problems is that Penstock Dewatering Valves of Unit 17 and 16 were punctured under Liability Period. VOITH requested for PTW (Permission to Work) to repair the valves which WAPDA allowed. For the purpose VOITH lowered the DT Gates of Unit 17 and 16. Upon temporary repair of Damaged Valves, VOITH was unwilling to lift the Lower DT Gates and latter efforts made to lift them through Mobile as well as Gantry Crane failed as the Gates were stuck in silt / mud. VOITH has refused to accept

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/ISC

Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

KOD = 2.3.18  
in Aug = 10.3.18

Para. ?

Under OLP Period



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

the responsibility of bringing the situation at PTW level. In the given circumstances, WAPDA has hired a local contractor for lifting of all the lower DT Gates (6 Nos.), after doing proper survey of the silt / mud. The Contractor has mobilized on site. ..."

In the circumstances discussed above, the IC is of the opinion that the project was inaugurated before the completion of all formalities.

ToR-2: To assess whether any loss to the national exchequer occurred due to the inauguration of the project before time.

7.15

7.16

The IC has determined the following losses caused during the execution of T4 project.

- (i) Due to sticking of draft tube gates, electricity generation from 14<sup>th</sup> July to 8<sup>th</sup> September, 2018 remained suspended from Unit 17. According to Minimum Water Scenario of IRSA for the year 2018, WAPDA estimated that T4HPP would generate 387 MW to 944-MW during May to September period with average value of 673 MW, which means energy of 826 million units. Actual units generated in this period by T4HPP 210 million units; the difference being 616 million units is the loss to national exchequer.
- (ii) IC is of the opinion that the acceleration covered under Variation Order amounting to \$ 51 Million was meant for earlier completion dates as per Revised Coordination Construction Schedule whereas the actual electricity generation started from 14<sup>th</sup> July, thus resulting in a loss of generation period starting from mid-March to mid-July 2018 which needs to be investigated and quantified for recovery purposes.
- (iii) If advices of WB and IPOE have been considered and project was commissioned in June-July period, then most of the VOs for acceleration program would have not been required.
- (iv) Besides inauguration, refer to para 4.84 to 4.94 of TSC's report, the financial basis of payment of US\$ 51 million for acceleration of project completion from March 2018 to June 2017 predicated on the potential to realize additional revenue in the 2017 high-flow season of approximately US\$ 300 million have been fully lost because no single unit of T4HPP could generate electricity during the high flow season of 2017.
- (v) The determination of quantum of damage up to the date of inauguration is an incomplete proposition as in fact the operation of the plant practically started with effect from 08-06-2018.
- (vi) In order to determine the loss to the national exchequer, it is important to look into the fact that the Unit 17 of T4HPP actually started generating

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shaukat  
ADG/Rep FIAM/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC

7.14

1

3 Gen long  
w/ 50 mil

3 10 2. low  
w/ 50 mil

413  
300 mil  
Gen long

Paris?

TSC/IC

Q. No. 11



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

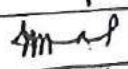
electricity with effect from 08-06-2018, however due to drop in water level below 1400 ft it was stopped on 01-07-2018 as per the earlier decision made by the Employer, Consultants and the Contractor on 02-03-2018. However, the reservoir level again rose to 1400 ft on 13-07-2018 and persistently increased up to 20-08-2018 when it reached the maximum conservation level of 1550 ft, but unfortunately, during this time the unit could not generate a single unit of electricity because its gates were stuck in the mud.

- (vii) Puncturing of penstock valves have never occurred as reported to WAPDA authorities examined during 1976 onwards vis-à-vis any of 14 Units i.e. 42 years where it had repeatedly occurred in case of Unit-17 even hence the commencement of operation which speaks volumes of poor quality or workmanship on the part of the contractor and weak and ineffective oversight of the Consultant as well as role of the employer/WAPDA. Quality assurance or TQM is totally missing, may it be the removal of the d/s CD, obtaining timely MS and micro-scheduling, adherence to timelines, Quality of materials being used, Quality of water being used and leading to given repercussion as are delineated unequivocally by the contractor EYM/Voith in his letter dated 14-03-2018, to which no rebuttal could be submitted by the employer/WAPDA/consultant to the TSC/IC.
- (viii) The above facts have now been unearthed only after the investigation has been launched but never been brought to the notice of either MoWR or the PM, even before or at the time of inauguration or ever thereafter.
- (ix) In disregard of the above facts, the talking points for the PM, submitted by WAPDA on the eve of inauguration claim as under:


*"Commissioning of Tarbela 4th Extension Hydropower Project is yet another historic milestone achieved by the government to add 1410 MW in the National Grid."*

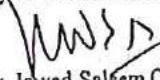
*"Completion of this great project within time and cost always held top priority of the government."*

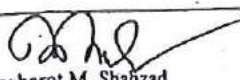
*"While congratulating the whole nation on this remarkable achievement, I would especially appreciate the untiring efforts of the Project Team comprising of WAPDA Staff, Project Consultants, all the Contractors and other stakeholders whose selfless devotion enabled to timely complete the project."*

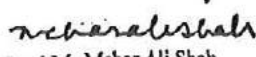
  
Shameel Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

  
Zafar Hassan  
Secy PDR Div/Member IC

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



**SECRET**

**INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT**

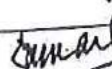
- (x) The projection of benefits of US\$ 19 million and 366 million to be reaped during 2017 and 2018, respectively, from the T4 by proposing to write off US \$ 51 million, being not recoverable; was first time made to the CCoE headed by the Prime Minister to which the CCoE/PM asked WAPDA to take decision on the matter.

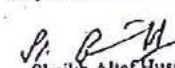
### Recommended Way Forward


- Generation for 2017 (05 to 30 Sep)
  - Energy Generation 197.4 MKWh
  - Revenue US \$ 19 Million
- Generation for 2018 (1st May to 30 Sep)
  - Energy Generation 3840 MKWh
  - Revenue US \$ 366 Million

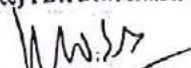
(KWh @ Rate Rs. 10, Exchange Rate: 1US \$ = Rs. 105)

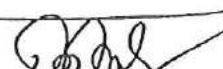
- (xi) Slide 7 of the presentation made to the PM at the time of inauguration ceremony (10-03-2018) boasts as below:

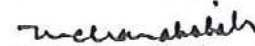
  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC

  
Zafar Hasnain  
Secy PDR Div/Member IC

  
Engr. Jawed Saboon Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Basharat M. Shaukat  
ADG/Rep FIA/Member IC

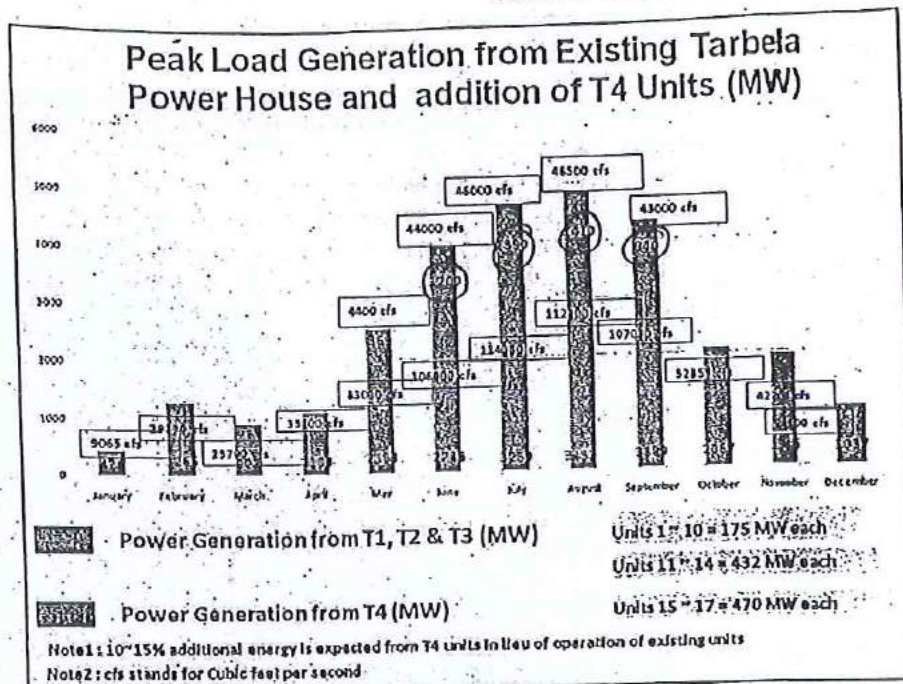
  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



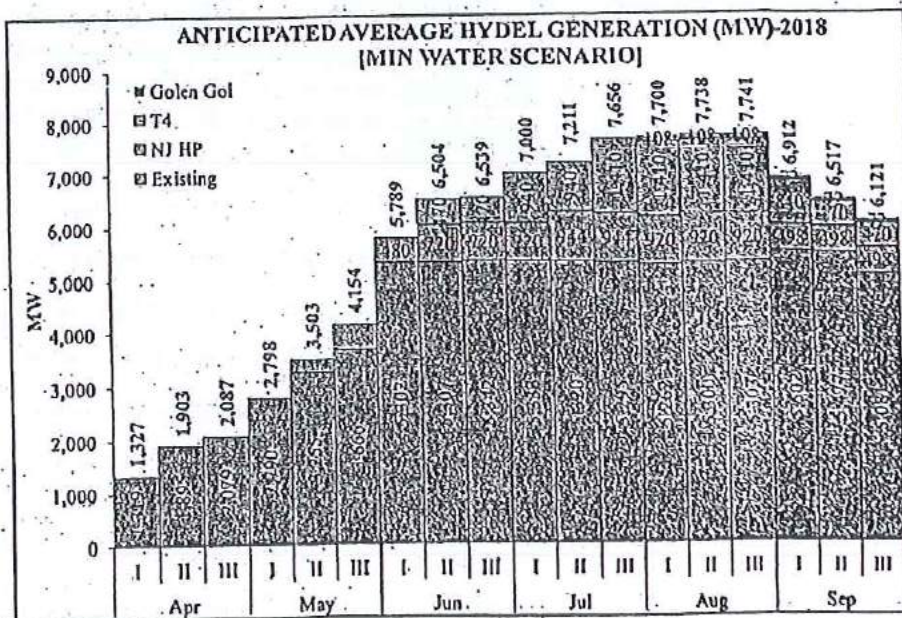
SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

Slide copy



(xii) The loss due to practically no generation from T4 can be understood by considering the following chart presented by WAPDA to the Cabinet Committee on Energy in April 2018:



Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy PDR Div/Member IC

Basharat M. Shahzad  
ADG/Rep FIA/Member IC

Sherkh Altaf Hussain  
Rep of NESPAK/Member IC

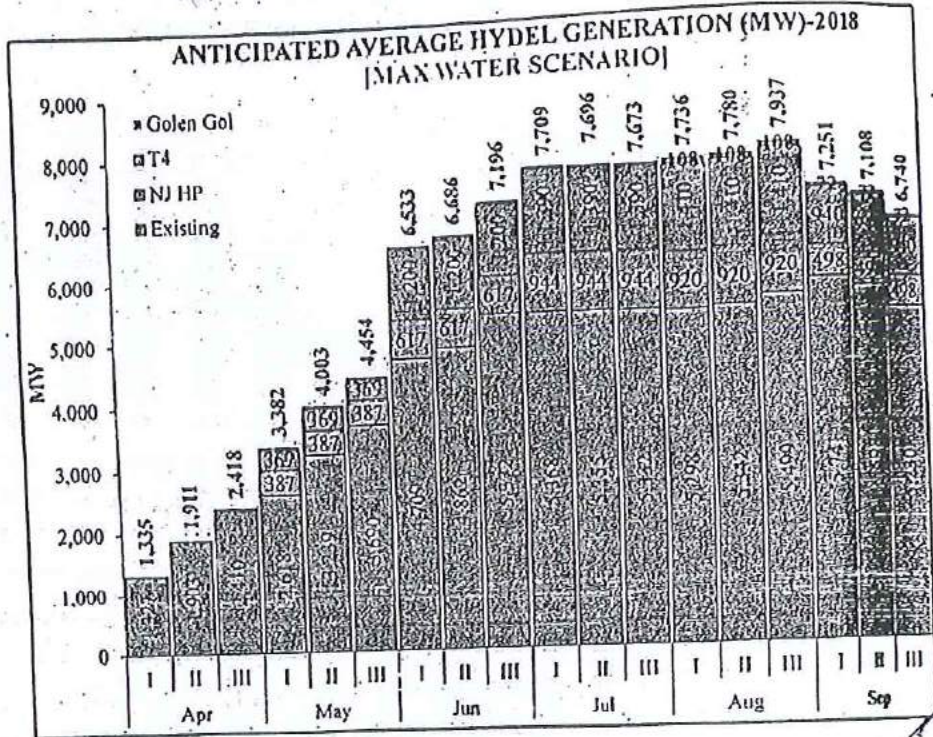
Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



**SECRET**

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT



(xiii) The above projections, claims and estimates are in line with the same/similar ones consistently being presented to the PM ever since 2016, i.e. briefing made to the CCoE/PM and March 2018 to the PM, which was accordingly mentioned by the PM at the time of inauguration on 10-3-2018 in his speech based on figures presented to him, excerpts of which are as under:

*"We have a project which delivers 470 MW today and 1400 MW by June for the people of Pakistan. This is the project that was much needed and it contributes power at the right time to Pakistan, because our power demand speaks in the summer and this project delivers power from June to August and not only does it deliver power, it also delivers green power."*

(xiv) Besides, the amount paid by WAPDA for hiring a new contractor to lift the draft tube gates is Rs. 70 million which is also a direct loss to the national exchequer, though apparently associated with the event of puncturing of draft tube gates in July 2018.

