

**BEFORE THE NATIONAL GREEN TRIBUNAL
AT NEW DELHI
APPEAL NO. 21 OF 2021**

IN THE MATTER OF:

Dr. Bharat Jhunjhunwala & Anr... .. Appellants

Versus

Union of India & Ors... .. Respondents

N.D.O.H. 31.03.2022

INDEX

Sl. No.	Particulars	Page No.
1	Additional Affidavit	1-3
2.	Annexure A-1 Copy of the representation made to the Expert Appraisal Committee on 10.11.2021.	4-8
3.	Proof of Service	9



Filed by:

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Dated: 30.03.2022

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Dr. Bharat Jhunjhunwala & Anr... .. Appellants

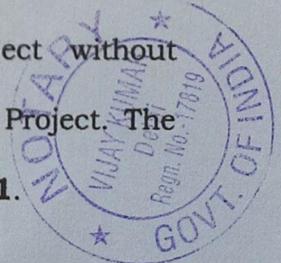
Versus

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ADDITIONAL AFFIDAVIT

I, Vimal Bhai S/o Smt. Mohini Devi, R/Flat No 2 First Floor, Chetram Colony, Sector 39, Surajkund, Faridabad, Haryana - 121009, aged about 60 years state on solemn affirmation as under:-

1. That I am the Appellant No. 2 in the abovementioned matter and well conversant with the facts and record of the case, thus, I am competent to swear this affidavit.
2. That through the present affidavit I wish to place on record the representation made to the Expert Appraisal Committee on 10.11.2021 regarding suggesting an alternative option that would significantly reduce the environmental and social impact of the Vishnugad Pipalkoti Hydro-electric Project without significantly impacting the other attributes of the Project. The same is filed and annexed herewith as **Annexure A-1**.



3. That it is humbly requested that the same may be taken into consideration while deciding the issues in the present appeal.

Vimal
DEPONENT

VERIFICATION:-

Verified on this the 30 day of March 2022 that the contents of the above affidavit are true and correct. No part of it is false and nothing material has been concealed therefrom.

Vimal
DEPONENT



ATTESTED
Q
NOTARY PUBLIC DELHI

30 MAR 2022

10.11.2021

Before Hon'ble Members of EAC, River Valley,
MOEFCC

We take the liberty of writing to you in reference to the order dated 8.10.2021 passed by the Hon'ble National Green Tribunal (NGT) in Appeal No. 21/2021 regarding Vishnugad-Pipalkoti HEP (VPHEP). In the said order, the Hon'ble NGT has *inter alia* directed that:

6. We also direct the MoEF&CC to obtain and file an Expert opinion from the EAC for River Valley and Hydro-Electric Projects within two months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

In connection with the process of formulation of the EAC's opinion on the issues involved in the matter, we seek to place on record the facts and submissions set out below in order to facilitate the EAC's consideration. A copy of the order dated 8.10.2021 passed by the Hon'ble NGT is enclosed herewith for your kind reference and record.

Context

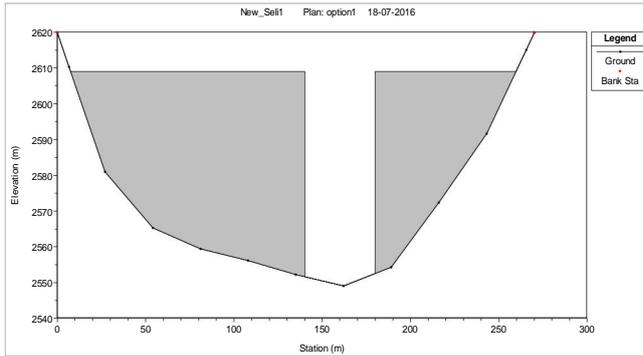
One essential feature of EIA is the examination of alternative proposals that can ameliorate or reduce the environmental losses. Since Public Hearing was not conducted in the present case, we take the liberty of drawing the EAC's attention to an alternative option that significantly reduces the environmental and social impact of the Project without significantly impacting the other attributes of the Project.

