

DCBL/ENV/MoEFCC/COMPL/MINES/NARANDA/052023/02

Date: 01.05.2023

Additional Principal Chief Conservator of Forests
Ministry of Environment, Forest & Climate Change
Regional Office (West Central Zone), Ground Floor,
East Wing, New Secretariat Building, Civil Lines
NAGPUR - 440001

Sub: Half yearly Compliance of Environmental Clearance issued for our Naranda Limestone Mine (ML area 71.01 and production of 2.4 MTPA) at village Naranda, in Korpana Mandal, in Chandrapur Distt., in Maharashtra for the period of October, 2022 to March, 2023.

Ref: Environmental Clearance F. No. - J-11015/380/2007 -IA II (M), Date: 12th Dec 2008

Dear Sir,

With respect to the subject referred above, we are submitting herewith the point wise half yearly compliance of above referred Environmental Clearance for our Naranda Lime Stone Mines for the period of **October, 2022 to March, 2023**. Soft copy of the compliance report is sent on your email ID ecompliance-mh@gov.in

Submitted for your kind information and record please.

Thanking you

Yours Faithfully,
For Dalmia Cement (Bharat) Ltd.



Subbaraidu Ayyagari
(Unit Head)

- CC:
1. The Regional Director, Central Pollution Control Board (CPCB), Regional Office, Jog Centre, 3rd Floor, Mumbai Pune Road, Wakdewadi, Pune, Maharashtra – 411003.
 2. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. CineMax Theatre, Sion (E), MUMBAI (Mumbai) - 400 022.
 3. Regional Officer, Maharashtra Pollution Control Board (MPCB), 1st Floor, Udyog Bhawan, Railway Station Road, Chandrapur – 442401

Dalmia Cement (Bharat) Limited

Chandrapur Cement Works, Village, Naranda, Taluka - Korpana, District - Chandrapur - 442916, Maharashtra, India.

Corporate Office - 11th & 12th Floor, Hansolaya Building, 15 Barakhamba Road, New Delhi - 110 001, Delhi, India

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Registered Office: Dalmiapuram, District Tiruchirappalli - 621 651, Tamil Nadu, India

A Dalmia Bharat Group company www.dalmiabharat.com

ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

Ref: Environmental Clearance F. No. - J-11015/380/2007 -IA II (M), Date: 12th Dec 2008

Name of the Industry: Naranda Lime Stone Mines, Dalmia Cement (Bharat) Limited.

EC Details – Environmental Clearance for Naranda Limestone Mine (ML area 71.01 and production of 2.4 MTPA) at village Naranda, in Korpana Mandal, in Chandrapur Distt., in Maharashtra.

Compliance Period – October 2022 to March 2023

Compliance Report –

A. Specific Conditions –

Sr No	Condition	Compliances
(i)	No two pits shall be simultaneously worked i.e. before the first is exhausted and reclamation work completed, no more mineral bearing area shall be worked.	<ul style="list-style-type: none">• Agreed and being complied.• We are operating the mines in one pit only.
(ii)	After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation are visible during the first year of mining operations in the next pit.	<ul style="list-style-type: none">• Mines operation is under progress. Reclamation & Plantation of exhausted pit shall be done as per the mining plan• We have planted 1516 Plants during compliance period
(iii)	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	<ul style="list-style-type: none">• Mining is being done as per approved mining plan.
(iv)	Primary survey data of flora and fauna shall be submitted to the ministry within six months.	<ul style="list-style-type: none">• Complied.• A complete set of documents has been submitted to Regional office of the ministry vide letter no. MIL/Mines/2009-10/503 dated 16.02.2010.• In addition to this, after acquisitions of Murli industries limited, we have conducted the Biodiversity (flora & fauna) study of the mines and nearby area by NABAT accredited FAE. Copy of the report is enclosed as Annexure - 1
(v)	Conservative plan for wildlife shall be prepared in consultation with the office of the concerned chief wildlife warden within six months. The plan shall consist of inbuilt monitoring and evaluation mechanism.	<ul style="list-style-type: none">• Complied.• Reports has been already submitted to Regional office of the ministry vide letter no. MIL/Mines/2009-10/503, Dtd. 16.02.2010.