*Zamil*

*Shamail*  
Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

*Sheikh*  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

*Zafar*  
Zafar Hassan  
Secy PDR Div/Member IC

*Jawed*  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

*Basharat*  
Basharat M. Shahid  
ADG/Rep FIA/Member IC

*Mehar*  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

- (xv) The other indirect loss caused to the economy due to non-availability of electricity is also important which has not been calculated in this investigation.
- (xvi) As explained above, the 2<sup>nd</sup> Terms of Reference referred to the loss to the national exchequer due to inauguration of the project before time, it is important to mention that there is a further matter which needs probe relating to signing of a Variation Order in March 2013 for making payment to the Contractor equivalent to USD 51 million in order to accelerate the project completion from March 2018 to June 2017. It has also been brought before the IC that despite making substantial payments of the order of USD 48 million on account of VO-02 R2, not a single unit could be made ready for generation up to the end of the high flow season of 2018 ~~at~~ alone 2017. The annual energy generation from T4 HPP as estimated at the design stage was 3,840 million units. Because of having no energy in the high flow season of 2017 the associated revenue loss becomes Rs. 30 billion at the rate of generating cost of Rs 7.814 per unit of electricity, despite spending USD 48 million extra to get the revenue equivalent to Rs. 30 billion.

20  
5/11

Even loss  
due to 2017

- (xvii) The quantum of damage to the turbines associated with the inauguration due to ingress of bad water quality is required to be determined by conducting a detailed forensic inspection at the time of planned shutdown of the plant. It is not possible to determine the same at present as the units are presently put under operation.

(xviii) All the members of the IC have unanimously determined that the sum total of loss occurred during the execution of this project on the above referred counts comes to US\$ 753.7 million (US\$ 350 million estimated and projected by WAPDA for the years 2017 & 2018, US \$ 40 million paid to the Civil Contractor on account of acceleration under the VO-02 R2 and US \$ 5.7 million under CO-10). Besides, another loss of Rs 70 million incurred by WAPDA to lift the gates of Draft Tubes stuck in the mud after the refusal of the Civil Contractor. (Ref TSC Report para 6.01 (II) (b) (ii))

Total  
753.7  
mill  
Loss  
occurred

7.17

ToR-3: To identify those who were responsible for making the decision of inauguration before completion of all formalities, if a loss to the national exchequer occurred

7.18

The date of operation of Unit 17 stands established to be fixed through a consultative process of the parties to the Contract vis. the Employer (WAPDA), the Consultants (T4CJV) and the Contractors (Civil and EM Contractors). The unit 17 was subsequently inaugurated on 10-03-2018. Notwithstanding the above, it is also determined from the statements of M(P), Adviser Projects WAPDA, O&M and the PD T4HPP that the date of inauguration was made without their consultation and

Shamail Ahmad Khawaja  
Secy MoWR/Chairman IC

Zafar Hassan  
Secy RDR Div/Member IC

Basharat M Shahzad  
ADG/Rep FIM/Member IC

Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/TSC

Engr. Javed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

Syed M. Moin Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

also not at the Authority level of WAPDA, rather, it was done at the level of Chairman WAPDA.

7.19 ToR-4: To fix responsibilities and propose action

7.20 The IC comprising the members heading their respective departments at national level being heavily preoccupied have worked day in and day out beyond the call of duty and even on holidays all through the nights to conclude the job. They are of the considered view that the task of fixing exact responsibility requires detailed interviews of a number of individuals across various organisations/entities and examination of a plethora of record spread over a long period of time.

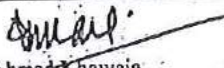
7.21 The Civil and the EM Contractor are directly responsible for the loss occurred to the national exchequer on account of non-generation of hydroelectric power specifically for the period when the units remained closed because of sticking of draft tube gates – an event which was caused due to puncturing of dewatering valve which triggered deposition of silt in tailrace area a consequence of complete non-removal of downstream cofferdam.

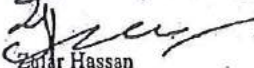
7.22 Besides, the Consultant is directly responsible for preparing the payment milestones under the VO-02 which enabled the Civil Contractor to get 90% payment associated with the downstream cofferdam activity restricting only to the construction of downstream activity.

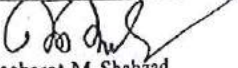
7.23 Recovery of the losses as indicated under 7.21 & 7.22 must be effected from the direct responsible and any other found responsible.


7.24 The IC propose following actions in this regard:

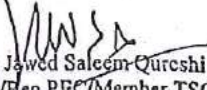
- (i) Necessary directions may be issued to the Auditor general for Pakistan for holding a comprehensive Performance audit of T4 HP within 60 days for determination of the following, amongst others, to carry out:
  - a. An overall performance audit of the project
  - b. Specific to the matters spelled out and losses worked out vide para 7.16, above.
  - c. By fixing responsibility and apportioning the corresponding loss caused by the respective individuals/entities
  - d. Any other matter relating to or/and ancillary to the above
- (ii) In the light of the report of the performance audit, the decision for any criminal inquiry into the matter by FIA or NAB may be decided.
- (iii) Forensic audit of the T4HP Project by an independent third party of international repute having no financial interest involved with WAPDA. The

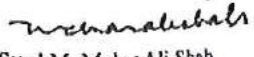
  
Shamail Ahmad Khayaja  
Secy MoWR/Chairman IC

  
Zular Hassan  
Secy PDR Div/Member IC

  
Basharat M. Shahzad  
ADG/Rep FIA/Member IC

  
Sheikh Altaf Hussain  
Rep of NESPAK/Member IC/FS C

  
Engr. Jawed Saleem Qureshi  
Chairman/Rep PEC/Member TSC/IC

  
Syed M. Mehar Ali Shah  
JS MoWR/Member/Secy IC



SECRET

INVESTIGATION REPORT  
TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT

task of carrying out forensic audit to any agency or entity deemed appropriate by the competent authority. The proposed ToRs may include the following to determine:

- a. The gaps and lacunas in the Contracts, Contract administration, institutional capacity of executing agency, validity of Engineer's Estimate and reasons of variation in Quantities compared to Engineer's Estimate versus the actual cost and quantities including but not limited to determining the circumstances which lead to issuance of series of Variation and Change Orders particularly VO-02 R2, CO-10, VO relating to payment of Rs 70 million to a private contractor for lifting of Draft Tube gates.
- b. The circumstances under which the COD was fixed at completion of Wet Testing and prior to RTR
- c. The circumstances which lead to fixing of dates for commissioning of the project in lean flow period (February/March) in disregard of the expert advices rendered by the IPoE and the WB
- d. The very conception, planning, execution, abortion and writing off the VO-02 (US \$ 51 million) and extravagant projection of accruing revenue of US \$ 350 million by accelerating the project eight months ahead of the approved schedule under PC-1, i.e. from March 2018 to June 2017, whereas the project could not be completed as late as at the time of filing this report and with a revised planned date of completion in 2021 at an additional cost of another Rs 14 billion and another US \$ 5.7 million.

*Amal*  
Mr. Shamail Ahmad Khawaja  
Secretary MoWR / Chairman IC

*Zafar Hassan*  
Mr. Zafar Hassan  
Secretary PDR Division / Member IC

*Basharat M. Shahzad*  
Mr. Basharat M. Shahzad  
Additional DG FIA / Member IC

*Jawed Salim Qureshi*  
Engr. Jawed Salim Qureshi  
Chairman PEC / Member IC

*Syed M. Mehar Ali Shah*  
Syed M. Mehar Ali Shah  
JS MoWR / Member / Secy IC

*Sheikh Altaf Hussain*  
Sheikh Altaf Hussain  
Adviser NESPAK / Member IC / TSC

*Dissent Note of Three Pages*

*from the undersigned are attached herewith*

SECRET

*J.P.H.*  
504 23/02/2019



**Dissent Note on Final Investigation Report of Tarbela-IV**  
**HPP dated 22<sup>nd</sup> Feb. 2019**

Due to certain medical condition, I, Sheikh Altaf Hussain (SAH) could not attend the last IC meeting held before finalization of the IC Report. In this regard, the other five members of IC finalized and signed the report and sent a copy to me for my signature on 23-02-2019 early in the morning at 8:14 am.

**General Comments:**

- 1) The reservations shared on email with Mr. Syed Mehr Ali Shah (Joint Sectary (Water)) on "Zero Draft of IC Report" dated 05<sup>th</sup> Nov. 2018 are not incorporated while consolidating the report.
- 2) The justification of all the variation orders shall be clarified separately from WAPDA as they are not directly covered under our TOR's including cost of Rupees 70 million incurred on lifting of the stuck draft tube gates.
- 3) The audit paras related to T4 extension HPP are also not covered in our ToR therefore need to be dealt separately.
- 4) Both the TSC reports of Sept. 2018 and Oct. 2018 shall be annexed with the IC report.

**Detailed Comments:**

The undersigned disagree with the following items in the report and most of them have been already addressed in the above email dated 05<sup>th</sup> Nov. 2018.

Item: 3.06 (Page # 12/84-14/84): The comments are exaggerated and are not factual. The convener of TSC on whom allegations are placed may be given a chance to defend him.

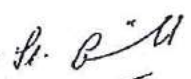
Item: 5.08-(viii) (Page # 20/84): The date of 2<sup>nd</sup> Feb. 2018 shall be read as 2<sup>nd</sup> Mar. 2018.

Item: 6.03 (Page # 25/84): Only those aspects required for commercial operation of the unit shall be considered which are covered under the contract as elaborated from the item c) to g).

Item: d. (xi) (Page # 34/84): The matter related to VOITH letter dated 14<sup>th</sup> Mar. 2018 has already been fully addressed in item # 4.38-4.42 (Page- 37/89 – 38/89) of final TSC report dated Oct. 2018.

Item: (Page 45/84 to 51/84) points: xxx, xxxi, xxxii, xxxiii, xxxix, xlixliii, have already been addressed in the email shared dated 05<sup>th</sup> Nov. 2018.

Item: (Page 51/84) point: xliv (disagreed)

  
Sheikh Altaf Hussain, Member IC/TSC



Item: e. (iii) (Page 55/84) Aspects relating to completion of raised intake as one of the formalities for the commissioning of unit 17. The date of May, 2018 shall be read as May, 2017.

Item: f. (Page 55/84 – 57/84): Partial removal of cofferdam would be achieved for commissioning of the units. Therefore, this was a planned activity and not a neglect.

Item: g. (iii) (Page 59/84): Already addressed in the above mentioned email and reproduced here again.

Pursuant to sub-clause 3.32.12.1 of EM Contract Vol 2A, "Commissioning shall be defined as those activities which require the operation of substantial amounts of equipment on a coordinated basis, in a manner which is generally similar to the operation of the plant in commercial service."


Similarly, under sub-clause 3.32.12.2 of EM Contract Vol 2A 'Reliability Tests' it is stated that, "After the Contractor has notified the Project Manager and received the Project Manager's agreement that the plant is ready for service the plant will be required to operate in commercial service under the working conditions within the limits of the outputs specified and either continuously or intermittently, as may be more convenient for the Employer, without failure or interruption of any kind resulting from defect of the plant supplied under this Contract, for a period of thirty days."

Item: g. (viii) (Page 61/84): The partial removal of cofferdam was agreed by three parties under RCCS before commissioning of unit # 17.

Item: 7.03 (Page 71/84): While going through the report, it has been found at para 7.03:

"However, all the members of the IC are of the opinion that the contractual formalities were fulfilled before the commissioning vis suitability of use of lower intake, partial removal of coffer dam, dry testing. With regard to wet testing two members of IC consider that wet testing was completed successfully according to the Contract even not tested on the full load, while the IC considered it an essential component of a meaningful wet testing."

In the above referred para 7.03 though it is mentioned that the two members of IC consider that wet testing was also completed successfully, it was not made clear as which two members were those. In this regard while seeking clarification from JS(W), he clarified that the said two members of IC who consider that all the contractual formalities were fulfilled were SAH and JS(W). With this clarification, it becomes clear that in order to respond the requirement of ToR-I, it has been established by the two (JS(W) and SAH) out of the three technical members, (Chairman PEC, JS(W) and SAH) in the IC that the project inauguration was made after successful completion of all the technical and contractual formalities.

  
Sheikh Altaf Hussain, Member IC/TSC



Item: 7.04-7.08, 7.13(Page 71/84-77/84):ToR # 1:To examine whether the project inaugurated in time or before the completion of all formalities

- Disagreed with other members of IC as the prerequisites/all formalities for commissioning of the unit # 17 were fulfilled according to the contract and the inauguration carried on 10/3/2018 was not pre-mature.
- Item: 7.14 (Page 77/84):Disagreed with the other IC members.

Item: 7.15 (Page 77/84):ToR # 2:To assess whether any loss to the national exchequer due to the inauguration of the project before time.

- No Loss to national exchequer occurred due to the inauguration of the project on March 10<sup>th</sup>. 2018.
- However, the fact that sticking of draft tube gates has no connection with the operation of the unit (Unit 17) in the period of 20 February to 10 March 2018 or the event of inauguration, as between March and July 2018 the gates of draft tube of Unit 17 were lowered and lifted three times, without any problem. Similarly, the draft tube gates of Unit 16 were lifted prior to its start of wet testing in June 2018. Hence, the loss caused by non-operation of the plant due to sticking of gates in mud in mid-July to mid-September 2018 is not attributable to the operation of the plant from 20 February to 10 March 2018.
- Therefore, the Loss due to sticking of draft tube gates occurred in during the period of mid-July to mid-September 2018 need to be determined through studies.

