

**STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC)**

Ref. No- 499

Patna- 23, Date- 06/02/2017.

To,

1. **Dr. Ashok Kumar Ghosh,**  
Professor and HoD, Research Centre  
Mahavir Cancer Research Institute and Research Centre, Patna.
2. **Dr. Nupur Bose,**  
Associate Professor, Department of Geography,  
A.N. College, Patna Boring Road, Patna-800013.
3. **Shri Vijay Kumar Sinha,**  
"Prasad Bhawan", R.K. Path, Pirmohani,  
Kadamkuan, Patna-800003.
4. **Dr. Kamesh Kumar,**  
Professor of Economics and Professor-in-Charge of MBA,  
A.N. College, Patna Boring Road, Patna-800013.
5. **Dr. Jitendra Singh,**  
Retired Vice-Chancellor, 'BRAJ', Behind Post Office,  
L.B. Shastri Nagar, Patna-800023.
6. **Shri Shatrunjay Kumar Singh,**  
Professor of Botany, Department of Environment and Water Management,  
A.N. College, Patna Boring Road, Patna-800013.
7. **Dr. Nityanand Singh Maurya,**  
Department of Civil Engineering,  
National Institute of Technology, Patna-800005.
8. **Prof. Chandan Bhar,**  
Department of Management Studies, Indian School of Mines,  
Dhanbad-826004.
9. **Dr. Ram Madhab Bhattacharjee,**  
Associate Professor, Department of Mining Engineering,  
Indian School of Mines, Dhanbad-826004, Jharkhand.

**Sub :-** Proceedings of State Level Expert Appraisal Committee which was held on 28.01.2017 & 29.01.2017 in Meeting Hall of State Environment Impact Assessment Authority, 2<sup>nd</sup> Floor, Beltron Bhawan, Shastri Nagar, Patna - 23.

Sir,

Please find enclosed Proceedings of State Expert Appraisal Committee which was held on 28<sup>th</sup> & 29<sup>th</sup> January, 2017 for your perusal.

Sincerely Yours  
04 2 17  
(Shri S. Chandrasekar)  
Secretary, SEAC

**Proceedings of the State Level Expert Appraisal Committee (SEAC) dated 28<sup>th</sup> & 29<sup>th</sup> January, 2017**

A meeting of State level Expert Appraisal Committee (SEAC) was held in the Meeting Hall of State Environment Impact Assessment Authority, 2<sup>nd</sup> Floor, Beltron Bhawan, Shastri Nagar, Patna- 23 on 28<sup>th</sup> & 29<sup>th</sup> January, 2017.

The Chairman and the following members of the committee were present in the meeting:

1. Dr. Ashok Kumar Ghosh, Chairman, SEAC
2. Shri S. Chandrasekar, Secretary, SEAC
3. Dr. Nityanand Singh, Maurya, Member, SEAC
4. Shri Vijay Kumar Sinha, Member, SEAC
5. Shri Shatrunjay Kumar Singh, Member, SEAC
6. Dr. Nupur Bose, Member, SEAC
7. Dr. Kamesh Kumar, Member, SEAC

The proceeding of the last meeting of SEAC dated 11-12-2016 & 12-12-2016 was confirmed by the committee.

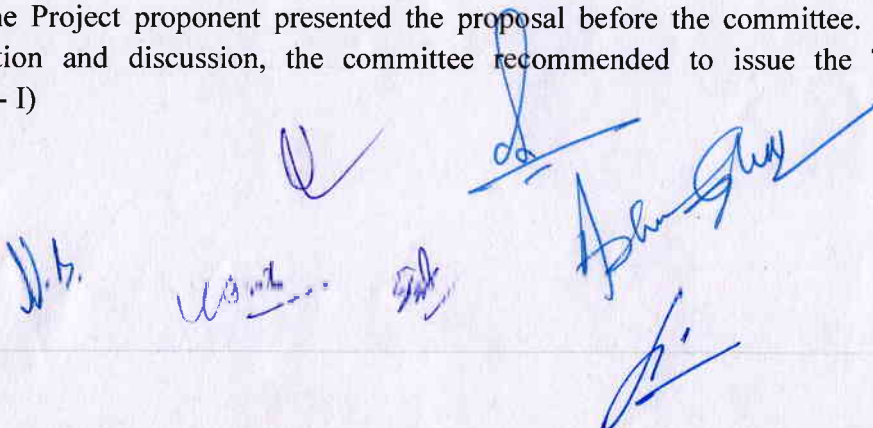
The Various projects records were put up before the committee by the supporting staffs/officers working with SEIAA as per the agenda which is prepared on the basis of scrutiny fee received by SEIAA, Member-Secretary and after discussion in the committee meeting the records were sent back and kept by SEIAA.

The committee discussed the proposal on the agenda and made following recommendations for various projects and sought compliance of the points raised against some of the projects as given below:

**1. "KUNDAGHAT RESERVOIR SCHEME", District- Jamui (Proposal No.:- SIA/1(c)/428/17) Online Proposal No.:- SIA/BR/RIV/17938/2016.**

The Kundghat reservoir scheme is situated at Latitude 24° 52' 18.84" N and Longitude 86° 00' 32.36" E (Toposheet 72 L/1 & 72K/13) in Sikandara Block of drought prone Jamui district of Bihar. It is proposed to construct across Bahuar River and supposed to provide assured irrigation over a CCA of 2035.61 Ha. (5030 acres). There is an existing old weir scheme at 107 m (350') in D/S/ of the proposed dam site, which is presently providing irrigation over a CCA of 1000 acres by diverting the rain-water into the canal.

The Project proponent presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- I)





2. M/s. Hindustan Petroleum Corporation Ltd., Village- Panapur & Kubeva, Tehsil/Block- Harsidhi, District- East Champaran, State- Bihar. (Proposal No.:- SIA/8(a)/404/16) Online Proposal No.:- SIA/BR/IND2/17861/2016

Hindustan Petroleum Corporation Ltd., Sugauli LPG Bottling unit proposed for construction of new LPG bottling capacity of 120 TMTA and storage of LPG (3X350 MT). A land to the extent of 33 acres has been selected at Sugauli besides SH 54.

The proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- II)

3. "LOTUS ADOBE" Residential Building Project by "NUTAN CONSTRUCTION", Village- Danapur Shahzadpur, Tehsil- Danapur-cum-Khagual, District- Patna, State- Bihar. (Proposal No.:- SIA/8(a)/408/16) Online Proposal No.:- SIA/BR/MIS/60656/2016.

Project Site is located at Mauza Danapur Shahzadpur, Thana No. 21, Tauzi No. 5399, Khata No.- 171, 213. Survey Plot No. 1407 & 1410. The Project is under consideration for the construction of 2 Nos. of Residential Building (B+G+ 12). Total nos. of residential flats will be 202 Nos. in 2 nos. of Blocks, Total Plot area – 9135.00 M<sup>2</sup>. and Total Built up area:- 22794.26 M<sup>2</sup>.

The Proponent & Consultant presented the proposal before the committee. After due consideration and discussion the committee decided to make site visit of the project area before taking any decision.

4. "CONCICON'S TRANQUIL Residential Building Project" Developer:- M/s CONCICON CONSTRUCTION PVT. LTD., Village- Dhanaut, Tehsil- Patna Sadar, District- Patna, State- Bihar (Proposal No.:- SIA/8(a)/355/16) Online Proposal No.:- SIA/BR/MIS/58608/2016).

Residential Building Project "CONCICON TRANQUIL" is coming up at Mauza Dhanaut, Near Lohiya Patha, Nitibag, Rukanpura, Bailey Road. Residential Building of five Nos. of blocks A (B+G+5), B (B+G+5), C (B+G+5), D (G+5) & E (G+5), Total 227 Nos. Flats), Total Plot area – 9445.74 M<sup>2</sup>. and Total Built up area:- 23482.01 M<sup>2</sup>.

The Proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee decided to make site visit of the project area before taking any decision.

5. Balajee Mini Steels and Re-rolling Pvt. Ltd, Unit 2 (Existing 29250 TPA and Proposed 29250 TPA MS INGOT PRODUCTION), Village:- Mahadeopur Phulari, Tehsil:- Bihta, District:- Patna, State:- Bihar (Proposal No.:- SIA/3(a)/429/17) Online Proposal No.:- SIA/BR/IND/18154/2017.

Balajee Mini Steels & Re-rolling Pvt. Ltd., Unit – 2, Induction Division (BMSRPL Unit 2), is situated at Mahadeopur Phulwari, Bihta, District – Patna, Bihar having Latitude 25° 34' 42.52" N & Longitude 84° 51' 57.31" E at 51 meter above MSL

nearby NH – 30. Expansion Project for establishment of one additional furnace of 10 Ton/Heat capacity along-with Continuous Casting Machine (CCM within existing premises. (Existing 29250 TPA and Proposed 29250 TPA and Total 58500 TPA)

The proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- III)

**6. Proposed Residential Building "Winsome Empire" at Plot No.- 531 & 613 and 614, Mauza- Sikandarpur, Thana - Danapur, District - Patna, State – Bihar (Proposal No.:- SIA/8(a)/421/17) Online Proposal No.:- SIA/BR/NCP/61804/2017.**

Winsome Infrastructure is going to develop a Residential Building "Winsome Empire" at Plot No.- 531, 613 and 614, Mauza- Sikandarpur, Thana- Danapur, District:- Patna, Bihar. Total Land area measuring 7516.32 M<sup>2</sup> and Total Built up area is 24,121.00 M<sup>2</sup>.

The Proponent & Consultant presented the proposal before the committee. After due consideration and discussion the committee directed the project proponent to re-design the project. So, as leave minimum 33% area for green cover.

**7. Proposed Madhubani Medical College at Village:- Madhubani, Tehsil:- Rahika (Block), District:- Madhubani, State:- Bihar (Proposal No.:- SIA/8(a)/417/16) Online Proposal No.:- SIA/BR/MIS/61227/2016.**

Milli Trust is going to develop a Medical College on the total land area measuring 1,00,229 M<sup>2</sup> and Built up area is 75,541.88 M<sup>2</sup>. Earlier the Dr. Fayaz Ahmad, President, Milli Trust, Madhubani had planning to develop a school named "Proposed Indian Public School, Madhubani" on the same plot measuring land area 1, 00,229 M<sup>2</sup>. and built up area 16,903 M<sup>2</sup>. As per EIA Notification 2006, if project having built up area less than 20,000 M<sup>2</sup>, it's not come under the applicability of Environmental Clearance. In impression of above proponent had started to construction at site. But due to change in internal planning from development of school to hospital and modification in the design of building as per the management decision the built-up area has been changed to 75,541.88 M<sup>2</sup>.

The Proponent & Consultant presented the proposal before the committee. After due discussion and consideration, the committee directed the project proponent to submit a report on the green cover of the Project and suggested to maintain 33% green cover including the existing tree cover inside the campus.

Handwritten signatures and initials in blue ink, including "U.S.", "N.B.", and several illegible signatures.



**8. 5 MLD Common Effluent Treatment Plant, Bela Industrial Area, Tehsil- Mushari, District- Muzaffarpur (Proposal No. - SIA/7(h)/337/16) Online Proposal No.:- SIA/BR/MIS/17349/2016.**

The proposal was put up in the SEAC meeting dated 19.11.2016. The SEAC decided to make a site visit of the area. The Secretary SEAC visited the area (site) on 08<sup>th</sup> December, 2016 submitted a report before SEAC and was considered. After due consideration and discussion, the committee recommended to issue the ToR to this project. (As Annexure- IV)

**9. Stone Mining Project For Final EIA**

- a) Rajauli Stone Mine Project, Block No.- 02, Village- Rajauli, Tehsil- Nawada, District- Nawada, State- Bihar (Proposal No.:- SIA/1(a)/409/16) Online Proposal No.:- SIA/BR/MIN/17977/2015)**

The committee directed the Project Proponent to submit the disclosure of the consultants with the original signature of the functional area experts and the Co-ordinator. The photograph of the Co-ordinator has also to be affixed and has to be submitted in the next meeting for further consideration.

- b) Rajauli Stone Mine Project, Block No.- 01, Village- Rajauli, Tehsil- Nawada, District- Nawada, Area:- 05 Ha (Proposal No.:- SIA/1(a)/410/16) Online Proposal No.:- SIA/BR/MIN/17976/2015)**

The committee directed the Project Proponent to submit the disclosure of the consultants with the original signature of the functional area experts and the Co-ordinator. The photograph of the Co-ordinator has also to be affixed and has to be submitted in the next meeting for further consideration.

- c) Bhadokhara Sand Mine (Block No.-08), Village:- Bhadokhara, Tehsil- Nawada, District:- Nawada, Area:- 05 Ha, (Proposal No.:- SIA/1(a)/412/17) Online Proposal No.:- SIA/BR/MIN/17662/2015)**

The committee directed the Project Proponent to submit the disclosure of the consultants with the original signature of the functional area experts and the Co-ordinator. The photograph of the Co-ordinator has also to be affixed and has to be submitted in the next meeting for further consideration.

- d) Bhadokhara Sand Mine (Block No.-08), Village:- Bhadokhara, Tehsil- Nawada, District:- Nawada, Area:- 05 Ha, (Proposal No.:- SIA/1(a)/415/17) Online Proposal No.:- SIA/BR/MIN/17653/2015)**

The committee directed the Project Proponent to submit the disclosure of the consultants with the original signature of the functional area experts and the Co-ordinator. The photograph of the Co-ordinator has also to be affixed and has to be submitted in the next meeting for further consideration.

**e) Mirzapur Stone Mining Project, Block No- 01, Gaya, Village - Mirzapur, Anchal-Manpur, Distrcit- Gaya, Area:- 5.06 Ha, (Proposal No.:- SIA/1(a)/342/16)**

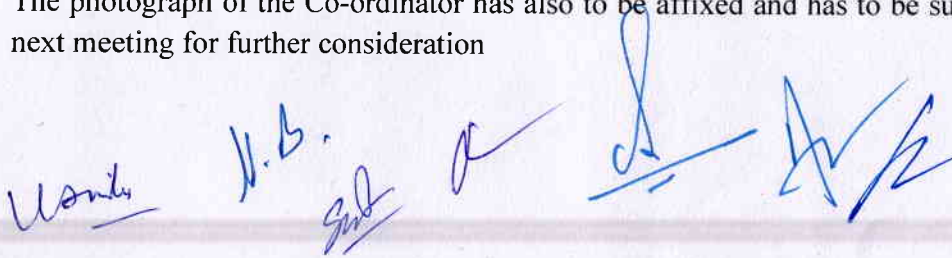
The committee directed the project Proponent to submit a report from the Circle Officer concerned through the District Magistrate regarding status of habitation whether legal or illegal within 500 meters around the project area.

The committee directed the Project Proponent to submit the disclosure of the consultants with the original signature of the functional area experts and the Co-ordinator. The photograph of the Co-ordinator has also to be affixed and has to be submitted in the next meeting for further consideration.

**f) Gere Block No.-04, Stone Mining Project, Vill- Gere, Tehsil- Manpur, Dist- Gaya, Area:- 5.06 Ha, (Proposal No.:- SIA/1(a)/349/16)**

The committee directed the project Proponent to submit a report from the Circle Officer concerned through the District Magistrate regarding status of habitation whether legal or illegal within 500 meters around the project area.

The committee directed the Project Proponent to submit the disclosure of the consultants with the original signature of the functional area experts and the Co-ordinator. The photograph of the Co-ordinator has also to be affixed and has to be submitted in the next meeting for further consideration

A series of handwritten signatures in blue ink, including the name 'Wankar' and several initials and full names, likely representing the committee members and the project proponent.



