

**PCA Case No. 2023-01**  
**IN THE MATTER OF AN ARBITRATION**

**-before-**

**THE COURT OF ARBITRATION CONSTITUTED**  
**IN ACCORDANCE WITH THE INDUS WATERS TREATY 1960**

**-between-**

**THE ISLAMIC REPUBLIC OF PAKISTAN**

**-and-**

**THE REPUBLIC OF INDIA**

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**FIRST PHASE ON THE MERITS**

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**PAKISTAN'S SUPPLEMENTARY MEMORANDUM**  
**ON THE REQUIRED DOCUMENTS**

**8 NOVEMBER 2024**

## I. INTRODUCTION

1. By its Procedural Order No. 11 (“**PO11**”), the Court of Arbitration ordered Pakistan to produce several categories of documents (“**the Required Documents**”) from its records in order to assist the Court in its deliberations on the First Phase of the Merits in these proceedings.<sup>1</sup> By its Procedural Order No. 13, the Court further indicated that Pakistan could apply to the Court to make a brief supplementary written submission on the content of the Required Documents.<sup>2</sup>

2. On 30 September 2024, Pakistan made the disclosure contemplated by PO11 under cover of an Explanatory Memorandum, describing the scope of the searches it had carried out and the categories of documents that had been excluded from production.

3. On 14 October 2024, Pakistan applied to submit a short Supplementary Memorandum “regarding the content of the Required Documents”. On 21 October 2024, the Court granted Pakistan’s request, requiring the submission of the present Supplementary Memorandum by 8 November 2024.

4. Pakistan has found nothing in the Required Documents that contradicts or undermines Pakistan’s case as elaborated in writing, in Pakistan’s Memorial of 22 March 2024 and its Post-Hearing Submission dated 1 November 2024 (“**PHS**”), and orally, during the Hearing in the First Phase on the Merits (“**Hearing**”). There are, though, certain themes that emerge from the Required Documents that would benefit from further brief submissions with a view to assisting the Court in navigating through the materials.

5. This Supplementary Memorandum proceeds as follows.

- (a) **Part II** focuses on aspects of the Required Documents that shed light on the Parties’ positions on information sharing under the Treaty.
- (b) **Part III** focuses on aspects of the Required Documents that shed light on the Parties’ positions on climate change and its interaction with the Treaty.

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<sup>1</sup> Procedural Order No. 11 dated 27 May 2024.

<sup>2</sup> Procedural Order No. 13 dated 13 August 2024, ¶ 2.7.

6. Other aspects of the Required Documents – concerning, *inter alia*, the proper calculation of maximum Pondage<sup>3</sup> and Annexure E of the Treaty<sup>4</sup> – have already been addressed in Pakistan’s PHS and need no further elaboration.

## II. INFORMATION SHARING

7. The Court will recall Pakistan’s evidence and submissions on the issue of information sharing under the Treaty in the Hearing. As Pakistan’s Commissioner put it, “[t]he obligations set out in the Treaty in relation to information-sharing lie at the heart of the Treaty and the parties’ obligation to cooperate”.<sup>5</sup> These obligations are of particular importance when considering India’s capacity to construct run-of-river HEPs on the Western Rivers. It is only if Pakistan is given necessary and complete information on the design of these HEPs, well in advance of their construction, that it can satisfy itself that they conform to the design criteria in Paragraph 8 of Annexure D.<sup>6</sup>

8. As Pakistan’s also addressed in the Hearing, India’s compliance with its obligations of information sharing under the Treaty – and, in particular, its obligations to provide information with respect to its proposed HEPs under Paragraph 9 and Appendix II of Annexure D – has been less than timely and fulsome. As Pakistan’s Commissioner put it in his witness evidence to the Court:

“India’s failure to provide timely information to Pakistan regarding the design of a new run-of-river [HEP] is one of the main reasons why disputes have arisen under the Treaty. Part of the reason for this is that by the time India shares any new information with Pakistan about the construction of a new plant on the Western Rivers, its design is already far advanced. In some cases, the preliminary works, such as construction of access roads, stockpiling of construction material, construction of contractor camps, etc., may be substantially completed. And essentially India delays providing Pakistan with information until it is in a position to present a *fait accompli*, or a near *fait accompli*, if I may say so.”<sup>7</sup>

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<sup>3</sup> Pakistan’s Post-Hearing Submission dated 1 November 2024, Chapter II.

<sup>4</sup> *Id.*, Chapter III.