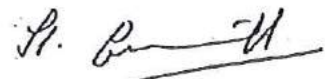
Item: 7.017:ToR#3: To identify those who were responsible for making the decision of inauguration before completion of all formalities, if a loss to the national exchequer occurred;

- Not applicable

Item: 7.019:ToR#4: To fix responsibilities and propose action

- Not applicable

Best Regards,



Sheikh Altaf Hussain

Rep. of NESPAK Member TSC/IC

Dated: 23<sup>rd</sup> Feb. 2019

Sheikh Altaf Hussain, Member IC/TSC





# Pakistan Water and Power Development Authority

Telephone: 042-99202506  
 PBX: 042-99202211/2521  
 Fax: 042-99202154  
 Email: dpcandmwater@hotmail.com  
 No. GM(C&M)W/DP-66-A/391

General Manager (C&M) Water  
 Projects Directorate  
 521-Wapda House, Lahore.

Dated: 3/3/2020

General Manager (Power) Tarbela  
 WAPDA, Tarbela.

Chief Engineer / PD  
 Tarbela 4<sup>th</sup> Extension HPP  
 WAPDA, Tarbela.

**Subject: ADMINISTRATIVE APPROVAL OF TARBELA 4<sup>TH</sup> EXTENSION HYDROPOWER PROJECT (REVISED)**

Kindly find enclosed herewith a copy of Assistant Chief (Dev), Ministry of Water Resources, Islamabad office letter No. 2(91)2018-AC dated 06.02.2020, the contents of which are self-explanatory.

This is for your information and further necessary action, please.

DA: As above

CE/CD, Tarbela 4th Ext HPP	
Drawy No. 2133	Date 10-3-2020
CE/CD	Executed
CE (C&M)	Dir. (C) ✓
Dir (C) ✓	Dy. Dir. (C) ✓
AD (Admin) ✓	AD Admin ✓
	ADP ✓

(Signature)  
 Director (Projects)  
 for General Manager (C&M) Water

copy to  
 1- CSP.  
 2- Civil  
 3- Accts.  
 4- Admin.

(Signature)  
 10/3

(Signature)  
 T.S.P.



No. 2(91)/2018-AC  
Government of Pakistan  
Ministry of Water Resources  
6-Ataturk Avenue, G-5/1, Islamabad

February, 06 2020

✓ Chairman,  
Water and Power Development Authority,  
Lahore.

Subject:- ADMINISTRATIVE APPROVAL-OF TARBELA 4<sup>TH</sup>  
EXTENSION HYDEROPOWER PROJECT (REVISED)

Pursuant to the provision laid down at paragraph 6.32 to 6.34 of Manual for Development Projects June 1991 and amended from time to time, I am directed to convey the Administrative Approval of the Government of Pakistan for "Tarbela 4<sup>th</sup> Extension Hydropower Project (Revised)" as approved by (ECNEC) in its meeting held on 06 Jan, 2020. Decision of the forum is reproduced below, so that the Project Director/Executing Agency should be fully aware of his responsibilities in complying with the conditions imposed by the approving body, before, during and after the implementation of the project.

2. The Executing Committee of the National Economic Council considered the Summary dated 27<sup>th</sup> November, 2019 submitted by the Ministry of Planning, Development and Special Initiatives regarding the **Tarbela 4<sup>th</sup> Extension Hydropower Project (Revised PC-I)** and approved the proposal contained in Para-20 of the Summary.

3. The ECNEC further directed Ministry of Water Resources to submit findings of Auditor General of Pakistan to ECNEC for its consideration with regard to Performance Audit of the project after its completion

4. Para-20 of the summary is as under:-

"The project is recommended for consideration of ECNEC at a cost of Rs. 122,977.00 million with an FEC component of Rs. 60,700.00 million, with the following condition:-

- i. Ministry of Water Resources will refer the project to Auditor General of Pakistan to carry out a comprehensive Performance Audit of the project in light of the findings of Inquiry Committee constituted by Prime Minister of Pakistan.
- ii. The sponsors will justify ex-post facto approval of the project to ECNEC.

5. Approved cost summary of the project is given below:-



S. No	Item	Approved Cost		
		Local	Foreign	Total
1.	Construction of Power House and Modification to the tunnels	22078	18714	40792
2.	Power Units and Auxiliaries & Swith Yard Up-gradation	4642	34324	38966
3.	Implementation and Social Auction Plan, Dams Monitoring and Surveillance	3107	0	3107
4.	Consultancies for Supervision	1934	2771	4705
5.	Project Management Support, Technical Assistance and Training	3112	822	3934
6.	Upfront Fee and Interest During Construction	27404	4069	31473
<b>Total Cost</b>		<b>62,277</b>	<b>60,700</b>	<b>122,977</b>

6. The implementation period of the project is from April, 2012 to December, 2022.

The monthly progress report in respect of the above mentioned project shall be submitted regularly duly complying with the directions of the approving forum as noted in the decision. PC-III of the scheme shall be submitted to the Ministry within 20 days of the closing of each quarter, and PC-IV shall be submitted on completion of the project.

7. All codal formalities, guidelines shall be observed strictly while implementing the scheme. Being sponsor, this Ministry shall be kept on board during all the important stages involved in the project life cycle.



(Fariha)

Assistant Chief (Dev.)

Copy forwarded to:-

- 1) Secretary Finance, Finance Division Islamabad.
- 2) Secretary, Ministry of Planning, Development and Special Initiatives, Islamabad (5 copies).
- 3) Additional Chief Secretary (Dev.), Government of Balochistan, Quetta.
- 4) Chief, Water Section, Ministry of Planning, Development & Special Initiatives, Islamabad.
- 5) Chief, PIA Section, Ministry of Planning, Development Special Initiatives, Islamabad.
- 6) Chief, PIP Section, Ministry of Planning, Development & Special Initiatives, Islamabad.
- 7) Deputy Secretary (Expenditures, WR), Ministry of Finance, Islamabad.







**REPORT OF  
THE INQUIRY COMMITTEE  
CONSTITUTED BY  
THE PRIME MINISTER OF PAKISTAN  
REGARDING  
INCREASE IN SUGAR PRICES**



## Table of Contents

TOR #	Description	Page No.
	Introduction	1-2
a.	Whether the production this year was low as compared to past year? Was low production the primary reason for the increase in price?	2
	Findings	3
b.	Was the minimum support price sufficient?	4
	Findings	5
c.	Did the mills purchase sugarcane at exorbitantly higher prices than the minimum support price? If yes, then reasons thereof:	5
	Findings	6
d.	Reasons for mills not purchasing sugarcane, for a limited period of a few weeks, from the farmers and its impact, if any, on sugar prices?	6
	Findings	8
e.	Basis for Determination of Ex-Mill Price? Reasons for increase in Ex-Mill Price:	9
	Findings	14
f.	Market manipulation/cartelization by sugar mills, if any:	14
	Finding	15
g.	Impact of forward contracts on the prices of the sugar and whether any malafide is involved:	16
	Findings	16
h.	Whether margins between Ex-Mill and Retail prices increased, compared to the previous years, or otherwise. If yes, reasons thereof and potential beneficiaries:	17
	Findings	17
i.	Impact of Tax on sugar prices at Ex-Mill/Retail level:	18
	Findings	19
j.	Hoarding at whole sale/ Retail level and within sugar mills vis-a-vis stocks of last year:	19
	Findings	20
k.	Was the export of sugar justified? Any subsidy given on export and its impact, with potential beneficiaries:	22
	Findings	23
l.	Basis for determination of retail price of sugar:	24
	Findings	24
	Way Forward	25-26



- A. The Prime Minister of Pakistan vide; SPM letter No. 755/A/M/SPM/2020 dated 20.02.2020 constituted an Inquiry Committee to probe into the sugar crisis in the country. The committee consisted of:
- |   |          |
|---|----------|
| i. Director General, FIA                      | Convener |
| ii. Representative of IB not below BS-20/21   | Member   |
| iii. Director General, Anti-Corruption Punjab | Member   |
| iv. Any other member Co-opted by the convener |          |
- B. The inquiry was to be conducted as per following TORs fixed vide above mentioned letter:
- a. Whether the production, this year, was low as compared to past years? Was low production the primary reason for increase in prices?
  - b. Was the minimum support price sufficient?
  - c. Did the Mills purchase sugarcane at exorbitantly higher prices than the minimum support price? If yes, then reasons thereof;
  - d. Reasons for mills not purchasing sugarcane, for a limited period of a few weeks, from the farmers and its impact, if any, on sugar prices;
  - e. Basis for determination of Ex-Mill price? Reasons for increase in Ex-Mill price;
  - f. Market manipulation/cartelization by sugar mills, if any;
  - g. Impact of forward contracts on the prices of sugar and whether any malafide is involved;
  - h. Whether margins between Ex-Mill and retail prices increased, compared to previous years, or otherwise. If yes, reasons thereof and potential beneficiaries;
  - i. Impact of tax increase on sugar prices at Ex-Mill/Retail level;
  - j. Hoarding at whole sale/Retail level and within sugar mills vis-&-vis stocks of last year;
  - k. Was export of sugar justified? Any subsidy given on export and its impact, with potential beneficiaries;
  - l. Basis for determination of retail price of sugar;
  - m. Role of various stakeholders, including government institutions and private sector in increase in sugar prices, including timely/preventive/ pre-emptive remedial measures to control sugar prices and malafide, if any, of any stakeholder; and,
  - n. Any other issue, deemed appropriate, related to the increase in recent sugar prices;
- C. In order to inquire into the sugar crisis as per the TORs, the Inquiry Committee held a series of meetings/briefings with the relevant Federal stakeholders such as the Ministry of National Food Security, Ministry of Industries, Ministry of Commerce, Utility Stores Corporation, Federal Board of Revenue and others. A meeting-briefing was held also with the delegation of the Pakistan Sugar mills Association (PSMA) on



their request during the inquiry proceedings. Record of all the meetings is available for perusal.

- D. Record was also sought from the relevant provincial departments i.e., agriculture, food department, Cane Commissioners etc., through their concerned Chief Secretaries to obtain details about the growth, production, enforcement, reporting mechanism of sugarcane growth and production of sugar. In addition, the Provinces were also asked to provide their input regarding the TORs.
- E. The analysis of each TOR along with findings is as below:

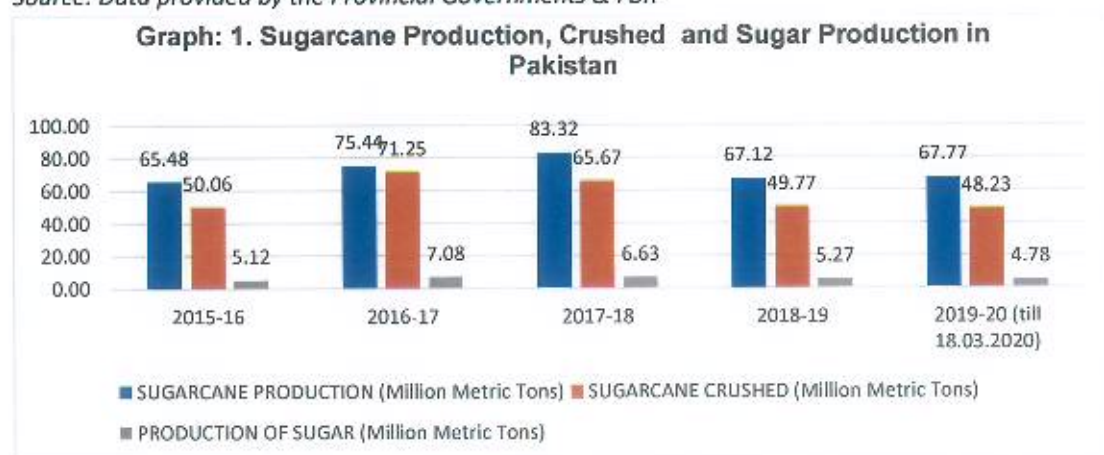
(a) **Whether the production this year was low as compared to past year? Was low production the primary reason for the increase in price?**

1. The total area under cultivation of sugarcane in the country has decreased as compared to the previous year, that is, 2.68% less area was cultivated; however, the production of sugarcane has increased by 1%. Last year, Pakistan produced 5.268 Million Metric Tons of sugar while during the current year 3.969 Million Metric Tons of sugar were produced till 25-02-2020: as per the data provided by the Provincial Governments. As per the latest data provided by the FBR, the production of sugar on 18-03-2020 is 4.78 Million Metric Tons and 18 sugar mills were still operational.

