



सत्यमेव जयते

File No: IA-J-11011/695/2009-IA-II(IND-I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
IA Division  
\*\*\*



Date 20/02/2024



To,

M/s. Maan Steel & Power Limited  
Jamuria Industrial Estate, Mouza - Ikhra, P.O. Nandi, District - Burdwan, West Bengal - 713344  
Email: maansteel30.76@gmail.com

**Subject:** Enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and Installation of 1.2 MTPA Pellet Plant at Jamuria Industrial Estate, Mouza-Ikhra, P.O. Nandi, Dist-Burdwan, West Bengal –Grant of Environmental Clearance under the provisions EIA Notification, 2006 -regarding.

Sir/Madam,

This refers to your proposal no **IA/WB/IND1/435546/2023 dated 13.07.2023** and further ADS was submitted by the PP on **05.01.2024**, along with copy of EIA report, Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A1003WB5951952N
(ii) File No.	IA-J-11011/695/2009-IA-II(IND-I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous),3(a) Metallurgical Industries (ferrous and non ferrous),3(a) Metallurgical Industries (ferrous and non ferrous),1(d) Thermal Power Plants
(vi) Sector	Industrial Projects - 1
(vii) Name of Project	Enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and Installation of 1.2 MTPA Pellet Plant at Jamuria Industrial Estate, Mouza-Ikhra, P.O. Nandi, Dist-Burdwan, West Bengal by M/s Maan Steel and Power Ltd

(viii) Name of Company/Organization	Maan Steel & Power Limited
(ix) Location of Project (District, State)	PASCHIM BARDHAMAN, WEST BENGAL
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is covered schedule S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

4. The proposal is considered in the 41st meeting of the EAC for Industry-I sector held during 2nd & 4th & 8th August, 2023, wherein the Committee, after detailed deliberations, recommended the proposal. The proposal was again appraised in the 47th EAC (Industry-1) Meeting held on 27.10.2023 and based on ADS reply dated 05.01.2024 further considered in 52nd EAC meeting held on **23rd– 25th January, 2024** wherein the EAC reiterates its recommendation in 41st EAC. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

5. The details of the proposal are as per the EIA/EMP report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meetings of EAC (Industry 1 Sector) are given at **Annexure 1**, Unit configuration and capacity are given at **Annexure II**.

6. The EAC, in its meeting held during 2nd & 4th & 8th August, 2023, inter-alia, deliberated the following:

1. The instant proposal is for enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and for Installation of 1.2 MTPA Pellet Plant.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The company was set up in the year 2008 after obtaining CTE from West Bengal Pollution Control Board on 15.05.2008 for setting up of steel plant for production of 57,000 TPA Sponge Iron through 2x95 TPD DRI Kiln. The existing project was accorded environmental clearance vide F. No. J-11011/695/2009-IA-II (I) dated 31.12.2010 for expansion of Sponge Iron Plant from 57,000 to 177,000 TPA sponge iron production, installation of Steel Melting Shop with Billet Caster for production of 192,000 TPA Billets, installation of Rolling Mill for production of 180,000 TPA TMT Bars along with Captive Power Plant (24 MW) and Ferro Alloy Plant (2 x9 MVA Submerged Arc Furnaces) for production of 30,000 TPA Fe-Mn / Si-Mn. Validity of the Environmental Clearance was extended up to 30th December 2020, on 15.01.2018 with Ferro alloy plant dropped from the plant configuration. Consent to operate for DRI Kiln (2x95 & 1x200 TPD), Induction Furnace (4x15 MT) with Billet Castor (2x6/11m), Rolling Mill (550 TPD) and Captive Power Plant (1x12 MW), was accorded by West Bengal Pollution Control Board vide. Ltr. No. C0128909 dated 07.01.2020. The validity of CTO is up to 30.09.2023.
6. The total project area is 30.76 Ha. Existing area of the plant is 16.18 Ha which is under the possession of project authorities. For proposed expansion, additional area of 14.58 ha. is required, out of which 13.4 ha. is acquired and acquisition of remaining 1.18 ha. is under process and shall be completed by the end of the year 2023.