	Necessary fund for implementation of the same shall be separately allocated and shall not be diverted for any other activity.	
(vi)	Blast vibrations study shall be conducted and submitted to the Ministry within six months. The study shall also provide measures for prevention of blasting associated impact on nearby houses and agricultural fields.	<ul style="list-style-type: none"> • Already Complied.
(vii)	Continuous air ambient quality monitoring system shall be installed before three months of start of mining activity at appropriate sites (including cement plant) in consultation with the State Pollution Control Board / Regional office of central pollution control board. Ambient air quality data shall be regularly submitted to the Regional Office of the Ministry and other concerned departments. The ambient air quality monitoring shall be including PM10, regular analysis of silica content for PM10, shall be carried out. Assessment of silica in silt shall be regularly carried out and record maintained.	<ul style="list-style-type: none"> • Online continuous ambient air quality monitoring station has been installed at mines premises and data is being transferred to the server of CPCB and MPCB. • Monthly ambient air quality monitoring report is being submitted to the concern authority i.e. MPCB on Monthly. • We are regularly conducting ambient air quality monitoring including PM10 and PM2.5 through NABL accredited laboratory. • Assessment of the silica in silt in being carried out and record are being maintained.
(viii)	Need based assessment for the nearby villages shall be conducted to study economic measures which help in upliftment of poor 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. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self-employment and jobs.	<ul style="list-style-type: none"> • The impact of mining projects provides directly and indirect employment for the nearby villagers. The literacy rate and better living standards is enhanced due to increased earning capacity of the villager. • Better medical facilities, transportation and communication facilities are available and the project generated more revenue to the government in the form of royalty, better admixture of the culture which results in preservation of cultural heritage and this project will uplift socio-economic level. • As per corporate social responsibility we have been providing employment opportunities to the personal residing nearby villages, Infrastructure development and vocational training activities are being organized for the nearby villagers.
(ix)	Action plan for economic upliftment of poor sections of societies specially tribals, scheduled caste shall be formulated and implemented within six months. Status of implementation shall be reported to the Regional Office of the Ministry and the State Govt.	<ul style="list-style-type: none"> • We are doing the socio-economic development of the nearby villages through CSR activity. • The details of the various initiatives taken under CSR are enclosed as Annexure -02
(x)	Land use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural produce and land/ common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Regional office of the Ministry	<ul style="list-style-type: none"> • Complied. • No agricultural land / public property is being damaged due to mining activity.

	within six months. Annual status of implementation of plan and expenditure thereon shall be reported to the Regional Office of the Ministry from time to time.	
(xi)	Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Regional Office of the Ministry within six months and thereafter every year from the next consequent year.	<ul style="list-style-type: none"> • Rain water is being collected in mine pit for ground water recharge and the water harvested in mines pit is being utilized in the mines and plant operation.
(xii)	Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantation of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.	<p>To control the soil erosion and for silt management, following measure are being followed.</p> <ul style="list-style-type: none"> • Formation of water garland to regulate and drain the rain waters from the quarry and direct its course away from the dumping area. • The dump is designed to have reserve slopes so that rain water does not flow through the dump slopes. • Provision of plantation around the foot of the dumps to control the soil erosion and silt management.
(xiii)	Cultivable waste land within 5 km radius of the lease shall be identified and developed into productive land and made available to villages. Status of implementation shall be submitted to the Regional office of the Ministry within six months.	<ul style="list-style-type: none"> • Noted and will be complied.
(xiv)	Trenches / garland drains shall be constructed at foot of dumps and coco filters (or other suitable filters) shall be installed at regular intervals to arrest silt from being carried to water bodies. Adequate no of check dams and gully plugs shall be constructed across seasonal / perennial nallahs (if any) flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out. Garland drain of appropriate size, gradient and length shall also be constructed for both mine pit and for waste dump. Sump capacity shall be designated keeping 50% safety margin over and above peak sudden rainfall (based on 50-year data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.	<ul style="list-style-type: none"> • Complied. • To arrest the silt, siltation pond provided at Mines. • In addition to his adequate number of check dams has been constructed at mines premises to arrest the silt. • Trenches / garland drains constructed at foot of dumps to arrest silt from being carried with water bodies.
(xv)	Ground water in the core zone shall be regularly monitored for contamination and depletion due to mining activity and records	<ul style="list-style-type: none"> • Monitoring of Ground water in the core zone is being carried out in and around the mining area and records are being maintained.