**Table: 1. Area under cultivation of sugarcane and sugarcane produced in Pakistan**

CRUSHING SEASON	CULTIVATION OF SUGARCANE (000 Acres)	SUGARCANE PRODUCTION (Million Ton)	SUGARCANE CRUSHED (Million Ton)	PRODUCTION OF SUGAR (Million Ton)
2015-16	1743.426	65.482	50.056	5.123
2016-17	1922.439	75.438	71.247	7.080
2017-18	2123.482	83.322	65.669	6.631
2018-19	1756.390	67.123	49.768	5.268
2019-20 (till 18.03.2020)	1709.403	67.769	48.23	4.78

Source: Data provided by the Provincial Governments & FBR



Source: Data provided by the Provincial Governments



2. In addition to the production of sugar, sugarcane is utilized as seed in production, for production of "Gurr", and also consumed in raw form. The substantial difference in the quantity of sugarcane produced and the sugarcane crushed by the sugar mills is not verifiable as there is no record of the quantities of *Gurr* produced and other consumptions. According to various sources, sugarcane is also purchased *off-the-books* and resultantly *off-the-books* sugar is produced and sold in the market. This alleged practice is not only a loss to the Government exchequer in terms of GST, but is also not accounted towards GDP. It is the responsibility of the Cane Commissioner to ensure that all sugarcane purchased is documented and FBR to ensure that all sugar produced and sold is properly recorded. Calibration of weigh bridges also needs to be verified to check for accuracy in weight measurement at the time of procurement of sugarcane.
3. The area under cultivation of sugarcane, and the quantity of sugarcane produced, started increasing since 2015-2016. The years 2016-2017 and 2017-2018 were peak years and record quantities of sugarcane were produced. Resultantly, quantity of sugar produced was much higher than the national requirement. Moreover, the prices of sugar remained low due to abundant quantity of sugar. Since, the production of sugar was more than the national requirement, the carryover stocks in the pursuing years were also high.
4. This year the area of cultivation decreased and the production of sugarcane actually increased marginally as compare to last year. However, the perception created by rumors about lesser area of cultivation, low carryover stocks and less production of sugarcane did contribute to the increase in purchase prices of sugarcane.
5. Since all the data is provided by the sugar mills and there is no other independent source of information, on-site forensic audits of the sugar mills are important to ascertain and verify these facts.
6. As explained in detail under para 39 of TOR (I), the retail price of sugar increased from Rs. 55.99 per Kg in December 2018 to Rs. 74.64 per Kg in January 2020. However, the major portion of the increase was between the period January 2019 to June 2019 when it rose from Rs. 55 to Rs. 71 per kg. This was well before the production cycle this year and, therefore, the correlation between less production and recent increase in price does not exist.
7. **Findings:**
  - i. The production of sugarcane is slightly higher than the previous year but the production of sugar is expected to be marginally lower than the previous year. Keeping in view the carryover stocks, the quantity of sugar produced seems to be sufficient for annual national consumption (as per data of national consumption provided by Statistics Bureau of Pakistan).
  - ii. The retail price of sugar increased from Rs. 55.99 per kg in December 2018 to Rs. 74.64 per kg in January 2020. However, the major portion of the increase was



between the period January 2019 to June 2019 when it rose from Rs. 55 to Rs. 71 per kg. This was well before the production cycle this year and, therefore, the correlation between less production and recent increase in price does not exist.

**(b) Was the minimum support price sufficient?**

8. The support price was increased to Rs. 180 per 40 Kg in 2015-2016 and remained the same till the start of the current crushing season. The Government of Punjab, KP and Sindh announced the enhancement of the support price to Rs. 190 for Punjab and KP and Rs. 192 for Sindh. The announcement was made just before the start of the crushing season on 29-10-2019, by Punjab, on 04-12-2019 by KP and on 09-12-2019 by Sindh.

**Table: 2. Support price of sugarcane per 40 Kg in Pakistan**

CRUSHING SEASON	Support Price of Sugarcane (Per 40 KG)		
	Punjab	KP	Sindh
2015-16	180	180	172
2016-17	180	180	182
2017-18	180	180	182
2018-19	180	180	182
2019-20	190	190	192

*Source: Data Provided by the Provincial Governments*

9. As per the responses sent to Inquiry Committee by the Provincial Governments, the support price was sufficient which has also been endorsed by the Agricultural Policy Institute (API). The API uses an elaborate system of calculation of support price and sends it non-binding recommendations to the Provincial Governments. The data shows that the support price had not been enhanced since 2015-2016 but the announcement to enhance it was made at a very late stage in 2019.
10. The support price of sugarcane is fixed by the Provincial Governments to motivate farmers to increase cultivation of sugarcane. The increase is supposed to be announced in the beginning, or before the start; of the sowing season. However, the increase in support price was announced just before the start of the crushing season in Punjab and after the start of the crushing season in Sindh and KP. The timing of announcement of the support price was much delayed and did not serve the purpose to encourage the farmers to cultivate more sugarcane.
11. Sugarcane Control Board is established in each province under the Sugar Factories Control Act 1950. These Boards are composed of all the stakeholders, including the representatives of the growers, and decide the support price. According to the reports from the Provincial Governments of Punjab, Sind and KP, all the stakeholders were taken on board and agreed upon the current support price.
12. The representatives of the farmers however do not agree about the sufficiency of support price as they claim that the minimum support price should be Rs. 250 per 40



Kg. The Inquiry committee suggests that a joint working of experts of API and the growers' representatives should be held each year before the cultivation season to agree on the support price. The government should also consider proper calculations to earmark the target area for sugarcane. A cycle of less production like this year of sugarcane resulting in higher prices followed by excess production resulting in low prices is not good for the price stability of sugar.

13. **Finding:**

The API calculated the cost of production of sugarcane at Rs. 139.54 per 40 Kg. for self-cultivated land and Rs. 186.74 for rented land at mill gate for Punjab. For Sindh, this cost was worked out as Rs. 147.59 per 40 Kg. and Rs. 192.63 per 40 Kg. for self-cultivated and rented land at mill gate, respectively. The last increase in the support price was in 2015-2016 to about Rs. 180 per 40 Kg and remained the same till the start of the current crushing season where it was increased to Rs. 190 per 40 Kg. Keeping in view the calculations of API and historical data the support price seems to be sufficient. However, the timing of announcement of increase in support price was delayed and did not serve the purpose of allowing the farmers to make an informed decision.

(c) **Did the mills purchase sugarcane at exorbitantly higher prices than the minimum support price? If yes, then reasons thereof:**

14. There are differences in day to day purchase price of sugarcane of every sugar mill. Some sugar mills have purchased sugarcane at higher price while the purchase price of other sugar mills is comparatively low. The average seasonal purchase price of sugarcane for the whole of Pakistan (the data of 5 sugar mills of Sind not included) is Rs. 218.85 per 40 Kg. The support price was Rs. 190 per 40 Kg in Punjab and KP and Rs. 192 per 40 Kg in Sindh. The sugarcane was purchased at about 15% higher than the support price in whole of the country.

**Table: 3. Seasonal average purchase price per 40 Kg: Figures till 25-02-2020**

Description	Support Price Rs. per 40 Kg	Seasonal Average Purchase Price Rs. Per 40 Kg	Difference Rs. Per 40 Kg	Percentage Increase
Punjab	190	217.90	27.90	14.68%
KP	190	211.37	21.37	11.25%
Sindh	192	227.29	35.29	18.38%
<b>Pakistan</b>		<b>218.85</b>		<b>14.77%</b>

Source: Data Provided by the Provincial Governments







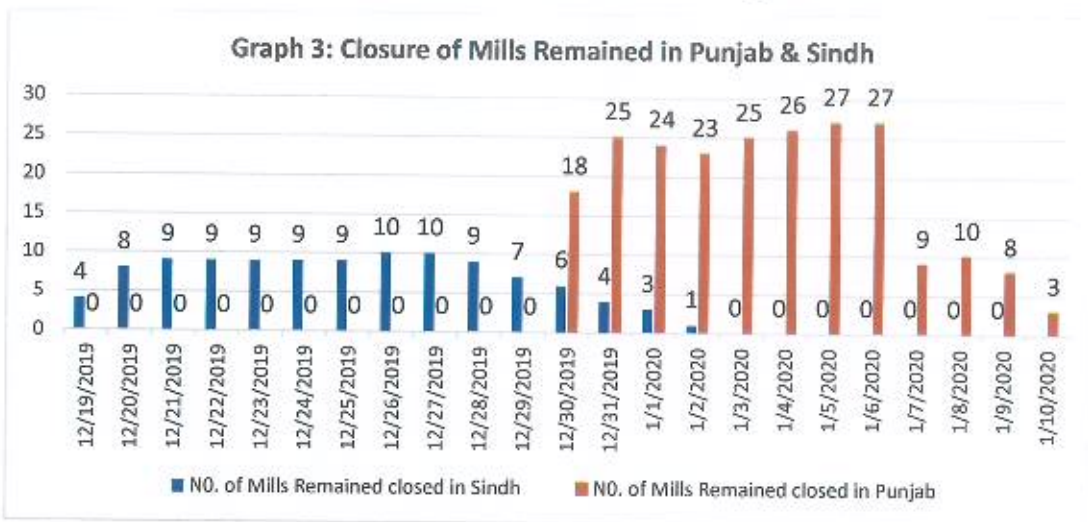
Source: Data Provided by the Provincial Governments

15. Speculation of low area of cultivation and low production of sugarcane meant that farmers were expecting prices higher than the support price. During the previous crushing seasons of 2016-2017 & 2017-2018, the production of sugarcane and sugar was much higher than the national requirement but the production of sugarcane has been decreasing since then. There was competition between the mills to purchase the sugarcane in this crushing season and due to low availability, as compared with the bumper crop years, the mills were willing to pay higher prices.
16. **Findings:**  
The actual production of sugarcane increased marginally this year and therefore, the reason for the increase in the price of about 15% above the support price can best be explained by the perception in the market about low production of sugarcane and, therefore, unwillingness of the growers to sell it at the support price. There is also another phenomenon of the mill owners also being large growers through owned or leased land. This potentially can also be one reason for the higher than support price buying of sugarcane. There is, therefore, a requirement for proper forensic audit to examine this possibility.
- (d) **Reasons for mills not purchasing sugarcane, for a limited period of a few weeks, from the farmers and its impact, if any, on sugar prices?**
17. Sugar mills in Sindh started the closure of mills on the call of sugar mills association and also citing the availability of low cane. They started the closure on 19<sup>th</sup> December 2019 and continued till 1<sup>st</sup> January 2019. However, the stoppage of purchase of sugarcane began in Punjab on 30<sup>th</sup> December 2019. Out of a total number of 39 sugar mills which are operational in Punjab the maximum number of 27 participated in the



strike on 5<sup>th</sup> and 6<sup>th</sup> of January. The Pakistan Sugar Mills Association (PSMA) was engaged by the Punjab Food Department on 30<sup>th</sup> and 31<sup>st</sup> December and on 2<sup>nd</sup> and 3<sup>rd</sup> January to call off the closure of the mills but in vain. Finally, the Cabinet Committee on Sugar Sector held a meeting with PSMA on 06-01-2020 and it was resolved that the sugar mills shall resume the operations. This meeting had a positive effect, the number of mills closed was reduced but all mills were finally opened on 11<sup>th</sup> January 2020. No sugar mills were closed in KP during the strike period.

18. It is pertinent to mention here that, as per report of Punjab Government, “no provision exists under the current set of laws on sugar sector that can be invoked in case of crushing operation is temporarily stopped by the sugar mills”. Same Sugar Factories Control Act of 1950, with few amendments, is also in vogue in Sindh.



Source: Data Provided by the Provincial Governments

19. Reason put forth by the PSMA during the meetings with the Punjab Food Department and the Cabinet Committee on sugar sector for temporary closure of crushing operation was low cane supplies. The low cane supply was causing increased overhead expenses and losses of sugarcane juice in the mills system. Sindh Government stated that the reason for mills closure was late harvesting by the farmers. But this doesn't seem plausible as the harvesting season and the crushing season starts early in Sindh and the sugar mills were operational till 19<sup>th</sup> December due to the availability of the sugarcane. Also, only up to 10 sugar mills closed their operations out of 32 mills that remained operational in Sindh this year.



**Table: 4. Average purchase price of sugarcane before, during and after the sugar mills strike**

Period of purchase of sugarcane	Average purchase price of sugarcane: Rs. Per 40 Kg	
	Punjab	Sindh
30-11-2019 to 19-12-2019 (before mills closure)	200.73	198.58
20.12.2019 to 01-01-2020 (During mills closure in Sindh only)	200.73	211.36
30-12-2019 to 10-01-2020 (during the mills closure in Punjab only)	203.83	243.29
11-01-2020 to 25-02-2020 (after the mills closure)	229.48	243.29
30-11-2019 to 25-02-2020 (Seasonal Average)	217.90	226.52

Source: Data Provided by the Provincial Governments

20. As can be seen in the table, the average purchase price of sugarcane before the closure period of sugar mills in Punjab was Rs. 200.73 per 40 Kg and in Sindh it was Rs.198.58. This price was above the support price which in the past had not been the case. In fact, the farmers had to sell their produce below the support price in the past. This seems to be the major reason for the mill owners to go on strike in a bid to bring down the sugarcane prices as closures puts pressure on the farmers. The sugar mills in Punjab remained closed from 30-12-2019 to 10-01-2020 while in Sindh from 20-12-2019 to 01-01-2020. The average purchase price for sugarcane during this closure period, for the sugar mills that remained operational in Punjab was Rs. 203.83 per 40 Kg and in Sindh Rs.211.36. This indicates clearly that the farmer was not ready to sell the sugarcane at a lower price despite the strike. In fact, the average purchase price for sugarcane after the strike in Punjab increased to Rs.229.48 per 40 Kg and in Sindh it went up to Rs. 243.29. This seems to be the result of intense competition amongst the sugar mills to entice the farmers for sugarcane purchase.
21. According to the report of Government of Punjab, the average ex-mill price on 29-12-2019 was Rs. 68.30 per Kg while it was Rs. 69.58 per Kg on 11-02-2020. Therefore, the impact of temporary closure of cane crushing on sugar price was Rs. 1.28 per Kg in Punjab.
22. **Findings:**  
The sugar mills ceased operations citing the low availability of sugarcane which is not plausible as sugarcane was available in ample quantities before and after the closure of the mills. Apparently, it was an attempt to bring down the prices of sugarcane. Although there was a significant impact on the price of sugarcane but hardly any on the sugar prices but it is expected that the mills will incorporate higher prices of sugarcane into their cost of production leading to higher ex-mill prices in the forthcoming months.