## New Sand Mining Projects (For E.C.)

Annexure - I  
District Name:- Patna

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/398/16 Online Proposal No. SIA/BR/MIN/60868/2016	Sand Mining Project at Hardi Chapra Ghat on River Ganga, District- Patna, State- Bihar	Mauza:- Rampur Diara, Tehsil:- Maner, District:- Patna	Patna	20 Ha	09-12-16	Corner A- 25° 40' 47.29" N 84° 53' 12.14" E Corner B- 25° 41' 11.38" N 84° 52' 45.79" E Corner C- 25° 41' 14.80" N 84° 52' 51.31" E Corner D- 25° 40' 51.41" N 84° 53' 17.50" E	7/108		1, 2, 3, 4, 5, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 202, 182, 183, 184, 185	Hardi Chapra Ghat
2.	SIA/1(a)/399/16 Online Proposal No. SIA/BR/MIN/60867/2016	Sand Mining Project at Patila Ghat on River Son, District- Patna, State- Bihar	Mauza:- Patila, Tehsil:- Maner, District:- Patna	Patna	22 Ha	09-12-16	Corner A- 25° 39' 40.67" N 84° 49' 58.36" E Corner B- 25° 39' 44.67" N 84° 50' 05.76" E Corner C- 25° 39' 16.57" N 84° 49' 57.55" E Corner D- 25° 39' 16.54" N	7/111		946, 945, 809, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 874, 873, 872, 871,	Patila Ghat

							84° 50' 08.43" E			870, 869, 861, 862, 863, 864, 865, 866, 867, 868, 888, 923, 926, 928, 932, 931, 933, 934, 935, 936, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974	
3.	Online Proposal No. SIA/BR/MIN/60855/ 2016	Sand Mining Project at Damriyahi Bakhtiyarpur Ghat on River Ganga, District- Patna, State- Bihar	Mauza:- Zafarabadtok , Tehsil:- Bakhtiyapur, District:- Patna	Patna	24 Ha	09-12-16	Corner A- 25° 28' 26.67" N 85° 30' 40.66" E Corner B- 25° 28' 32.55" N 85° 30' 45.82" E Corner C- 25° 28' 10.70" N 85° 31' 02.26" E Corner D- 25° 28' 16.57" N 85° 31' 07.32" E			2793, 2794, 2795, 2844, 2830, 2828, 2829, 2780, 2781, 2788, 2783, 2784, 2785, 2786, 2787,	Damriya hi Bakhtiya rpur Ghat

*Handwritten signatures and initials:*  
 1. A signature starting with 'K' and 'U' (likely K. Usha).  
 2. The initials 'V.B.' followed by a signature.  
 3. A signature starting with 'S' (likely S. R.).  
 4. A signature starting with 'S' (likely S. R.).




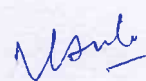
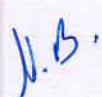




										2788, 2789, 2790, 2791, 2792	
4.	SIA/1(a)/401/16  On line Proposal No. SIA/BR/MIN/60871/ 2016	Sand Mining Project at Dariapur Ghat on River Ganga, District- Patna, State- Bihar	Mauza:- Dariapur, Tehsil:- Mokama, District:- Patna	Patna	20 Ha	09-12-16	Corner A- 25° 23' 18.18" N 85° 58' 10.29" E Corner B- 25° 23' 30.45" N 85° 57' 38.82" E Corner C- 25° 23' 36.85" N 85° 57' 41.46" E Corner D- 25° 23' 24.31" N 85° 58' 13.11" E	23		607, 608, 609, 610, 606, 604, 2517, 600, 601, 593, 594, 8594, 8596, 596, 597, 598, 479, 476, 477, 478, 470, 429, 427, 428, 426, 433, 434, 447, 448, 449, 450, 451, 452, 455, 425, 430, 431, 432, 435, 315, 382, 385,	Dariapu r Ghat
5.	S A/1(a)/402/16  Online Proposal No. SIA/BR/MIN/60869/ 2016	Sand Mining Project at LCT Rajapur Ghat on River Ganga, District- Patna,	Mauza:- Dujra Diara, Tehsil:-Patna Sadar, District:- Patna	Patna	24 Ha	09-12-16	Corner A- 25° 38' 04.46" N 85° 08' 56.36" E Corner B- 25° 38' 07.46" N 85° 09' 02.26" E	139	04		LCT Rajapur Ghat

		State- Bihar					Corner C- 25 <sup>0</sup> 37' 31.17" N 85 <sup>0</sup> 09' 22.83" E Corner D- 25 <sup>0</sup> 37' 34.01" N 85 <sup>0</sup> 09' 29.02" E				
6.	SIA/-(a)/403/16  O-line Proposal No. SI/BR/MIN/60870/ 2016	Sand Mining Project at Marachi Ghat on River Ganga, District- Patna, State- Bihar	Mauza:- Marachi, Tehsil:- Mokama, District:- Patna	Patna	24 Ha	09-12-16	Corner A- 25 <sup>0</sup> 22' 03.28" N 85 <sup>0</sup> 59' 47.51" E Corner B- 25 <sup>0</sup> 22' 05.95" N 85 <sup>0</sup> 59' 55.63" E Corner C- 25 <sup>0</sup> 21' 32.56" N 86 <sup>0</sup> 00' 01.17" E Corner D- 25 <sup>0</sup> 21' 35.41" N 86 <sup>0</sup> 00' 08.84" E	19		6435, 6436, 6557, 6509, 6616, 6628, 6627, 6682, 6683, 6684, 6685, 6686, 6747, 6748, 6749, 6750, 6751, 6755, 6752, 6753, 7386, 7387, 7385, 7395, 7397, 7348, 7400, 7401,	Marachi Ghat



										7402, 7403, 7404, 7405, 7406, 7407, 7408, 7409, 7410, 741, 7412, 7413, 7414, 7415, 7416, 7417, 7418	
7.	Online Proposal No. SIA/BR/MIN/61253/ 2016	Sand Mining Project at Rajipur Ghat on River Son, District- Patna, State- Bihar	Village/Mauz a:- Saraiya, Tehsil:- Dulhin Bazar, District:- Patna	Patna	23.9 Ha	30-12-16	Corner A- 25° 22' 14.80" N 84° 44' 21.08" E Corner B- 25° 22' 16.50" N 84° 44' 34.41" E Corner C- 25° 21' 54.60" N 84° 44' 19.96" E Corner D- 25° 21' 55.42" N 84° 44' 33.68" E	304	590	202, 210, 235, 239, 240, 98, 113, 117, 118, 122, 132, 134, 241, 255	Rajipur Ghat
8.	Online Proposal No. SIA/BR/MIN/61244/ 2016	Sand Mining Project at Dhiwar (NTPC Barh) Ghat on River Ganga,	Village/Mauz a:- Dhiwar, Tehsil:- Pandarakh, District:-	Patna	24 Ha	30-12-16	Corner A- 25° 30' 31.99" N 85° 44' 38.06" E Corner B- 25° 30' 52.61" N	03	37	184, 185, 186, 187, 188, 189, 190, 191, 192, 193,	Dhiwar (NTPC Barh) Ghat

		District- Patna, State- Bihar	Patna				85° 45' 04.57" E Corner C- 25° 30' 46.13" N 85° 45' 13.93" E Corner D- 25° 30' 29.40" N 85° 44' 45.30" E			194	
9.	SIA/1(a)/407/16  Online Proposal No. SIA/BR/MIN/61245/ 2016	Sand Mining Project at Brahpur Ghat on River Ganga, District- Patna, State- Bihar	Village/Mauza:- Brahpur, Tehsil:- Mokama, District:- Patna	Patna	20 Ha	30-12-16	Corner A- 25° 25' 25.86" N 85° 52' 30.22" E Corner B- 25° 25' 53.16" N 85° 52' 22.16" E Corner C- 25° 25' 53.98" N 85° 52' 27.27" E Corner D- 25° 25' 31.46" N 85° 52' 40.98" E	03	46, 366/1 23, 451/1	81, 82, 144, 145, 146, 1624, 1623, 1466, 1469	Brahpur Ghat

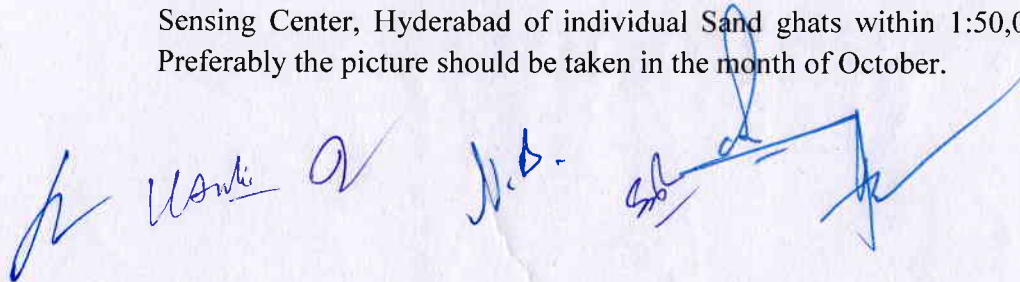


The Proponent & consultant presented the proposal before the committee. The Proponent submitted vide affidavit that

- No RF/PF is located within 500 meters from the project site;
- The sum total of mining area including the proposed site is less than 25 Hectare (B-2 Category ) within 500 Meter radius;
- No railway /Road bridge is coming within 300 meter;
- No intake well is coming within the distance of 500 meter from the mining lease area in upstream as well as downstream side;
- No notified aquatic species breeding area is present within 500 meter from the mining lease area in upstream as well as downstream side;
- No any disturbance/harm will be done to Flora & Fauna lies within core & buffer zone during mining operation & mining activity and will Comply the provisions of Environmental (Protection) Act, 1986, water (Prevention control of pollution ) Act, 1974, Air (prevention & control of pollution) Act, 1981 and Wildlife (Protection) Act, 1972;
- The Proponent submitted annexure-I & II;
- The proponent also submitted a letter regarding withdrawal/no go ahead of its application submitted to MoEF&CC for grant of E.C. regarding the Sand Mining Ghats under consideration of this committee.

E.C. is recommended with following conditions to be included in E.C. conditions.


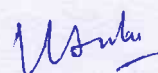




1. The sand mining should be in proportion to the annual replenishment of the area. In Case the replenishment is lower than the approved amount of sand removal, the mining activity shall be decreased/Stopped till the replenishment is completed.
2. No Mining activity shall be done within a distance of 3 Meter or 10% of the width of the river bed, whichever is more and it will be left intact as no mining zone.
3. Sand mining will not be done at the river meandering point.
4. CSR activity of the Project Proponent should be visible and measurable/quantifiable.
5. Proponents have to submit Satellite picture procured from National Remote Sensing Center, Hyderabad of individual Sand ghats within 1:50,000 scale. Preferably the picture should be taken in the month of October.

The block contains several handwritten signatures and initials in blue ink. From left to right, there is a signature that appears to be 'H. Usuki', followed by the initials 'N.B.', and then a large, stylized signature that looks like 'S.B.' with a long horizontal line extending to the right.

**District Name:- Bhojpur**

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/377/16  Online Proposal No. SIA/BR/MIN/60635/2016	Sand Mining Project at Haripur & Sadashivpur Ghat on River Son, District- Bhojpur, State- Bihar	Mauza: - Sadashivpur, Tehsil:- Koilwar, District:- Bhojpur	Bhojpur	23 Ha	28-11-16	Corner A- 25° 36' 37.23" N 84° 48' 23.29" E Corner B- 25° 36' 35.68" N 84° 48' 33.36" E Corner C- 25° 36' 12.77" N 84° 48' 25.26" E Corner D- 25° 36' 13.56" N 84° 48' 13.67" E	436	42	125	Haripur & Sadashivpur Ghat
2.	SIA/1(a)/397/16  Online Proposal No. SIA/BR/MIN/60661/2016	Sand Mining Project at New Haripur (Chittampur) Ghat on Son River, of Mauza: - Sadashivpur, Block:- Koilwar, District- Bhojpur of State- Bihar	Vaillage:- New Haripur (Chittampur), Mauza: - Sadashivpur, Tehsil:- Koilwar, District:- Bhojpur	Bhojpur	22 Ha	05-12-16	Corner A- 25° 35' 51.94" N 84° 48' 10.86" E Corner B- 25° 35' 55.36" N 84° 48' 34.66" E Corner C- 25° 35' 45.52" N 84° 48' 35.10" E Corner D- 25° 35' 41.31" N 84° 48' 10.19" E	436	42	128 & 130	New Haripur (Chittampur) Ghat

3.	Online Proposal No. SM/EF/MIN/61248/ 2016	Sand Mining Project at Kamaluchak & Semra Ghat on River Son, District- Bhojpur State- Bihar	Mauza:- Makhdumpu r Semra, Tehsil:- Koilwar, District:- Bhojpur	Bhojpur	20 Ha	17-01-17	Corner A- 25° 39' 11.11" N 84° 49' 15.95" E Corner B- 25° 39' 08.26" N 84° 49' 26.02" E Corner C- 25° 38' 50.59" N 84° 49' 20.68" E Corner D- 25° 38' 51.14" N 84° 49' 08.70" E	106	267	635, 644	Kamaluc hak & Semra Ghat
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The Proponent & consultant presented the proposal before the committee. The Proponent submitted vide affidavit that

- No RF/PF is located within 500 meters from the project site;
- The sum total of mining area including the proposed site is less than 25 Hectare (B-2 Category ) within 500 Meter radius;
- No railway /Road bridge is coming within 300 meter;
- No intake well is coming within the distance of 500 meter from the mining lease area in upstream as well as downstream side;
- No notified aquatic species breeding area is present within 500 meter from the mining lease area in upstream as well as downstream side;
- No any disturbance/harm will be done to Flora & Fauna lies within core & buffer zone during mining operation & mining activity and will Comply the provisions of Environmental (Protection) Act, 1986, water (Prevention control of pollution ) Act, 1974, Air (prevention & control of pollution) Act, 1981 and Wildlife (Protection) Act, 1972;
- The Proponent submitted annexure-I & II;
- The proponent also submitted a letter regarding withdrawal/no go ahead of its application submitted to MoEF&CC for grant of E.C. regarding the Sand Mining Ghats under consideration of this committee.

E.C. is recommended with following conditions to be included in E.C. conditions.

1. The sand mining should be in proportion to the annual replenishment of the area. In Case the replenishment is lower than the approved amount of sand removal, the mining activity shall be decreased/Stopped till the replenishment is completed.
2. No Mining activity shall be done within a distance of 3 Meter or 10% of the width of the river bed, whichever is more and it will be left intact as no mining zone.
3. Sand mining will not be done at the river meandering point.
4. CSR activity of the Project Proponent should be visible and measurable/quantifiable.
5. Proponents have to submit Satellite picture procured from National Remote Sensing Center, Hyderabad of individual Sand ghats within 1:50,000 scale. Preferably the picture should be taken in the month of October.