	maintained. The monitoring data shall be submitted to the regional office of the ministry regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water shall be set up and record maintained.	<ul style="list-style-type: none"> The ground water quality monitoring reports are attached as Annexure – 03. 																												
(xvi)	Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Regional Office of the Ministry.	<ul style="list-style-type: none"> Water tankers provided for water sprinkling on road. Water sprinklers are being provided for the dust suppression during mines operation. Fugitive Dust Emission Monitoring is being done in nearby area and reports are being submitted to Regional Office, MoEF&CC along with the Half yearly compliance report. Fugitive Dust Emission Monitoring reports during the compliance period is as follows <table border="1"> <thead> <tr> <th>Month</th> <th>Location -01</th> <th>Location -02</th> <th>Location -03</th> </tr> </thead> <tbody> <tr> <td>Oct-22</td> <td>358</td> <td>212</td> <td>181</td> </tr> <tr> <td>Nov-22</td> <td>99</td> <td>67</td> <td>83</td> </tr> <tr> <td>Dec-22</td> <td>148</td> <td>123</td> <td>72</td> </tr> <tr> <td>Jan-22</td> <td>57</td> <td>24</td> <td>88</td> </tr> <tr> <td>Feb-23</td> <td>64</td> <td>74</td> <td>64</td> </tr> <tr> <td>Mar-23</td> <td>74</td> <td>91</td> <td>424</td> </tr> </tbody> </table>	Month	Location -01	Location -02	Location -03	Oct-22	358	212	181	Nov-22	99	67	83	Dec-22	148	123	72	Jan-22	57	24	88	Feb-23	64	74	64	Mar-23	74	91	424
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(xvii)	Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore / dust takes place. Transportation shall be done only during day time.	<ul style="list-style-type: none"> The limestone of the mines is being utilized in the captive cement plant located near the mines area. The material is being transported from crusher to plant through covered conveyer belt. 																												
(xviii)	Occupational health and safety measures for the workers including identification of work related health hazardous, training of malaria eradication, HIV and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipment etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed blow up action wherever required.	<ul style="list-style-type: none"> As per the mining statutory laws regular periodic medical check-ups for the persons engaged in the mines is being done. Moreover, we are imparting free medical treatment at free of cost by the company and dispensary is established at the plant site with medical practitioner. Company ambulance is available to shift the casualty in case of serious condition. For occupational health and safety measures periodical health check up being carried out by medical practitioner. Personal protective Equipments are being provided to works working in the mines. 																												

	Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses. The road shall be black topped.	<ul style="list-style-type: none"> • Village road is not being used for transportation of minerals, • Haul road has been constructed in mines for mines operation and repaired as per requirement. 																																								
(xx)	Top soil/ soil waste shall be stacked properly and separately with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area.	<ul style="list-style-type: none"> • Top soil is stacked properly with proper slope and adequate safeguards. The top soil will be utilized for backfilling and reclamation of mined out area. • The topsoil in the mining area striped and preserved along the mine lease boundary. 																																								
(xxi)	Monitoring of soil samples for assessment of contamination due to mining activity shall be regularly conducted and records maintained.	<ul style="list-style-type: none"> • Soil Monitoring is being done regularly are records are maintained. 																																								
(xxii)	Over burden (OB) shall be stacked at earmarked dump site(s) only and not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10m and overall slope of the dump shall not exceed 28°. The OB dump shall be backfilled. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitation areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests of six-monthly basis.	<ul style="list-style-type: none"> • The Over burden (OB) generated during mines operation is being and will be stacked at earmarked dump site(s) as per mining plan. • The OB dumps will be vegetated scientifically with suitable native species to prevent erosion and surface run off. • Continuous monitoring and management of rehabilitation areas is being and will be done to maintain the vegetation to make it self – sustaining. • Compliance status of the same is being submitted to the MoEF&CC on half yearly basis. • Plantation details is enclosed as Annexure -4 • The lime stone production, reject and over burden generation details during compliance period are given below <table border="1"> <thead> <tr> <th>Sr</th> <th>Month</th> <th>Production (MT)</th> <th>Over Burden (MT)</th> <th>Reject (MT)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Oct-22</td> <td>98098.04</td> <td>0</td> <td>1731.58</td> </tr> <tr> <td>2</td> <td>Nov-22</td> <td>46692.18</td> <td>155.46</td> <td>11761.7</td> </tr> <tr> <td>3</td> <td>Dec-22</td> <td>145469.12</td> <td>0</td> <td>63695.62</td> </tr> <tr> <td>4</td> <td>Jan-23</td> <td>89895.14</td> <td>0</td> <td>105689.6</td> </tr> <tr> <td>5</td> <td>Feb-23</td> <td>135592.8</td> <td>1530.36</td> <td>51321.46</td> </tr> <tr> <td>6</td> <td>Mar-23</td> <td>126002.18</td> <td>3391.08</td> <td>57619.78</td> </tr> <tr> <td></td> <td></td> <td>641749.458</td> <td>5076.9</td> <td>291819.74</td> </tr> </tbody> </table>	Sr	Month	Production (MT)	Over Burden (MT)	Reject (MT)	1	Oct-22	98098.04	0	1731.58	2	Nov-22	46692.18	155.46	11761.7	3	Dec-22	145469.12	0	63695.62	4	Jan-23	89895.14	0	105689.6	5	Feb-23	135592.8	1530.36	51321.46	6	Mar-23	126002.18	3391.08	57619.78			641749.458	5076.9	291819.74
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(xxiii)	Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.	<ul style="list-style-type: none"> • Slope of the mining bench and ultimate pit limit is as per approved mining plan. 																																								