7. The nearest habitation is Ikhra village which is at a distance of 0.15 km in South direction of the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.
8. There is a Pond near Ikhra village at a distance of 0.085 km in SE of the project site. Also, there are other water bodies such as river within the study area of 10 km of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
9. Existing water requirement is 930 m<sup>3</sup>/day which is obtained from Asansol Durgapur Development Authority (ADDA) & Ground water. The water requirement after the proposed expansion is estimated as 2024 m<sup>3</sup>/day, out of which 1830 m<sup>3</sup>/day of fresh water requirement will be obtained from the ADDA and remaining will be recycled water. The EAC deliberated on the water requirement and is of the opinion that necessary permissions shall be obtained from the Competent Authority prior to commencement of project.
10. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
11. The PP has submitted that they initially procured 40 Acres (16.18 Ha.) of land out of which only 24 acres (9.71 Ha.) of land was single block and balance 16 acres (6.46 Ha) of land was scattered and inaccessible. Therefore, the plant was installed on 24 acres (9.71 Ha.) of land and Greenbelt was developed in 33% of 24 acres (9.71 Ha.) i.e. in 3.15 Hectares with total plantation of 4500 no. of trees. PP has also submitted a letter from DFO, Durgapur vide memo no. 319212-50(A) dated 09.09.2022 wherein the DFO has confirmed that greenbelt has been developed on 33% (3.13 ha.) of the plant area. After proposed expansion the scattered and inaccessible land will be merged with additional land procured and will form a solid block. Now after proposed expansion total of 10.15 Ha. (33% of the total project area i.e. 30.76 ha.) will be developed as greenbelt. Total no. of 25,375 saplings will be planted and nurtured in 10.15 hectares in 4 years.. The EAC deliberated on the greenbelt action plan and found it satisfactory.
12. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
13. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
14. The Committee also deliberated the certified compliance report of existing EC and its Action plan and is of the opinion that PP shall strictly implement the action plan and submit the status to IRO.
15. The EAC deliberated on point wise reply of PP to the complaint raised against Maan Steel & Power Ltd. vide letter dated 01.08.2023 and found it satisfactory.
16. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
17. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
18. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.
19. The EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

7. The EAC, in its 41st meeting of Expert Appraisal Committee (Industry-I Sector) held during **2nd & 4th & 8th August, 2023**, based on information & clarifications provided by the project proponent and after detailed deliberations **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions.

8. Further, the Ministry has received a representation vide dated 17.08.2023. The matter has been examined and based on

the information submitted by the PP & SPCB, the proposal was reconsidered by the EAC in its meetings held on **27th October 2023 & 23-25 January, 2024**. The Committee, inter-alia, noted the following:

1. The EAC noted that the Project Proponent has submitted reply of West Bengal Pollution Control Board as per the reply WBPCB has amendment in Consent to Operate vide letter dated 13.09.2023 for change in Sponge Iron capacity from 10750 MT/month to 9750 MT/month i.e. 117000 TPA, which with permitted capacity in EC.
2. The EAC noted that the Project Proponent has submitted the certificate from CA regarding production as per the report it is clear that PP has not exceeded the production capacity more than that of EC.
3. The EAC has noted that PP has also submitted Excise Return filed by the company for the year 2011-12, 2012-13, 2013-14 and 2014-15, showing Sponge Iron production are within the production under CTO.
4. The EAC deliberated on the submission of the Project proponent and noted that the PP has corrected the CTO production capacity by amendment in CTO and not exceeded the production than that of EC and found in order.

In view of the above and after detailed deliberations, the EAC reiterate its decision and recommended the instant proposal for grant of Environment Clearance under EIA Notification, 2006.

9. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1 Sector) hereby decided to grant **Environment Clearance** for instant proposal of **M/s Maan Steel and Power Ltd** under the provisions of EIA Notification, 2006 subject to specific conditions and general conditions at **Annexure III**.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. 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 the Environment (Protection) Act, 1986.