## New Sand Mining Projects (For ToR)

Annexure - II

District Name:- Patna

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/418/17 Online Proposal No. SIA/BR/MIN/18068/2016	Sand Mining Project at Janpara Ghat on Son River, District- Patna, State- Bihar	Village:- Janpara, Block:- Bikram, Tehsil:- Bikram, District:- Patna	Patna	48 Ha	18-01-17	Corner A- 25° 27' 00" N 84° 46' 44" E Corner B- 25° 27' 00" N 84° 46' 50" E Corner C- 25° 26' 33" N 84° 46' 31" E Corner D- 25° 26' 33" N 84° 47' 00" E	29	520	2096, 2097	Janpara Ghat
2.	SIA/1(a)/422/17 Online Proposal No. SIA/BR/MIN/18276/2017	Doghra Sand Mining Ghat at Village:- Kotalupur, District- Patna, State- Bihar	Village:- Kotalupur, Block:- Bihta, Tehsil:-Bihta, District:- Patna	Patna	47 Ha	20-01-17	Corner A- 25° 31' 57" N 84° 46' 02" E Corner B- 25° 31' 57" N 84° 46' 40" E Corner C- 25° 31' 42" N 84° 46' 02" E Corner D- 25° 31' 42" N	56		50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69	Doghra Ghat

							84° 46' 40" E				
3.	Online Proposal No. SIA/5R/MIN/18282/ 2017	Sand Mining Project at Sahpur Ghat, on Ganga River, District- Patna, State- Bihar	Village:- Diara Taufir urf Raghunathtol a, Block:- Danapur, Tehsil:- Danapur- cum-Khagaul, District:- Patna	Patna	45 Ha	20-01-17	Corner A- 25° 43' 31" N 85° 06' 45.5" E Corner B- 25° 43' 19" N 85° 00' 19" E Corner C- 25° 43' 22.5" N 85° 01' 01" E Corner D- 25° 43' 21" N 85° 01' 01" E	55		884, 885, 886, 887, 898, 910, 911, 912, 913, 66, 644, 685, 686, 687, 888, 889, 990, 848, 856, 861, 862, 863, 853, 975, 876, 977, 978, 979, 980, 981, 982, 983, 662, 633, 634, 635, 639, 647, 650, 854, 966, 450, 542, 543, 545, 546, 449, 451, 452, 456, 511, 512, 513, 541	Sahpur Ghat
4.	Online Proposal No. SIA/5R/MIN/18167/ 2017	Sand Mining Project at Lhaladpur Ghat, Block - Bikram, District- Patna,	Village:- Lhaladpur, Block:- Bikram, Tehsil:- Bikram,	Patna	39 Ha	20-01-17	Corner A- 25° 26' 11" N 84° 46' 26" E Corner B- 25° 26' 11" N 84° 46' 57" E	30	381	1507	Lhaladp ur Ghat



		State- Bihar	District:- Patna				Corner C- 25° 25' 57" N 84° 46' 26" E Corner D- 25° 25' 57" N 84° 46' 57" E				
5.	SIA/1(a)/425/17  Online Proposal No. SIA/BR/MIN/18286/ 2017	Sand Mining Project at Berrar Ghat, on Ganga River District- Patna, State- Bihar	Village:- Berrar, Block:- Bihta, Tehsil:-Bihta, District:- Patna	Patna	48 Ha	20-01-17	Corner A- 25° 28' 10" N 84° 46' 06" E Corner B- 25° 28' 10" N 84° 46' 25" E Corner C- 25° 27' 45" N 84° 46' 25" E Corner D- 25° 27' 45" N 84° 46' 41" E	28		1467, 1468, 1470, 1445,146 1, 1463, 1454, 1453, 1460, 1457, 1456, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1513, 1514, 2014, 1518, 1521, 1522,	Berrar Ghat

										1539, 1540, 1541, 1542, 1538, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531	
6.	SIA/1(ε)/426/17  Online Proposal No. SIA/BR/MIN/18279/ 2017	Sand Mining Project at Hatidah Ghat on Ganga River District- Patna, State- Bihar	Village:- Hatidah Buzurg, Block:- Mokama, Tehsil:- Mokama, District:- Patna	Patna	45 Ha	20-01-17	Corner A- 25° 22' 46" N 85° 58' 58" E Corner B- 25° 22' 55" N 85° 59' 07" E Corner C- 25° 22' 21" N 85° 59' 30" E Corner D- 25° 22' 30" N 85° 59' 39" E	20		262, 204, 253, 221, 233, 234, 235, 2880, 1729, 1619, 1700, 1724, 1727, 1728, 1732, 1788, 1753, 1755, 1770	Hatidah Ghat
7.	SIA/1(ε)/427/17  Online Proposal No. SIA/BR/MIN/18283/	Sand Mining Project at Rampur Naun Ghat on Ganga River District-	Village:- Rampur Diara, Block:- Maner, Tehsil:-	Patna	45 Ha	20-01-17	Corner A- 25° 41' 55" N 84° 58' 41" E Corner B- 25° 41' 48" N	7/108		1122, 1123, 1124, 1117, 1031,	Rampur Naun Ghat

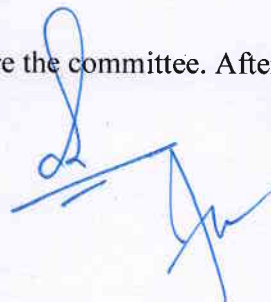

	2017	Patna, State-Bihar	Maner, District:- Patna				84° 58' 52" E Corner C- 25° 41' 26" N 84° 58' 16" E Corner D- 25° 41' 18" N 84° 58' 26" E			1107, 1108, 1109, 1110, 1111, 1095, 1101, 1100, 1099, 1102, 1103, 1104, 1105, 1106, 1032, 1025, 1026, 1031, 1013, 1014, 1015, 1016, 1017, 1038, 1039, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1062,	
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h. Work N.B. a.  GA



										1065, 1066, 1070, 1071, 1072, 1073, 446, 980, 981, 982, 971, 972, 973, 974, 978, 992, 993, 994, 965, 966, 967, 998, 999, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1056, 1058	
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The proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- VI)

for Work U.O. a  

**District Name:- Bhojpur.**

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/419/17  Online Proposal No. SIA/BR/MIN/18260/2017	Sand Mining Project at Daulatpur Ghat on River Son, District-Bhojpur State-Bihar	Mauza:- Mahui, Tehsil:- Koilwar, District:- Bhojpur	Bhojpur	40 Ha	18-01-17	<b>Approved Co-Ordinate</b> Corner A- 25° 37' 45" N 84° 47' 50" E Corner B- 25° 37' 45" N 84° 48' 27" E Corner C- 25° 37' 34" N 84° 47' 50" E Corner D- 25° 37' 34" N 84° 48' 27" E <b>Proposed Co-Ordinate</b> Corner A- 25° 38' 19.33" N 84° 48' 39.16" E Corner B- 25° 38' 22.32" N 84° 48' 50.96" E Corner C- 25° 37' 46.16" N 84° 48' 53.17" E Corner D- 25° 37' 44.45" N 84° 48' 40.27" E	107	149	67, 220	Daulatpur Ghat

2.	SIA/1(a)/420/17  Online Proposal No. SIA/BR/MIN/18271/ 2017	Sand Mining Project at Koilar & Suraundha Ghat on River Son of District- Bhojpur State- Bihar	Village:- Koilar & Suraundha, Tehsil:- Koilar, District:- Bhojpur	Bhojpur	Total Area:- 95 Ha Koilar Ghat Area:- 48 Ha Suraundha Ghat Area:- 47 Ha	18-01-17	Koilar Ghat Co- Ordinate Corner A- 25° 34' 47" N 84° 47' 59" E Corner B- 25° 34' 47" N 84° 48' 34" E Corner C- 25° 34' 31" N 84° 47' 54" E Corner D- 25° 34' 31" N 84° 48' 37" E Suraundha Ghat Co- Ordinate Corner A- 25° 34' 45" N 84° 48' 05" E Corner B- 25° 34' 45" N 84° 48' 46" E Corner C- 25° 35' 10" N 84° 48' 00" E Corner D- 25° 35' 10" N 84° 48' 32" E	131, 132	256, 1143	311, 3567	Koilar & Suraund ha Ghat
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The proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- VI)



## Sand Mining Projects (Amendment in ToR)

Annexure - IV

District Name:- Bhojpur

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/304/16	Sand Mining Project on Son River at Jamalpur Ghat of District- Bhojpur, State- Bihar	Vill- Jamalpur, Tehsil- Koilwar, Dist- Bhojpur	Bhojpur	Total Area:-45 hect	20-04-16	<p><b>Approved Co-Ordinate</b></p> <p>Corner A- 25° 37' 14" N 84° 47' 53" E</p> <p>Corner B- 25° 37' 14" N 84° 48' 35" E</p> <p>Corner C- 25° 37' 00" N 84° 48' 06" E</p> <p>Corner D- 25° 37' 00" N 84° 48' 35" E</p> <p><b>Proposed Co-Ordinate</b></p> <p>Corner A- 25° 37' 23.93" N 84° 48' 35.19" E</p> <p>Corner B- 25° 37' 17.63" N 84° 49' 01.72" E</p> <p>Corner C- 25° 36' 51.05" N 84° 48' 37.77" E</p>	0126,	105, 106, 107	495, 505, 506, 507, 515, 590, 822, 823, 825, 826, 840, 842, 869, 870, 887, 902, 1052, 1142, 1267, 1268, 1271/20 31, 1417, 1418, 1434, 1705, 1149, 1151, 1436, 1438, 1902	Jamalpu r Ghat

							Corner D- 25° 36' 57.37" N 84° 48' 27.83" E				
2.	SIA/1(a)/306/16	Sand Mining Project on Son River at Bishunpur Ghat of District- Bhojpur, State- Bihar	Vill- Bishunpur, Tehsil- Koilar, Dist- Bhojpur	Bhojpur	Total Area:-35 hect	20-04-16	<b>Approved Co-Ordinate</b> Corner A- 25° 29' 43" N 84° 45' 00" E Corner B- 25° 29' 43" N 84° 45' 12" E Corner C- 25° 29' 21" N 84° 45' 00" E Corner D- 25° 29' 21" N 84° 45' 12" E <b>Proposed Co-Ordinate</b> Corner A- 25° 30' 28.03" N 84° 45' 17.41" E Corner B- 25° 30' 28.25" N 84° 45' 48.21" E Corner C- 25° 30' 15.21" N 84° 45' 17.18" E Corner D- 25° 30' 14.99" N 84° 45' 48.45" E	182	2, 516, 517	922, 845, 848, 849, 855, 862, 865, 895, 895/140 3, 983/140 4, 1062/14 24, 1073, 1077, 1089, 1092/14 42, 1103, 1109/14 40, 1109/14 41, 1133, 1134, 1135, 1164, 1173/14 15, 1174, 1185, 1187, 1195, 1214/14 14, 1236, 661, 856, 856/143 0	Bishunp ur Ghat

3.	SIA/1 a)/307/16	Sand Mining Project on Son River at Mohdichak Ghat of District-Bhojpur, State-Bihar	Vill-Mohdichak, Tehsil-Koilwar, Dist-Bhojpur	Bhojpur	Total Area:-44 hect	20-04-16	<b>Approved Co-Ordinate</b> Corner A- 25° 38' 30" N 84° 48' 31" E Corner B- 25° 38' 30" N 84° 48' 58" E Corner C- 25° 38' 09" N 84° 48' 31" E Corner D- 25° 38' 09" N 84° 48' 58" E <b>Proposed Co-Ordinate</b> Corner A- 25° 38' 57.86" N 84° 48' 12.77" E Corner B- 25° 39' 03.18" N 84° 48' 31.96" E Corner C- 25° 38' 40.10" N 84° 48' 43.45" E Corner D- 25° 38' 33.09" N 84° 48' 25.01" E	110	310, 311	370, 373, 374, 376, 378, 379, 431, 435, 439, 447, 448, 450, 475, 483, 495, 497, 502, 518, 520, 533, 536, 571, 572, 576, 577, 580, 177, 419	Mohdichak Ghat
4.	SIA/1 a)/321/16	Sand Mining Project at Akhgaon & Sarimpur Ghat on River Son, District-Bhojpur, State-Bihar	Vill-Akhgaon & Sarimpur, Tehsil-Akhgaon & Sarimpur, Dist-Bhojpur	Bhojpur	Total Area:-42 hect	22-04-16	<b>Akhgaon Ghat</b> Corner A- 25° 28' 16.25" N 84° 45' 42.25" E Corner B- 25° 28' 20.18" N 84° 45' 55.32" E Corner C-	212	668	48, 79, 84, 129, 130, 131, 135, 136, 139, 140, 141, 462, 692, 694, 1229,	Akhgaon & Sarimpur Ghat



							25° 27' 56.74" N 84° 46' 10.48" E Corner D- 25° 27' 50.32" N 84° 45' 50.69" E <b>Sarimpur Ghat</b> Corner A- 25° 28' 47" N 84° 45' 18" E Corner B- 25° 28' 47" N 84° 45' 42" E Corner C- 25° 28' 27" N 84° 45' 28" E Corner D- 25° 28' 27" N 84° 45' 50" E			1358, 1456, 1457, 1484, 1489, 1562, 1564, 1583, 1611, 1626, 1631, 1677, 1678, 1679, 1685, 1698, 1700, 1702, 1719, 1726, 1811, 1819, 1820, 1823, 1847, 1853, 1890, 1931, 1933, 2248	
5.	SIA/1(a)/322/16	Sand Mining Project on Son River at Sahar Ghat of	Vill-Sahar, Tehsil-Sahar, Dist- Bhojpur	Bhojpur	Total Area:-45 hect	22-04-16	<b>Approved Co-Ordinate</b> Corner A- 25° 14' 42" N 84° 36' 45" E	376	470, 471	126/123 3, 183, 183/125 5, 226,	Sahar Ghat

		District- Bhojpur, State- Bihar					Corner B- $25^{\circ} 14' 35''$ N $84^{\circ} 37' 04''$ E Corner C- $25^{\circ} 14' 25''$ N $84^{\circ} 36' 21''$ E Corner D- $25^{\circ} 14' 15''$ N $84^{\circ} 36' 37''$ E <b>Proposed Co-Ordinate</b> Corner A- $25^{\circ} 13' 59.55''$ N $84^{\circ} 37' 03.69''$ E Corner B- $25^{\circ} 14' 13.12''$ N $84^{\circ} 36' 55.10''$ E Corner C- $25^{\circ} 14' 27.03''$ N $84^{\circ} 37' 25.15''$ E Corner D- $25^{\circ} 14' 14.42''$ N $84^{\circ} 37' 34.44''$ E			436, 446, 447, 448, 449, 451, 453, 455, 458, 608, 632, 633, 682, 683, 691, 693, 694, 695, 739, 749, 749/127 9, 750, 753, 757, 758, 83469, 130, 131, 140, 141, 153, 154, 164, 191, 192, 201, 202, 354, 366, 366/126 4, 367	
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The proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- VI)

*[Handwritten signatures and initials in blue ink]*

**District Name:- Patna.**

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/308/16	Sand Mining Project on Amnabad Ghat of Ganga river of District- Patna, State- Bihar	Vill- Amnabad, Tehsil- Bihta, Dist- Patna	Patna	Total Area - 32 Hect	20-04-16	Corner A- 25° 36' 03" N 84° 49' 27" E Corner B- 25° 36' 03" N 84° 49' 50" E Corner C- 25° 35' 45" N 84° 49' 27" E Corner D- 25° 35' 45" N 84° 49' 50" E	38	175	60, 61, 1/787	Amnabad Ghat
2.	SIA/1(a)/310/16	Sand Mining Project on Sherpur Ghat of Ganga river of District- Patna, State- Bihar	Vill- Sherpur, Tehsil- Maner, Dist- Patna	Patna	Total Area - 45 Hect	20-04-16	Corner A- 25° 40' 20.8" N 84° 57' 36" E Corner B- 25° 40' 8.2" N 84° 57' 36" E Corner C- 25° 40' 20.8" N 84° 58' 18" E Corner D- 25° 40' 8.2" N 84° 58' 18" E	37	1078, 1045	7259, 6552, 6564, 6571, 6562, 6563, 6565, 6570, 6573	Sherpur Ghat
3.	SIA/1(a)/311/16	Sand Mining Project on Modahi Ghat	Vill- Modahi, Tehsil- Bihta, Dist- Patna	Patna	Total Area - 38 Hect	20-04-16	Corner A- 25° 35' 08" N 84° 49' 14" E	131	256	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Modahi Ghat



		of Son river of District- Patna, State- Bihar					Corner B- 25° 35' 08" N 84° 49' 24" E Corner C- 25° 34' 29" N 84° 48' 52" E Corner D- 25° 34' 25" N 84° 49' 03" E				
4.	SIA,1(a)/312/16	Sand Mining Project on Sultanpur Ghat of Ganga river of District- Patna, State- Bihar	Vill- Sultanpur, Tehsil- Fatwah, Dist- Patna	Patna	Total Area - 45 Hect	20-04-16	Corner A- 25° 28' 24" N 85° 52' 11" E Corner B- 25° 28' 33" N 85° 52' 21" E Corner C- 25° 27' 57" N 85° 52' 41" E Corner D- 25° 28' 05" N 85° 52' 50" E	04,	366/1 23, 451/1	1624, 1666, 1623, 1469	Sultanp ur Ghat
5.	SIA,1(a)/313/16	Sand Mining Project on Pipapur Ghat of Ganga river of District- Patna, State- Bihar	Vill- Panapur (As per Census), Tehsil- Dinapur- Cum- Khagaul, Dist- Patna	Patna	Total Area - 45 Hect	20-04-16	Corner A- 25° 41' 55.7" N 85° 06' 31.4" E Corner B- 25° 41' 56.8" N 85° 06' 45.6" E Corner C- 25° 41' 17.5" N 85° 06' 34.8" E Corner D- 25° 41' 18.4" N 85° 06' 48.4" E	16	69, 1050	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 2599, 2601, 2602, 2603, 2604, 2605, 2606, 2607,	Pipapur Ghat