Present Status

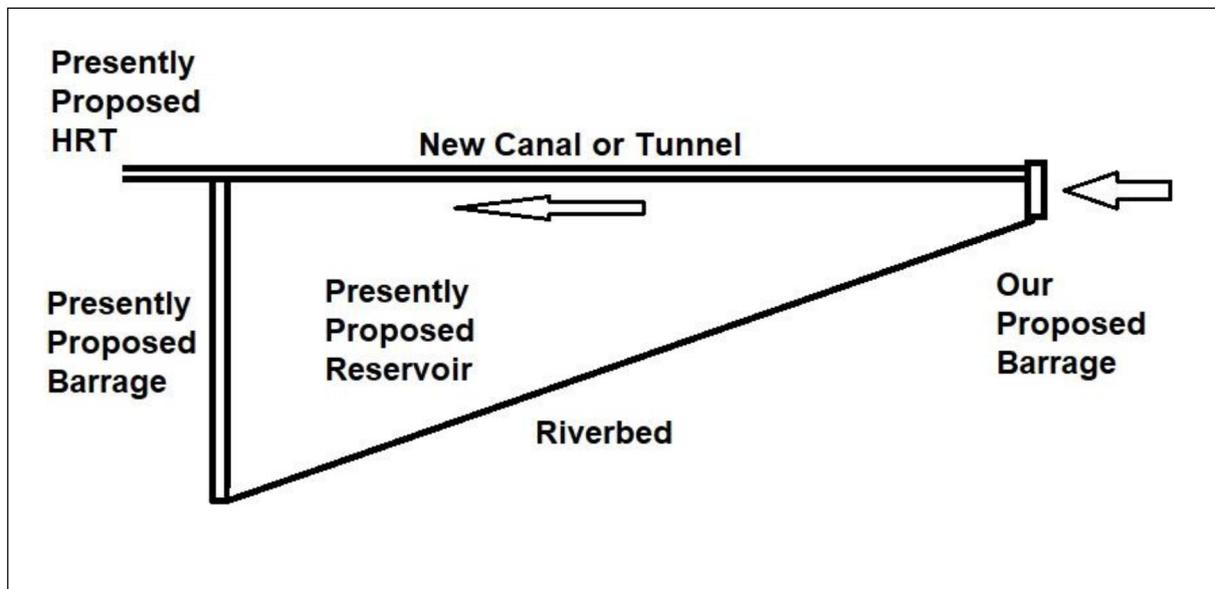
The construction of the barrage at VPHEP has not started yet. Most expenditure has been incurred on diversion tunnel, HRT, sedimentation tanks and excavating caverns for the powerhouse. The alternative that we are suggesting will be utilizing already present HRT, sedimentation tanks and caverns. Only the diversion tunnel may be left unutilized.

Alternative Design

The Central Water and Power Research Station has adequately studied the possibility of abstracting water for the purpose of power generation by making an ungated opening going to the riverbed that would allow free flow (figure below). The barrage would then be designed as follows:



Such a new barrage with an ungated opening can be made upstream of the presently proposed barrage near the tail end of the present reservoir, and a canal or tunnel can be made to carry the water from this barrage to the inlet of the currently proposed HRT, as shown in the illustration below:



Benign Alternative

We have assessed the environmental costs of the alternative in Table 20A below. Relying on Table 20 of the paper published and annexed in the petition before the NGT, we have assumed a 10 per cent increase in the cost of the project due to abandonment of the diversion tunnel and assumed a 20 per cent reduction in electricity generation because of an increase in project cost and loss of control over water intake. This will lead to a 20% increase in the sale price of electricity since the Power Purchase Agreement provides for the fixation of sale price based on the project cost.

Table 20A. Summary of Monetary Value of Environmental Costs. (Existing and Alternative)

Sl No	Impact	Cost Rs Billion/year (Existing)	Cost Rs Billion/year (Alternative)	Basis
1	Soil Erosion	0.37	0.074	(-) 80 per cent. Because no intermittent flushing.
2	Damage to Houses due to Blasting	0.076	0.105	HRT intake at 1267m. Dam height 65m. Riverbed at dam = 1267-65 = 1202m. TRC at 1030m. Gradient of river in 13.4 km is 1202-1030=172m. Therefore, length of riverbed to be covered by new canal on pro rata basis = $13400/172*65=5.1$ km. Additional damage due to blasting on pro rata basis = $0.076*5.1/13.4=0.029$. Total = $0.076+0.029=0.105$.
3	Quality of water	0.42	0.008	(-) 80 percent. Continuous flow will enable fish migration and sediment flow.
4	Air Pollution	0.20	0.220	(+) 10 percent. The cost of project will be less due to barrage not being made. It will be more due to the pollution already occurred in making the abandoned diversion tunnel; and in making the new canal. We assume a 10 percent increase in cost.
5	Biodiversity	1.632	0.326	(-) 80 percent. Fish migration is the main impact. This will be reduced to zero.
6	Aesthetic value	0.859	0.172	(-) 80 percent. No reservoir and continuous flow. However, the barrage will still be an eyesore.
7	Total	3.557	0.905	