<sup>5</sup> Transcript of the Hearing on the First Phase on the Merits, Day 1 (8 July 2024), p. 127, lines 21–24 (Commissioner Shah).

<sup>6</sup> Transcript of the Hearing on the First Phase on the Merits, Day 1 (8 July 2024), p. 135, lines 10–14 (Commissioner Shah).

<sup>7</sup> Transcript of the Hearing on the First Phase on the Merits, Day 1 (8 July 2024), p. 143, line 22 – p. 144, line 11 (Commissioner Shah).

## A. India's failure to provide relevant data

9. Review of the Required Documents supports the testimony of Pakistan's Commissioner. That India has set its face against transparency in this respect is visible from the very first HEPs notified to Pakistan under the Treaty. On 7 May 1962, the PCIW wrote to the ICIW regarding the proposed construction by India of a Small Plant on the Billing Nallah. In it, the PCIW complained that the information that India had provided was insufficient for Pakistan to verify that the design of the HEP complied with the criteria of Paragraph 18 of Annexure D.<sup>8</sup>

10. In particular, the PCIW noted that the ICIW had failed to provide the following: (a) confirmation to Pakistan's satisfaction that the crest of the dam would be no higher than 20 feet above the bed of the tributary on which the HEP was to be constructed; (b) estimated discharge data sufficient to calculate the MMD (and thus Firm Power for the HEP); (c) a contoured map of the area necessary to determine a bench mark; (d) a dimensioned plan showing a cross-section of the works; (e) information as to the length of the diversion works; (f) a cross-section of the tributary at the site; and (g) the mean bed level of the site.<sup>9</sup> The PCIW closed the letter by noting that once the required data had been provided, Pakistan would communicate "to [the ICIW] the objections, if any, that Pakistan may have with regard to the proposed design of said plant" within two months of receipt<sup>10</sup> – pledging, in effect, to adhere to the deadline set by Paragraph 20 of Annexure D.<sup>11</sup>

11. The ICIW's response to the PCIW letter was received on 14 May 1962. In it, the ICIW claimed that the crest of the dam for the Billing Nallah HEP would be no higher than 20 feet above the bed of the tributary – but did so without providing the PCIW with (a) a cross-section of the design to confirm this was the case (on the basis that Appendix III of Annexure D required only the provision of a "dimensioned plan"), or (b) a cross-section of the tributary at

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<sup>8</sup> Letter No. WT/(15)/(336-A)/PCIW from the PCIW to the ICIW dated 7 May 1962, **Exhibit P-0649.0019**, p. 1.

<sup>9</sup> *Id.*, pp. 1–2.

<sup>10</sup> *Id.*, p. 2.

<sup>11</sup> Indus Waters Treaty, **PLA-0001**, Annexure D, Paragraph 20:

"Within two months of the receipt by Pakistan of the information specified in Appendix III, Pakistan shall communicate to India, in writing, any objection that it may have with regard to the proposed design on the ground that it does not conform to the criteria mentioned in Paragraph 18. If no objection is received by India from Pakistan within the specified period of two months, then Pakistan shall be deemed to have no objection."

The same arrangements apply, with a specified period of three months, to ordinary run-of-river HEPs under Annexure D, Paragraph 10.

the site or even indicating the mean bed level,<sup>12</sup> despite both being plainly required by the Treaty.<sup>13</sup> As for the estimated discharge data that would enable Pakistan to confirm India's claims as to the MMD, he simply noted that "[n]o such estimate has been prepared".<sup>14</sup>

12. As justification for these omissions, the ICIW pointed to Paragraph 19 of Annexure D,<sup>15</sup> which provides for the information to be communicated to Pakistan under Appendix III that "[i]f any such information is not available or is not pertinent to the design of the Small Plant or to the conditions at the site, it will be so stated".<sup>16</sup> This is not a self-judging provision, however, the application of which is for India unilateral determination. This, though, is the approach adopted by India, requiring that Pakistan simply trusts India's assertions, without providing the information required of India under the Treaty.