12. 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.

13. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

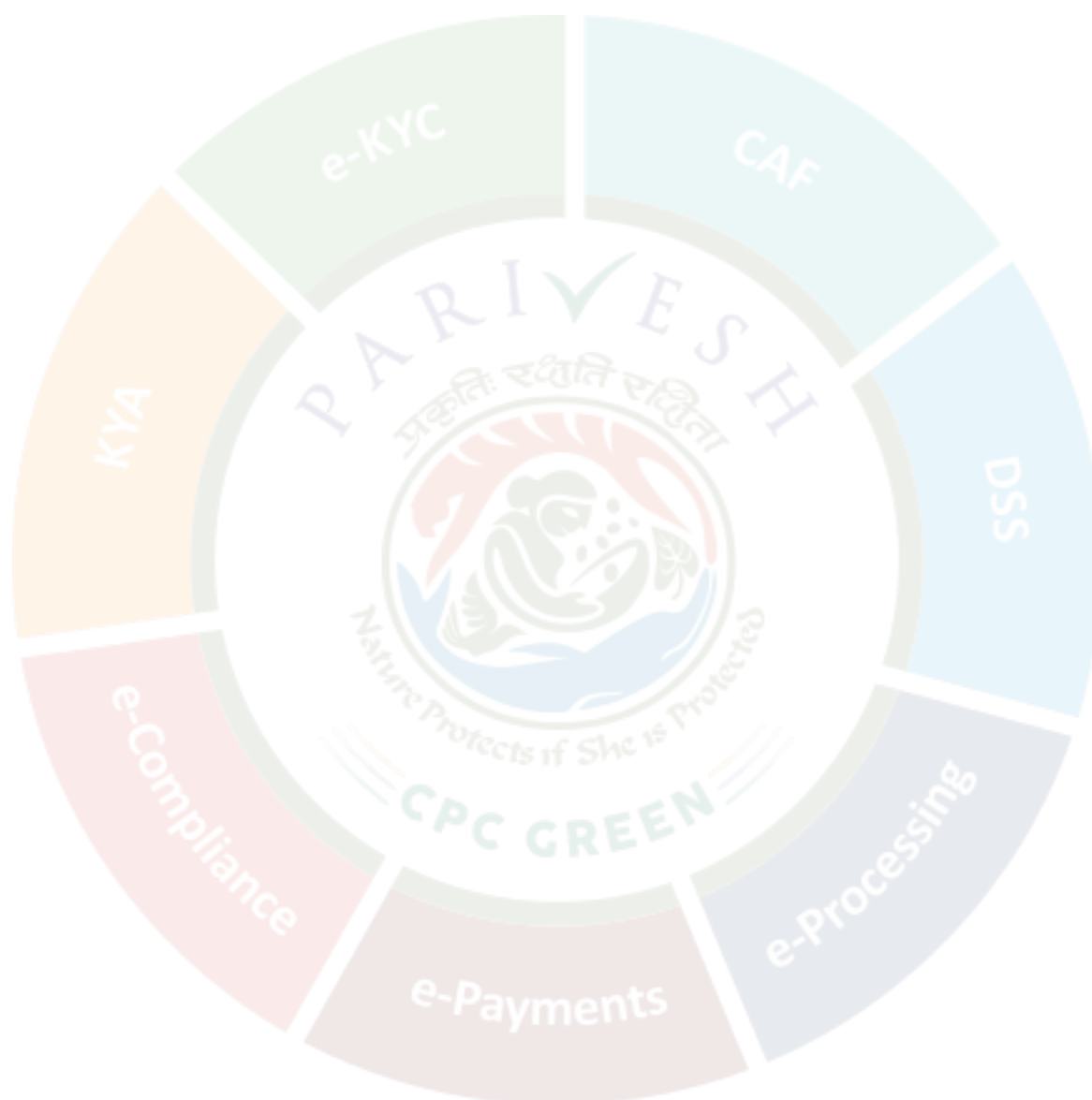
14. This issues with approval of the competent authority.