We have calculated the Cost-Benefit Ratio of the proposed alternative at Table 21A set out below. This table is based on Table 21 of the paper published and annexed in the petition before the NGT.

Table 21A. CBR of the Project (Existing and Alternative).

Sl No	Item	Existing Project (Table 21 of Published Paper)			Alternative Design			Basis
		Costs (Rs Billion /year)	Benefits (Rs Billion /year)	Cost-Benefit Ratio	Costs (Rs Billion /year)	Benefits (Rs Billion /year)	Cost-Benefit Ratio	
1	Royalty @12% of Electricity		0.611			0.489		Assume 20 percent reduction in electricity generation.
2	Local Area Development		0.049			0.049		Unchanged
3	Consumer cost for purchasing electricity at a higher price: 144.2 crore units @ Rs 1.97	2.841			2.841			Unchanged. 20 percent increase in sale price along with 20 percent reduction in electricity generation.
4	Profits of THDCIL		1.847			1.847		Unchanged. 20 percent increase in sale price along with 20 percent reduction in electricity generation.
5	Employment		0.156		0.172			+10 percent. Assuming the cost of additional canal will be equal to the cost of barrage not made. Project cost will increase by 10 percent due to abandonment of the diversion tunnel.
6	Project cost annualized	1.319			1.451			+10 percent. Assuming the cost of additional canal will be equal to the cost of barrage not made. Project cost will increase by 10 percent due to abandonment of the diversion tunnel.
7	Budgetary Support annualized	0.44			0.352			-20 percent. Assuming the capacity in MW will be reduced by 20 percent.
8	CBR Excluding Environmental Benefits and Costs	4.60	2.663	0.58	4.816	2.385	0.49	
9	Environmental Benefits: Carbon Emissions saved		2.324			1.859		Assume 20 percent reduction in electricity generation.
10	Environmental Cost	3.557			0.905			Table 20A above.
11	CBR Including Environmental Benefits and Costs	8.157	4.987	0.61	5.721	4.244	0.74	

It can be observed that the CBR declines from 0.58 to 0.49 if the environmental costs and benefits are excluded. This happens because the cost of the project increases while environmental benefits are not accounted for.

However, the CBR increases from 0.61 to 0.74 if the environmental costs and benefits are included. This happens because the increase in environmental benefits compensates for the increase in project cost.

Humble Submission

We request you to consider this alternative proposal during your deliberations that will allow the Project to be implemented with the minimal environmental cost. We would be happy to provide any clarifications that you may need. We further request you to allow us to meet with yourselves and present the aforesaid proposal in detail for the EAC's kind consideration.

Yours sincerely,

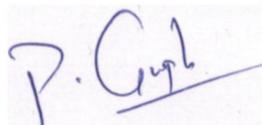


Bharat Jhunjhunwala, signed digitally

For Vimal Bhai

Lakshmoli, PO Maletha, Kirti Nagar, UKD 249161

Tel: 85278-29777



True Copy



Ankur Sood <ankur.sood@soodandco.com>

Service of Additional Affidavit on behalf of Appellant in Appeal No. 21 of 2021

1 message

Ankur Sood <ankur.sood@soodandco.com>

30 March 2022 at 13:06

To: adv.kumarrajeshsingh@gmail.com, chandnighatak26@gmail.com, dhruv@dhruvdewan.in, choubey.harshita@gmail.com

Dear Sir/ Ma'am -

Please find attached the Additional Affidavit on behalf of Appellant in the matter - Dr. Bharat Jhunjhunwala & Anr. v. Union of India & Ors. Appeal No. 21 of 2021 before National Green Tribunal.

You are requested to treat this mail as a formal service upon you.

With regards
Ankur Sood
Counsel for Appellant

--
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 **Additional Affidavit.pdf**
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