13. Adding insult to injury, the ICIW also stated that the two-month time limit of Paragraph 20 of Annexure D had begun to run from the point of India's first notification to Pakistan of the Billing Nallah HEP on 6 March 1962, with the result that Pakistan was, by that point (on 14 May 1962), barred from raising any objections despite the fact that it had indicated that it was not in a position to make a proper assessment of the HEP's compliance with Paragraph 18. "While we would be glad to supply any clarifications that may be asked for", the ICIW wrote, "you will appreciate that the work cannot be held up just because the correspondence over clarifications happens to get unnecessarily contracted".<sup>17</sup>

14. In the face of India's non-compliance with its information-sharing obligations, Pakistan has been pushed to object to the design of a HEP under Paragraphs 9 and 19 of Annexure D on the formal basis of India's failure to provide complete information. For example, in his 12 August 1992 letter in response to the information communicated to Pakistan by India with respect to the Baglihar HEP, the PCIW noted:

"The information received vide your letter under reference is incomplete in certain respect and does not comply with the full requirement of Paragraph 9 of Annexure D to the Indus Waters Treaty 1960. It may be appreciated that under the provisions of this Paragraph India is obliged to supply complete and unequivocal information to

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<sup>12</sup> Letter No. F.4(28)/61-IC from the ICIW to the PCIW dated 14 May 1962, **Exhibit P-0649.0020**, pp. 1–2.

<sup>13</sup> Indus Waters Treaty, **PLA-0001**, Annexure D, Appendix III, Paragraph 4(c).

<sup>14</sup> Letter No. F.4(28)/61-IC from the ICIW to the PCIW dated 14 May 1962, **Exhibit P-0649.0020**, p. 1.

<sup>15</sup> *Id.*, p. 1.

<sup>16</sup> Indus Waters Treaty, **PLA-0001**, Annexure D, Paragraph 19.

<sup>17</sup> Letter No. F.4(28)/61-IC from the ICIW to the PCIW dated 14 May 1962, **Exhibit P-0649.0020**, p. 2. For the PCIW's response, see Letter No. WT(15)/(851-A)/PCIW from the PCIW to the ICIW dated 27 June 1963, **Exhibit P-0649.0037**.

Pakistan to enable it to satisfy itself that the design of the Plant, as adopted by India, confirms to the criteria laid down in Paragraph 8 of Annexure D of the Treaty. The information supplied is inadequate for Pakistan to satisfy itself that the design of the plant confirms to the criteria laid down in Paragraph 8 of Annexure D to the Treaty. My detailed observations regarding the inadequacy of the information received with your letter under reference are given in the enclosed statement. It is requested that complete information may kindly be supplied in accordance with the provisions of the Treaty so that further action may be taken under Paragraph 10 of Annexure D.”<sup>18</sup>

15. A review of the Required Documents reveals a pattern in which (a) Pakistan has frequently had to chase India, sometimes for years, to obtain information with respect to new HEPs that India has yet to notify in the Commission; (b) Pakistan has almost invariably been compelled to protest India’s failure to provide complete information, as required of India by Paragraph 9 and Appendix II of Annexure D with respect to new HEPs, or that a HEP design was in breach of Paragraph 8 of Annexure D; and (c) India has virtually always resisted, as an initial response, Pakistan’s requests for further or clarifying information, even if, in some cases, it subsequently relented and provided further details.

16. Pakistan has identified a selection of significant correspondence reflecting India’s failure to properly engage with its information sharing obligations under the Treaty with respect to Annexures D and E. This is attached as an **Appendix** to this Supplementary Memorandum.

## **B. India’s interpretation of Article VII(2) of the Treaty**

17. The Required Documents also reveal a long-standing dispute between the Parties concerning information sharing pursuant to Article VII(2) of the Treaty. This paragraph provides:

“If either Party plans to construct any engineering work which would cause interference with the waters of the Rivers and which, in its opinion, would affect the other Party materially of its plans and shall supply such data relating to the work as may be available and as would enable to other Party to inform itself of the nature, magnitude and effect of that work. If a work would cause interference with the waters of any of the Rivers but would not, in the opinion of the Party planning it, affect the other Party materially, nevertheless the Party planning the work shall, on request, supply the other Party with such data regarding the nature, magnitude, and effect, if any, of the work as may be available.”<sup>19</sup>

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<sup>18</sup> Letter No. WT(127)/(5293-A)/PCIW from the PCIW to the ICIW dated 12 August 1992, **Exhibit P-0586**, ¶ 2.

<sup>19</sup> Indus Waters Treaty, **PLA-0001**, Article VII(2).