										2607, 2608, 2609, 2610	
6.	SIA/1(a)/314/16	Sand Mining Project on Digha Ghat of Ganga river of District- Patna, State- Bihar	Vill- Digha, Tehsil- Patna Rural, Dist- Patna	Patna	Total Area - 45 Hect	20-04-16	Corner A- 25° 39' 16.2" N 85° 06' 48.5" E Corner B- 25° 39' 17.4" N 85° 06' 58.6" E Corner C- 25° 39' 38" N 85° 06' 48.8" E Corner D- 25° 39' 39" N 85° 07' 2.5" E	01, 02	5070	3504, 3505, 3506, 3507, 3508, 3509, 3510, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3451, 3452, 3453, 3389, 3390, 3391, 3392, 3393, 3394	Digha Ghat
7.	SIA/1(a)/315/16	Sand Mining Project on Binadaul Ghat of Son river of District- Patna, State- Bihar	Vill- Bindaul, Tehsil- Bihta, Dist- Patna	Patna	Total Area - 49 Hect	20-04-16	Corner A- 25° 31' 21" N 84° 46' 03" E Corner B- 25° 31' 21" N 84° 46' 36" E	9	410, 207	1856, 1858, 1859, 1860, 462	Bindaul Ghat

							Corner C- 25° 31' 04" N 84° 46' 03" E Corner D- 25° 31' 04" N 84° 46' 36" E				
8.	SIA/1(a), 316/16	Sand Mining Project on Cluster Parev & Dhandihan Ghat of Son river of District- Patna & Bhojpur, State- Bihar	Vill- Pareo & Dhan Diha, Tehsil- Bihta, Dist- Patna	Patna & Bhojpur	Total Area - 87 Hect	20-04-16	Pareva Ghat, Patna Corner A- 25°33'45"N 84°47'48"E Corner B- 25°33'45"N 84°48'10"E Corner C- 25°33'27"N 84°47'21"E Corner D- 25°33'20"N 84°47'52"E Dhandian Ghat, Bhojpur Corner A- 25°33'57"N 84°47'26"E Corner B- 25°33'50"N 84°47'42"E Corner C- 25°33'40"N 84°47'10"E Corner D- 25°33'29"N 84°47'18"E	Parev Ghat, Patna 41, Dhan dian Ghat, Bhojp ur 148	Parev a Ghat, Patna 400, 401 Dhan dian Ghat, Bhojp ur 311, 312	Pareva Ghat, Patna 1921, 1923, 1924, 1919, 1922, 1925, 1926, 1927 Dhandia n Ghat, Bhojpur 1056, 1060, 1061, 1064, 1076, 1107, 1117, 1124, 1130, 1131, 1132, 1135, 1138, 1142,	Parev Ghat, Patna & Dhandia n Ghat, Bhojpur



										1143, 1144, 1154, 1267, 1269, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1378, 01, 1080, 1097, 1119, 1127, 1129	
9.	SIA/1(a), 317/16	Sand Mining Project at Nisarpur Ghat on Son river of District- Patna, State- Bihar	Vill- Nisarpur, Tehsil- Nisarpur, Dist- Patna	Patna	Total Area - 48 Hect	22-04-16	Corner A- 25° 28' 55" N 84° 45' 55" E Corner B- 25° 28' 55" N 84° 46' 22" E Corner C- 25° 28' 34" N 84° 46' 00" E Corner D- 25° 28' 34" N 84° 46' 22" E	27	263	1370, 1371, 1372, 1373	Nisarpur Ghat
10.	SIA/1(a), 318/16	Sand Mining Project at Suarwarwa	Vill- Suarwarwa, Tehsil-	Patna	Total Area - 46 Hect	22-04-16	Corner A- 25° 38' 51" N 84° 49' 50" E	36, 7/112	91, 140, 70,	1158, 1162, 1954,	Suarwarwa Ghat

		Ghat on Son river of District- Patna, State- Bihar	Suarmarwa, Dist- Patna				Corner B- 25° 38' 51" N 84° 50' 00" E Corner C- 25° 38' 30" N 84° 49' 35" E Corner D- 25° 38' 30" N 84° 50' 00" E		143	1959, 238, 1912, 2390, 1158, 1161, 1266, 1269, 1469	
11.	SIA/1(21/319/16	Sand Mining Project at Jalpura & Masaurha Ghat on Son river of District- Patna, State- Bihar	Vill- Jalpura & Masaurha, Tehsil- Jalpura & Masaurha, Dist- Patna	Patna	Total Area - 85 Ha Jalpura Area- 45 Ha Masaurha Area- 40 Ha	22-04-16	Jalpura Ghat Corner A- 25° 27' 00" N 84° 46' 44" E Corner B- 25° 27' 00" N 84° 46' 50" E Corner C- 25° 26' 33" N 84° 46' 31" E Corner D- 25° 26' 33" N 84° 47' 00" E Masauraha Ghat Corner A- 25° 21' 19" N 84° 44' 00" E Corner B- 25° 21' 19" N 84° 44' 42" E Corner C- 25° 21' 07" N 84° 44' 00" E Corner D-	Jalpur a 23, Masa uraha 305	Jalpur a 520, Masa uraha 112	Jalpura 396, 397, Masaura ha 2860, 2861, 2862, 2863	Jalpura & Masaur ha Ghat

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 2. Initials 'J.B.'.  
 3. A signature starting with 'A'.  
 4. A signature starting with 'A'.  
 5. A signature starting with 'S'.

							25° 21' 07" N				
							84° 44' 30" E				

The proponent & Consultant presented the proposal before the committee. After due consideration and discussion, the committee recommended to issue the ToR. (As Annexure- VI)

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## Sand Mining Projects (Under Compliance)

Annexure - V

District Name:- Munger.

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	Online Proposal No:- SIA/1(a)/350/16 SIA/B3/MIN/59829/2016	Balu / Sand Mining (Minor Mineral) over an area of 23.10 Ha (Thaibai - 1.8 Ha., Khauha - 1.3 Ha, Maniya - 11.7 Ha nad Ranadhi - 8.3 Ha.) in Thaibai, khauha, maniya and Ramadhi Ghats of Badhua River, Tehsil-Tarapue and Sangrampur, District-Munger, Bihar	Village:- Thaibai, Khauha, Maniya and Ranadhi Ghat of Badhua River, Tehsil-Tarapur, District-Munger, State- Bihar.	Munger	(Thaibai - 1.8 Ha., Khauha - 1.3 Ha, Maniya - 11.7 Ha and Ranadhi - 8.3 Ha.)	14-11-16	<b>Thaibai Ghat</b> Corner A- 25° 02' 41.27" N 86° 39' 15.18" E Corner B- 25° 02' 40.20" N 86° 39' 18.10" E Corner C- 25° 02' 34.76" N 86° 39' 13.19" E Corner D- 25° 02' 34.65" N 86° 39' 16.64" E <b>Khauha Ghat</b> Corner A- 25° 02' 21.13" N 86° 39' 25.73" E Corner B- 25° 02' 22.40" N 86° 39' 27.92" E Corner C- 25° 02' 16.54" N 86° 39' 29.32" E			202, 203, 232, 999, 491, 1069, 482	Thaibai, Khauha, Maniya, and Ranadhi Ghats

							Corner D- 25° 02' 17.98" N 86° 39' 31.43" E <b>Maniya Ghat</b> Corner A- 25° 02' 03.62" N 86° 39' 32.84" E Corner B- 25° 02' 04.17" N 86° 39' 36.24" E Corner C- 25° 01' 44.55" N 86° 39' 21.25" E Corner D- 25° 01' 41.10" N 86° 39' 23.85" E <b>Ranadhi Ghat</b> Corner A- 25° 01' 23.46" N 86° 39' 09.17" E Corner B- 25° 01' 27.63" N 86° 39' 14.48" E Corner C- 25° 01' 12.54" N 86° 39' 22.54" E Corner D- 25° 01' 16.07" N 86° 39' 27.02" E				
2.	SIA/1(a)/351/16 Online Proposal No:- SIA/BR/MIN/ 59794/2016	Balu / Sand Mining (Minor Mineral) over an area of 5.40 Ha in Marwa	Marwa Ghat of Badhua River District- Munger	Munger	5.40 Ha	14-11-16	Corner A- 25° 03' 34.32" N 86° 39' 27.66" E Corner B- 25° 03' 32.35" N				Marwa Ghat

		Ghat of Badhua River District- Munger, Bihar					86° 39' 29.44" E Corner C- 25° 03' 20.27" N 86° 39' 21.09" E Corner D- 25° 03' 21.25" N 86° 39' 26.38" E				
3.	Online Proposal No:- SIA/BR/MIN/ 59834/2016	Balu / Sand Mining (Minor Mineral) over an area of 11.30 Ha (Tarapur 4.60 Ha and Bigma 6.70 Ha.) in Tarapur and Bigma Ghats of Badhua River, Tehsil- Tarapur, District- Munger, Bihar	Tarapur and Bigma Ghats of Badhua River, Tehsil- Tarapur, District- Munger	Munger	11.30 Ha	14-11-16	Tarapur Ghat Corner A- 25° 05' 54.45" N 86° 40' 01.24" E Corner B- 25° 05' 01.19" N 86° 40' 04.03" E Corner C- 25° 05' 55.78" N 86° 39' 54.08" E Corner D- 25° 05' 53.44" N 86° 39' 57.82" E Bigma Ghat Corner A- 25° 04' 51.50" N 86° 39' 51.88" E Corner B- 25° 04' 51.85" N 86° 39' 57.45" E Corner C- 25° 04' 36.90" N 86° 40' 01.13" E Corner D- 25° 04' 38.51" N 86° 40' 02.97" E	15	72	Tarapur and Bigma Ghats	



4.	Online Proposal No:- SIA/BR/MIN/ 59E36/2016	Balu / Sand Mining (Minor Mineral) over an area of 7.45 Ha in Tulsipur 1 & 2 Ghat of Mahani River in District-Munger, Bihar	Tulsipur 1 & 2 Ghat of Mahani River District-Munger	Munger	7.45 Ha	14-11-16	Corner A- 25° 04' 57.28" N 86° 33' 59.36" E Corner B- 25° 04' 57.22" N 86° 34' 00.02" E Corner C- 25° 04' 26.71" N 86° 33' 36.13" E Corner D- 25° 04' 25.49" N 86° 33' 36.03" E	105	321	Tulsipur 1 & 2 Ghat
5.	Online Proposal No:- SIA/BR/MIN/ 59E26/2016	Balu / Sand Mining (Minor Mineral) over an area of 10.54 Ha in Kumarshar Ghat of Badhua River in District-Munger, Bihar	Kumarshar Ghat of Badhua River in Tehsil:- Sangrampur District-Munger, Bihar	Munger	10.54 Ha	14-11-16	Corner A- 24° 58' 15.66" N 86° 37' 49.21" E Corner B- 24° 58' 09.08" N 86° 37' 57.58" E Corner C- 24° 58' 06.61" N 86° 37' 40.98" E Corner D- 24° 58' 00.74" N 86° 37' 47.39" E	129	525	Kumarshar Ghat








The Proponent & consultant presented the proposal before the committee. The Proponent submitted vide affidavit that

- No RF/PF is located within 500 meters from the project site;
- The sum total of mining area including the proposed site is less than 25 Hectare (B-2 Category ) within 500 Meter radius;
- No railway /Road bridge is coming within 300 meter;
- No intake well is coming within the distance of 500 meter from the mining lease area in upstream as well as downstream side;
- No notified aquatic species breeding area is present within 500 meter from the mining lease area in upstream as well as downstream side;
- No any disturbance/harm will be done to Flora & Fauna lies within core & buffer zone during mining operation & mining activity and will Comply the provisions of Environmental (Protection) Act, 1986, water (Prevention control of pollution ) Act, 1974, Air (prevention & control of pollution) Act, 1981 and Wildlife (Protection) Act, 1972;
- The Proponent submitted annexure-I & II;
- The proponent also submitted a letter regarding withdrawal/no go ahead of its application submitted to MoEF&CC for grant of E.C. regarding the Sand Mining Ghats under consideration of this committee.

The proponent also stated that he has applied to DFO Munger to get no objection certificate (NOC) regarding distance of the mining ghat from the Bhimbandh Wild Life Sanctuary including its Eco Sensitive Zone if any.

As per EIA notification no mining is allowed within 5 Km from periphery of Wild Life Sanctuary and its ESZ, if ESZ is not declared the distance will be 10 km from periphery of Sanctuary. E.C. is recommended with condition that the Project Proponent will submit No Objection Certificate (NOC) from the Chief Wildlife Warden, Bihar to SEIAA, Bihar. Apart from this the following two Conditions are also recommended to be included in the E.C. Conditions.

1. To submit annual replenishment report through scientific study, certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.
2. No Mining activity shall be done within a distance of 3 Meter or 10% of the width of the river bed, whichever is more and it will be left intact as no mining zone.
3. Sand mining will not be done at the river meandering point.
4. CSR activity of the Project Proponent should be visible and measurable/quantifiable.
5. Proponents have to submit Satellite picture procured from National Remote Sensing Center, Hyderabad of individual Sand ghats within 1:50,000 scale. Preferably the picture should be taken in the month of October.

**District Name:- Bhagalpur.**

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/365/16 Online Proposal No:- SIA/BR/MIN/ 60427/2016	<b>Proposed River Sand Mining Project, Production Capacity: - 928260 TPA, Area: 22.92 Ha, Near Village: Bathani, District:- Bhagalpur, State:- Bihar</b>	Vill- Bathani, Block / River- 11 / Gerua, Dist- Bhagalpur	Bhagalpur	22.92 Ha	25-11-16	Corner A- 25° 07' 07.01" N 87° 11' 45.28" E Corner B- 25° 07' 10.38" N 87° 11' 37.22" E Corner C- 25° 06' 28.76" N 87° 12' 37.19" E Corner D- 25° 06' 32.16" N 87° 12' 39.48" E	56	59	803, 804, 805, 806, 821	Gautholi Ghat

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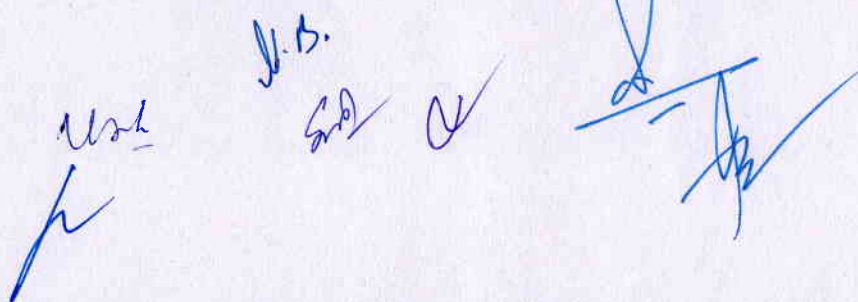


The Proponent & consultant presented the proposal before the committee. The Proponent submitted vide affidavit that

- No RF/PF is located within 500 meters from the project site;
- The sum total of mining area including the proposed site is less than 25 Hectare (B-2 Category ) within 500 Meter radius;
- No railway /Road bridge is coming within 300 meter;
- No intake well is coming within the distance of 500 meter from the mining lease area in upstream as well as downstream side;
- No notified aquatic species breeding area is present within 500 meter from the mining lease area in upstream as well as downstream side;
- No any disturbance/harm will be done to Flora & Fauna lies within core & buffer zone during mining operation & mining activity and will Comply the provisions of Environmental (Protection) Act, 1986, water (Prevention control of pollution ) Act, 1974, Air (prevention & control of pollution) Act, 1981 and Wildlife (Protection) Act, 1972;
- The Proponent submitted annexure-I & II;
- The proponent also submitted a letter regarding withdrawal/no go ahead of its application submitted to MoEF&CC for grant of E.C. regarding the Sand Mining Ghats under consideration of this committee.