(e) **Basis for Determination of Ex-Mill Price? Reasons for increase in Ex-Mill Price:**

23. The Inquiry Committee asked the Provincial as well as the Federal Governments about how the ex-mill price is calculated and the system in place by the governments that the ex-mill is properly verified. It is shocking to note that neither the provincial nor the Federal Government had any clue how the calculations were made nor any mechanism is in place to verify it. The Prime Minister's office had tasked the Ministry of Industries to get this exercise done very recently. The Ministry of Industries tasked the Competition commission of Pakistan to calculate the ex-mill price of sugar. The Inquiry Committee was provided the formula for calculation by the CCP and also by PSMA. Both calculations are placed side by side in the table below:

**Table: 5. Ex-Mill price calculations by M/o Industries & Production and PSMA**

Sr. No	Ministry of Industries & Production		PSMA	
1	Recovery Ratio	10%	Recovery Ratio	10%
2	Price of Sugarcane	191.00	Price of Sugarcane	190.00
3	Sales value of Molasses	27.50	Sales value of Molasses	20.40
4	Sales value of Begasses	4.30	Sales value of Begasses	4.36
5	Sales of Mud	0.76	Sales of Mud	0.76
6	<b>Net Cost of Raw Material</b>	158.44	<b>Net Cost of Raw Material</b>	164.48
7	Development Cess	1.50	Development Cess	1.52
8	Market Committee Fee	0.40	Market Committee Fee	0.40
9	Freight	2.00	Freight	2.00
10	<b>Total Cost of Raw Material</b>	162.34	<b>Total Cost of Raw Material</b>	168.40
11	Sugar Obtained from 40 kg of Sugarcane	4.00	Sugar Obtained from 40 kg of Sugarcane	4.00
12	Cost of Raw material per kg of sugar	40.59	Cost of Raw material per kg of sugar	42.10
13	processing and other Overheads	12.90	processing and other Overheads	19.28
14	<b>Manufacturing Cost (Excluding Mill Owner Margin, &amp; GST)</b>	53.49	<b>Manufacturing Cost (Excluding Mill Owner Margin, &amp; GST)</b>	61.38
15	Sugar Mills Margin @15% of Manufacturing cost	8.02	Sugar Mills Margin @7.7% of Gross Ex-Mill	6.44



16	Ex-Mill price with margin, but without GST	61.51	Ex-Mill price with margin, but without GST	67.82
17	GST @17% of Ex-mill	10.46	Sales Tax, Income and Withholding Tax	15.20
18	WPPF &WWF	0.00	WPPF &WWF	0.57
19	<b>Gross Ex-mill Price</b>	<b>71.97</b>	<b>Gross Ex-mill Price</b>	<b>83.59</b>

Source: PSMA and Ministry of Industries & Production

24. The calculations are based on the assumption of Rs. 190 per 40 Kg. price of sugarcane and 10% recovery ratio. As can be seen in the table above, there are certain differences between the two calculations.
- i. Mo I&P calculated the value of molasses at Rs.26.90 and Bagasse at Rs. 4.30, extracted from 40 Kgs. of sugarcane, whereas PSMA calculated the same at Rs. 20.40 and Rs. 4.40, respectively.
  - ii. The net cost at serial no. 6 and total cost at serial no. 10 are therefore different by a margin of Rs. 6.50 in calculations by the Mo I&P and PSMA.
  - iii. The cost of raw material at serial no. 12 is also different being the result of total cost of material (serial no. 10) divided by 4 to obtain the per kg. cost of the raw material.
  - iv. The processing and overhead (serial no. 13) have been calculated differently where Mo I&P seems to have taken a figure of Rs. 12.9 which PSMA calculated in detail as Rs. 19.30. The Mo I&P has not provided any detail or means to calculate the figure.
  - v. The sugar mills margins (serial no. 15) have also been calculated differently as Mo I&P has provided for 15% profit on cost whereas PSMA on 7.7% gross ex-mill.
  - vi. Both Mo I&P and PSMA have allowed for inclusion of GST @ 17% (serial no. 17) but the CCP has not rightly allowed for inclusion of income and withholding taxes.
  - vii. The WPPF and WWF is not included by Mo I&P whereas the Committee feels is rightly included by PSMA.
25. The Inquiry Committee has found that:
- i. The practice of inclusion of taxes in the sugar ex-mill price and then calculating the profit margins is unfair.
  - ii. The figure of Rs. 19.3 reduces to Rs. 12.9 as processing and overheads after taking out the sale of by-products. No break-up of this figure is provided. This is a major component of the cost of production and ex-mill price. During the meeting with PSMA, their representatives stated that this includes the financial cost of about Rs. 7.0 and other overheads. There is a need to verify this head of account through forensic audit.

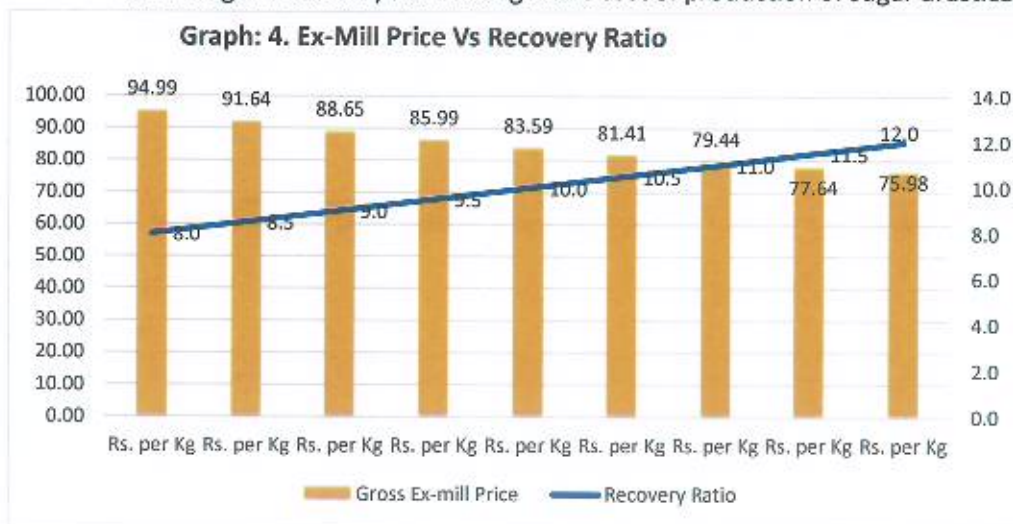




iii. The PSMA has included their profit margin @ 7.7% on gross ex-mill price. When asked to explain why the ex-mill price, which includes the profit margin, should not be considered the final ex-mill price, irrespective of the change in demand. The representatives stated that the ex-mill price changes with the increase or decrease in demand. The Inquiry Committee finds it difficult to comprehend that once a fair profit margin is already added in the ex-mill price, then how can the mills change their ex-mill price due to change in demand. This opens up the possibility of manipulation of prices by creating artificial demand by withholding supply. The government needs to work out a clear standard ex-mill price calculation method with PSMA whereby there should be profit margin added in calculating the ex-mill price. Then no allowance should be allowed to escalate the price further on the pretext of increase in demand. Conversely, if the demand is to be one of the factors to fix the ex-mill price then the Profit Margin should not be part of the Ex-Mill Price.

26. There are two important components of cost of production that also need to be explained. The cost of sugarcane and recovery ratio.

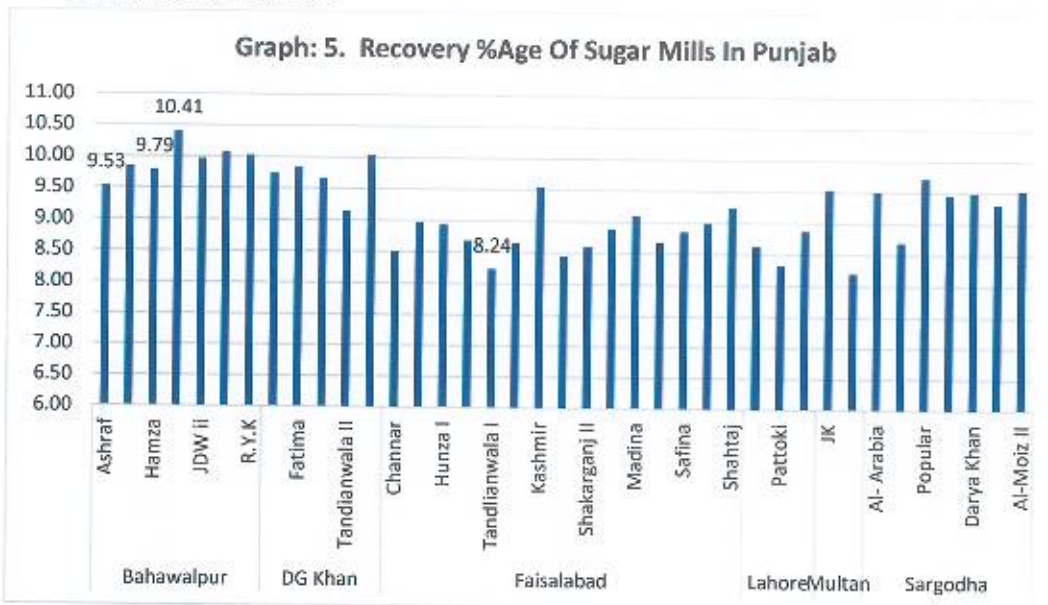
- i. **Sugarcane cost:** the purchase price of sugarcane is higher during the current crushing season than the previous crushing seasons, as already explained above. PSMA claims that cost of sugarcane constitutes 58-61% of the ex-mill price of sugar. While according to the Competition Commission of Pakistan’s analysis<sup>1</sup>, this percentage is 76.16% on the average in Pakistan. Hence, the increase in purchase price of sugarcane affects the cost of production of sugar: which resultantly affects the ex-mill price of sugar.
- ii. **Recovery Ratio** from sugarcane is another major factor in determining the cost of production. Keeping the rate of purchase of sugarcane at Rs. 190 per 40 Kg, the change in recovery ratio changes the cost of production of sugar drastically.



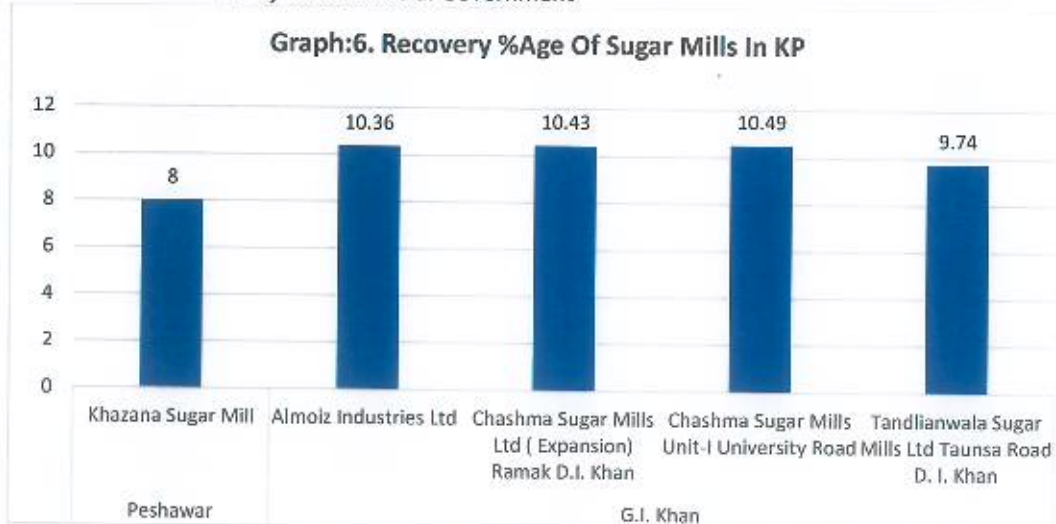
<sup>1</sup> CCP Report" Competition Concerns in Sugar Sectors of Pakistan", April 25, 2018, Table 3 page 15



27. Recovery ratio is the vital factor in calculating the amount of sugar produced and the cost at which the sugar is produced. A 1% change in sugar recovery ratio mean 10% change in the amount of sugar produced. The recovery ratio is determined through laboratory testing and reported by the sugar mills and there is no independent way of ascertaining whether the report is correct or not. There are differences in the recovery ratio of the sugar of the same region where similar variety of sugarcane is cultivated. During the discussion with different sources, it has come to notice that the sugar mills allegedly manipulate the recovery ratio and the sugar produced, by showing the reduced recovery ratio, and the entire sugar so produced is sold *off the book*. This is major tax evasion but cannot be verified without independent testing by the concerned authorities.

