

**Site inspection report for diversion of 209.807 hectare
of reserved forest land for construction of Bharunrat
Dam in Lalitpur District, Uttar Pradesh**



Proposal no:

FP/UP/IRRIG/17563/2016

USER AGENCY:

**Construction Division II, Irrigation Department,
Government of Uttar Pradesh, Lalitpur**

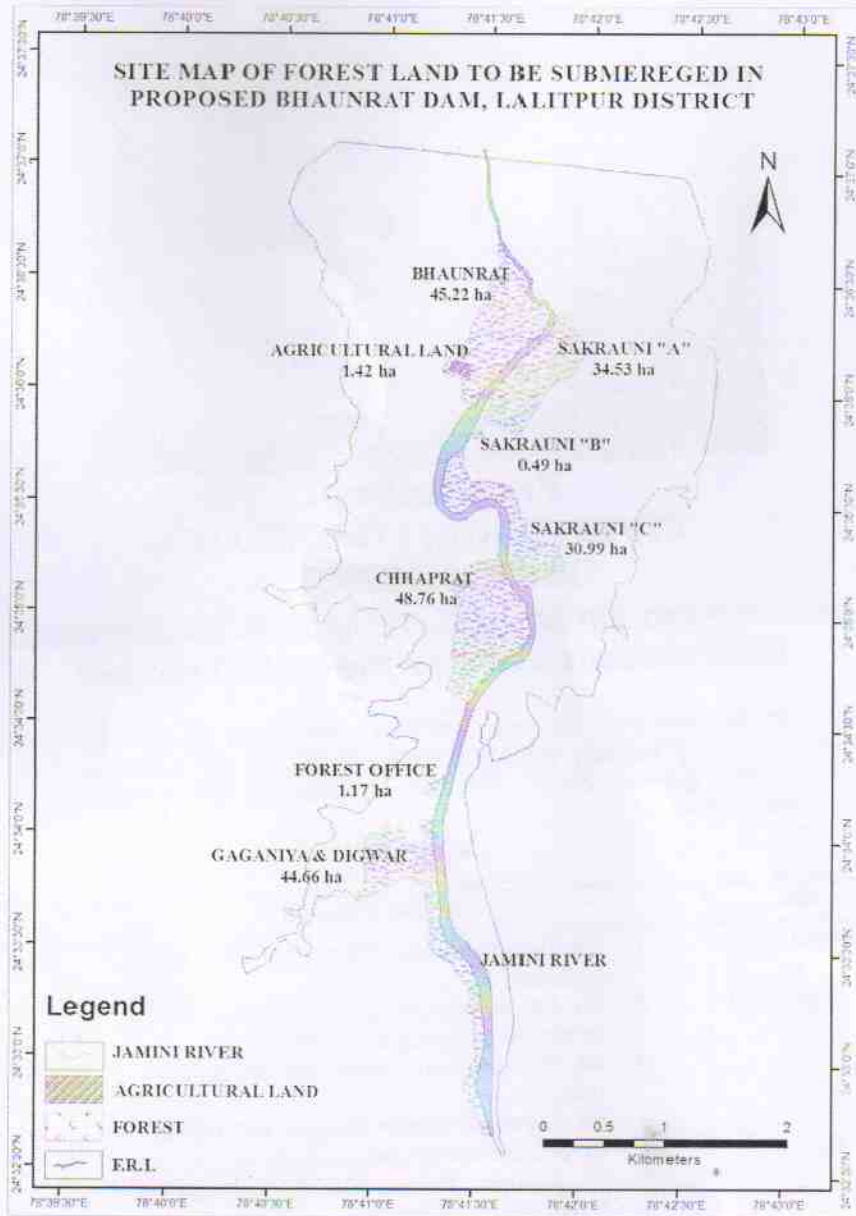
The site inspection of the proposal was carried out by the undersigned (Brijendra Swaroop, CF (Central), Regional Office, MoEF&CC, Lucknow) from 25th August 2017 to 27th August 2017. The list of officials present during site inspection is provided below:

Table 1

Date	Officials Present	Districts Visited
25/08/2017 To 27/08/2017	1. Sh. Govind Sharan, DFO, Forest Division, Lalitpur 2. Sh. KK Agarwal, Executive Engineer, ICD-II, Irrigation Department, Lalitpur 3. Sh. Vinod Kumar Yadav, ACF, Mehroni, Lalitpur. 4. Sh. Gajendra Kumar Maurya, AE, ICD-II, Irrigation Department, Lalitpur 5. Sh. Rajendra Kumar, AE, ICD-II, Irrigation Department, Lalitpur 6. Sh. Sunil Bharadwaj, Range Officer, Mehroni, Lalitpur. 7. Sh. Mahendra Kumar Jain, Deputy Ranger, Mehroni, Lalitpur.	Lalitpur

*All the data as produced hereinafter is the convergence of perusal of available documents and other pertinent discussion during the course of site inspection and relevant data from Government sources.
**The report of the site inspection is on prescribed Performa as per FCA guidelines.

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Project location

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Few Photographs of Site Inspection



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1. Short Narrative of the Project Proposal with brief time line of important events:

Bhaunrat Dam project is proposed on river Jamini, a tributary of river Betwa with a gross storage capacity of 45.08 MCM and live storage of 40.55 MCM near Bhaira Village in Lalitpur District of Uttar Pradesh (U.P.). This project envisages construction of a dam of height 19.93 m above river bed level and about 49 Km. downstream of existing Jamini Dam to provide irrigation and drinking water. The project is planned to irrigate a command area of 9850 ha with annual irrigation of 16,000 ha in drought prone areas of Lalitpur district in Bundelkhand region. Besides this the project has a provision of drinking water to the tune of 1 MCM.

Proposed Bhaunrat Dam is to be constructed on Jamini River with an earthen embankment of 4.750 km length and concrete spillway. The project is located in village Bhaira of Tehsil Mehrouni in, Dist. Lalitpur. The main objective of this proposal is irrigation of tail end Command of Banpur Rajwaha of Jamini Dam Irrigation System. Project proposal is a medium irrigation project catering to dry & rain fed areas of Bundelkhand Region.

Project proposal solely caters to one objective of irrigation with a Culturable Command Area (CCA) of 9,850 ha which caters to 7,000 ha of Rabi and 9,000 ha of Kharif crop providing irrigation intensity of 162%. Left flank of the earthen dam will feed to Bhaunrat Feeder Canal 18.200 km having maximum discharge of 4.00 cumecs and on right flank will feed to Right main feeder having length 4.100 km with maximum discharge of 0.500 cumecs. The proposal requires 209.807 ha of forest land in seven patches falling within submergence after construction of reservoir. **The estimated cost of the proposal was Rs 40,954.89 lakhs which has been revised to Rs 59,971.94 lakhs.**

Village wise requirement of Forest and Non Forest Land is provided below:

Table 2

Sr No.	Village	Forest Land (ha.)	Non-Forest Land (ha.)
1	Bhaunrat	45.228	155.351
2	Sakroni	67.431	92.361
3	Chhaprat	50.650	132.850
4	Gagniya	45.023	0.000
5	Digwar	1.475	0.000
6	Bamhorighat	0.000	175.370
7	Vedpur	0.000	61.850
8	Mudia	0.000	92.150
9	Kisarda	0.000	170.253
10	Pachoda	0.000	17.875
11	Bhaira	0.000	39.904
12	Satlinga	0.000	118.909
		209.807	1,056.873

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- ✓ Total land requirement for construction of Bhaunrat Dam-1,266.68 ha
- ✓ Reserve Forest proposed for diversion- 209.807 ha
- ✓ Non-forest land required for the project- 1056.873 ha
- ✓ Percentage of forest land required for the project - 16.56%

Timeline of events associated with this proposal:

Table 3

S. No.	Events	Date
1	Environment Clearance vide letter no. 1382/Parya/SEAC/2641/2014/OSD(T) dated 27/11/2015	27 th November 2015
2	Forest Application	2 nd March 2016
3	Part II Approval from DFOs	21 st October 2016
4	Part III approval from CCF / CF	27 th October 2016
5	Part IV Approval from Nodal	1 st December 2016
6	Part V Approval from State Government	20 th January 2017
7	Submission in regional office for Site Inspection	17 th March 2017
8	Site Inspection	25 th August to 27 th August 2017

2. Legal status of the forest land proposed for diversion:

Details of proposed forest area for diversion for construction of Bhaunrat Dam in Lalitpur District:

Table 4

S. No.	Name of Division	No. of patches	No. of segments	Eco class	Crown density	Legal status	Area in Ha.
1	Social Forestry Division Lalitpur	Seven patches but online part I mentions single patch.	seven	III	0.4	Reserve Forest	209.807
Total							209.807

3. Item wise break up details of the forest land proposed for diversion:

The details are provided below:

Table 5

Sr. No	Component	Forest Land (ha)	Other Govt Land (except forest) (ha)	Private Land (ha)	Total Land (ha)	% forest land
1	Construction of Bhaunrat Dam (forest land is falling in submergence only)	209.807	-	1,056.873	1,266.68	16.56
Total		209.807			1,266.68	16.56

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4. Whether proposal involves any construction of buildings (including residential) or not. If yes, details thereof:

No, proposed forest land diversion is due to seven reserve forest patches are falling in the submergence of the proposal.

5. Total cost of project at present rates:

The estimated cost of the proposal was Rs 40,954.89 lakhs which has been revised to Rs. 59,971.94 lakhs.

6. Wild- Life:

As per the details provided at Sr No. 8 of part II filled up by the concerned DFO; the proposed forest land for diversion is not significant from wildlife point of view. The proposed forestland for diversion is not part of national park, wildlife sanctuary, biosphere reserve, tiger reserve, elephant corridor, wildlife migration corridor, eco sensitive zone (ESZ) etc.

During site inspection also, proposed seven patches of forest land for diversion are not found significant from wildlife point of view.

7. Vegetation:

The details of vegetation density is provided in table no. 4 The average vegetation density of forest is 0.4 which comes under both open forest and moderately dense forest. As per site inspection the forest proposed for diversion may be considered as moderately dense forest. The forest is Eco-class III - mainly consisting of South Northern Dry Mixed Deciduous Forests (5A/C3-5B/C2), Dry Teak Forest (5A/C1B) and Dry Deciduous Forest (5D/S3-5B/C2)

Girth class distribution of trees (gbh>60 cms) which are falling in submergence-

Table 6

S. No.	Scientific Name	Local Name	(31-60)cm.	(61-90)cm.	(91-120)cm.	(121-150)cm.	(>150)cm.
1	<i>Dalbergia sisoo</i>	Shisum	605	2	0	0	0
2	<i>Acacia catechu</i>	Khair	20	0	0	0	0
3	<i>Acacia leucophloea</i>	Rewza	70	0	0	0	0
4	<i>Azadirachta indica</i>	Neem	25	0	0	0	0
5	<i>Madhuka indica</i>	Mahua	14	4	0	0	0
6	Others	Others	3611	156	0	0	0
7	<i>Albizzia lebbeck</i>	Siris	76	4	0	0	0

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8	<i>Bombax ceiba</i>	Semal	45	8	0	0	0
9	<i>Holoptelia integrifolia</i>	Chilbil	45	2	0	0	0
10	<i>Terminalia arjuna</i>	Arjun	45	16	0	0	0
11	<i>Dendrocalamus strictus</i>	Bans	3291	900	0	0	0
12	<i>Tectona grandis</i>	Sagaun	6	14	0	0	0
13	<i>Mangifera indica</i>	Aam	2	0	0	0	0
14	<i>Pterocarpus marsupium</i>	Beejsal	14	0	0	0	0
15	<i>Anthocephalus cadamba</i>	Kadam	1	0	0	0	0
16	<i>Syzigium jambous</i>	Jamun	2	0	0	0	0
17	<i>Lagerstroemia parviflora</i>	Seza	1	0	0	0	0
18	<i>Eucalyptus</i>	Eucalyptus	13	70	0	0	0
Total			7,886	1,176	0	0	0
Grand Total			9,062				

Number of trees to be felled of girth >30 cm =9,062 nos (as per enumeration list uploaded)

Number of trees to be felled of girth < 30 cm= 16,264 (as per forwarding letter from Nodal Officer, Department of Forests, Government of UP)

Important species:-

Delbergia sissou, Terminalia arjuna, Accacia catechu, Accacia luceophela, Azadirachta indica, Madhuca indica, Albizia lebbeck, Sygium cumini, Mangifera indica, Bombax ceiba, Holoptelia integrifolia, Dendrocalamus strictus, Tectona grandis, Pterocarpus marsupium, Anthocephalus cadamba, Lagerstroemia parviflora, Eucalyptus hybrids etc.