E.C. is recommended with following conditions to be included in E.C. conditions.

1. The sand mining should be in proportion to the annual replenishment of the area. In Case the replenishment is lower than the approved amount of sand removal, the mining activity shall be decreased/Stopped till the replenishment is completed.
2. No Mining activity shall be done within a distance of 3 Meter or 10% of the width of the river bed, whichever is more and it will be left intact as no mining zone.
3. Sand mining will not be done at the river meandering point.
4. CSR activity of the Project Proponent should be visible and measurable/quantifiable.
5. Proponents have to submit Satellite picture procured from National Remote Sensing Center, Hyderabad of individual Sand ghats within 1:50,000 scale. Preferably the picture should be taken in the month of October.

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**District Name:- Banka.**

Sl. No.	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/174/16	Sand Mining Project on Chandan river at Domohan Ghat of District- Banka, State- Bihar	Vill- Domohan, Tehsil- Banka, Dist- Banka	Banka	Total Area - 3.9 hect	09-03-16	Corner A- 24° 45' 57.03" N 86° 53' 15.85" E Corner B- 24° 45' 53.55" N 86° 53' 16.15" E Corner C- 24° 45' 50.68" N 86° 53' 02.56" E Corner D- 24° 45' 52.27" N 86° 53' 02.33" E	08,	82, 78	129, 1185	Domohan Ghat









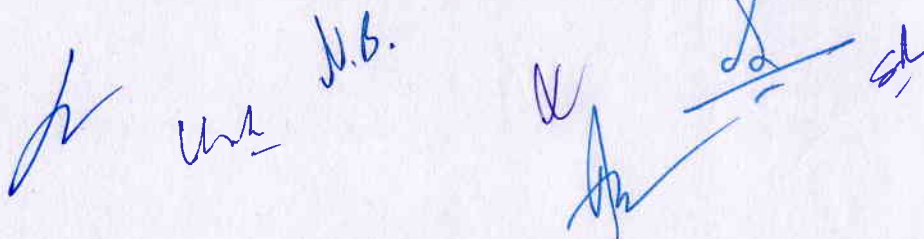
The proposal was put up in the SEAC meeting dated 24.04.2016. A team comprising visited the area on 19-12-2016. The team submitted its report before SEAC and was considered.

The Proponent & consultant presented the proposal before the committee. The Proponent submitted vide affidavit that

- No RF/PF is located within 500 meters from the project site;
- The sum total of mining area including the proposed site is less than 25 Hectare (B-2 Category ) within 500 Meter radius;
- No railway /Road bridge is coming within 300 meter;
- No intake well is coming within the distance of 500 meter from the mining lease area in upstream as well as downstream side;
- No notified aquatic species breeding area is present within 500 meter from the mining lease area in upstream as well as downstream side;
- No any disturbance/harm will be done to Flora & Fauna lies within core & buffer zone during mining operation & mining activity and will Comply the provisions of Environmental (Protection) Act, 1986, water (Prevention control of pollution ) Act, 1974, Air (prevention & control of pollution) Act, 1981 and Wildlife (Protection) Act, 1972;
- The Proponent submitted annexure-I & II;
- The proponent also submitted a letter regarding withdrawal/no go ahead of its application submitted to MoEF&CC for grant of E.C. regarding the Sand Mining Ghats under consideration of this committee.

E.C. is recommended with following conditions to be included in E.C. conditions.

1. The sand mining should be in proportion to the annual replenishment of the area. In Case the replenishment is lower than the approved amount of sand removal, the mining activity shall be decreased/Stopped till the replenishment is completed.
2. No Mining activity shall be done within a distance of 3 Meter or 10% of the width of the river bed, whichever is more and it will be left intact as no mining zone.
3. Sand mining will not be done at the river meandering point.
4. CSR activity of the Project Proponent should be visible and measurable/quantifiable.
5. Proponents have to submit Satellite picture procured from National Remote Sensing Center, Hyderabad of individual Sand ghats within 1:50,000 scale. Preferably the picture should be taken in the month of October.



Sl. No	Proposal Sl. No.	Proposal Details with Address	Mining Location	District	Area (Acre/hectare)	Date of Receiving	BlockWise Geo-Coordinate as per given in Form-I & Mining Plan approved by Mining Deptt., Govt. of Bihar	Thana No.	Khata No.	Khesra No.	Name of Ghat
1.	SIA/1(a)/328/16	Sand Mining Project on Chandan river of District-Banka, State-Bihar	Vill- Baisa, Tehsil-Banka, Dist-Banka	Banka	Total Area - 24 hectare	19-05-16	Corner A- 24° 55' 8.32" N 86° 54' 57.94" E Corner B- 24° 55' 7.84" N 86° 55' 18.29" E Corner C- 24° 54' 43.47" N 86° 54' 58.75" E Corner D- 24° 54' 42.03" N 86° 54' 48.35" E	88	61	01	Baisa Ghat

The proponent & Consultant presented the proposal before the committee. The committee asked to re-survey the project area and submit a fresh Pillar Co-Ordinate Map. After submission of the re-surveyed report, accordingly the Environmental Clearance to the modified project area will be issued.

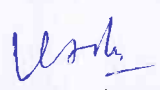
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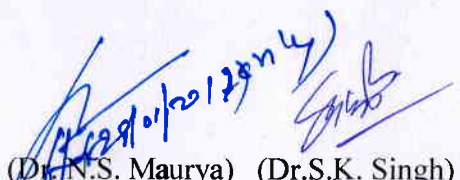
It has been resolved that the next meeting of SEAC will be held on 17<sup>th</sup> to 19<sup>th</sup> February, 2017 and the Agenda would be communicated to all member and concerned, one week prior to the date of the meeting.


Apart from that, the committee also decided the following for all projects before the grant of environmental clearance.


- (I) Credible action should be taken by SEIAA, against the violation cases as per the latest MoEF&CC / NGT guidelines.
- (II) Affidavit related to violation / non violation cases may be procured from all the proponents.
- (III) The aforementioned two Clauses I & II should be also applicable for the cases recommended by SEAC in the meetings held earlier.


The Member-Secretary thanked the Chairman and members present in the meeting for participation and deliberation, and the meeting was declared closed with the permission of the Chairman, SEAC.

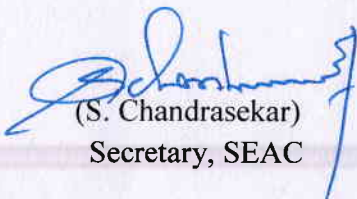
  
(V. K. Sinha)  
(Member, SEAC)

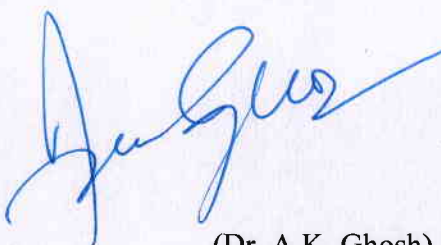
  
(Dr. N.S. Maurya)  
(Member, SEAC)

  
(Dr. S.K. Singh)  
(Member, SEAC)

  
(Dr. Nupur Bose)  
(Member, SEAC)

  
(Dr. Kamesh Kumar)  
(Member, SEAC)

  
(S. Chandrasekar)  
Secretary, SEAC

  
(Dr. A.K. Ghosh)  
Chairman, SEAC



## **Annexure:- I**

### **Term of Reference(ToR) for Recommended River Valley Projects**

#### **1. Scope of EIA Study:**

The EIA Report should identify the relevant environmental concerns and focus on potential impacts that may change due to the construction of proposed project. Based on the baseline data collected for three (3) seasons (Pre-monsoon, Monsoon and Winter seasons), the status of the existing environment in the area and capacity to bear the impact on this should be analysed. Based on this analysis, the mitigation measures for minimizing the impact shall be suggested in the EIA/EMP study.

#### **2. Details of the Project and Site:**

- a) General introduction about the proposed project.
- b) Details of Project and site giving L-Sections of all U/S and D/S Projects with all relevant maps and figures. Connect such information as to establish the total length of interference of Natural River and the committed unrestricted release from the site of Dam/Barrage into the main river.
- c) A map of boundary of the project site giving details of protected areas in the vicinity of 25 km of project location.
- d) Location details on a map of the project area with contours indicating main project features. The project layout shall be superimposed on a contour map of ground elevation showing main project features (viz. location of dam, Head works, main canal, branch canals, quarrying etc.) shall be depicted in a scaled map.
- e) Layout details and map of the project along with contours with project components clearly marked with proper scale maps of at least 1:50,000 scale and printed at least on A3 scale for clarity.
- f) Existence of National Park, Sanctuary, Biosphere Reserve etc. in the study area, if any, should be detailed and presented on a map with distinct distances from the project components.
- g) Drainage pattern and map of the river catchment up to the proposed project site.
- h) Delineation of critically degraded areas in the directly draining catchment on the basis of Silt Yield Index as per the methodology of Soil and Land use Survey of India.
- i) Soil characteristics and map of the project area.
- j) Geological and Seismo-tectonic details and maps of the area surrounding the proposed project site showing location of dam site and canal sites.
- k) Remote Sensing studies, interpretation of satellite imagery, topographic sheets along with ground verification shall be used to develop the land use/land cover pattern of the study using overlaying mapping techniques viz. Geographic Information System (GIS), False Color Composite (FCC) generated from satellite data of project area.
- l) Land details including forests, private and other land.
- m) Delineation of snow fed and rain fed areas for a realistic estimate of the water availability.

### **3. Description of Environment and Baseline Data:**

To know the present status of environment in the area, baseline data with respect to environmental components air, water, noise, soil, land and biology & biodiversity (flora & fauna), wildlife, socioeconomic status etc. should be collected within 10 km radius of the main components of the

project/site i.e. dam site and power house site. The air quality and noise are to be monitored at such locations which are environmentally & ecologically more sensitive in the study area. The baseline studies should be collected for 1 season (Preferably Monsoon season). Flora-Fauna in the catchment and command area should be documented. The study area should comprise of the following:

- a) Catchment area up to the dam/barrage site.
- b) Submergence Area.
- c) Project area or the direct impact area should comprise of area within 10 km radius of the main project components like dam, canals etc.
- d) Downstream upto 10 km from the tip of the reservoir.

### **4. Details of the Methodology:**

The methodology followed for collection of base line data along with details of number of samples and their locations in the map should be included. Study area should be demarcated properly on the appropriate scale map. Sampling sites should be depicted on map for each parameter with proper legends. For Forest Classification, Champion and Seth (1968) methodology should be followed.

### **5. Methodology for Collection of Biodiversity Data:**

- a) The number of sampling locations should be adequate to get a reasonable idea of the diversity and other attributes of flora and fauna. The guiding principles should be the size of the study area (larger area should have larger number of sampling locations) and inherent diversity at the location, as known from secondary sources (e.g. eastern Himalayan and low altitude sites should have a larger number of sampling locations owing to higher diversity).
- b) The entire area should be divided in grids of 5kmX5km preferably on a GIS domain. There after 25% of the grids should be randomly selected for sampling of which half should be in the directly affected area (grids including project components such as reservoir, dam, powerhouse, tunnel, canal etc.) and the remaining in the rest of the area (areas of influence in 10 km radius from project components). At such chosen location, the size and number of sampling units (e.g. quadrates in case of flora/transects in case of fauna) must be decided by species area curves and the details of the same (graphs and cumulative number of species in a tabulated form) should be provided in the EIA report. Some of the grids on the edges may not be completely overlapping with the study area boundaries. However these should be counted and considered for selecting 25% of the grids. The number of grids to be surveyed may come out as a decimal number (i.e. it has an integral and a fractional part) which should be rounded to the next whole number.



- c) The conventional sampling is likely to miss the presence of rare, endangered and threatened (r.e.t.) species since they often occur in low densities and in case of faunal species are usually secretive in behaviour. Reaching the conclusion about the absence of such species in the study area based on such methodology is misleading. It is very important to document the status of such species owing to their high conservation value. Hence likely presence of such species should be ascertained from secondary sources by a proper literature survey for the said area including referring to field guides which are now available for many taxonomic groups in India. Even literature from studies/surveys in the larger landscapes which include the study area for the concerned project must be referred to, since most species from adjoining catchments is likely to be present in the catchments in question. In fact such literature from the entire state can be referred to. Once a listing of possible r.e.t. species from the said area is developed, species specific methodologies should be adopted to ascertain their presence in the study area which would be far more conclusive as compared to the conventional sampling. If the need be, modern methods like camera trapping can be resorted to, particularly for areas in the eastern Himalayas and for secretive/nocturnal species. A detailed listing of the literature referred to, for developing lists of r.e.t. species should be provided in the EIA reports.
- d) The R.E.T. species referred to in this point should include species listed in Schedule I and II of Wildlife (Protection) Act, 1972 and those listed in the red data books (BSI, ZSI and IUCN).

## **6. Components of the EIA Study:**

Various aspects to be studied and provided in the EIA/EMP report are as follows:

### **A. Physical and Chemical Environment**

Geological & Geophysical Aspects and Seismo- Tectonics:

- a) Physical geography, Topography, Regional Geological aspects and structure of the Catchment.
- b) Tectonics, seismicity and history of past earthquakes in the area. A site specific study of the earthquake parameters will be done. The results of the site specific earthquake design shall be sent for approval of the NCSDP (National Committee of Seismic Design Parameters, Central water Commission, New Delhi for large dams.
- c) Landslide zone or area prone to landslide existing in the study area should be examined.
- d) Presence of important economic mineral deposit, if any.
- e) Justification for location & execution of the project in relation to structural components (dam /barrage height).
- f) Impact of project on geological environment.

### **Meteorology, Air and Noise:**

- a) Meteorology (viz. Temperature, Relative humidity, wind speed/direction etc.) to be collected from nearest IMD station.

- b) Ambient Air Quality with parameters viz. Suspended Particulate Matter (SPM), Respirable Suspended Particulate Matter (RSPM) i.e. suspended particulate materials < 10 microns, Sulphur dioxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>x</sub>) in the study area at 5-6 Locations.
- c) Existing Noise Levels and traffic density in the study area at 5-6 Locations.

#### **Soil Characteristics:**

- a) Soil classification, physical parameters (viz., texture, Porosity, Bulk Density and water holding capacity) and chemical parameters (viz. pH, electrical conductivity, magnesium, calcium, total alkalinity, chlorides, sodium, potassium, organic carbon, available potassium, available phosphorus, SAR, nitrogen and salinity, etc.) at @ one sample/ha of command area.

#### **Remote Sensing and GIS Studies:**

- a) Generation of thematic maps viz, slope map, drainage map, soil map, land use and land cover map, etc. Based on these, thematic maps, an erosion intensity map should be prepared.
- b) New configuration map to be given in the EIA Report.

#### **Water Quality:**

- a) History of the ground water table fluctuation in the study area.
- b) Water Quality for both surface water and ground water for
  - i. Physical parameters (pH, Temperature, Electrical Conductivity, TSS)
  - ii. Chemical parameters (Alkalinity, Hardness, BOD, COD, NO<sub>3</sub>, PO<sub>4</sub>, Cl, So<sub>4</sub>, Na, K, Ca, Mg, Silica, Oil & grease, phenolic compounds, residual sodium carbonate)
  - iii. Bacteriological parameter (MPN, Total coliform); and
  - iv. Heavy Metals (Pb, As, Hg, Cd, Cr-6, Total Cr, Cu, Zn, Fe) at minimum 10 Locations, however, the sampling numbers should be increased depending on the command area.
- c) Delineation of sub and micro watersheds, their locations and extent based on the Soil and Land Use Survey of India (SLUSOI), Department of Agriculture, Government of India. Erosion levels in each micro-watershed and prioritization of micro-watershed through Silt Yield Index (SYI) method of SLUSOI.