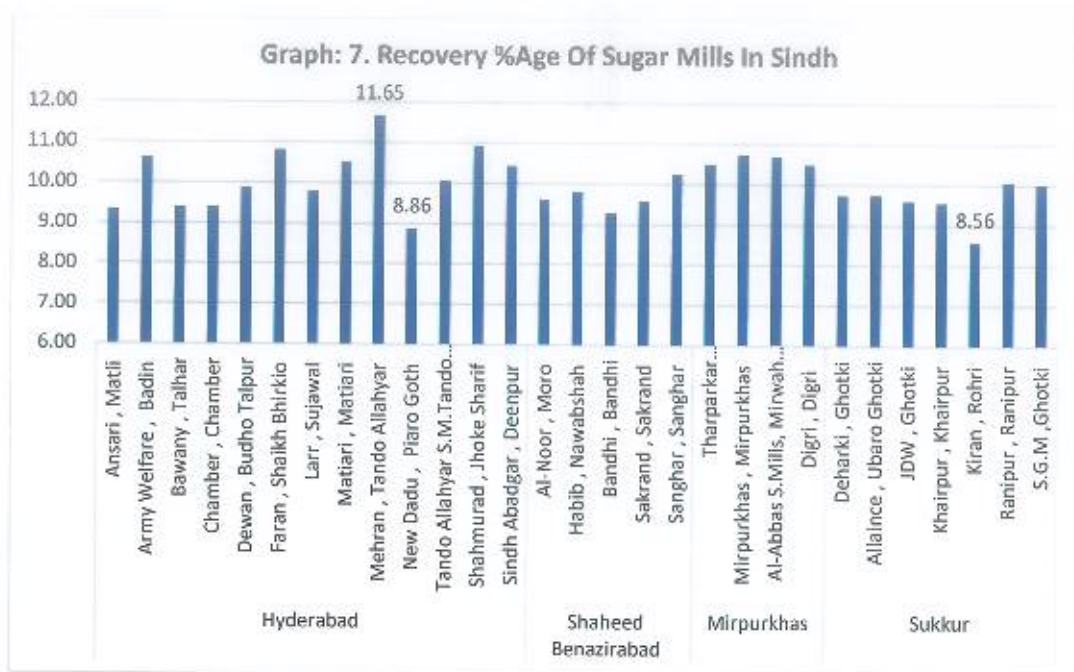


Source: Data Provided by the Provincial Government



Source: Data Provided by the Provincial Government





Source: Data Provided by the Provincial Government

28. As is clear that the sugar mills situated in the same region, crushing the similar kind of varieties of sugarcane, have different recovery ratio. It is surprising the government departments take the sugar recovery ratio data from the sugar mills and accept it without any verification or check. The cane commissioner Punjab does have a mobile lab but that provides result for sugarcane only and cannot be compared with the mills lab results due to technical differences in testing methods and processes. There is need for independent verification and authentications of lab results to ensure that the sugar recovery ratio is properly determined and, therefore, the actual production can be calculated.
29. The on-site forensic audit can also provide corroborative data to calculate the cost of production by analyzing the following.
- i. Sugar production requires the chemicals to be utilized. The amount of chemicals used can indicate the amount of sugar produced. Verification of quantities of chemicals purchased, consumed during the production process and the balance present in the stock.
  - ii. Number of sugar bags purchased and utilized by the mills,
  - iii. Amount paid to the packing and loading contractors (the payment is made at the rate of per bag),
  - iv. Data is also required to be obtained from the banks to verify the financial liabilities (in the form of loans, running finance, over draft) and their utilization. As the cost of financial liabilities is added to the cost of production and its amount due and proper utilization needs to be checked.



30. **Findings:**

- i. The cost of procurement of sugarcane, overhead and financial charges, taxation as well as efficiency of the mill with regards to the recovery ratio are the main determinants of the ex-mill price of sugar. The Committee notes that the calculation of the ex-mill price provided by PSMA cannot be relied upon unless a full audit of all determinants of ex-mill price are calculated in a financial audit as explained in detail in the paras of this TOR.
- ii. The reasons of increase in ex-mill price have been explained in detail in TOR (i) & (k).
- iii. The major increase in ex-mill price occurred between December 2018 to June 2019 when it increased by almost Rs. 12 per kg which is from Rs. 51.64 to Rs. 63.59 per kg. This period saw no increase in sales or other taxes and the price of sugarcane, the major input, was also stable. The only factor that stands out was the export of sugar which coincides with this period.

(f) **Market manipulation/cartelization by sugar mills, if any:**

31. To establish the manipulation and cartelization of sugar mills concrete evidence is required which can be possible through a proper forensic audit of the mills. However, as per the data provided by the SECP and PSMA, following facts stand out showing control of very few on the industry.
32. Six groups control about 51% of the production of sugar in Pakistan as shown in Table 10. These groups have the capacity to manipulate the market by joining hands for cartelization and subsequent manipulation. The control of so few, mostly with political background, of the sugar industry shows the strong influence they can exercise on Policy and Administration.

**Table: 6. Percentage Share of Big Groups in National Production In 2018-19**

Name of Group	No. of Mills	Production (Tons)	Recovery Ratio %age	%age of Total National Production
JDW Group	6	1,040,382	11.15%	19.97%
RYK Group	5	637,691	10.67%	12.24%
Al-Moiz Group	5	354,231	10.26%	6.80%
Tandlianwala Group	3	255,375	9.43%	4.90%
Omni Group	10	86,394	10.50%	1.66%
Sharif Family Mills	9	236,717	9.64%	4.54%
All Other	51	2,599,960	10.39%	49.90%
<b>Grand Total</b>	<b>89</b>	<b>5,210,750</b>	<b>10.47%</b>	<b>100.00%</b>

Source: PSAM Annual Report 2019

33. The sugar mills have their own association called Pakistan Sugar Mills Association (PSMA). Many policies are conveyed to the sugar mills from the platform of PSMA. The call for the closure of the sugar mills in Punjab, for instance, from 30-12-2019 to 10-01-2020 was also given from the platform of PSMA. Later on, PSMA held meetings



with the Punjab Government and then the strike was called off. All the mills did not participate in the strike but this platform can be used for acting in unison in order to obtain their objectives by using pressure tactics.

34. In the strike call 04 mills of Sharif Group, 04 of Al-Moiz Group, 02 of Tandlianwala Group, 02 of RYK group, 01 mill of JDW group and many other mills participated. The maximum number of mills participating in strike were 25 on one particular day. Since the strike was called off on the call of PSMA, it can be safely assumed that PSMA initiated the strike as well. This is a sign of cartelization: not all sugar mills are part of it but there are groups of sugar mills with common intentions.
35. Utility Stores Corporation published the tenders for the purchase of sugar on different date with different quantities. The sugar mills participated and quoted the prices as shown in the table below:

**Table: 7. Tender of sugar advertised by Utility Stores Corporation**

Tender Date	Quantity (MT)	Bidder	Price Offered Rs. Per Kg	Quantity Offered (MT)	Prices after negotiation
24.12.2019	50,000	Faran Sugar Mills	71.1	20000	Withdraw
		Al Moiz-I	72	5000	71.1
		Al Moiz-II	72	5000	71.1
		Thal Industries-I	72	5000	Refused
		Thal Industries-II	72	5000	71.1
Tender Date	Quantity (MT)	Bidder	Price Offered Rs. Per Kg	Quantity Offered (MT)	Prices after negotiation
14.01.2020	60,000	Faran Sugar Mills	77.1	3000	Refused
		Fatima Sugar Mills	74	2000	To be lifted
		Thal Industries-I	75	5000	Refused
		Thal Industries-II	75	5000	Refused
		Al Moiz-I	75	5000	Refused
		Al Moiz-II	75	5000	Refused

Source: Data provided by Utility Stores Corporation

36. Almost all the sugar mills offered the same price (except one). This kind of offers indicate that there are some collusive practices. The cost of production of each and every sugar mill is different and it is almost impossible to offer the same price with varying cost of production.
37. **Finding:**  
Although there are signs of cartelization/manipulation by the sugar mills, the concrete evidence can only be obtained through detailed forensic audit.



(g) **Impact of forward contracts on the prices of the sugar and whether any malafide is involved:**

38. Forward contract is the advance sale of sugar by the sugar mills. The buyers buy the sugar to be lifted at some point in future. There are multiple reasons for sugar mills or adopting this practice. Forward contract fetches business capital for the sugar mills and whereas they don't have to deliver sugar immediately. According to the discussion with different stakeholders, there are two kinds of forward contracts:
- a. The buyer, who is normally a whole sale dealer, stockists or investor, buys the sugar to be lifted at a later time as per agreement. The payment is made in advance and normally the rate is set lower as compared to the current rate. In this situation the buyer makes profit if the sugar price goes up. This kind of forward contract seems justifiable as the money is paid in advance for a small discount.
  - b. The buyer enters into an agreement, written or verbal, with the sugar mill to purchase sugar. The sugar is to be lifted at a later stage of time but no payment is made. In this case the rate is normally set higher than the current rate. In this situation, again the buyer would make profit if the price of the sugar goes up. This kind of contract lends itself to the possibility of *Satta* which is explained below.
39. As discussed, in both cases of forward contract, the buyer has advantage when the sugar price goes up. But the forward contract requires the participation of the sugar mill and the transfer of physical sugar quantity is involved at some later stage of time.
40. *Satta* (imaginary/virtual advance sales) is the speculative sale and has become common practice in sugar market throughout Pakistan. A person Mr. A might be the owner of sugar mill, whole sale dealer or simply a salesman who sells virtual sugar to Mr. B. If the current price of sugar is Rs. 70 per kg then Mr. B offers Mr. A to book 100 truck load of sugar @ Rs 72 / Kg for 15<sup>th</sup> April. Now on 15<sup>th</sup> April, if the price of sugar becomes Rs 68/Kg in the market then Mr. B will pay Rs 4/Kg to Mr. A for the quantity of 100 truck load. If price of sugar on 15<sup>th</sup> April becomes Rs 74/kg then Mr. A will pay to Mr. B Rs 2/Kg on quantity of 100 truck load. No actual investment or sale or lifting of sugar is involved in *SATTA*. It is simply a form of gambling.
41. Forward contracts and more so *SATTA* sales affect the market. Speculation about the increased or decreased rates of *Satta* in the market affects the price accordingly. The upward speculation results in perception of increased demand against the supply which will result in price hike.
42. **Findings:**
- i. The detailed analysis of forward contract can be carried out with the availability of full information from the sugar mills. The data, so far obtained from the sugar mills, show that 16 mills of Punjab, 1 of KP and 5 of Sindh (data provided for only 13 sugar mills) have entered into forward contracts for sale of sugar. The details of buyers in these contracts and the mode of payment needs to be analyzed with the help of FBR. The authenticity of forward contracts also need verification. All these

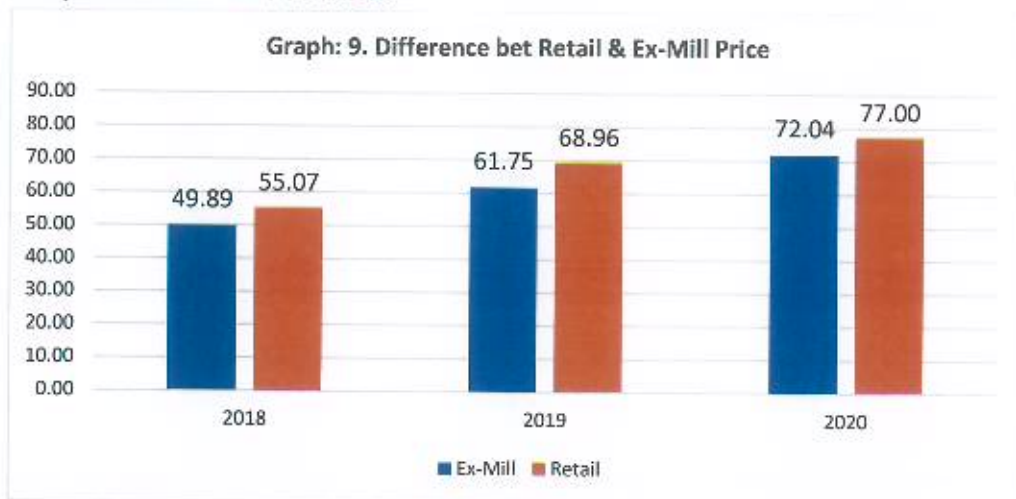


verifications require in-depth analysis with all the pre-requisite information which can be obtained through a detailed audit.

- ii. *SATTA* on the other hand is absolutely illegal and a menace to control the prices of sugar. This requires strict legal action by the provincial governments which should be started immediately as people involved in such business are speculating a severe price hike in the Holy Month of *Ramadhan*. The *Satta* rates are now about Rs. 100 per Kg for *Ramadhan*. The Provincial Governments have information available through their Special Branch about the *Satta* dealers and action can be taken immediately.

(h) **Whether margins between Ex-Mill and Retail prices increased, compared to the previous years, or otherwise. If yes, reasons thereof and potential beneficiaries:**

43. The details of ex-mill and retail prices were obtained from the Provincial Governments and the Pakistan Bureau of Statistics. The data was then averaged out over the year and period under consideration.



*Source: Data provided by the Provincial Governments and Pakistan Bureau of Statistics*

As can be seen there is a difference of about Rs. 5-7 per kg between the ex-mill price and the retail price. The margin is at the lower side, at about Rs. 5 per kg, for the current year. The bulk of the margin, however, goes to retailer who has to bear the cost of packing and loss during the sale.

44. **Finding:**

The difference is of about Rs. 5-7 per kg between the ex-mill price and the retail price. The margin is at the lower side, at about Rs. 5 per kg, for the current year. The bulk of the margin, however, goes to retailer who has to bear the cost of packing and loss during the sale



(I) **Impact of Tax on sugar prices at Ex-Mill/Retail level:**

45. GST in the financial year 2018-2019 was 8% for the filers and 11% for the non-filers purchasing sugar from the sugar mills. But since majority of the buyers were non-filers so the GST was charged at 11% in majority of the cases. In the current financial year 2019-2020 the Government has increased the GST to 17% across the board. The revenue of FBR from sugar sector, in terms of sales tax, has increased 62.3%: the increase in revenue is not proportionate to increase in GST. The same increase is transferred to the consumers ultimately as it is included in the ex-mill price calculations of PSMA. Furthermore, the FBR calculates the minimum ex-mill price of sugar at Rs. 60 per Kg irrespective of the fact that it may be lower. Hence the GST on sugar is Rs. 10.20 per Kg at the rate of Rs. 60 per kg ex-mill price. Any additional price over the minimum baseline is to be proportionately added @ 17% for the additional price.
46. The prices of sugar had started to increase from December 2018. The retail price of sugar in December 2018 was Rs. 55.99 per kg and started to increase with every passing month and reached to Rs. 71.44 per kg in June 2019. It is pertinent to mention here that there was no increase of GST at that time. As can be seen the real increase in the retail price happened between December 2018 to June 2019 when it went up by about Rs. 16 per kg. Similarly, the major increase in ex-mill price occurred between December 2018 to June 2019 when it increased by almost Rs. 12 per kg which is from Rs. 51.64 to Rs. 63.59 per kg. This period saw no increase in sales or other taxes and the price of sugarcane, the major input, was also stable. The increase in retail price between July 2019 to January 2020 is from Rs. 71 per kg to Rs. 74.64 per kg. The data, therefore, does not show any major affect of GST on retail price.