(xxiv)	Drilling (if any) shall be conducted by using dust extractors/ wet drilling. Controlled blasting shall be undertaken.	<ul style="list-style-type: none"> • Wet drilling is being adopted with dust extractors. Controlled blasting is being adopted to reduce the impact of dust and noise.
(xxv)	Plantation shall be raised adequately in the ML area, haul roads, OB dump sites etc. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO / Agricultural department. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. The density of the trees shall be around 2500 plants per ha. The company shall involve local people with the help of self-help group for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Regional Office of the Ministry every year.	<ul style="list-style-type: none"> • Plantation is being carried out in the DCBL area as per the Mining Plan and CPCB guidelines. • We have planted 1516 Plants during compliance period • Plantation details along with the photographs of the Green belt at Mines are enclosed as Annexure -04
(xxvi)	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year – pre – monsoon (April-May), monsoon (August), Post – monsoon (November) and winter (January) and the data thus collected shall be regularly shall be regularly sent to MoEF, Central Ground Water Authority and Regional Director, Central Ground Water Board.	<ul style="list-style-type: none"> • Regular monitoring is being conducted in and around mining lease area. • We have installed the piezometer for the regular ground water level monitoring. • Ground water quality monitoring reports or pre and post monsoon are enclosed as Annexure – 03.
(xxvii)	The waste water from the mine shall be treated to conform to the prescribed standards before discharging in to the natural stream. The discharged water from the Tailing Dam (if any) shall be regularly monitored and report submitted to the Ministry of Environmental & Forests, Central Pollution Control Board and the State Pollution Control Board.	<ul style="list-style-type: none"> • No waste water is being discharged to natural stream. • Domestic sewage generated is being disposed through septic tank followed by soak pit.
(xxviii)	Prior permission from the competent authority shall be obtained for extraction of ground water, if any.	<ul style="list-style-type: none"> • NOC is taken from CGWB, Nagpur for the ground water extraction vide NOC No. CGWA/NOC/MIN/ORIG/2022/ 14242 Dated 05/01/2022
(xxix)	Vehicular emission shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permission as prescribed under Central Motor Vehicle Rules, 1989 and its amendments. Transportation of ore shall be done only during day time. The vehicles transporting ores shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the course of transportation. No overloading of	<ul style="list-style-type: none"> • Only PUC certified vehicles is used for mining excavation and transportation. • Vehicles transporting ore is being covered through Tarpaulin to control dust emission. • No overloading of ores is done for mineral transportation. • The limestone is utilized in cement plant adjacent to the mines. • No wild life sanctuary is located near mines area.