[Dr R B Lal]  
Scientist F/Director

#### **Copy To**

1. The Secretary, Department of Environment, Government of West Bengal, Secretariat Kolkata.
2. The Secretary, Department of Forests, Government of West Bengal, Kolkata.
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
4. The Principal Chief Conservator of Forests, Government of West Bengal, Block LA, 10A Sector-III, Salt Lake City, Kolkata-700098.
5. The Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, IB-198, Sector-II, Salt Lake City, Kolkata – 700106
6. The Member Secretary, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.

7. The Member Secretary, West Bengal State Pollution Control Board, Paribesh Bhawan, 10A- Block LA, Sector –III, Salt Lake City, Kolkata – 700 098.
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi 110001.
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
10. District Collector, Burdwan District, West Bengal.
11. Guard File/Monitoring File/Website/Record File/ Parivesh Portal



## Details of the proposal are as per the EIA/EMP report

S. No.	Particulars	Details																																										
a.	Terms of Reference for undertaking EIA study	25.02.2021																																										
b.	Period of baseline data collection	1st Oct to 31st Dec, 2020																																										
c.	Date of Public Consultation	08.07.2022																																										
d.	Action plan to address the PH issues	An amount of Rs. 500 Lakhs has been earmarked for implementation of the commitments made during Public Hearing and need based activities. Detail of activities proposed attached as <b>Annexure IV.</b>																																										
e.	Location of the project	Pellet Plant at Jamuria Industrial Estate, Mouza-Ikhra, P.O. Nandi, Dist-Burdwan, West Bengal																																										
f.	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>23°41'41.5"N</td> <td>87°6'19.5"E</td> </tr> <tr> <td>B</td> <td>23°41'40.7"N</td> <td>87°6'24.9"E</td> </tr> <tr> <td>C</td> <td>23°41'42.3"N</td> <td>87°6'30.6"E</td> </tr> <tr> <td>D</td> <td>23°41'34.0"N</td> <td>87°6'28.6"E</td> </tr> <tr> <td>E</td> <td>23°41'31.0"N</td> <td>87°6'30.0"E</td> </tr> <tr> <td>F</td> <td>23°41'27.7"N</td> <td>87°6'38.0"E</td> </tr> <tr> <td>G</td> <td>23°41'14.8"N</td> <td>87°6'29.6"E</td> </tr> <tr> <td>H</td> <td>23°41'13.3"N</td> <td>87°6'26.3"E</td> </tr> <tr> <td>I</td> <td>23°41'14.5"N</td> <td>87°6'19.9"E</td> </tr> <tr> <td>J</td> <td>23°41'18.8"N</td> <td>87°6'14.9"E</td> </tr> <tr> <td>K</td> <td>23°41'25.6"N</td> <td>87°6'19.2"E</td> </tr> <tr> <td>L</td> <td>23°41'30.3"N</td> <td>87°6'18.0"E</td> </tr> <tr> <td>M</td> <td>23°41'32.0"N</td> <td>87°6'14.5"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	23°41'41.5"N	87°6'19.5"E	B	23°41'40.7"N	87°6'24.9"E	C	23°41'42.3"N	87°6'30.6"E	D	23°41'34.0"N	87°6'28.6"E	E	23°41'31.0"N	87°6'30.0"E	F	23°41'27.7"N	87°6'38.0"E	G	23°41'14.8"N	87°6'29.6"E	H	23°41'13.3"N	87°6'26.3"E	I	23°41'14.5"N	87°6'19.9"E	J	23°41'18.8"N	87°6'14.9"E	K	23°41'25.6"N	87°6'19.2"E	L	23°41'30.3"N	87°6'18.0"E	M	23°41'32.0"N	87°6'14.5"E
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g.	Total land	Total area of the plant - 30.76 Ha. (Existing – 16.18 ha & Additional – 14.58 Ha.)																																										
h.	Land acquisition details as per MoEF&CC	Existing area of the plant is 16.18 Ha which is under the possession of project authorities. For proposed expansion, additional area of 14.58 ha. is required, out of which 13.4 ha. is acquired and acquisition of remaining 1.18 ha. is under process and shall be completed by the end of the year 2023.																																										