18. Article VII(2) is not formally before the Court as a defined point of dispute. It is, however, a critically important element of the Parties' (intended) engagement under the Treaty on planned engineering works which would cause interference with the waters of any of the Rivers addressed in the Treaty. As Pakistan's counsel said at the Hearing, Article VII(2) may "engage questions about the ability of the parties to actually have a dialogue about the design criteria in paragraph 8 [of Annexure D]", particularly in circumstances where India may suggest that Paragraph 9 of Annexure D somehow trumps or writes out Article VII(2) out of the Treaty.<sup>20</sup>

19. The Required Documents reveal that this is precisely the position that India has taken to the operation of Article VII(2). In the course of the 1970s and 1980s, India's obligations under this provisions became a source of friction between the Parties. Disagreements emerged in the context of irrigation schemes implemented by India under Annexure C of the Treaty, but quickly took on a wider significance.<sup>21</sup> The principal difference between the Parties was that India saw Pakistan's ability to request data from India under the second sentence of Article VII(2) as tightly constrained. Pakistan disagreed, however, seeing Article VII(2) as a vital tool to ensure oversight of the iuse of the waters of the Western Rivers, having regard to its rights under Article III(1), in circumstances in which those Rivers ran through territory controlled, and therefore subject to exploitation, by India.

20. The Parties' division was clear from the series of leading questions that the ICIW formulated when addressing the issue within the Commission, as follows:

"Question: 1.

How and in what way is Pakistan legally entitled to ask [for] data about irrigation schemes, planned by India [per Annexure C] under the provisions of paragraph (2) of Article VII of the Treaty, when this Article provides for 'Future Cooperation' and *inter alia* deals with the planning/undertaking of engineering works on the Rivers for which no specific provision exists in the Treaty for supply of data, and is India under an obligation to supply whatever data is requested by Pakistan?

Question: 2.

Are not the following conditions to be satisfied as a pre-requisite for seeking data under Article VII(2) of the [Treaty]?

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<sup>20</sup> Transcript of the Hearing on the First Phase on the Merits, Day 1 (8 July 2024), p. 199, lines 20–25 (Sir Daniel Bethlehem KC)

<sup>21</sup> See, e.g. Record of the 45<sup>th</sup> Permanent Indus Commission Meeting, 24–29 September 1977, dated 29 September 1977, **Exhibit P-0647.45**, §III.

- (a) that the engineering works planned by either party should cause interference with the waters of any of the Rivers; and
- (b) that such works, in fact, by their very nature, should have the potential of affecting the other Party materially. If not so, in what way?

Question: 3.

- (a) Do the words ‘these waters’, as appearing in Article III(2) of the Treaty, not refer to the waters which India is under an obligation to let flow after having made its lawful uses as permitted by Article III of the Treaty? If not so, why?
- (b) How [do] such lawful uses constitute interference?

Question: 4.

Whether the request for data under Article VII(2) of the Treaty should arise only when rights and obligations of either Party are affected?”<sup>22</sup>

21. These questions – the formulation of which the PCIW rejected<sup>23</sup> – were little more than a statement of India’s position turned into an inquiry that was designed to arrive at a conclusion that India was permitted to undertake a wide range of activities on the Western Rivers with little or no notification to Pakistan. Simply put, India’s position on the proper meaning of Article VII(2) was as follows:

- (a) Pakistan was not entitled to ask for data under Article VII(2) of the Treaty if its request concerned a project governed by any other provision of the Treaty, *e.g.*, irrigation works under Annexure C, or HEP construction under Annexure D.
- (b) Pakistan could only request data concerning a project when any interference to the waters was actually occurring and the project by its nature could affect Pakistan materially.
- (c) An assessment of India’s obligation of non-interference with the waters of the Western Rivers within the meaning of Article III(2) could not take into account India’s permitted uses under Articles III(2)(a)–(d) – with the effect that these permitted uses could not be considered a potential interference in respect of

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<sup>22</sup> Record of the 43<sup>rd</sup> Permanent Indus Commission Meeting, 26–30 April 1976, dated 31 May 1984, **Exhibit P-0647.43**, pp. 3–4, ¶ 4.

<sup>23</sup> In contrast to the ICIW formulation, the PCIW framed the question in an open-ended manner that did not suggest a particular answer, viz. “[w]hether the information/data requested by Pakistan relating to the irrigation scheme planned/constructed by India on ‘the Rivers’ falls outside the scope of Article VII(2) of the Indus Waters Treaty 1960”: *id.*, p. 3, ¶ 4.

which Pakistan would be entitled to request data under Article VII(2) in any event.

- (d) Pakistan could only request data under Article VII(2) when its rights and obligations were actually affected.