	ores for transportation shall be committed. The trucks transporting ore shall not pass through wild life sanctuary.																																																																																																	
(xxx)	Action plan with respect to suggestions/ improvements and recommendation made during public consultation / hearing shall be submitted to the Ministry and the State Govt. within six months.	<ul style="list-style-type: none"> Action plan with respect to suggestions/ improvements and recommendation made during consultation / hearing has been compiled in final EIA report. 																																																																																																
(xxxii)	A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environmental & Forest, 5 year in advance of final mine closure for approval.	<ul style="list-style-type: none"> Mine closure plan submitted to ministry along with approved mine plan. 																																																																																																
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(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	<ul style="list-style-type: none"> Noted and will be followed 																																																																																																
(ii)	No change in the calendar plan including excavation, quantum of mineral (iron ore) and waste shall be made.	<ul style="list-style-type: none"> Noted and will be followed 																																																																																																
(iii)	Four ambient air quality monitoring station shall be established in the core zone as well as in the buffer zone for RPM, SPM, So ₂ , NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographic features and environmentally and ecologically sensitive target and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	<ul style="list-style-type: none"> Ambient air quality monitoring station are established in the core zone as well as in the buffer zone. Latest Ambient Air Quality Monitoring Reports of buffer zone and core zone is as follows Summary of ambient air quality in core zone <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="6">AMBIENT AIR STATION -01 NEAR OLD WORKING AREA</th> </tr> <tr> <th>Month</th> <th>PM 2.5 (ug/m³)</th> <th>PM 10 (ug/m³)</th> <th>SO₂ (ug/m³)</th> <th>NO_x (ug/m³)</th> <th>CO (ug/m³)</th> </tr> </thead> <tbody> <tr> <td>Standard</td> <td>60</td> <td>100.0</td> <td>80.0</td> <td>80.0</td> <td>4.0</td> </tr> <tr> <td>Oct-22</td> <td>23.0</td> <td>48.0</td> <td>8.9</td> <td>10.3</td> <td>0.98</td> </tr> <tr> <td>Nov-22</td> <td>16.0</td> <td>34.0</td> <td>9.9</td> <td>10.9</td> <td>0.85</td> </tr> <tr> <td>Dec-22</td> <td>27.0</td> <td>61.0</td> <td>8.8</td> <td>10.6</td> <td>0.80</td> </tr> <tr> <td>Jan-23</td> <td>18.0</td> <td>45.0</td> <td>6.9</td> <td>12.1</td> <td>0.89</td> </tr> <tr> <td>Feb-23</td> <td>20.0</td> <td>37.0</td> <td>7.9</td> <td>10.7</td> <td>0.97</td> </tr> <tr> <td>Mar-23</td> <td>12.0</td> <td>36.0</td> <td>10.8</td> <td>13.4</td> <td>0.77</td> </tr> <tr> <th colspan="6">AMBIENT AIR STATION -02 NEAR EXPLOSIVE MAGAZINE</th> </tr> <tr> <td>Oct-22</td> <td>22.0</td> <td>48.0</td> <td>9.4</td> <td>10.6</td> <td>0.96</td> </tr> <tr> <td>Nov-22</td> <td>15.0</td> <td>31.0</td> <td>8.7</td> <td>10.8</td> <td>0.86</td> </tr> <tr> <td>Dec-22</td> <td>15.0</td> <td>39.0</td> <td>11</td> <td>13.4</td> <td>0.88</td> </tr> <tr> <td>Jan-23</td> <td>11.0</td> <td>31.0</td> <td>10.8</td> <td>14.1</td> <td>0.79</td> </tr> <tr> <td>Feb-23</td> <td>16.0</td> <td>24.0</td> <td>8.9</td> <td>14.1</td> <td>0.78</td> </tr> <tr> <td>Mar-23</td> <td>14.0</td> <td>40.0</td> <td>11.8</td> <td>14.1</td> <td>0.89</td> </tr> </tbody> </table>	AMBIENT AIR STATION -01 NEAR OLD WORKING AREA						Month	PM 2.5 (ug/m ³)	PM 10 (ug/m ³)	SO ₂ (ug/m ³)	NO _x (ug/m ³)	CO (ug/m ³)	Standard	60	100.0	80.0	80.0	4.0	Oct-22	23.0	48.0	8.9	10.3	0.98	Nov-22	16.0	34.0	9.9	10.9	0.85	Dec-22	27.0	61.0	8.8	10.6	0.80	Jan-23	18.0	45.0	6.9	12.1	0.89	Feb-23	20.0	37.0	7.9	10.7	0.97	Mar-23	12.0	36.0	10.8	13.4	0.77	AMBIENT AIR STATION -02 NEAR EXPLOSIVE MAGAZINE						Oct-22	22.0	48.0	9.4	10.6	0.96	Nov-22	15.0	31.0	8.7	10.8	0.86	Dec-22	15.0	39.0	11	13.4	0.88	Jan-23	11.0	31.0	10.8	14.1	0.79	Feb-23	16.0	24.0	8.9	14.1	0.78	Mar-23	14.0	40.0	11.8	14.1	0.89
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Oct-22	22.0	48.0	9.4	10.6	0.96																																																																																													
Nov-22	15.0	31.0	8.7	10.8	0.86																																																																																													
Dec-22	15.0	39.0	11	13.4	0.88																																																																																													
Jan-23	11.0	31.0	10.8	14.1	0.79																																																																																													
Feb-23	16.0	24.0	8.9	14.1	0.78																																																																																													
Mar-23	14.0	40.0	11.8	14.1	0.89																																																																																													

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(iv)	Data on ambient air quality (RPM,SPM, SO2, NOx) should be regularly submitted to the ministry including its regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.	<ul style="list-style-type: none"> Data of Ambient Air Quality Monitoring from NABL accredited laboratory are being submitted to the regional office located at Nagpur and MPCB along with the half yearly compliance report. 																																																																						
(v)	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	<ul style="list-style-type: none"> Fugitive dust emissions is being controlled by water sprinkling on haul road, loading and unloading points etc. 																																																																						
(vi)	Measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.	<ul style="list-style-type: none"> Ear plugs and mask are provided to all workers engaged in operation of HEMM during mining operation 																																																																						
(vii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	<ul style="list-style-type: none"> No industrial waste water is being generated due to mining activities. 																																																																						
(viii)	Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.	<ul style="list-style-type: none"> PPEs are provided to all workers to protect workers from respiratory illness and other hazard. Regular safety trainings and awareness programs are being conducted at mines. 																																																																						