S. No.	Particulars	Details									
	O.M. dated 7/10/2014										
i.	Existence of habitation & involvement of R&R, if any	<b>Project Site – Nil</b> <b>Study Area</b> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Dist. (km)</th> <th>Dir.</th> </tr> </thead> <tbody> <tr> <td>Ikhra village</td> <td>0.15</td> <td>S</td> </tr> <tr> <td>Jamuraia Town</td> <td>3.2</td> <td>W</td> </tr> </tbody> </table>	Habitation	Dist. (km)	Dir.	Ikhra village	0.15	S	Jamuraia Town	3.2	W
Habitation	Dist. (km)	Dir.									
Ikhra village	0.15	S									
Jamuraia Town	3.2	W									
j.	Elevation of the project site	109 m above mean sea level									
k.	Involvement of Forest land if any.	No Forest land is involved in the project site.									
l.	Water body exists within the project site as well as study area	<b>Project Site:</b> No water bodies within the project site <b>Study area</b> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Dist.</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Pond near Ikhra village</td> <td>85 m</td> <td>SE</td> </tr> <tr> <td>Ajay River</td> <td>7.2 km</td> <td>NNE</td> </tr> </tbody> </table>	Water Body	Dist.	Direction	Pond near Ikhra village	85 m	SE	Ajay River	7.2 km	NNE
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Pond near Ikhra village	85 m	SE									
Ajay River	7.2 km	NNE									
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	<b>Existence of ESZ - None within study area</b>  <b>List of Reserve &amp; Protected Forests: None within study area</b>									
n.	Project cost	Proposed – INR Rs 414 Crores									
o.	EMP cost	<table border="1"> <thead> <tr> <th>Type</th> <th>Capital (Rs. in Crores)</th> <th>Recurring (Rs. in Crores)</th> </tr> </thead> <tbody> <tr> <td>Proposed</td> <td>12.67</td> <td>1.363</td> </tr> </tbody> </table>	Type	Capital (Rs. in Crores)	Recurring (Rs. in Crores)	Proposed	12.67	1.363			
Type	Capital (Rs. in Crores)	Recurring (Rs. in Crores)									
Proposed	12.67	1.363									
p.	Employment opportunity	500 persons									
q.	Water and Power requirement	(Total )Water -2024 m <sup>3</sup> /day, Power –24.5 MW									

## Unit configuration and capacity

Plant Equipment/Facility	Existing facilities as per EC dated 31.12.2010								Proposed Units		Final (Existing + Proposed)	
	Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO					
	Config.	Cap. TP A	Config.	Cap. TP A	Config.	Cap. TP A	Config.	Cap.	Config.	Cap. TP A	Config.	Cap. TP A
Sponge Iron Plant	2x95 TPD 4x100 TPD DRI Kiln	570000	2x95 TPD 1x200 TPD DRI Kiln	117000	2x100 TPD DRI Kiln	60000	2x95 TPD 1x200 TPD DRI Kiln	10780 MT/month	1x200 TPD DRI Kiln	60000	2x95 TPD 2x200 TPD DRI Kiln	177000
Induction Furnace	4x15 Ton		4x15 T		--	--	4x15 T		2x20 Ton		4x15 T 2x20 T	
Ladle Refining Furnace	2x30 Ton	Bill ets: 192000	--	Bill ets: 192000	2x30 Ton LR /A OD	--	--	19,950 Ton/month	1x20 Ton	Bill ets: 126000	1x20 Ton	Bill ets: 318000
Argon Oxygen Degassing			--			--	--		1x15 Ton		1x15 Ton	
Billet Caster	2 strand 6/11 m		2 strand 6/11 m		--	--	2 strand 6/11 m		2 strand 6/11 m		4 Strands 6/11 m	
Rolling Mill	550 TPD	180000	550 TPD	180000	--	--	550 TPD	16,730 Ton/month	--	--	550 TPD	180000
WHRB	2x10 TPH 2x20 TPH	Power : 24 MW	2x10 TPH 1x20 TPH	Power : 12 MW	1x20 TPH	Power : 12 MW	2x10 TPH 1x20 TPH	Power: 12 MW	1x20 TPH	Power: 15 MW	2x10 TPH 2x20 TPH	Power: 27 MW (WHRB - 12)