**Table: 8. Comparison of Ex-Mill & Retail Prices of Sugar**

Sr. No	Months	Ex-Mill Price PKR	Retail Price PKR
1	Nov-18	50.05	55.47
2	Dec-18	51.64	55.99
3	Jan-19	54.30	59.30
4	Feb-19	54.73	59.37
5	Mar-19	57.46	61.15
6	Apr-19	60.49	65.03
7	May-19	62.48	67.31
8	Jun-19	63.59	71.44
9	Jul-19	65.73	71.93
10	Aug-19	68.62	75.14
11	Sep-19	68.56	75.39
12	Oct-19	68.30	74.46
13	Nov-19	67.42	73.26
14	Dec-19	67.48	71.71
15	Jan-20	69.14	74.64
16	Feb-20	71.56	79.86



Source: Data Provided by Pakistan Bureau of Statistics and Provincial Governments (Incomplete Data was provided by Sindh Government)



Source: Data Provided by Pakistan Bureau of Statistics and Provincial Governments (Incomplete Data was provided by Sindh Government)

**47. Finding:**

The real increase in the retail price occurred between December 2018 to June 2019 when it went up by about Rs. 16 per kg. Similarly, the major increase in ex-mill price occurred between December 2018 to June 2019 when it increased by almost Rs. 12 per kg which is from Rs. 51.64 to Rs. 63.59 per kg. This period saw no increase in sales or other taxes and the price of sugarcane, the major input, was also stable. The increase in retail price between July 2019 to January 2020 is from Rs. 71 per kg to Rs. 74.64 per kg. the data, therefore, does not show any major effect of GST on retail price.

**(j) Hoarding at whole sale/ Retail level and within sugar mills vis-a-vis stocks of last year:**

**48.** Normally, the sugar is purchased by the whole sale dealers, through the Mill agent/brokers. Other industrial buyers mostly buy directly from the mills. The sold sugar mostly remains stocked within the sugar mills and is lifted as per the requirement of the buyer. The sugar is stocked in the warehouse/go-downs by the brokers/agents/stockists in some of the cases. This stocking of sugar is not being monitored despite the law, in Punjab and Sindh, which requires the registrations of go-downs for essential items. The provincial governments seem to be unaware of the provision of these legislations with the result that no record of stockists of essential commodities like sugar is available with the government. This again leads to the complete dependence on PSMA for assessment of the stock position in the country. The absence of accurately verifiable data about the stock position leads to the



manipulation of the sugar price. As is clear from the table, the sugar mills are providing different data on different dates which shows large discrepancy in quantity of the sugar sold and lifted from the mill. On the first date, the lifting percentage is very low whereas in the second date the lifting is almost equal to the sale. This, therefore, necessitates the verification of stocks to ascertain the correct position.

**Table: 9. Quantity of sugar sold and lifted: Data provided by sugar mills on different dates**

	Sugar Production Annex B (M Ton)	Quantity Sold Annex B (M. Tons)	Quantity Sold Annex G (M Ton)	Quantity Lifted Annex C (M Ton)	Quantity Lifted Annex G (M Ton)	Difference of Quantity Lifted (M Ton)	Difference of Quantity Sold (M Ton)
	1	2	3	4	5	(5-4)	(3-2)
<b>Punjab</b>	2,334,246	784,993	814,643	1,489	694,913	693,424	29,650
<b>KP</b>	268,458	73,508	73,508	33,771	94,768	60,997	0
<b>Sindh</b>	1,255,293	352,856	437,738	Incomplete data	412,891		84,883

*Note: Annex B, and C was requested on 25.02.2020 from Provinces, whereas, Annex G was requested on 29.02.2020*

**49. Finding:**

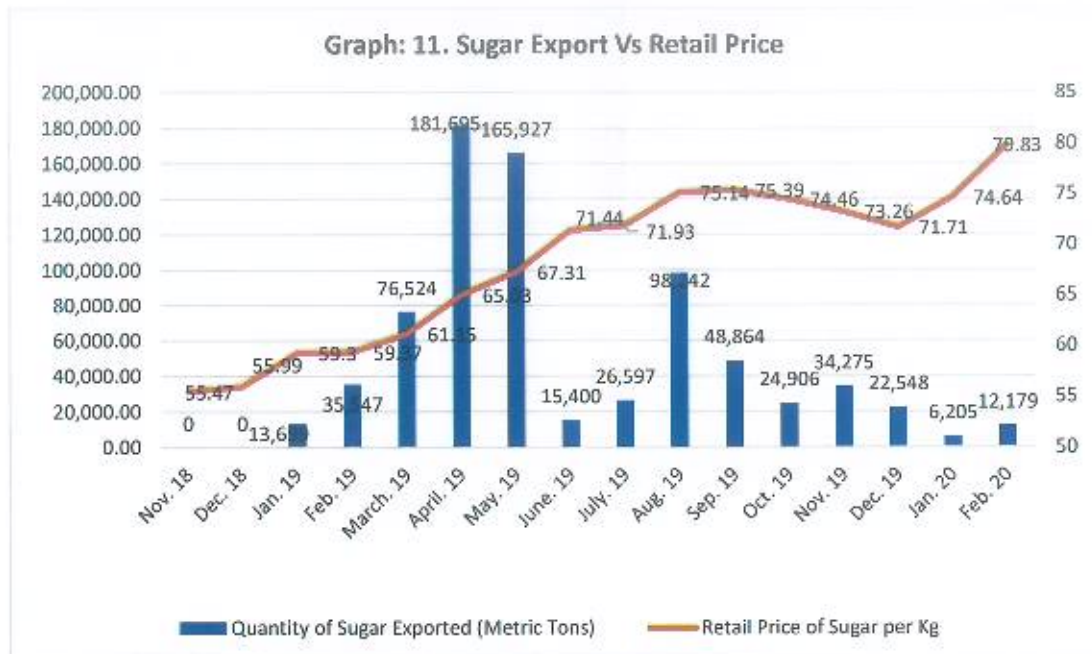
Despite the availability of relevant laws (Registration of Go-downs Acts in Punjab and Sindh) no data of stocking of the sugar is being maintained. The hoarding of sugar at the level of mills is also a possibility as the mills have very large go-downs where stocks are kept after sales. The phenomenon of hoarding at the mills and the whole-sale level can only be identified by the forensic audit.

**(k) Was the export of sugar justified? Any subsidy given on export and its impact, with potential beneficiaries:**

50. The export of 1.00 Million Tons of sugar was recommended during the Sugar Advisory Board (SAB) meeting held on 11<sup>th</sup> September 2018 as excess sugar was available. The ECC approved the export of 1.00 and 0.10 Million Tons of sugar on 2<sup>nd</sup> October and 4<sup>th</sup> December 2019 respectively. However, during the same meeting Secretary Ministry of National Food Security raised the issue that low production of sugarcane was expected in the upcoming season due to water shortage. Despite that the export was recommended and without making it time-bound. In the meeting of SAB held on 15<sup>th</sup> April 2019 and 6<sup>th</sup> May 2019, Punjab raised concern over the rising prices of the sugar in the local market. The issue of increasing price of sugar was discussed in the subsequent meetings in June 2019 as well but no decision was taken recommending ban on export despite the fact that estimated stocks calculation presented during the



meeting showed net stocks as negative 0.191 Million Tons (excluding the stocks of 7 sugar mills of Sindh). Finally, the ban on export was recommended on 28<sup>th</sup> January, 2020 and the ban was imposed on 19<sup>th</sup> February 2020.



Source: Pakistan Bureau of Statistics and State Bank of Pakistan

51. Analysis shows that prior to permission of sugar export, the retail price of sugar was around Rs. 55 per kg. But as the export of sugar started, the price of sugar started to increase and kept on increasing with the increase in the export quantity. The market players knew that the sugar stocks are running low in the country, hence with increasing exports the price kept on increasing consistently every month. In April and May 2019, maximum quantities were exported and price jumped accordingly.
52. It is pertinent to note here that in October 2019, Secretary Mo I&P wrote a letter to all the Provincial Chief Secretaries and showed his concern over the increasing prices of sugar: after the meeting of Sugar Advisory Board. But even then, no decision was taken to ban the export of sugar. Rather the rising prices of sugar were considered to be a result of hoarding and not of export of sugar.
53. As mentioned above, the Punjab Government summaries stated that the prices had increased and the export should be banned but no mention of this fact is reflected in the minutes of the SAB meetings held in 2019. It is also very noticeable that the SAB in its meeting dated 20-06-2019, despite the clear calculations that the stock position will be negative after deducting the strategic reserves still did not ban the export of sugar.
54. This year only the Punjab Government allowed subsidy of Rs. 5.35 Per Kg and a total amount of Rs. 3.00 Billion was allocated on the export of sugar. Hence, only the sugar



mills of Punjab were entitled to subsidy this year for period from 1<sup>st</sup> October 2018 to 20<sup>th</sup> February 2020. However, in the wake of increasing price of sugar in the market, the subsidy was withdrawn on 24<sup>th</sup> May 2019 by the Government of Punjab. The amount of sugar exported and subsidy paid to each sugar mills is as shown in the table below.

**Table: 10. Details of Sugar Exported by and Subsidy Awarded December 2018-2019**

S No	SUGAR MILLS	SUGAR PRODUCTION TONS	SUGAR EXPORT TONS	% OF PRODUCTION EXPORTED	% SHARE IN NATIONAL EXPORT	SUBSIDY Rs.	% SHARE IN TOTAL SUBSIDY
1	J.D.W. SUGAR MILLS	640,278	121,621	19.00%	15.53%	556,206,578	22.52%
2	JK (COLONY- II)	70,815	1,000	1.41%	0.13%	4,830,840	0.20%
		<b>711,093</b>	<b>122,621</b>			<b>561,037,418</b>	<b>22.71%</b>
	<b>GROUP % EXPORTED</b>	<b>17.24%</b>					
3	AL-MOIZ INDUSTRIES LIMITED	148,831	69,672	46.81%	8.89%	241,778,417	9.79%
4	THAL INDUSTRIES CORPORATION	204,416	34,886	17.07%	4.45%	164,755,805	6.67%
		<b>353,247</b>	<b>104,558</b>			<b>406,534,222</b>	<b>16.46%</b>
	<b>GROUP % EXPORTED</b>	<b>29.60%</b>					
5	R.Y.K. MILLS LIMITED	155,186	24,600	15.85%	3.14%	88,806,218	3.60%
6	ETIHAD SUGAR MILLS	183,332	58,786	32.07%	7.50%	183,908,010	7.45%
7	TWO STAR INDUSTRIES	131,553	63,129	47.99%	8.06%	179,629,468	7.27%
		<b>470,071</b>	<b>146,515</b>			<b>452,343,696</b>	<b>18.31%</b>
	<b>GROUP % EXPORTED</b>	<b>31.17%</b>					
8	HUNZA SUGAR MILLS	123,095	91,041	73.96%	11.62%	429,840,177	17.40%
9	INDUS SUGAR MILLS	102,522	53,821	52.50%	6.87%	148,315,247	6.00%
10	FATIMA SUGAR MILLS	107,116	72,651	67.82%	9.27%	248,395,600	10.06%
11	HUSEIN SUGAR MILLS	48,251	19,171	39.73%	2.45%	88,579,661	3.59%
12	SHEIKHOO SUGAR MILLS	146,505	17,750	12.12%	2.27%	56,854,494	2.30%
13	NOON SUGAR MILLS	63,098	13,353	21.16%	1.70%	48,610,446	1.97%
14	JAUHARABAD SUGAR MILLS	44,776	9,000	20.10%	1.15%	26,747,218	1.08%
15	HUDA SUGAR MILLS	35,775	8,758	24.48%	1.12%	2,754,372	0.11%
16	OTHERS		124,067		15.84%	179,629,468	7.27%
	<b>TOTAL</b>		<b>783,307</b>			<b>2,470,012,55</b>	<b>100%</b>

55. Following are the major beneficiaries,
- The companies at serial nos. 1 and 2, owned and controlled by Mr. Jahangir Khan Tareen (JDW), exported 17.24% of its total production and availed 22.71% of the total export subsidy amounting to Rs. 561,037,418.