(ix)	Provision shall be made for the housing the labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health, crèche etc. the housing may be in the form of temporary structures to be removed after the completion of the project.	<ul style="list-style-type: none"> Local workers are engaged in mining activity, residence colony is not required. Will be complied if required. 																		
(x)	A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the head of the Organisation.	<ul style="list-style-type: none"> A separate environmental management cell comprising of qualified and experienced staff is established under the control of Environment Head who report to Unit head. 																		
(xi)	The project authorities shall inform to the Regional Office of the Ministry located at Bhopal regarding data of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	<ul style="list-style-type: none"> Complied. 																		
(xii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.	<ul style="list-style-type: none"> Year wise expenditure towards environmental protection will be submitted in six monthly compliance report. Fund earmarked for environmental protection measures is being and will be kept in separate account. <p>Environment Expenditure for the compliance period is given below</p> <table border="1" data-bbox="1193 778 1998 1145"> <thead> <tr> <th>SN</th> <th>Activity</th> <th>Expenditure (Oct-22 to Mar-23)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Operation and Maintenance of Air Pollution Control Equipment</td> <td>4.80</td> </tr> <tr> <td>2</td> <td>Fugitive Dust Emission Control Measures</td> <td>1.95</td> </tr> <tr> <td>3</td> <td>Environment Monitoring</td> <td>2.52</td> </tr> <tr> <td>4</td> <td>Green Belt Development</td> <td>2.85</td> </tr> <tr> <td></td> <td>Total</td> <td>12.12</td> </tr> </tbody> </table>	SN	Activity	Expenditure (Oct-22 to Mar-23)	1	Operation and Maintenance of Air Pollution Control Equipment	4.80	2	Fugitive Dust Emission Control Measures	1.95	3	Environment Monitoring	2.52	4	Green Belt Development	2.85		Total	12.12
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(xiv)	The regional office of the Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information / monitoring reports.	<ul style="list-style-type: none"> Noted and we will extend full cooperation to the officials of Regional office during their visit. 																		

(xv)	A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any from whom suggestion / representation has been received while processing the proposal.	• Complied
(xvi)	State pollution control board shall display a copy of the clearance letter at the Regional office. District industry Centre and Collector's office / Tehsildar's Office for 30 days.	• Complied
(xvii)	The project authorities shall advertise at least in two local newspapers widely circulated. One of which shall be in the vernacular language of the locality concerned within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of the Ministry located in Bhopal.	• Complied.
5.	The ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environmental protection.	• Noted.
6.	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 Environmental (Protection) Act, 1986.	• Noted.
7.	Any appeal against this environmental clearance shall lie with the National Environmental Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environmental Appellate Authority Act, 1997.	• Noted.
8.	The above conditions will be enforced inter – alia, under the provision of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environmental (Protection) Act, 1986 and the Public Liability Insurance Act. 1991 along with their amendments and rules.	• Noted.

Biodiversity Assessment Report

Present document is the study report based on the Flora – Fauna Survey carried out during month of December 2021 to evaluate the presence of plants and animals around 10 Km radial distance from the project site - M/s Murli Industries Ltd., Subsidiary of Dalmia Cement, village Naranda, taluka Korpana, Dist. Chandrapur (M.S.)

Project proponent

**M/s Murli Industries Ltd,
Subsidiary of Dalmia Cement,**

Village Naranda, taluka Korpana,
Dist. Chandrapur (M.S.)