#### **B. Water Environment & Hydrology:**

- a) Hydro-Meteorology of the project viz. precipitation (snowfall, rainfall), temperature, relative humidity, etc. Hydro-meteorological studies in the catchment area should be established along-with real time telemetry and data acquisition system for inflows monitoring.



- b) Run off, discharge, water availability for the project, sedimentation rate, etc.
- c) Basin Characteristics.
- d) Catastrophic events like cloud bursts and flash floods, if any, should be documented. For estimation of Sedimentation Rate, direct sampling of river flow is to be done during the EIA study. The study should be conducted for minimum one year. Actual silt flow rate to be expressed in ha-m km-2 year-1.
- e) Set-up a G&D monitoring station and a few rain gauge stations in the catchment area for collecting data during the investigation.
- f) Flow series, 10 daily with 90%, 75% and 50% dependable years discharges.
- g) Environmental flow release should be 20% of the average of the 4 lean months of 90% dependable year during the lean season and 30% of Monsoon flow during monsoon season. For remaining months, the flow shall be decided by the Committee based on the hydrology and available discharge.
- h) A site specific study on minimum environment flow should be carried out.

### **C. Biological Environment:**

#### **Flora**

- a) Characterization of forest types (as per Champion and Seth method) in the study area and extent of each forest type as per the Forest Working Plan.
- b) General vegetation profile and floral diversity covering all groups of flora including Bryophytes, Pteridophytes, Lichens and Orchids. A species wise list may be provided.
- c) Assessment of plant species with respect to dominance, density, frequency, abundance, diversity index, similarity index, importance value index [IVI], Shannon Weiner Index etc. of the species to be provided. Methodology used for calculating various diversity indices along with details of locations of quadrats, size of quadrats etc. to be reported within the study area in different ecosystems.
- d) Existence of National Park, Sanctuary, Biosphere Reserve etc in the study area, if any, should be detailed.
- e) Economically important species like medicinal plants, timber, fuel wood etc.
- f) Details of endemic species found in the project area.
- g) Flora under RET categories should be documented using International Union for the Conservation of Nature and Natural Resources (IUCN) criteria and Botanical Survey of India's Red Data list along with economic significance. Species diversity curve for RET species should be given.

#### **Fauna**



- a) Fauna study and inventorisation should be carried out for all groups of animals including reptiles and nocturnal animals in the study area. Their present status along with Schedule of the species.
- b) Information (authenticated) on Avi-fauna and wild life in the study area.
- c) Status of avifauna their resident/migratory/ passage migrants etc.
- d) Documentation of butterflies, if any, found in the area.
- e) Details of endemic species found in the project area.
- f) RET species- voucher specimens should be collected along with GPS readings to facilitate rehabilitation. RET faunal species to be classified as per IUCN Red Data list and as per different schedule of Indian Wildlife (Protection) Act, 1972.
- g) Existence of barriers and corridors, if any, for wild animals.
- h) Compensatory afforestation to compensate the green belt area that will be removed, if any, as part of the proposed project development and loss of biodiversity.
- i) For categorization of sub-catchments into various erosion classes and for the consequent CAT plan, the entire catchment (Indian Portion) is to be considered and not only the directly the draining catchment.

#### **D. Aquatic Ecology:**

- a) Documentation of aquatic fauna like macro-invertebrates, zooplankton, phytoplanktons, benthos etc.
- b) Fish and fisheries, their migration and breeding grounds.
- c) Fish diversity, composition and maximum length & weight of the measured populations to be studied for estimation of environmental flow.
- d) Conservation status of aquatic fauna.

#### **E. Irrigation and Cropping Pattern:**

- a) Cropping pattern and Horticultural practices in the study area.
- b) Collection of primary data on agricultural activity, crop and their productivity and irrigation facilities component.
- c) Component of pressurized/drip irrigation and micro irrigation.
- d) Details of Conjunctive use of water for irrigation.

#### **F. Socio-Economic:**

- a) Collection of **Baseline** data on human settlements, health status of the community and existing infrastructure facilities for social welfare including sources of livelihood, job opportunities and safety and security of workers and surrounding population.
- b) Collection of information with respect to social awareness about the developmental activity in the area and social welfare measures existing and proposed by project proponent.
- c) Collection of information on sensitive habitat of historical, cultural and religious and ecological importance.
- d) The Socio-economic survey/profile within 10 Km of the study area for Demographic profile; Economic Structure; Development Profile; Agricultural Practices; Infrastructure, education facilities; health and sanitation facilities; available communication network etc.
- e) Documentation of Demographic, Ethnographic, Economic structure and development profile of the area.
- f) Information on Agricultural practices, Cultural and aesthetic sites, Infrastructure facilities etc.
- g) Information on the dependence of the local people on minor forest produce and their cattle grazing rights in the forest land.
- h) List of all the Project Affected Families with their names, education, land holdings, other properties, occupation, source of income, land and other properties to be acquired, etc.
- i) In addition to Socio-economic aspects of the study area, a separate chapter on socio-cultural aspects based upon study on Ethnography of the area should be provided.

## **7. Impact Prediction and Mitigation Measures:**

The adverse impact due to the proposed project should be assessed and effective mitigation steps to abate these impacts should be described.

### **Air Environment:**

- a) Changes in ambient and ground level concentrations due to total emissions from point, line and area sources.
- b) Effect on soils, material, vegetation and human health.
- c) Impact of emissions from DG sets used for power during the construction, if any, on air environment.
- d) Pollution due to fuel combustions in equipments & vehicles.
- e) Fugitive emissions from various sources.



- f) Impact on micro climate.

### **Water Environment:**

- a) Changes in surface & ground water quality.
- b) Steps to develop pisci-culture and recreational facilities.
- c) Changes in hydraulic regime and down stream flow.
- d) Water pollution due to disposal of sewage.
- e) Water pollution from labour colony/camps and washing equipment.

### **Land Environment:**

- a) Adverse impact on land stability, catchment of soil erosion, reservoir sedimentation and 'spring flow (if any) [a] due to considerable road construction/widening activity [b] interference of reservoir with the inflowing streams [c] blasting for excavation of canals and some other structures.
- b) Changes in land use/land cover and drainage pattern.
- c) Immigration of labour population.
- d) Quarrying operation and muck disposal.
- e) Changes in land quality including effects of waste disposal.
- f) River bank and their stability.
- g) Impact due to submergence.

### **Biological Environment:**

- a) Impact on forests, flora, fauna including wildlife, migratory avi-fauna, rare and endangered species, medicinal plants etc.
- b) Pressure on existing natural resources.
- c) Deforestation and disturbance to wildlife, habitat fragmentation and wild animal's migratory corridors.
- d) Compensatory afforestation-Identification of suitable native tree species for compensatory afforestation & green belt.
- e) Impact on fish migration and habitat degradation due to decreased flow of water.
- f) Impact on breeding and nesting grounds of animals and fish.

### **Socio-economic Aspects:**

- a) Impact on local community including demographic profile.
- b) Impact on socio-economic status.
- c) Impact on economic status.
- d) Impact on human health due to water / vector borne disease.
- e) Impact on increases traffic.
- f) Impact on Holy Places and Tourism.
- g) Impacts of blasting activity during project construction which generally destabilize the land mass and lead to landslides, damage to properties and drying up of natural springs and cause noise pollution will be studied. Proper record shall be maintained of the base line information in the post project period.
- h) Positive as well as negative impacts likely to be accrued due to the project are to be listed.

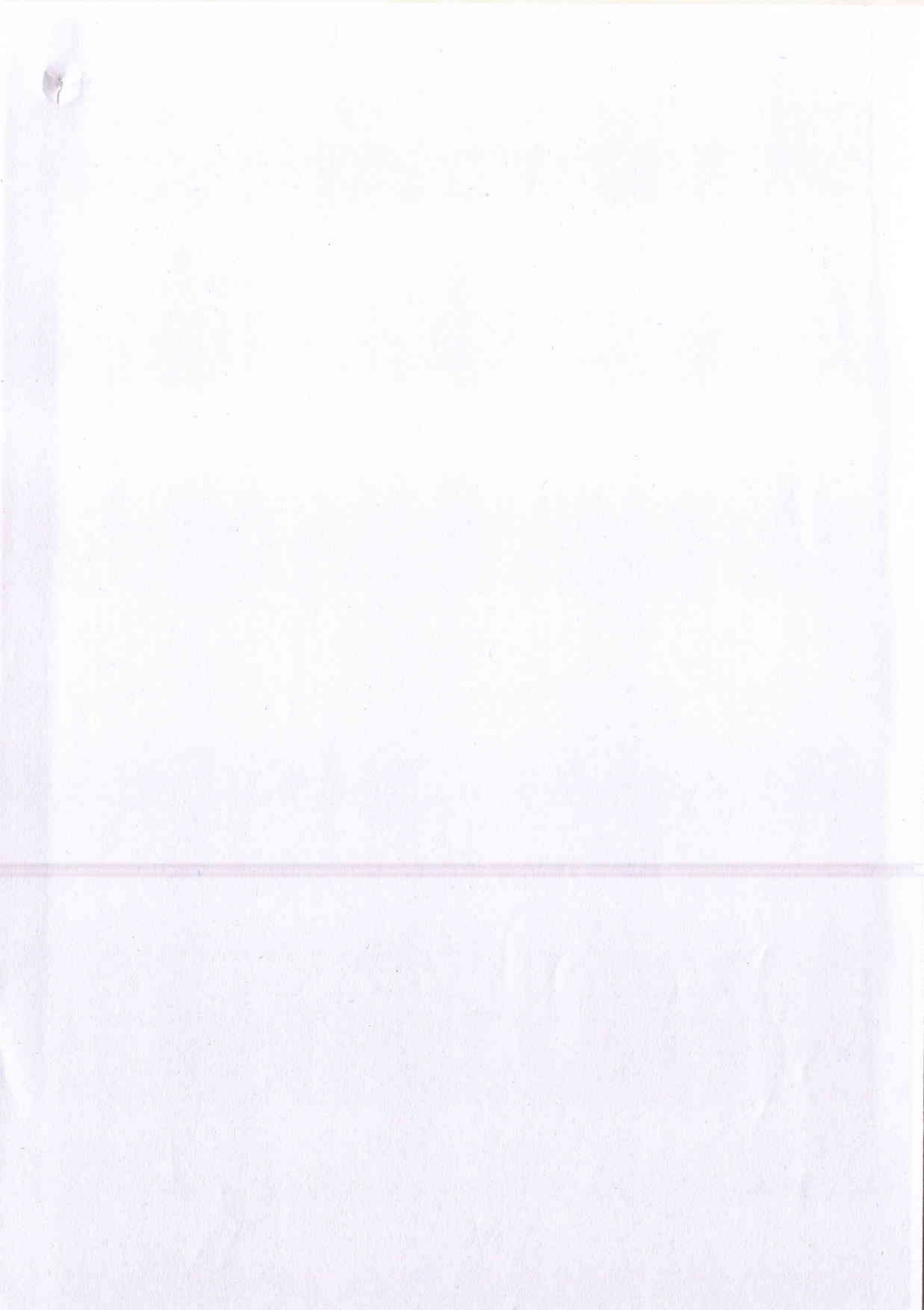
### **8. Environment Impact Analysis:**

Environmental Impact Analysis due to the project on the above mentioned components should be carried out for construction and operation phases using qualitative or quantitative methods.

### **9. Environment Management Plan (EMP):**

Environmental Management Plan aimed at minimizing the negative impacts of the project should be given in detail. The mitigation measures are to be presented for all the likely adverse impacts on the environment. The following suggestive mitigating plans should be included:

- a) Catchment Area Treatment (CAT) Plan should be prepared micro-watershed wise. Identification of area for treatment based upon Remote Sensing & GIS methodology and Silt Yield Index (SYI) method of SLUSOI coupled with ground survey. Areas/watersheds falling under 'very severe' and 'severe' erosion categories are required to be treated. Both biological and engineering measures should be proposed in consultation with State Forest Department. Year-wise schedule of work and monetary allocation should be provided. CAT plan is to be completed prior to reservoir impoundment. Mitigations measures to check shifting cultivation in the catchment area with provision for alternative and better agricultural practices should be included.
- b) Command Area Development (CAD) Plan giving details of implementation schedule with a sample CAD plan.



- c) Compensatory Afforestation in lieu of the forest land required for the project needs to be proposed. Choice of plants should be made in consultation with State Forest Department including native and RET species, if any.
- d) Biodiversity and Wild Life Conservation & Management Plan for conservation and preservation of endemic, rare and endangered species of flora and fauna to be prepared in consultation with State Forest Department.
- e) Resettlement and Rehabilitation (R&R) Plan need to be prepared with due consultation with Project Affected Families (PAFs). The provision of the R&R plan should be according to the National Resettlement and Rehabilitation Policy (NRRP-2007) as well as State Resettlement and Rehabilitation Policy. Detailed budgetary estimates are to be provided. Resettlements sites should be identified.
- f) Plan for Green Belt Development along the periphery of reservoir, colonies, approach road, canals etc. to be prepared in consultation with the State Forest Department. Local plant species suitable for greenbelt development should be selected.
- g) Reservoir Rim Treatment Plan for stabilization of land slide/land slip zones if any, around the reservoir periphery to be prepared. Suitable engineering and biological measures for treatment of the identified slip zones to be provided with physical and financial schedule.
- h) Plan for Land Restoration and Landscaping of project sites.
- i) Fisheries Conservation & Management Plan-Fish fauna inhabiting the affected stretch of river, a specific fisheries management plan should be prepared for river and reservoir.
- j) Muck Disposal Plan- suitable sites for dumping of excavated material should be identified in consultation with the State Pollution Control Board and Forest Department. All Muck disposal sites should be minimum 30 m away from the HFL of river. Plan for rehabilitation of muck disposal sites should also be given. The L- section/ cross section of muck disposal sites and approach roads to be given. Financial out lay for this may be given separately.
- k) Plan for Restoration of quarry sites and landscaping of colony areas, working areas, roads, etc.
- l) Study of Design Earthquake Parameters: A site specific study of earthquake parameters should be done. The results of the site specific earthquake design parameters should be approved by National Committee of Seismic Design Parameters, Central Water Commission (NCSDP), New Delhi.
- m) Dam Break Analysis and Disaster Management Plan: The outputs of Dam Break Model should be illustrated with appropriate graphs and maps clearly bringing out the impact of Dam break scenario. Provision for early warning systems should be provided.
- n) Water and Air Quality & Noise Management Plans to be implemented during construction and post-construction periods.

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- o) Mitigating measures for impacts due to Blasting on the structures in the vicinity.
- p) Ground Water Management Plan.
- q) Public Health Delivery Plan including the provisions for drinking water facility for the local community.
- r) Labour Management Plan for their Health and Safety.
- s) Sanitation and Solid Waste Management Plan for domestic waste from colonies and labour camps etc.
- t) Local Area Development Plan to be formulated in consultation with the Revenue Officials and Village Panchayats. Local skill development schemes should be given. Details of various activities to be undertaken along with its financial outlay should be provided.
- u) Environmental safeguards during construction activities including Road Construction.
- v) Energy Conservation Measures.
- w) Environmental Monitoring Programme with physical & financial details covering all the aspects of EMP. A summary of cost estimate for all the plans, cost for implementing all Environmental Management Plans including the cost for implementing environmental monitoring programme should be given. Provision for an Environmental Management Cell should be made.

In the EMP, also include a sample CAD plan for a distributary outlet command. Such a plan is to show the alignment of irrigation and drainage channels. The components of the OFD works to be undertaken may be clearly mentioned along with a time schedule for their completion vis-à-vis the progress of irrigation development.