22. Pakistan's view, in contrast, was (and remains) that it is entitled to request data and information under Article VII(2) in respect of a planned Indian project that could conceivably cause an interference with the waters of the Western Rivers, "interference with the waters" being defined by Article I(15) of the Treaty as (a) "[a]ny act of withdrawal", or (b) "[a]ny man-made obstruction [...] which causes a change in the volume (within the practical range of measurement) of the daily flow of the waters",<sup>24</sup> subject to certain *de minimis* exceptions such as bridge piers.<sup>25</sup>

23. As noted, the issue of Article VII(2) originally arose in the context of India's Annexure C projects, but it rapidly expanded. A 19 July 1977 letter from the ICIW records that, since the Parties had agreed to discuss the issue in the 44<sup>th</sup> Meeting of the Commission, the ICIW was "not taking any action to respond to the large number of references made [by the PCIW] under the provisions of Article VII(2) of the Treaty".<sup>26</sup>

24. By a letter of 7 April 1978, the ICIW wrote in similar terms regarding information the PCIW had requested, this time concerning the Baira Siul HEP. He stated that "I informed [in the 19 July 1977 letter] that I was not taking any action to respond to the large number of references being made by you for supply of data under the provisions of Article VII(2) of the Treaty since the scope of supply of data under the provisions of Article VII(2) of the Indus Waters Treaty 1960 is under consideration of the Commission".<sup>27</sup>

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<sup>24</sup> Indus Waters Treaty, **PLA-0001**, Article I(15).

<sup>25</sup> Transcript of the Hearing on the First Phase on the Merits, Day 1 (8 July 2024), p. 132, line 8 – p. 133, line 6 (Commissioner Shah). *See also id.*, p. 199, line 6 – p. 200, line 11 (Sir Daniel Bethlehem KC). *See also* Letter No. WT(69)/(2271-A)/PCIW from the PCIW to the ICIW dated 7 April 1969, **Exhibit P-0649.0142**; Letter No. WT(69)/(2645-A)/PCIW from the PCIW to the ICIW dated 20 April 1971, **Exhibit P-0649.0201**; Letter No. WT(200)/(7237-A)/PCIW from the PCIW to the ICIW dated 26 December 2011, **Exhibit P-0649.1325**; Letter No. WT(211)/(7302-A)/PCIW from the PCIW to the ICIW dated 8 October 2012, **Exhibit P-0649.1350**; Letter No. WT(134)/(8106-A)/PCIW from the PCIW to the ICIW dated 30 September 2022, **Exhibit P-0649.1707**.

<sup>26</sup> Letter No. F.3(27)/74-IT from the ICIW to the PCIW dated 19 July 1977, cited in Letter No. F.11(1)/78-IT from the ICIW to the PCIW dated 7 April 1978, **Exhibit P-0649.0405**.

<sup>27</sup> Letter No. F.11(1)/78-IT from the ICIW to the PCIW dated 7 April 1978, **Exhibit P-0649.0405**. *See also* Letter No. WT(97)/(3849-A)/PCIW from the PCIW to the ICIW dated 30 November 1977, **Exhibit P-0649.0397** and, subsequently, Letter No. WT(97)/(3878-A)/PCIW from the PCIW to the ICIW dated 21 March 1978, **Exhibit P-**

25. The topic of supply of data under Article VII(2) was discussed at a number of Meetings of the Commission over this period.<sup>28</sup> The ICIW first set out a clear position of his interpretation of Article VII(2) in the 53<sup>rd</sup> Meeting.<sup>29</sup> At the 58<sup>th</sup> PIC Meeting, the Commissioners agreed that a “question ha[d] arisen between the Parties” as to India’s obligation under Article VII(2) to supply data requested by Pakistan under that provision.<sup>30</sup> At the 59<sup>th</sup> Meeting, each Commissioner provided their own formulation of a question (addressed above) regarding the interpretation of Article VII(2).<sup>31</sup>

26. The question of interpretation of Article VII(2) continued to be taken up at subsequent Meetings.<sup>32</sup> The Commissioners having failed to reach a common position in the 68<sup>th</sup> Meeting of the Commission, they agreed that a difference had arisen which then fell to be dealt with under Article IX(2).<sup>33</sup> However, the ICIW then asked, unilaterally, that India itself take up the issue with Pakistan under Article VIII(1) – which India did by way of a Note Verbale of 21 June 1987.<sup>34</sup> When the PCIW then sought, at the following Meeting of the Commission, to move that the question be formally dealt with as a difference under Article IX(2) of the Treaty,

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**0649.0404** (requesting India to supply the “salient features” of the Baira Siul HEP under Article VII(2) of the Treaty). See further Letter No. WT(97)/(4563-A)/PCIW from the PCIW to the ICIW dated 31 January 1984, **Exhibit P-0649.0492** (requesting information under Article VII(2) regarding the “nature, magnitude and effect, if any” of the Chamera HEP on the River Ravi); Letter No. WT(209)/(7292-A)/PCIW from the PCIW to the ICIW dated 7 August 2021, **Exhibit P-0649.1343** (reiterating the PCIW’s request for information under Article VII(2) regarding the “magnitude, nature, and effect” of the Miyar HEP).