Prepared By

Dr. D. B. Sawarkar

M.Sc., Ph. D. (Zoology)
NABET Accredited FAE

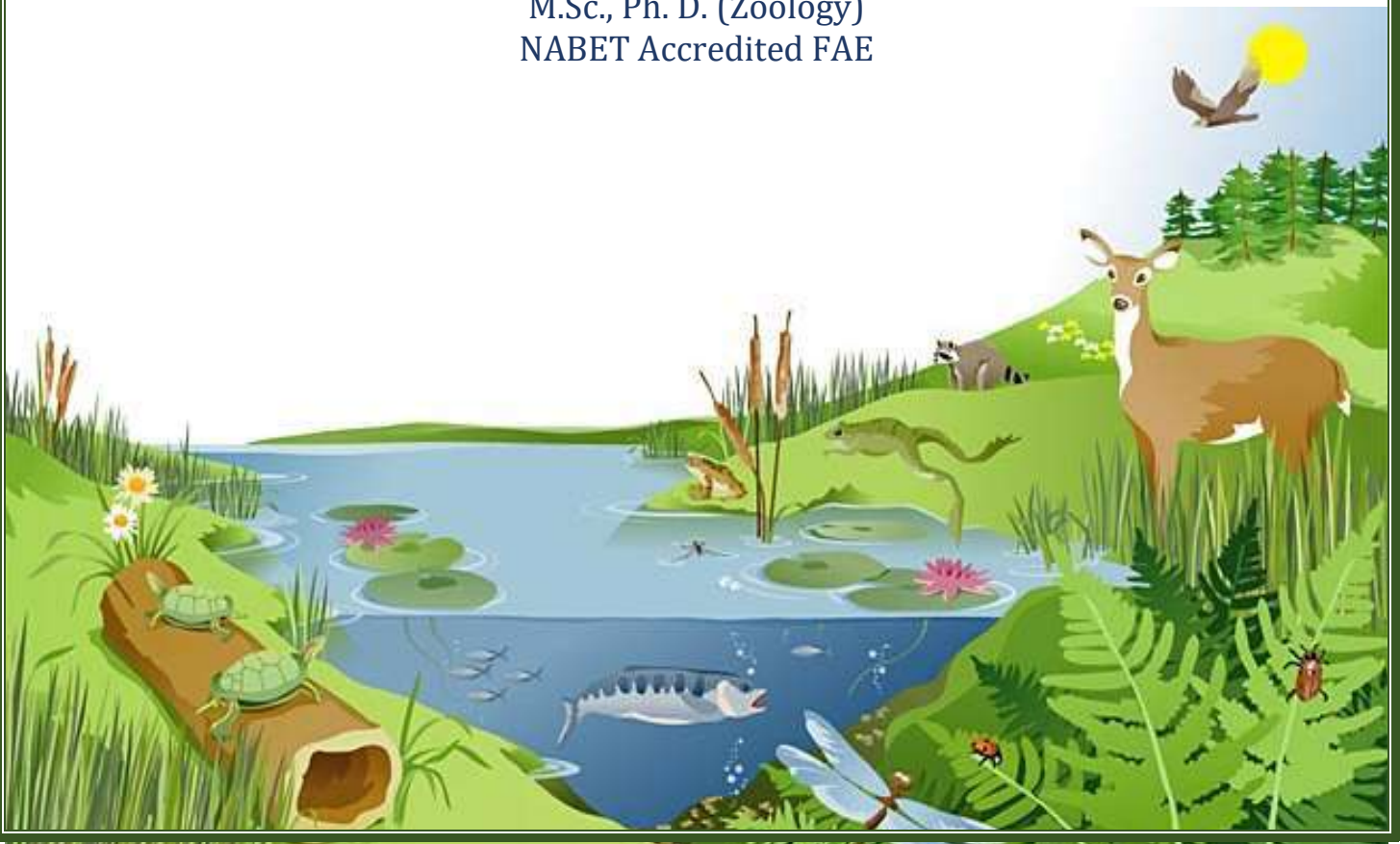


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1. Introduction:-

Many developmental activities can cause undesirable impacts on terrestrial and aquatic ecosystems. Examples of such impacts include habitat degradation, wetland drainage systems, industrial and urban development projects, deforestation and other natural resource loss.

Prediction and assessment of impacts on the biological environment entail a no. of technical and professional consideration related to both the predictive aspects and the interpretation of the significance of anticipated changes. Impact, prediction and assessment for the biological environment has also been called Ecological Impact Assessment. (*Westman, 1985*)

To identify both adverse and significant impacts on biological environment, predictions of significance of such impacts, site specific assessment impacts and provision of mitigation measures, preparation of Environmental management plan and methods of monitoring of impacts need to study the concept of ecosystem and biodiversity, biogeochemical cycles and fundamentals and carrying capacity are very important. (*EIA theory and practice, M. Anji Reddy,2013*)

2. Project Description

Murli Industries Limited : Integrated cement plant of the M/s Murli Industries Limited (MIL) is located at village – Naranda, Tehsil – Korpana, Dist- Chandrapur- Maharashtra with the production capacity of Clinker 2 MTPA, OPC 2.16 MTPA, PPC 2.86 MTPA, and captive power plant Of 33 MW capacity. The lime stone required for the cement production is being taken from the nearby mines of MI i.e. Naranda Lime Stone Mines located – Naranda, Tehsil – Korpana, Dist- Chandrapur- Maharashtra with the production capacity of 2.4 MTPA. And Zutting Pimpri Lime Stone Mines cluster {Zutting (18.06 Ha), Zutting (25.28 Ha), Zutting (42.16 Ha) Pimpri (30.33 Ha)} are located at Korpana taluka of Chandrapur District and Limestone mines located at Pimpri, Taluka Korpana, Dist. Chandrapur.