**The Following general points should be noted :**

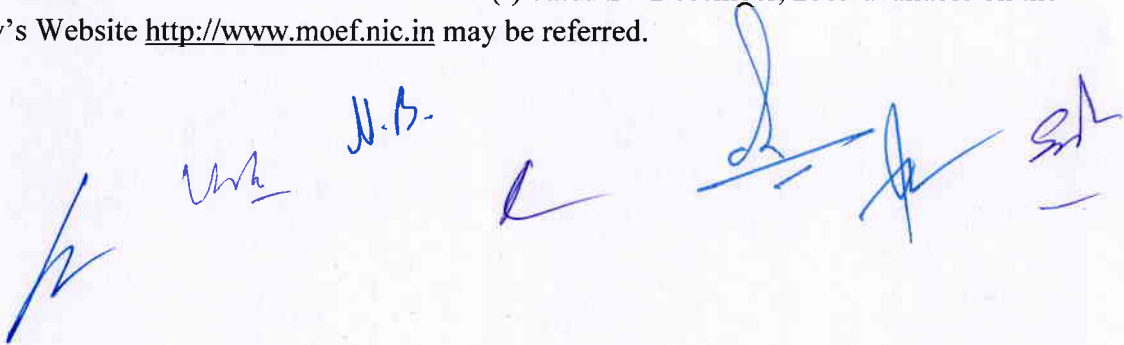
- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional Languages.
- (iv) The letter/application for EC should quote the SEIAA, Bihar file No. and also attach a copy of the letter.
- (v) The copy of the letter received from the SEAC, Bihar should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the SEIAA, Bihar must incorporate the issues in this letter. The index of the final EIA-EMP Report must indicate the specific chapter and page no of the EIA- EMP Report where the above issues have been incorporated.
- (vii) While preparing and submitting the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF&CC vide O.M. No J-1103/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009; O.M. No. J-1105/333/2009-

IA.II(M) dated 25<sup>th</sup> Feb 2010 and -11013/41/2006-IA.II (I) dated 5<sup>th</sup> October, 2011, which are available on the website of this Ministry should also be followed.

The Proponent shall inform the office of SEIAA the exact date of monitoring so that experts from SEIAA office could visit site of monitoring.

These 'ToRs' should be considered for the preparation of EIA/EMP report. Relevant information as per the General Structure of EIA' Notification, 2006.

The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc. in this regard circular no. B No J-11013/77/2004-IA II(I) dated 2<sup>nd</sup> December, 2009 available on the Ministry's Website <http://www.moef.nic.in> may be referred.

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## **Annexure:- II**

### **Term of Reference (ToR) Recommended for Petroleum Projects**

1. Executive Summary of the Project
2. Land used details of the Site based on Satellite imagery.
3. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places) National Remote Sensing Center, Hyderabad
4. Project Description and Project Benefits.
5. Proposal for safety buffer zone around the proposed site with map.
6. Detailed layout plan with provision of trucks parking area and storage tanks and other associated facilities
7. Details of the storage and technical specifications with safety aspects & standards.
8. Site details including satellite imagery for 5 km around the site by delineating land use pattern.
9. Land use along with maps (By using satellite imagery data) & cropping pattern, vegetation, Flora & Fauna.
10. Details within 500m with respect to all establishments/railway line/habitation etc.
11. Demography & Socio-economics of the area.
12. Baseline 3 Months of Monitoring AAQ data (except monsoon)) for air, water and soil for: 8 locations .The monitoring stations shall be based CPCB guidelines
  - I. Ambient Air Quality monitoring for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> CO and other parameters relevant to the project shall be collected.
  - II. Background levels of hydrocarbons (methane & non methane HC) and VOCs.
  - III. Soil Sample analysis.
  - IV. Base line underground and surface water quality in the vicinity of Project.
  - V. Climatology & Meteorology including wind speed, wind direction, temperature, rainfall etc.
  - VI. Measurement of Noise levels.
13. Details of water consumption and source of water supply, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal.
14. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
15. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
16. Details of proposed preventive measures for leakages and accident.
17. Adequate width of approach road to avoid congestion and to have safe exit in emergencies.
18. Environmental Management Plan.
19. Details on list of hazardous chemicals to be stored along with storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
20. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.



21. Layout plan of the storage tanks and other associated facilities.
22. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
23. Arrangements to control loss/leakage of chemicals and management system in case of leakage.
24. Risk Assessment & Disaster Management Plan.
  - I. Identification of hazards
  - II. Consequence Analysis
  - III. Risk Assessment & proposed measures for Risk Reduction
  - IV. Action Plan for fire fighting facility as per OISD 117 norms.
  - V. Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
  - VI. Onsite and offsite emergency preparedness plan.
25. Details of proposed occupational Health Surveillance program for the employees and other labour.
26. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
27. Environmental Monitoring Programme.
28. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment. Socio-economic development activities need to be elaborated upon.
29. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
30. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project if so, details thereof.
31. A tabular Chart indicating point-wise compliance of the ToR.

**The Following general points should be noted :**

- (viii) All documents should be properly indexed, page numbered.
- (ix) Period/date of data collection should be clearly indicated.
- (x) Authenticated English translation of all material provided in Regional Languages.
- (xi) The letter/application for EC should quote the SEIAA, Bihar file No. and also attach a copy of the letter.
- (xii) The copy of the letter received from the SEAC, Bihar should be also attached as an annexure to the final EIA-EMP Report.
- (xiii) The final EIA-EMP report submitted to the SEIAA, Bihar must incorporate the issues in this letter. The index of the final EIA-EMP Report must indicate the specific chapter and page no of the EIA- EMP Report where the above issues have been incorporated.
- (xiv) While preparing and submitting the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF&CC vide O.M. No J-1103/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009; O.M. No. J-1105/333/2009-

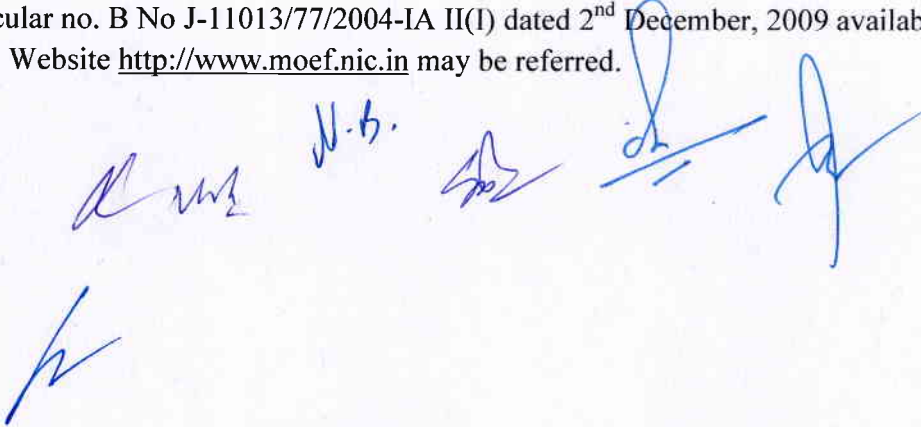


IA.II(M) dated 25<sup>th</sup> Feb 2010 and -11013/41/2006-IA.II (I) dated 5<sup>th</sup> October, 2011, which are available on the website of this Ministry should also be followed.

The Proponent shall inform the office of SEIAA the exact date of monitoring so that experts from SEIAA office could visit site of monitoring.

These 'ToRs' should be considered for the preparation of EIA/EMP report. Relevant information as per the General Structure of EIA' Notification, 2006.

The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc. in this regard circular no. B No J-11013/77/2004-IA II(I) dated 2<sup>nd</sup> December, 2009 available on the Ministry's Website <http://www.moef.nic.in> may be referred.

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## **Annexure:- III**

### **Term of Reference (ToR) Recommended for Mini Steels and Rerolling Projects**

1. Executive summary of the project
2. Detailed breakup of the land area along with latest photograph of the area.
3. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (Including all eco-sensitive areas and environmentally sensitive places). Present land use based on satellite imagery National Remote Sensing Center, Hyderabad.
4. Expansion/modernization proposals:
  - a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.
  - b) In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. Information regarding eco-sensitive area such as national park / wildlife sanctuary /biosphere reserves within 10 km radius of project area.
7. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc.
8. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area.
9. Number of working days of the proposed expansion project.
10. Total cost of the project along with item wise cost.
11. Project site layout plan showing raw materials and other storage area, bore well or water storage tank, waste disposal area, green areas & working area.
12. List of raw material required and source along with mode of transportation and Mass balance of the raw materials should be included.
13. Details of solid /hazardous waste & its action plan for management should be included.

14. Site specific micro meteorological data (one season) using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
15. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based ON CPCB guidelines and take into account the pre-dominant wind direction, population zone.
16. Air quality modeling for specific pollutants needs to be done. APCS for the control of emissions should also be included to control particulate emissions within 150 mg/Nm<sup>3</sup>.
17. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
18. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
19. Analysis of Ground water from 5 locations & surface water of nearby river (downstream & upstream) from 2 locations within 5 km. radius.
20. Rain Water Harvesting Action Plan
21. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
22. Specific study on the impact of air and water discharge on human health around 5 km radius of the project site.
23. Noise levels monitoring at five locations within the study area.
24. Soil Characteristic as per CPCB guidelines.
25. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
26. Detailed Environment management plan (EMP) with specific reference to details of air pollution control system & wastewater management, monitoring frequency & mitigation measure should be provided.
27. EMP should also include concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation and natural resource conservation.
28. Disaster Management Plan for proposed expansion project.
29. Details of occupational health surveillance programme.
30. Action plan for post-project environmental monitoring.
31. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item wise details along with time bound action plan should be included.
32. Total capital cost and recurring cost/annum for environmental pollution control measures should also be included.
33. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
34. Any litigation pending against the project and/or any direction/ order passed by any Court of Law against the project, if so, details thereof.
35. A tabular chart with index for point-wise compliance of above ToRs.



The Proponent shall inform the office of **SEIAA** the exact date of monitoring so that experts from SEIAA office could visit site of monitoring

These 'ToRs' should be considered for the preparation of EIA/EMP report. Relevant information as per the General Structure of EIA' Notification, 2006.

The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc. in this regard circular no. B No J-11013/77/2004-IA II(I) dated 2<sup>nd</sup> December, 2009 available on the Ministry's Website <http://www.moef.nic.in> may be referred.

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## **Annexure:- IV**

### **Term of Reference (ToR) Recommended for Common Effluent Treatment Plant (CETP) Projects**

#### **Executive Summary of the project**

1. Executive Summary of the Projects giving a prima facie idea of the objectives of the proposal, use of resources, justification, etc, in addition, it should provide a compilation of EIA report, EMP and post monitoring in brief.

#### **Project Description :-**

2. Details of industries for which CETP facility is proposed including raw materials used and products manufactured.
3. Expected quantity of waste water from each industry and justification for selecting the proposed capacity of the treatment plant.
4. Characteristics of effluent and proposed segregation of streams, if any, from individual member industries.
5. Details of mode of effluent collection system either by tankers and /or pipeline.
6. Monitoring protocol in case of collection of effluents through pipeline and/or tankers.
7. Details of physical, chemical and biological characteristics of combined effluents and its concentrations and the basis of the same.
8. Details of equalization tank at least for 24 hours and ponds for holding treated waste water or continuous monitoring facilities.
9. Details of proposed treatment schemes supported by treatability studies including source separation of streams for specific mode of collection and treatment either at individual industry or at CETP.
10. Organizational set up for collection of pretreated effluents, treatment and disposal of the treated effluents and deployment of qualified/skilled man power.
11. Details of O & M for maximum utilization of designed capacity of the plant.
12. For any sensitive environmental parameters such as heavy metals, fluorides etc., details on improved material of construction of tanks and other equipment such as corrosive resistance, etc.

13. Details of power consumption and stand by arrangements like D.G. sets for uninterrupted operation of treatment plant.
14. Impact of the project on the infra structure of the study area such as road network, etc.
15. Details of laboratory, data base, waste exchange centres, etc. in CETP.
16. All the member Industries shall have the primary treatment plant and meet the prescribed standard of C.P.C.B./S.P.C.B.
17. The characteristics of the effluent of the member industries of CETP shall be studied.
18. There should be no discharge (Zero Discharge from CETP). Under no circumstance effluent should go to the Ganga all the treated effluent should be used in grading or recycle in the process.

**Anticipated environmental impacts and mitigative measures :**

19. Anticipated environmental impacts that require specific studies for significance as given in impact matrix.
20. Details regarding soil and ground water impacts and regular monitoring protocols suggested for ensuring no significant impacts besides preventive measures.
21. Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental angle, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site
22. The study area shall be up to a distance of 5 km from the boundary of the proposed site and all along the collection network/route map of tanker movement, treated wastewater carrying pipe-line and the receiving environment at the point of disposal.
23. Location of the project site and nearest habitats with distances from the project site to be demarcated on a toposheet (1: 50000 scale).
24. Landuse based on satellite imagery including location specific sensitivities such as national parks / wildlife sanctuary, villages, industries, etc. for the study area.
25. Collection of one season (non monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna. Site-specific meteorological data



should also be collected. The location of the monitoring stations should be justified. Date wise collected baseline AAQ data should form part of EIA and EMP report.

26. Details of member units, its production capacity, waste generation, characteristic and details of primary treatment provided by the member units.
27. Details on present treatment and disposal systems.
28. Details of effluent collection system from member units level.
29. Details of hazardous waste collection. Sill proof arrangement.
30. Examine and submit details of inlet characteristics.
31. Details of the CETP with design parameters. Layout plan of CETP. And open spaces.
32. Details of the usage of treated effluent for green belt development and horticulture.
33. Submit a copy of MoU made between the Member units.
34. Details of storage facility available at the CETP.
35. Examine and submit details of sludge / solid waste generated and method of disposal. MoU in this regards.
36. Details of water requirement, source and water balance chart.
37. Details of performance monitoring , lab facility with technical persons.
38. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
39. Details of power consumption and stand-by arrangements like the diesel generator (DG) sets, dual fuel (gas and oil) for uninterrupted operation of treatment plant.
40. Impact of the project on local infrastructure of the study area such as road network, etc. If the study area requires any additional infrastructure, details of the agency responsible for the same should be included along with the time frame. Details of the permission from the competent Authority for conveyor belt crossing the village road.
41. Details of laboratory, workshop, database, library, waste exchange centers, etc. in CETP.
42. Management plan for solid/hazardous waste generation, storage, utilization and disposal.
43. Detailed plan of treated wastewater disposal/ reuse/ utilization / management.

44. Details regarding infrastructure facilities such as sanitation, fuel storage, restroom, etc. to the workers during construction and operation phase.
45. Geological features and geo-hydrological status of the study area.
46. Details of water meters for inflow and outflow monitoring etc.
47. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
48. Action plan for the greenbelt development – species, width of plantations, planning schedule etc. in accordance to CPCB published guidelines.
49. Impacts due to laying of pipe lines for effluent collection and for the disposal of the treated wastewaters.
50. Capital quantity of dredging material, disposal and its impact on aquatic life.
51. Discharged water should not mix the natural water like river, etc.
52. Proposed measures for occupational safety and health of the workers.
53. Monitoring programme for pollution control at source.
54. Administrative and technical organizational structure to ensure proposed post-project monitoring programme for approved mitigation measures.
55. EMP devised to mitigate the adverse impacts of the project should be provided along with item-wise cost of its implementation (capital and recurring costs).
56. Details of the emergency preparedness plan and on-site and off-site disaster management plan.
57. At least 2.5% of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item wise details along with time bound action plan should be included.
58. The Proponent shall inform the office of SEIAA the exact date of monitoring so that experts from SEIAA office could visit site of monitoring.
59. A tabular chart with index for point-wise compliance of above ToRs.
60. The consultants involved in the preparation of EIA / EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA /EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

61. Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry.

website "<http://moef.nic.in/Manual/CETPs>".