- ii. The companies at serial nos. 3 and 4, owned and controlled by Mr. Shamim Ahmed Khan (Al-Moiz Group), exported 29.60% of its total production and availed 16.46% of the total export subsidy amounting to Rs.406,534,222.
  - iii. The companies at serial nos. 5, 6 and 7, owned and controlled by Mr. Makhdum Omer Sheryar (relative of Mr. Makhdum Khusro Bakhtiar) RYK Group, exported 31.17% of its total production and availed 18.31% of the total export subsidy amounting to Rs. 452,343,696. It may be noted that Chaudhry Munir and Mr. Monis Elahi are also partners in this group.
  - iv. The aforementioned three groups of companies availed a total subsidy of 57.49% that amounts to Rs.1,419,915,336 out of the total subsidy of Rs.2,470,012,551.
  - v. The company at serial no. 9, owned and controlled by Mr. Ghulam Dastagir Lak, exported 52.50% of its total production and availed 6.0% of the total export subsidy amounting to Rs. 148,315,247.
56. The Punjab Government was providing the subsidy for export of sugar at a time when the price of sugar was increasing in the domestic market. Out of 0.762 Million Tons of sugar exported, 0.474 Million tons (62%) was exported before the withdrawal of subsidy and the remaining 38% was exported after the withdrawal of subsidy. It is also worth mentioning here that Rs. 3.0 Billion were allocated by the Punjab Government for the subsidy (From January 2019 to onwards) but Rs. 2.47 Billion were utilized from 1<sup>st</sup> January to 24<sup>th</sup> May 2019. It can be seen that the sugar mill owners who availed maximum subsidy had political clout and influence in decision making and they tried to gain maximum benefit in a very limited time. A deeper assessment of the reasons for awarding of subsidy after associating the Government and the mill owners/beneficiaries is required which would be done by the Commission.
57. **Finding:**
- (a) The Committee is of the considered opinion based on documentary evidence that:
    - i. The export of sugar was not justified as the sugarcane production was expected to be low in the upcoming harvesting season 2018-2019,
    - ii. With the Export of sugar in January 2019, the price of sugar started increasing immediately in the local market.
    - iii. The exporters of sugar gained benefit in two ways: first they were able to gain subsidy and secondly, they made profit from the increasing sugar prices in the local market (the price increased from Rs. 55 per kg in December 2018 to Rs. 71.44 per kg in June 2019 although the GST increase was implemented from 1<sup>st</sup> July 2019)
    - iv. No other Government, except the Government of Punjab, provided the subsidy. The financial layout of subsidy was Rs. 3 Billion,
    - v. Sugar Advisory Board failed to take the timely decision to ban the export of sugar,
  - (b) Following sugar mills are the beneficiaries of subsidy on sugar export
    - i. JDW Sugar Mills Limited





- ii. HUNZA Sugar Mills Limited
- iii. M/s FATIMA Sugar Mills Limited
- iv. AL-MOIZ Industries Limited
- v. ETIHAD Sugar Mills Limited
- vi. TWO STAR Industries Pvt Ltd
- vii. THAL Industries Corporation Limited
- viii. INDUS Sugar Mills Limited
- ix. RYK Mills Limited
- x. HUSEIN Sugar Mills Limited
- xi. SHEIKHOO Sugar Mills Limited
- xii. NOON Sugar Mills Limited
- xiii. JAUHARABAD Sugar Mills Limited
- xiv. JK Sugar Mills Pvt Limited
- xv. HUDA Sugar Mills (Pvt) Ltd

(c) Major Beneficiaries;

- i. The companies owned and controlled by Mr. Jahangir Khan Tareen, exported 17.24% of its total production and availed 22.71% of the total export subsidy amounting to Rs. 561,037,418.
- ii. The companies owned and controlled by Mr. Shamim Ahmed Khan, exported 29.60% of its total production and availed 16.46% of the total export subsidy amounting to Rs.406,534,222.
- iii. The companies owned and controlled by Mr. Makhdum Omer Sheryar (relative of Mr. Makhdum Khusro Bakhtiar), exported 31.17% of its total production and availed 18.31% of the total export subsidy amounting to Rs. 452,343,696. It may be noted that Chaudhry Munir and Mr. Monis Elahi are partners in this group.
- iv. The aforementioned three groups of companies availed a total subsidy of 57.49% that amounts to Rs.1,419,915,336 out of the total subsidy of Rs.2,470,012,551.
- v. The company at serial no. 9, owned and controlled by Mr. Ghulam Dastaghir Lak (Ex-MPA of PML-N / 2013-2018), exported 52.50% of its total production and availed 6.0% of the total export subsidy amounting to Rs. 148,315,247.

(i) **Basis for determination of retail price of sugar:**

58. Retail price of sugar in the market is dependent mainly on the following factors:
- a. Ex-Mill price
  - b. Commission of Agent
  - c. Transportation cost
  - d. Profit Margin Wholesaler or broker
  - e. Profit margin of retailer

59. **Findings:**

As per discussion with different stakeholders, the Agent charges Rs. 0.08 per kg. Further wholesaler or broker charges his profit which is 0.5 to 1.0 Rs per kg.




Conventionally the margin between ex-mill and retail price is Rs. 5-7 per kg on the average.


### Way Forward:

62. The Committee after its assessment of the situation had requested for the setting up of the Commission of Inquiry under the Commission of Inquiry Act 2017 vide letter no. PS/DG/FIA/2020/417 Dated 9<sup>th</sup> March, 2020 (Annexure -A)
63. The Federal Government has set up the Commission with amended TOR vide Notification No. F.5/14/2020-FIA Dated 16<sup>th</sup> March 2020 (Annexure-B)
64. The Commission of Inquiry has started its work and 09 teams are already on the ground for the forensic analysis of the following 10 sugar mills.
  - i. Alliance Sugar Mills, Ghotki
  - ii. Al-Arabia Sugar Mills Sargodha
  - iii. Al-Moiz 1 Sugar Mills DI Khan
  - iv. Al-Moiz 2 Sugar Mills Mianwali
  - v. Hamza Sugar Mills RY Khan
  - vi. Hunza 1 & Hunza 2 Sugar Mills Faisalabad & Jhang
  - vii. JDW 1, 2, & 3 Sugar Mills RY Khan and Ghotki
65. Due to the limited time available to the Commission a reasonably large sample of above-mentioned sugar mills, which produce about 26% of the total sugar production in Pakistan, and are located in the three provinces of the country, has been selected.
66. Each team comprises of the officers from the following departments
  - i. Federal Investigation Agency
  - ii. Anti-Corruption Establishment, Punjab
  - iii. Securities and Exchange Commission of Pakistan
  - iv. State Bank of Pakistan
  - v. Auditor General of Pakistan, DG Commercial Audit
  - vi. Federal Board of Revenue
  - vii. Intelligence Bureau
  - viii. ISI
67. The Commission of Inquiry has been given the time frame of 40 days for completion of its work. The report of the Commission shall be submitted accordingly.
68. The Committee, however, highlights the following for consideration of the Government about possible increase in sugar price in the coming next month when Ramadan also starts.
  - i. The PSMA calculations of Ex-Mill price of sugar, at the sugarcane purchase rate of Rs. 190 per 40 kg, is Rs. 83.59 per kg. Keeping in view the margin of Rs. 5-7 per kg between ex-mill price and the retail price would be around Rs. 89-91 per kg. with the addition of increased sugarcane average price of this season, which is Rs.218.85 per 40 kg, the ex-mill and retail price of sugar would further go up.



- ii. *Satta* being played at major sugar markets is already crossing Rs. 100 per kg for Ramadan.
  - iii. The lifting of already sold sugar is very slow and, therefore, supply is not going to match the demand.
69. The Committee recommends that the Provincial Departments may be made aware of the situation and it should be stressed that the following measures to be taken well ahead of Ramadan to keep a check on the retail price of sugar.
- i. Immediate crackdown on the *Satta* players who are known well to the Provincial Special Branch and Intelligence Agencies.
  - ii. Ensuring that the sold sugar is lifted in appropriate amount so that the supply remains adequate.
70. Total sugar production till 18-03-2020 was 4.78 Million Metric Tons with a carryover stock of approximately 0.52 Million Metric Tons. The total sugar stock would be about 5.3 to 5.4 Million Metric Tons: which is almost equivalent to the domestic annual consumption. This narrow margin would provide opportunity for the hoarding and manipulation of the sugar market. Keeping in view of this situation, the Federal Government may consider the import of sugar for strategic reserve to ensure the stability of prices in the market.

  
**(Ahmad Kamal) PSP**  
Deputy Director General  
Intelligence Bureau

  
**(Muhammad Goher Nafees) PSP**  
Director General  
Anti-Corruption Establishment, Punjab

  
**(Wajid Zia) PSP**  
Director General  
Federal Investigation Agency





OFFICE OF THE DIRECTOR GENERAL  
FEDERAL INVESTIGATION AGENCY  
ISLAMABAD

No. PS/DG/FIA/2020/417

Dated: 09.03.2020

To,  
The Secretary to Prime Minister,  
Prime Minister's Office,  
Islamabad.

Subject: INQUIRY COMMITTEE TO PROBE THE INCREASE IN SUGAR PRICES

Reference Prime Minister's office Islamabad vide Letter No. 755/A/M/SPM /2020 dated 20.02.2020 and Letter No. 930/M/SPM/2020 dated 05.03.2020 on the above noted subject.

2. The inquiry committee during the course of proceedings has collected information from different Federal and Provincial Government Departments, Pakistan Sugar Mills Association and other stakeholders for providing answers to the questions in the TORs.
3. The information collected thus far reveals that the whole information system used for decision making by the Government Department is totally dependent on the information provided by the Sugar Mills. This includes information about the pricing of Sugarcane, the amount of sugarcane crushed, recovery ratio, the sugar produced, sugar sold, lifted and pledged etc.
4. The inquiry committee has been able to form a reasonable picture of the possible ways in which the malpractices in sugar sector can be used to hide the real production and possible off the record sales. According to some source reports, the supply of sugar is controlled by few sugar mills for manipulation of the market sale price.
5. Further verification of these reports can only be made through Forensic Audit and physical stocktaking of a few selected mills by



a team of experts from SECP, FBR, State Bank of Pakistan and others conducted on site to analyze and prepare reports on the following matters;

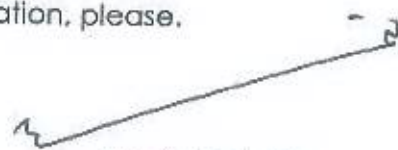
- a. Verify the sales of sugar to find out malpractices of hoarding & manipulation of supply to the market to maximize profiteering.
- b. Physical verification of stock to find whether there is any excess / shortage of stock as shown in the books and the verification of the genuineness of the sale record.

6. The Forensic Audit teams would be assisted by the FBR, State Bank of Pakistan, FIA, ACE Punjab officers. It is estimated that at least 6 such teams would be required to carry out the detailed forensic audit of largest players in the Sugar Mills industry. Although this exercise would take considerable manpower & time, it would be able to provide credible evidence to establish any wrong doings/manipulation.

7. It is suggested that the existing inquiry committee may be further expanded to include a Grade 21 or equivalent officers of SECP, FBR and State Bank of Pakistan with the additional TOR's at para 5 (a) and (b) also assigned to it.

8. The inquiry committee feels that in order to carry out on site forensic audit and deploy technical teams to carry out this exercise, the legal cover would also be required to be provided.

9. Submitted for favor of consideration, please.



**(Wajid Zia), PSP**  
Director General FIA



**Government of Pakistan**  
**Ministry of Interior**  
\*\*\*\*\*

Islamabad, the 16<sup>th</sup> March, 2020

**NOTIFICATION**

**No.F.5/14/2020-FIA:** In exercise of the powers conferred by Section 3 of Pakistan Commissions of Inquiry Act, 2017, the Federal Government is pleased to constitute Inquiry Commission under Pakistan Commissions of Inquiry Act, 2017 to probe into the increase in sugar prices.

2. The Commission shall comprise the following Officers:-

i.	Mr. Wajid Zia, Director General, FIA	Chairman
ii.	Mr. Gohar Nafees DG, Anti-Corruption Establishment, Punjab	Member
iii.	Mr. Ahmad Kamal DDG, IB,	Member
iv.	Mr. Bilal Rasool, Executive Director (SECP)	Member
v.	Mr. Majid Hussain Chaudhry, Joint Director, SBP	Member
vi.	Dr. Bashirullah Khan, DG, Directorate General of Intelligence and Investigation, FBR, Islamabad	Member

3. The following shall be the Terms of Reference (ToRs) of the Commission:-

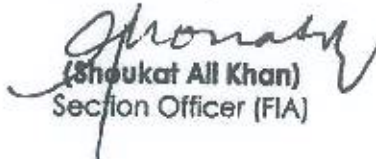
- a. Whether the production, this year, was low as compared to past years? Was low production the primary reason for increase in prices?
- b. Was the minimum support price sufficient?
- c. Did the Mills purchase sugarcane at exorbitantly higher prices than the minimum support price? If yes, then reasons therefore;
- d. Reasons for mills not purchasing sugarcane for a limited period of a few weeks, from the farmers and its impact, if any, on sugar prices;
- e. Basis for determination of Ex-Mill price? Reasons for increase in Ex-Mill price;
- f. Market manipulation/ cartelization by sugar mills, if any;
- g. Impact of forward contracts on the prices of sugar and whether any malafide is involved;
- h. Whether margins between Ex-Mill and retail prices increased, compared to previous years, or otherwise. If yes, reasons thereof and potential beneficiaries;
- i. Impact of tax increase on sugar prices at Ex-Mill/Retail level ;
- j. Hoarding at whole sale/retail level and within sugar mills vis-à-vis stocks of last year;
- k. Was export of sugar justified? Any subsidy given on export and its impact, with potential beneficiaries;
- l. Basis for determination of retail price of sugar;
- m. Role of various stakeholders, including government institutions and private sector in increase in sugar prices, including timely/preventive/pre-emptive remedial measures to control sugar prices and malafide, if any, of any stakeholder;
- n. Verification of the sale of sugar to find out malpractices of hoarding & manipulation of supply to the market to maximize profiteering;
- o. Physical verification of stock to find whether there is any excess / shortage of stock as shown in the books and the verification of the genuineness of the sale record; and,



-2-

- p. The role of Competition Commission of Pakistan in this crisis;
- q. Benami transactions and profits (approx.) earned during the sugar crisis;
- r. The Commission shall submit its report to the Prime Minister within forty (40) days after issuance of this notification.
- s. Any other issue, deemed appropriate, related to the increase in recent sugar prices;

4. This Commission will also be empowered under section 10(b) of the Act ibid to constitute special teams consisting of officers from executive authorities and experts in specific fields, for the purposes of assisting the Commission in conducting an inquiry. The special teams shall have such power as may be prescribed under this Act.

  
(Shoukat Ali Khan)  
Section Officer (FIA)

The Manager,  
Printing Press Corporation of Pakistan,  
Islamabad.

Distribution:

1. Secretary to the Prime Minister, Prime Minister's Office, Islamabad.
2. Secretary, Cabinet Division, Islamabad.
3. Dte. Gen. Intelligence Bureau, Islamabad.
4. Director General FIA, Islamabad.
5. Director General, Anti-Corruption Establishment, Punjab, Lahore.

Section Officer (FIA)