Effect of removal of trees on the general ecosystem in the area-

The forest area falling in submergence of reservoir are seven patches of reserve forest falling along Jamini River. The removal consists of 9,062 (35.7%) mature trees having girth more than 30 cms out of 25,326 trees & poles proposed to be felled. These riparian patches of RF are at the upstream side of river and will be submerged partially during submergence reaching FRL. Enumeration lists for FRL-2 and FRL-4 have not been provided with the proposal. There will be adverse effect of on general ecosystem due to removal of trees. These forest patches provide ample cover, food, checks soil erosion and other eco-system services to the all life form existing in the area.

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In order to mitigate the adverse impact provision of compensatory afforestation is incorporated in the proposal on equivalent non forest land being made available by the user agency.

8. Compensatory afforestation:

Compensatory afforestation is proposed on equivalent non forest land having extent 209.807 ha. There are four patches of Gram Panchayat Land with following details are proposed to compensate diversion of forest land for construction of Bharaunt Dam.

Table 7

Sr No.	Proposed Area	District	Legal Status	Area in ha.
1	Narahat	Lalitpur	Gram Panchayat Land	54.00
2	Raipur	Lalitpur	Gram Panchayat Land	71.340
3	Myau	Lalitpur	Gram Panchayat Land	8.881
4	Mainwar	Lalitpur	Gram Panchayat Land	75.586
Total Area in ha.				209.807

(i) Whether land for compensatory afforestation is suitable for plantation and management point of view or not.

Site suitability certificate has been submitted by the concerned Divisional Forest Officers along with the forest land diversion proposal. During inspection proposed compensatory afforestation two sites Narahat and Mainwara were visited. Both the sites were found appropriate for compensatory afforestation. Only issue is both the patches are deficient in soil depth and require special efforts while raising compensatory afforestation.

(ii) Whether land for compensatory afforestation is free from encroachment/ other encumbrances.

As per the DFOs report compensatory afforestation sites are appropriate for afforestation, management point of view and free from encroachment & other encumbrances (page 53 & 54 of proposal).

(iii) Whether land for compensatory afforestation is important from religious/ archaeological point of view.

Not reported.

(iv) Land identified for raising compensatory afforestation is in how many patches, whether patches are compact or not.

Four compact patches.

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(v) **Map with detail.**

Enclosed with the proposal.

(vi) **Total financial outlay.**

The compensatory afforestation cost will be Rs 6, 68, 22,000.00

9. Whether proposal involves violation of Forest (Conservation) Act, 1980 or not. If yes, a detailed report on violation including action taken against the concerned officials.

The proposal does not involve violation of Forest (Conservation) Act, 1980.

Though a report from CCF (Central Zone), Regional Office, MoEF&CC, Lucknow mentioning violation of FCA 1980 has been sent to Principal Secretary (Forest) vide letter no. 8A/UP/01/1168/2013/402 dated 9th September 2013 (annexure II) with endorsement to MoEF&CC. The report mentions that 90% of construction work of Bhairot Dam which is proposed on non forest land has been completed. The report is factually incorrect and with anomalies. This report mentions date of inspection 12th October 2012 and inspection report was submitted after a lapse of almost one year on 9th September 2013. Apart from forest areas, dam site (proposed on non forest land) was also visited during site inspection to check the contention of 90% completion of construction work as per earlier report which was found incorrect. In this regard concerned user agency and DFO have submitted details which are placed as annexure III.

10. Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not:

Not applicable with this proposal.

11. Reclamation Plan:

Not applicable in this proposal.

12. Details on catchment and command area under the project:

A catchment area of 749.40 sq km is associated with Jamini River out of which 414 sq km was utilized by existing Jamini Dam. Therefore, free draining catchment of the project is 335.40 sq km for which a Catchment Area Treatment (CAT) plan has been prepared and placed with the proposal from page 119 to 136. The CAT plan submitted with the proposal has following issues which require rectification:

- a) The CAT plan is without details of treatment proposed of the free draining catchment and physical and financial implications of treatment are also missing from the document.
- b) CAT plan has not been approved by the appropriate authority.

13. Cost benefit Analysis:

The proposal contains Benefit Cost Analysis enclosed from page 111 to 112 A. As per the guidelines and parameters fixed by MoEF&CC various parameters have not been quantified and environmental losses have been calculated on crown density of forest crop

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