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## Annexure:- V

### Environmental Clearance Condition for Recommended Sand Mining Projects

#### A. Specific Conditions

1. The Environmental clearance is subject to grant of Mining Lease and will be co-terminus with the mining lease period.
2. The mining work will be **open-cast and exclusively manual**. No mechanical work or drilling / blasting should be involved at any stage.
3. It shall be ensured that there shall be no mining beyond 03 m or upto water level whichever is less further meaning thereby that no mining activity in ruining/stagnant water in the River in the issue of Sand Mining. The Distance from the bank of the river shall be as per the Bihar Minor Mineral and concession Rule (2014) and amendment thereof.
4. The project proponent shall ensure that wherever deployment of labour attracts the Mines Act, the provision thereof shall be strictly followed.
5. The project proponent shall prepare the plan of mining in conformity with the mine lease conditions and the Rules prescribed in this regard clearly showing the no work zone in the mine lease i.e. the distance from the bank of river to be left un-worked (Non mining area).
6. The project proponent shall undertake adequate safeguard measures during extraction of river bed material and ensure that due to this activity the hydro-geological regime of the surrounding area shall not be affected.
7. The project proponent will provide protective respiratory devices to workers working in dusty areas and they shall also be provided with adequate training and information on safety and health aspects. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
8. Solid waste material viz, plastic bags, glasses etc. to be generated during project activity will be separately stored in bins and managed as per Solid Waste Management rules.
9. Natural /customary paths used by villagers should not be obstructed at any time by the activities proposed under the project.
10. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11. PP shall maintain minimum distance from Reserved / Protected Forests as stipulated in applicable guidelines.

12. The project proponent should implement suitable conservation measures to augment ground water resources in the area in consultation with the Ground Water Directorate, Government of Bihar / Central Ground Water Board.
13. Effective safeguard measures should be taken to control fugitive emissions so as to ensure that RSPM (PM10 and PM 2.5) levels are within prescribed limits.
14. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained.
15. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna as prescribed the Wildlife (protection) Act.1972
16. Proper safety measures as per statutory requirement are to be implemented around the mined out Pit prior to closure of site.
17. A final mine closure Plan along with corpus fund duly approved by Competent Authority shall be submitted to the SEIAA, Bihar & Bihar State Pollution Control Board, Patna and to concerned DMO in prior of final mine closure for approval.
18. The project proponent shall obtain Consent to establish and Consent to Operate from the Bihar State Pollution Control Board, Patna and effectively implement all the conditions stipulated therein.
19. The depth of mining in river-bed shall not exceed three meter or water level, whichever is less, provided that where the Joint Inspection Committee certifies about excessive deposit or over accumulation of mineral in certain reaches requiring channelization, it can be as specified by the Committee, on defined reaches of the river.
20. No river sand mining be allowed in rainy season (July, August, and September).
21. To submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.
22. In river flood plain mining, a buffer of 3 meter be left from the river bank for mining.
23. In mining from agricultural field, a buffer of 3 meter be left from the adjacent field.
24. Mining shall be done in layers of 1 m depth to avoid ponding effect and after first layer is excavated, the process will be repeated for the next layers.
25. No stream should be diverted for the purpose of sand mining. No natural water course and/ or water resources are obstructed due to mining operations.
26. No labour camp be allowed in riverbed.
27. Mining should begin only after pucca pillar marking the boundary of lease area is erected at the cost of the lease holder after certification by the mining official and its geo coordinates are made available to the SEIAA, Bihar.
28. The top soil in case of surface mining shall be stored temporarily in an earmarked site and concurrently used for land reclamation.
29. Lease shall keep a correct account of quantity of mineral mined out, dispatched from the mine, mode of transport, registration number of vehicle, person in-charge of vehicle and



mine plan. This should be produced before officers of Central Government and State for inspection.

30. Noise arising out of mining and processing shall be abated and controlled at source to keep within permissible limit.
31. The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly.
32. Air Pollution due to dust, exhaust emission or fumes during mining and processing phase should be controlled and kept in permissible limits specified under environmental laws.
33. **The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Wheel washing facility should be installed and used.**
34. The aesthetics of the site shall be maintained.
35. Restoration of flora affected by mining should be done immediately. Twice the number of trees destroyed by mining be planted preferably of indigenous species.
36. No mining lease shall be granted in the forest area without forest clearance in accordance with the provisions of the Forest Conservation Act, 1980 and the rules made thereunder.
37. Protection of spring sources should be ensured.
38. Attempt should be there to restrict activities to cause minimum surface soil disturbance.
39. Adequate steps to check soil erosion and control debris flow etc. by constructing engineering structures should be ensured.
40. Site clearance and tidiness shall be maintained.
41. The proponent shall take all possible precautions for the protection of environment and control of pollution.
42. Junction at takeoff point of approach road with main road be properly developed with proper width and geometry required for safe movement of traffic by lease holder at his own cost.
43. Health and safety of workers should be taken care of.
44. Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers shall be adopted.
45. The Distance from N.H, Railway line, Reservoir, Bridge shall be adopted as per Bihar Minor Mineral and concession Rule (2014) and amendment thereof.
46. The proponent shall not conduct sand mining where mining can cause danger to site of flood protection works, places of cultural, religious, historical, and archeological importance.
47. ~~Vehicles~~ only with fitness and PUC Certificates should be used.



48. Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.
49. No stacking of sand is allowed on road side along national highways.
50. Restoration, reclamation and rehabilitation in cluster should be done systematically EC by the proponent.
51. Site specific plan with eco-restoration should be in place and implemented.
52. The PP shall make arrangement for drinking water, first aid facility.
53. Adequate steps should be taken to check soil erosion and control debris flow etc. by constructing engineering structures.
54. Proponent will provide adequate sanitary facility in the form of mobile toilets to the labours engaged for the project work.
55. Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured; and washing of all transport vehicles should be done inside the mining lease.
56. The Proposed route for transportation should not pass through private land. But in case it passes permission from private land owner obtained.

#### **B. General conditions**

1. Any change in mining area Plot / Khata numbers, entailing capacity addition with change in process and or mining technology modernization and scope of working shall again require prior Environmental Clearance as per the provisions of EIA Notification, 2006 (as amended), MoEF&CC guidelines and Supreme Court judgment on the subject.
2. The Different Geo-Coordinate is given as per approved Mining Plan approved by Mining Deptt., Govt. of Bihar.
3. It shall be ensured that standards related to ambient air quality/effluent as prescribed by the Ministry of Environment & Forests are strictly complied with. Water sprinklers and other dust control majors should be applied to take-care of dust generated during mining operation, Sprinkling of water on haul roads to control dust will be ensured by the project proponent.
4. All necessary statutory clearances shall be obtained before start of mining operations. If this condition is violated, the 'clearance shall-be automatically deemed to have been cancelled.
5. Parking of vehicles should not be made on public places.
6. No tree-felling will be done in the leased area, except only with the permission of Forest Department.
7. No wildlife habitat will be infringed.
8. It shall be ensured that excavation of minor mineral does not disturb or change the underlying soil characteristics of the river bed / basin, where, mining is carried out.

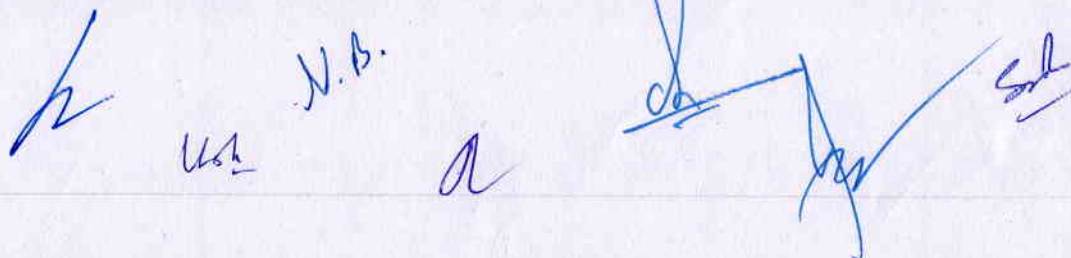
9. It shall be ensured that mining operation will not in any way disturb the, velocity and flow pattern of the river water significantly.
10. Adequate protection against dust and other environmental pollution due to mining shall be made so that the habitations (if any) close by the lease area are not adversely affected. The status of implementation of measures taken shall be reported to the RO, BSPCB and SEIAA and this activity should be completed before the start of sand mining.
11. Need-based assessment for the nearby villages shall be conducted to study economic measures which can help in improving the quality of life of economically weaker section of society. Income generating projects / tools such as development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. The project proponent shall provide separate budget for community development activities and income generating programmes.
12. Green cover development shall be carried out following CPCB guidelines including selection of plant species and in consultation with the local DFO / Horticulture Officer.
13. **Transportation of materials shall be done by covering the trucks / tractors with tarpaulin or other suitable mechanism to avoid fugitive emissions and spillage of mineral/dust.**
14. Special Measures shall be adopted to protect the nearby settlements from the impacts of mining activities, Maintenance of Village roads through which transportation of minerals is to be undertaken, shall be carried out by the project proponent regularly at his own expenses.
15. Measures for prevention & control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion, if any, shall be carried out with geo textile matting or other suitable material.
16. The project proponent shall obtain necessary prior permission of the competent Authorities for withdrawal of requisite quantity of water (surface water and groundwater), required for the project.
17. Safety measures to be taken for the safety of the people working at the mine lease area should be given, which would also include measure for treatment of bite of poisonous reptile / insect like snake. Periodical and Annual medical checkup of workers as per Mines Act and they should be covered under ESI as per rule.
18. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
19. The Project proponent shall maintain register for production and dispatch and submit return to the SEIAA, Bihar & B.S.P.C.B, Patna.
20. Measures should be taken for control of noise levels below prescribed norms in the work environment.
21. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
22. Dispensary facilities for First Aid shall be provided at site.



23. Social Corporate Responsibility (SCR) plan along with budgetary provision amounting to 2.5 % of total project cost shall be submitted within three months on need base assessment study in the study area. Income generating measures which can help in up-liftment of weaker section of society consistent with the traditional skills of the people identified. The programme can include activities such as drinking water arrangements in villages, arrangement for toilets, development of fodder farm, fruit bearing orchards, vocational training etc. In addition, vocational training for individuals shall be imparted so that poor section of society can take up self-employment and jobs. Separate budget for community development activities & income generating programmes shall be specified.
24. SEIAA, Bihar, The Bihar State Pollution Control Board, Patna directly or through its Regional Office, shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) by furnishing the requisite data / information / monitoring reports.
25. The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the SEIAA, Bihar & Bihar State Pollution Control Board, Patna and to its concerned Regional Office.
26. All statutory clearances shall be obtained before start of mining operations.
27. The Mines commissioner cum Principal Secretary, Government of Bihar through respective officers at the district level shall ensure the implementation of the stipulated environmental condition mention above.

**C. Other points**

1. The Authority reserves the right to add any new condition or modify the above conditions or to revoke the clearance if conditions stipulated above are not implemented to the satisfaction of Authority or for that matter for any other Administrative reason.
2. The Environmental Clearance accorded shall be valid for the period of grant of lease for the mine. The PP shall not increase production rate and alter lease area during the validity of Environmental Clearance.
3. In case of any deviation or alteration in the project proposed from those submitted to SEIAA, Bihar for clearance, a fresh reference should be made to SEIAA to assess the adequacy of the conditions imposed and to incorporate any new conditions if required.
4. The above stipulations would be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Bihar and any other Court of Law relating to the subject matter.
5. Any Appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

The bottom of the page features several handwritten signatures and initials in blue ink. From left to right, there is a large stylized signature, the initials 'N.B.', a signature that appears to be 'USA', a signature that looks like 'A', a signature that looks like 'ca', a signature that looks like 'S', and a signature that looks like 'Sd'.



## **Annexure:- VI**

### **Term of Reference (ToR) Recommended for Sand Mining Projects**

#### **Executive Summary of the project.**

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be included in the EIA Report.
2. All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
3. Khata No. & Plot No. to be provided in this EIA/EMP.
4. All corner coordinates of the mine lease area superimposed on High Resolution Imagery / toposheet should be provided. All Balughats falling under the panchayat have to be indicated in one map and distance between there should be clearly marked. In case some total of Area of Balughats falling within 1 Km of each other exceeds 50 Ha then the cluster will fall under 'A' category. This has to be clearly shown in the map and confirmed.
5. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
6. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
7. Does the company have a system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
8. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease should be built into the mine plan as well as the EIA report. It may inter-alia include; area of working, mode of working, working shift, transportation of mineral etc.
9. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period.
10. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.

11. Land use plan of the mine lease area should be prepared to encompass Pre-operational, operational and post operational phases and submitted.
12. Details of the land for Sand storage the mine lease such as extent of land area, distance from mine lease, its land use, R&R issues, if any should be given.
13. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
14. Points made in Supreme Court order dated 27-02-2012 are to be considered while preparing EIA/EMP Report also Guidelines of SEIAA, Bihar and MoEF&CC circulars / guidelines issued from time to time are to be given due consideration while preparing EIA/EMP Report.
15. The Project Proponent will provide protective respiratory devices to workers working in dusty areas and they shall also be provided with adequate training and information on safety and health aspects. Periodical medical examination of the worker engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
16. Hydro – geological study shall be carried out by reputed organization / institute and establish that mining in the said area will not adversely affect the ground water regime.
17. Mining plan has to be prepared keeping in view the applicable guidelines including distances from nearby structures like bridge, intake well, etc. Sectional plan is to be shown.
18. Existence of Breeding ground of species like Hill Stream Fishes, Turtles, Mastacembelid Fish, Gastroopods, Bivalves etc. if any the vicinity and in the Mining area is to be prepared / obtained and confirmed from DFO. In case if Breeding ground is not there, then a certificate of no occurring has to be obtained from DFO and incorporated in the EIA/EMP Report.
19. Width of the river on which all these Ghats with authentic backup data / information.
20. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any in the project area, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgment of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any claim by the project proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.



21. Status of forestry clearance for the broken up area and virgin forestland involved in the project including deposition of net present value (NPV) and compensatory afforestation (CA). A copy of the forestry clearance should also be furnished.
22. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
23. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required should be worked out with cost implications and submitted.
24. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished. In case, there is no such Eco-sensitive area within 10 km, the boundary of the nearest Eco-sensitive area with its distance shall be marked in a drawing and included in EIA / EMP Report.
25. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zone should be furnished based on primary field survey clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for Implementing the same should be made as part of the project cost.
26. Impact, if any, of change of land use should be given.
27. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the Bihar State and National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
28. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna. Site-specific meteorological data should also be collected. The location of the monitoring stations should be justified. Date wise collected baseline AAQ data should form part of EIA and EMP report. The mineralogical composition of RSPM/SPM particularly for free silica should be given. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10 particularly for free silica should be given.



29. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
32. Details of water conservation measures proposed to be adopted in the project should be given.
33. Details of rainwater harvesting in the project should be provided. The same should be got approved from Ground Water Directorate Government of Jharkhand / Central Ground Water Board.
34. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilization (preferably concurrently) of top soil should be indicated.
35. Impact on local transport infrastructure due to the project should be indicated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
36. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
37. Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given.
38. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
39. Public health implication of the project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocation.

40. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
41. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
42. Public hearing points raised and commitment of the project proponent on the same along with time bound action plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
43. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
44. Total capital cost and recurring cost/annum for environmental pollution control measures should also be included.
45. Details of litigation pending against the project, if any, with direction / order passed by any Court of Law against the project should be given.
46. Public hearing.

The following general points should be noted:

- I. Properly indexed, page numbered.
- II. Period/date of data collection should be clearly indicated. (non-monsoon)
- III. Authenticated English translation of all material in Regional languages should be provided.
- IV. The letter/application for environmental clearance should quote the SEIAA, Bihar file No. and also attach a copy of the letter.
- V. Site related monitoring shall be carried out for 3 months in one season (non monsoon).
- VI. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- VII. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.

VIII. The consultants involved in the preparation of EIA / EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA /EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

47. The Proponent shall inform the office of SEIAA the exact date of monitoring so that experts from SEIAA office could visit site of monitoring.

N.B.

The block contains several handwritten signatures and initials in blue ink. From left to right, there is a stylized 'h', the word 'with', a cursive signature, the word 'and', another cursive signature, and a large, bold checkmark.