Plant Equipment/Facility	Existing facilities as per EC dated 31.12.2010								Proposed Units		Final (Existing + Proposed)	
	Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO					
	Config.	Cap. TP A	Config.	Cap. TP A	Config.	Cap. TP A	Config.	Cap.	Config.	Cap. TP A	Config.	Cap. TP A
AFBC	1x50 TPH		1x30 TPH		1x20 TPH		1x30 TPH		1x20 TPH 1x40 TPH		1x30 TPH 1x20 TPH 1x40 TPH	MW + AFBC-15 MW)
Pellet Plant	--	--	--	--	--	--	--	--	2x0.6 MTPA	Pellets: 1200000	2x0.6 MTPA	Pellets: 1200000
Ferro Alloy Plant	2x9 MVA	Fe-Mn/Si-Mn : 30000	--	--	2x9 MVA	Fe-Mn/Si-Mn : 30,000	--	--	--	--	--	--

## Specific and General EC conditions

### A. Specific Condition:

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. PP shall complete acquisition of balance project area and conversion for industrial purpose prior to commencement of project.
- iv. The nearest habitation is Ikhra village which is at a distance of 0.15 km in South direction of the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include this location in its environmental monitoring programme.
- v. There is a Pond near Ikhra village at a distance of 0.085 km in SE of the project site. Also, there are other water bodies such as river within the study area of 10 km of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented. The PP shall ensure that there shall not be any discharge to the pond and in the adjacent area.
- vi. The water requirement of 2024 m<sup>3</sup>/day shall be sourced from the ADDA (1830 m<sup>3</sup>/day) and recycled water (194 m<sup>3</sup>/day) after obtaining necessary permission from the Competent Authority.
- vii. Three tier Green Belt shall be developed and maintained in at least 33% of the project area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Ikhra village. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- viii. All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's

OM dated 30.09.2020 amounting to Rs. 5.0 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

- ix. As committed, PP shall adopt Village Ikhra and undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- x. The PP shall improve the housekeeping at the project site as committed.

## **B. General Conditions**

### **I. Statutory compliance:**

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.
- ii. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

### **II. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iv. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

- viii. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- x. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xiii. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- xiv. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- xv. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
- xvi. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
- xvii. The particulate matter emissions from the process stacks shall be less than  $30 \text{ mg/Nm}^3$  and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
- xviii. Following additional arrangements to control fugitive dust shall be provided:
  - a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
  - b. Proper covered vehicle shall be used while transport of materials.
  - c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- xix. During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948 shall be implemented.
- xx. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within  $2 \text{ mg/m}^3$ , respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.
- xxi. Online stack monitoring system for IF and RHF shall be installed and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.

- xxii. Low NO<sub>x</sub> Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.

### **III. Water quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- iv. Water meters shall be provided at the inlet to all unit processes in the plants.
- v. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.
- vi. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.
- vii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
- viii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
- ix. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- x. Air Cooled condensers shall be used in the captive power plant.

### **IV. Noise monitoring and prevention**

- i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

- iii. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

#### **V. Energy Conservation measures**

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- iv. Practice hot charging of slabs and billets/blooms as far as possible.
- v. Ensure installation of regenerative type burners on all reheating furnaces.
- vi. The project proponent shall provide waste heat recovery system on the DRI Kilns.
- vii. The dolochar generated shall be used for power generation.
- viii. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- ix. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.

#### **VI. Waste management**

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
- ii. Kitchen waste shall be composted or converted to biogas for further use.
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- vi. Solid waste utilization
  - a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. Used refractories shall be recycled as far as possible.