<sup>28</sup> See, e.g., Record of the 48<sup>th</sup> Meeting of the Permanent Indus Commission, 23–28 May 1979, dated 28 May 1979, **Exhibit P-0647.48**; Record of the 49<sup>th</sup> Meeting of the Permanent Indus Commission, 12–17 January 1980, 17 January 1980, **Exhibit P-0647.49**; Record of the 50<sup>th</sup> Meeting of the Permanent Indus Commission, 28 May–2 June 1980, dated 2 June 1980, **Exhibit P-0647.50**; Record of the 51<sup>st</sup> Meeting of the Permanent Indus Commission, 27 September–2 October 1980, dated 2 October 1980, **Exhibit P-0647.51**; Record of the 53<sup>rd</sup> Meeting of the Permanent Indus Commission, 28 May–4 June 1981, dated 4 June 1981, **Exhibit P-0647.53**; Record of the 54<sup>th</sup> Meeting of the Permanent Indus Commission, 24–29 March 1982, 29 March 1982, **Exhibit P-0647.54**.

<sup>29</sup> Record of the 53<sup>rd</sup> Meeting of the Permanent Indus Commission, 28 May–4 June 1981, 4 June 1981, **Exhibit P-0647.53**.

<sup>30</sup> Record of the 58<sup>th</sup> Meeting of the Permanent Indus Commission, 18–23 January 1984, dated 23 January 1984, **Exhibit P-0647.58**.

<sup>31</sup> Record of the 59<sup>th</sup> Meeting of the Permanent Indus Commission, 26–31 May 1984, 31 May 1984, **Exhibit P-0647.59**.

<sup>32</sup> See, e.g., Record of the 65<sup>th</sup> Meeting of the Permanent Indus Commission, 6–11 December 1986, dated 11 December 1986, **Exhibit P-0647.65**; Record of the 66<sup>th</sup> Meeting of the Permanent Indus Commission, 22–27 January 1987, 27 January 1987, **Exhibit P-0647.66**; Record of the 67<sup>th</sup> Meeting of the Permanent Indus Commission, 14–19 February 1987, dated 19 February 1987, **Exhibit P-0647.67**.

<sup>33</sup> Record of the 68<sup>th</sup> Meeting of the Permanent Indus Commission, 21–26 May 1987, 26 May 1987, **Exhibit P-0647.68**.

<sup>34</sup> Aide Memoire from India to Pakistan dated 21 June 1987, **Exhibit P-0651.14**.

the ICIW asserted that, because the matter was now being considered on an inter-governmental level, the Commission “was not in a position to move further in the matter”.<sup>35</sup>

27. The Parties’ disagreement on the interpretation and application of Article VII(2) remains unresolved today. In 2016, Pakistan wrote to India noting (a) that the ICIW was continuing to refuse to provide information to the PCIW on request under Article VII(2), and (b) that no progress having been made on the issue at the inter-governmental level, swift resolution was required. Pakistan further noted:

“Since no progress has been made on determination of the scope of application of [Article VII(2)] bilaterally, the only alternative to prompt resumption of Government level talks would be to take the matter before a Court of Arbitration. The Government of Pakistan, however, would prefer a bilateral agreement on the scope of these provisions of a cooperative nature but cannot delay the matter any further and suggest[s] that the matter may be discussed without further delay at the Secretary Level.”<sup>36</sup>

28. This issue remains outstanding today. Pakistan’s Note Verbale was sent in the early days of the World Bank’s Pause. Treaty engagement between Pakistan and India have been more or less frozen since then.

### III. CLIMATE CHANGE

29. The Court expressed interest in the issue of climate change during the Hearing.<sup>37</sup>

30. The Required Documents reveal only limited exchanges on climate change between the Parties, invariably at the instigation of the PCIW. This is unsurprising. As described in Pakistan’s Memorial, the impact of climate change will fall disproportionately on Pakistan, given that 85% of the glaciers in the Indus Basin feed the Western Rivers, on which Pakistan is reliant.<sup>38</sup> Given the loss of glacial coverage that is expected due to climate change, it is therefore of paramount importance to Pakistan that flows of water to which it is entitled under the Treaty are preserved to the greatest possible extent. India, in contrast, has largely avoided the issue.