## **VII. Green Belt**

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
- ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.
- iii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

## **VIII. Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

## **IX. Environment Management**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

- iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

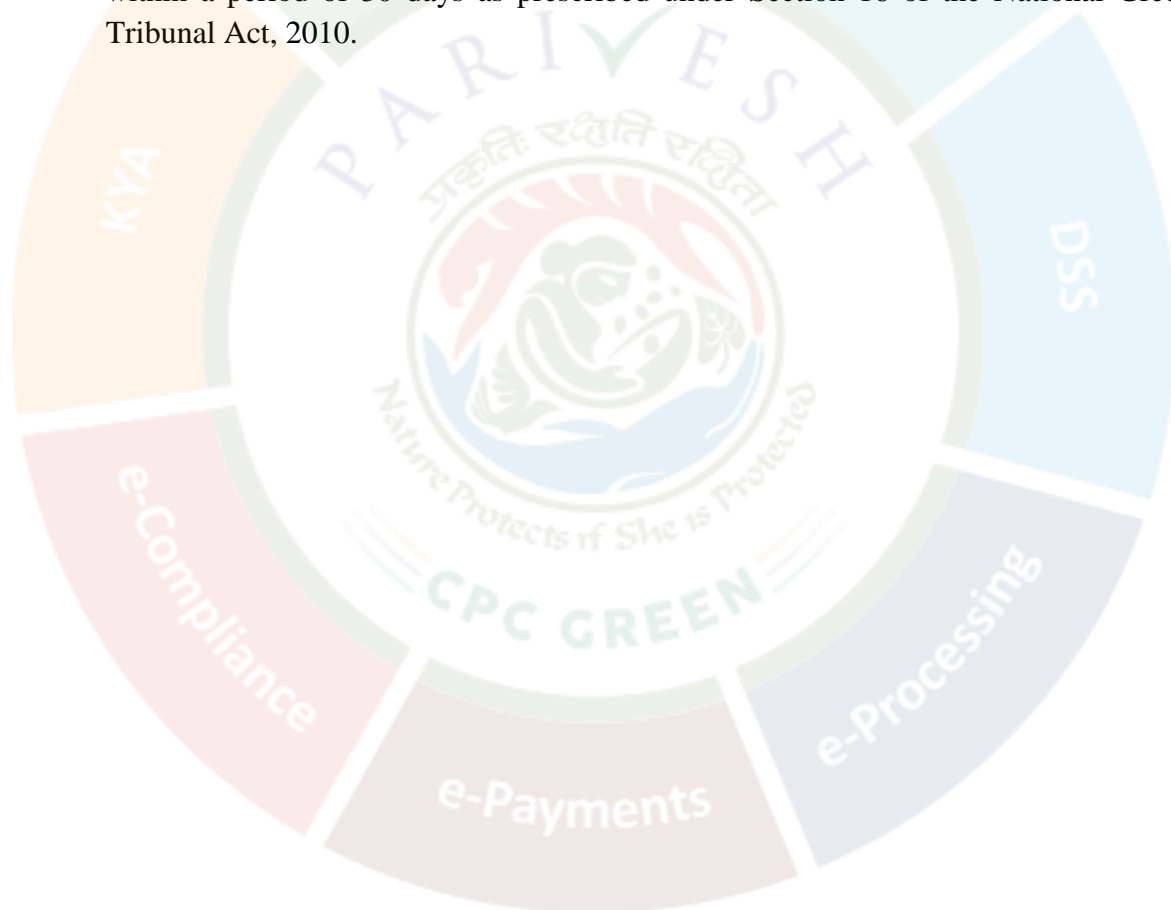
## **X. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
- vi. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vii. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- viii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- xi. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in



the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

- xii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xiii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xvi. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xvii. Any appeal against this EC 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.



## Action plan as per MoEF&amp;CC O.M. dated 30/09/2020

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
1	Purchase of one Ambulance with Medical Instruments for providing Medical Facility for nearby villages	Purchase of Ambulance and necessary medical equipment (Defibrillator, Ventilation device, Nebulizer, Oxygen cylinder, Wheelchair, First aid kit, Stretcher)	15,00,000	--	--	30,00,000
	Providing Medical facilities at Ikhra village	Free Eye operation camps, blood donation camps, free medical check-up camps, wheel chairs for people with disabilities and mobility issues. Beds for Health Care centre.	--	15,00,000	--	
2	Plantation along the boundary of Ikhra village	Plantation work (6250 trees) of 2500 m length and 10 m wide at boundary of Ikhra village	--	25,00,000	--	25,00,000
3	Providing Facilities to Old Age Home at Jamuria town	Providing 80 beds, two Solar water Heater (500 LPD), two Drinking water purifier, five Water Cooler (100 Liters), Twenty Summer Coolers, Development of meditation area	30,00,000	--	--	30,00,000
5	Renovation of Temples located in Ikhra village	Plastering, Painting, providing Havan mandap, Bhajan Hall & drinking water cooler at both Tilipara	--	15,00,000	--	15,00,000

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
		and Laxmi mata temple				
6	Drinking Water facilities at Jamuria	Providing Handpumps with Water purification system at temples located in Jamuria town Water Purification and RO system in Ikhra Primary High School	15,00,000	--	--	15,00,000
7	Development of Sports Facility at Milan Samiti Playground located in Jamuria	Providing Tennis court (Clay Court, Area - 195 Sq.m), Basketball court (Area - 441 sq.m, Concrete court), Volleyball Court (area - 162 Sq.m, Artificial grass court) at Milan Samiti playground in Jamuria	--	--	80,00,000	80,00,000
8	Facilities for local Tribal in Ikhra village	Establishment of two nos. of Smart Class (65 Sq.m, Seating capacity - 50) in Ikhra Primary High School. Provision of 30 computers, UPS, WiFi, Projectors, 40 Tables & 150 chairs etc in smart class.	--	50,00,000	--	50,00,000
9	Solid Waste Management facilities in Ikhra village	Installation of two permanent waste containers (2.5 m <sup>3</sup> ) in each Ikhra and Balanpur villages Providing Garbage tipper truck (Load-3 ton) to Jamuria Municipality	--	--	20,00,000	20,00,000

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
11	Sanitation facilities at schools in Ikhra	Providing separate toilets for Girls and Boys along with Septic Tank (2KL) and soak pit system in Ikhra Primary High School in Ikhra village	--	15,00,000	--	15,00,000
12	Conservation of Pond, Ikhra village	Implementation of Brick lining with a Wharf platform at pond	10,00,000	--	--	40,00,000
		Levelling and smoothing of bank of pond	500,000	--	--	
		Stabilization of earthen embankments with vegetative or rock riprap to avoid soil erosion and the inflow drainage channels with the stone revetment so as to avoid rapid seepage	8,00,000	--	--	
		Pond boundary will be provided with fence (temporary fencing)	--	200,000	--	
		Greenbelt development around the pond of 5 m width to preserve the pond	--	10,00,000	--	
		All the inflow drainage channel leading to pond will be provided with suitable silt barriers or sediment traps at suitable intervals for control of silt/waste	5,00,000	--	--	
13	Skill Development Class in Ikhra village	Providing Skill development & Industrial training class (80 sq.m, Seating	--	15,00,000	--	15,00,000

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
		capacity – 60) in Ikhra School.				
14	Construction of Metalled Road for local commute for Ikhra village to Jamuria Road	Land Development and Construction work for laying of road of 6 km length and 6 m width connecting Ikhra village to Jamuria road	1,50,00,000	--	--	150,00,000
15	Installation of Solar Street light on road connecting Ikhra and Balanpur Villages	Providing 20 Solar Street lights (12 watt, 2000 lumens) with Pole along the 6 km road, connecting Ikhra and Balanpur villages	--	--	15,00,000	15,00,000
<b>Grand Total in Rs.</b>		--	<b>2,38,00,000</b>	<b>1,47,00,000</b>	<b>1,15,00,000</b>	<b>5,00,00,000</b>