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<sup>35</sup> Record of the 69<sup>th</sup> Meeting of the Permanent Indus Commission, 18–23 July 1987, dated 23 July 1987, **Exhibit P-0647.69**, ¶ 4.

<sup>36</sup> Note Verbale No. KA (II)-2/12/2016 from India to Pakistan dated 26 December 2016, **Exhibit P-0651.35**, ¶ 5.

<sup>37</sup> See, e.g., Transcript of the Hearing on the First Phase on the Merits, Day 1 (8 July 2024), p. 154, line 14 – p. 157, line 19.

<sup>38</sup> Pakistan’s Memorial dated 22 March 2024, ¶¶ 3.76–3.90.

31. Climate change first appears to have been raised as an issue by the PCIW in the 103<sup>rd</sup> Meeting of the Commission in May 2009, although not elaborated in any detail.<sup>39</sup> On 3 November 2009, the PCIW wrote to the ICIW essentially asking for climate change to be incorporated into the work of the Commission. He noted:

“You may please be aware of the various reports on global warming and receding of glaciers also in the Himalayan region which is likely to have a direct bearing on the inflows of the Indus System of Rivers. In order to study the short and long term effects on the Western Rivers, I had proposed at the last meeting of the Commission held in May 2009 that the Commission may work on this aspect. [...] In view of the foregoing, I would request that available reports/studies with respect to the health of the glaciers feeding Indus and Jhelum, if undertaken by India, may please be shared. I also propose that the Commission may study and report the facts to the two governments on the above said aspects.”<sup>40</sup>

32. The ICIW’s response came at the 104<sup>th</sup> Meeting of the Commission. It was lukewarm at best. He noted that “water is becoming increasingly important all over the world”, and that “India has also been suffering due to water shortages but [...] has always reassured and stood by its commitment to the Treaty”. He further noted that “the effect of climate change on river flows is still a matter of research and has yet to be established”, and that “the Commission has been entrusted with the responsibility of implementing the Treaty which is concerned with the utilization of available water”. While he observed that “India has been supplying the flow data to the extent available without fail”, he did not accede or even respond to the PCIW’s request that the Commission take up the issue of climate change for itself.<sup>41</sup>

33. The PCIW further linked Pakistan’s concerns over climate change to India’s practice on HEP design. On 18 March 2010, he wrote the following in connection with the Rattle HEP:

“[C]onstruction of mega projects of as big [...] capacity as that of Rattle would also be involving a large scale human intervention with the ecology of the area. In view of the global warming and the related climatic changes, it would extremely be dangerous to continue to embark for such projects which ultimately be affecting the seasonal flow of Western rivers which has been allowed to Pakistan.”<sup>42</sup>

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<sup>39</sup> Record of the 103<sup>rd</sup> Permanent Indus Commission Meeting, 31 May–5 June 2009, dated 5 June 2009, **Exhibit P-0066**, p. 25.

<sup>40</sup> Letter No. WT(172)/(7041-A)/PCIW from the PCIW to the ICIW dated 3 November 2009, **Exhibit P-0649.1208**.

<sup>41</sup> Record of the 104<sup>th</sup> Meeting of the Permanent Indus Commission, 27–31 March 2010, dated 31 May 2010, **Exhibit P-0330**, pp. 2–3. The PCIW renewed his earlier request at the same meeting: *id.*, p. 2.

<sup>42</sup> Letter No. WT(150)/(7067-A)/PCIW from the PCIW to the ICIW dated 18 March 2010, **Exhibit P-0649.1220**.

34. To that end, the PCIW requested that India provide, among other information, the environmental impact assessment for the Rattle HEP, which was “an essential part of such projects”. And he further noted that “the time is now ripe enough for the Commission to take a steering role so as to make efforts to protect the ecology of the watershed of Western Rivers from any further harm”.<sup>43</sup> The ICIW does not appear to have responded to this suggestion directly, but rather stated only that “details [will] be supplied in accordance with the relevant provisions of the Indus Waters Treaty 1960, which needs no further reiteration”.<sup>44</sup>

35. On 30 September 2015, the PCIW wrote again to the ICIW to propose closer cooperation on climate change within the Commission. He said:

“I would like to invite your attention to the very important challenge of changing climate of the Indus basin, especially the upper part, and its potential adverse impacts in the Indus system of rivers for both countries. You would appreciate that the rising temperatures in the region may initially cause melting of the glacial resource, which may increase the flows of the rivers temporarily, however, subsequently the depleted storage of the glaciers would cause decrease in the flows due to reduction in the area and volume of the glaciers. The increased temperatures may also increase the demand of water.”<sup>45</sup>

36. The PCIW continued:

“It seems that the increase in temperatures have led to increase in torrential rains, which has increased the frequency and magnitude of floods. The unusual high floods of 2010 in the Indus River and the floods of 2014 in the Srinagar valley, are testimony to the unusually high floods our basin is experiencing.

It is clear that the likely impacts of Climate Change would adversely affect the peoples living in the basin. As the change of climate does not know international boundaries, it is required that the countries sharing river basins act in a coordinated manner for carrying out studies and implementing measures for monitoring and mitigating the impacts of climate change.”<sup>46</sup>

37. The PCIW concluded by asking, again, for climate change to be taken up within the Commission – by reference to the obligation of cooperation contained in Article VII(1) of the Treaty under which the Parties declared “their intention to cooperate, by mutual agreement, to the fullest possible extent”.<sup>47</sup> He noted that “I am of the view that if we work together, the

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<sup>43</sup> *Id.*

<sup>44</sup> Letter No. 3/5/2007-IT/1801 from the ICIW to the PCIW dated 25 June 2010, **Exhibit P-0649.1246**.

<sup>45</sup> Letter No. WT(233)/(7508-A)/PCIW from the PCIW to the ICIW dated 30 September 2015, **Exhibit P-0649.1427**.

<sup>46</sup> *Id.*

<sup>47</sup> Indus Waters Treaty, **PLA-0001**, Article VII(1).

broad knowledge and information would help both [...] countries in better estimation of the likely impacts and formulation of better strategies for mitigating adverse impacts”.<sup>48</sup> He later requested that “[m]onitoring of the parameters relevant to climate change for the Indus system of rivers” be added as an agenda item for the 113<sup>th</sup> Meeting of the Commission.<sup>49</sup>

38. This time, the ICIW’s response was unequivocal. In a letter of 14 March 2017, he stated, without further elaboration, that “[t]he issue of Climate Change does not fall within the ambit of the Treaty and thus does not fall within the scope of the Permanent Indus Commission”, refusing to add it to the 113<sup>th</sup> Meeting agenda.<sup>50</sup> On 17 March 2017, the PCIW responded, noting that “the flows of the Indus System of Rivers would be affected by climate change”, and requesting that the ICIW “think over it while we may [discuss] this matter in another meeting of the Commission”.<sup>51</sup> The ICIW did not respond, and the subsequent attempt by the PCIW to raise the matter informally in the Commission was met with the terse rejoinder that the ICIW had said all he had to say on the matter in his 17 March 2017 letter.<sup>52</sup>

#### IV. CONCLUSION

39. The preceding brief observations are intended simply to highlight elements of the Required Documents that go to issues addressed in the Hearing that were not fully addressed either during the Hearing itself or in Pakistan’s PHS. Particularly given the short timeframe available to Pakistan to undertake an analysis of what is an extensive archive of documentary material, this Supplementary Memorandum does not purport to be comprehensive. This said, from Pakistan’s review of the documents, it is confident that the record fully affirms the case advanced in its written and oral submissions, and avers that it has not identified anything in the documents which, in exercise of its duty to the Court, ought properly to be drawn to the Court’s attention.

Respectfully submitted,

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<sup>48</sup> Letter No. WT(233)/(7508-A)/PCIW from the PCIW to the ICIW dated 30 September 2015, **Exhibit P-0649.1427**.

<sup>49</sup> Letter No. WT(51)/(7582-A)/PCIW from the PCIW to the ICIW dated 18 January 2017, **Exhibit P-0649.1448**, ¶ 3.iv.

<sup>50</sup> Letter No. Y-20016/2/2015-IT/2225 from the ICIW to the PCIW dated 14 March 2017, **Exhibit P-0649.1449**, ¶ 3.

<sup>51</sup> Letter No. WT(51)/(7592-A)/PCIW from the PCIW to the ICIW dated 17 March 2017, **Exhibit P-0649.1450**, ¶ 2(4).

<sup>52</sup> Record of the 113<sup>th</sup> Meeting of the Permanent Indus Commission, 20–21 March 2017, dated 29 March 2018, **Exhibit P-0103**, ¶ 7.



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Deputy Agent of Pakistan

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Attachment — Appendix: Key Correspondence Relevant to Information-Sharing Obligations  
under Annexures D and E of the Treaty