MIL incorporated under the Companies Act, 1956 was operating a Cement Plant at Naranda, District Chandrapur. The Company has now been taken over by M/s Dalmia Cement (Bharat) Limited (DCBL) in NCLT and it is now a Subsidiary of Dalmia Bharat Group Company.

In pursuant to the order dated April 05, 2017 of the National Company Law Tribunal, Mumbai Bench, Murli Industries Limited (MIL) was admitted for corporate insolvency resolution process in accordance with Insolvency and Bankruptcy Code, 2016. The resolution plan (“Resolution Plan”) of Dalmia Cement (Bharat) Limited (DCBL) has been approved by the Committee of Creditors of MIL on December 20, 2017, the National Company Law Tribunal, Mumbai Bench vide its order(s) dated July 03, 2019, July 22, 2019 and July 25, 2019 and by the National Company Law Appellate Tribunal vide its order dated January 24, 2020. And pursuant to implementation of the Resolution Plan, MIL has become a subsidiary of DCBL from September 10, 2020. The plant of Murli Industries was not being operational since October 2014. After the acquisition of MIL plant, Dalmia Cement (Bharat) limited has started the revival work from 10 Sept 2020 and the revival work of the plant is under progress. DCBL Plant will operate the plant by the Name of Murli Industries Limited.

Dalmia Cement (Bharat) Limited: Dalmia Bharat Group is a pioneer in the cement manufacturing for over eight decades since 1939. Dalmia Cement (Bharat) Limited (DCBL) is the 4th largest listed Indian Cement Company having strong presence in Southern, Eastern & North-East region of the country. The company operates a manufacturing capacity of 34 million tonnes per annum (MTPA), across 13 cement plants and grinding units, spread across nine states. With an expanding India footprint, the company is a category leader in all kinds of cement including super-specialty cements used for oil well, railway sleepers and air strips. Currently DCBL has Cement plants in Tamil Nadu (Dalmiapuram & Ariyalur), Andhra Pradesh (Kadapa), Meghalaya (Thangskai) Karnataka (Belgaum), Jharkhand (Bokaro), Assam (Umrangso & Lanka), Odisha (Rajgangpur & Kapilas), Bihar (Kalyanpur) and West Bengal (Medinipur).

DCBL is a member of WBCSD and a first company to achieve GREENPRO Certification from CII. DCBL is in partnership with Global Alliance “EP 100” & CDP “RE 100” for Energy productivity and towards Renewable Energy commitments. The group’s cement business is globally ranked No. 1 by CDP in 2018 on business readiness for a low carbon transition and has achieved the lowest carbon footprint in the cement sector globally. It follows the business philosophy of ‘Clean & Green is Profitable and Sustainable’ to create positive environmental and social impacts. By replacing conventional fuels and raw materials with alternative

solutions, the group continues to expand its overall renewable energy portfolio. Its blended cement portfolio and continued investment in technology reduce any adverse impact on the planet. With a clear thrust on improving efficiency in all practices and technological innovations, the group is dedicated to operate its facilities with the utmost respect for the communities and environment it exists in.

Dalmia Cement is 5 times water positive and is the first cement company in the world to join EP100 and RE100. It has also partnered with the international Finance Corporation to promote sustainable practices.

Location:

The area of Naranda Mines is located at latitude 19°47'01.62" N to 19°47'47.95" N and longitude 79°02'51.19" E to 79°03'50.62" E. MIL has three mines at Zutting with lease area 18.06 Ha, 25.28 Ha and 42.16 Ha which are located at latitude 19°46'00" N to longitude 79°03'30" E, latitude 19°47'50" N to longitude 79°03'35" E, & latitude 19°47'50" N to longitude 79°03'35" E resp. One mine of MIL is at Pimpri with latitude 19°47'50" N & longitude 79°03'35" E. Entire study area is covered by Survey of India Toposheets with numbers 56I/13, 56I/14, 56M/1 and 56M/2 on 1:50000 scale.

Topography:

Topography of the site is saucer shaped. The highest elevation is about 403 m. AMSL is along southern periphery while lowest elevation of 170 m. AMSL is along river Penganga in the North-Eastern portion.

Accessibility:

The MIL is accessible throughout the year by nearest high way SH-236 which is 5.5 km away from the site, nearest railway station is Ghuggus Railway station about 20 kms and nearest airport is Dr. Babasaheb Ambedkar International Airport, Nagpur about 150 km away. There are no national parks, wildlife sanctuaries, Biosphere reserves, Heritage sites within 10 kms radius from the mine. Index map is given below as **Fig I**.

Meteorological conditions:-

The average rainfall of this area is about 1122 mm. the ambient temp is 47⁰ C maximum and minimum is 8⁰C. Thus, this area experience wet and dry climate; with dry conditions prevailing for most of the year.

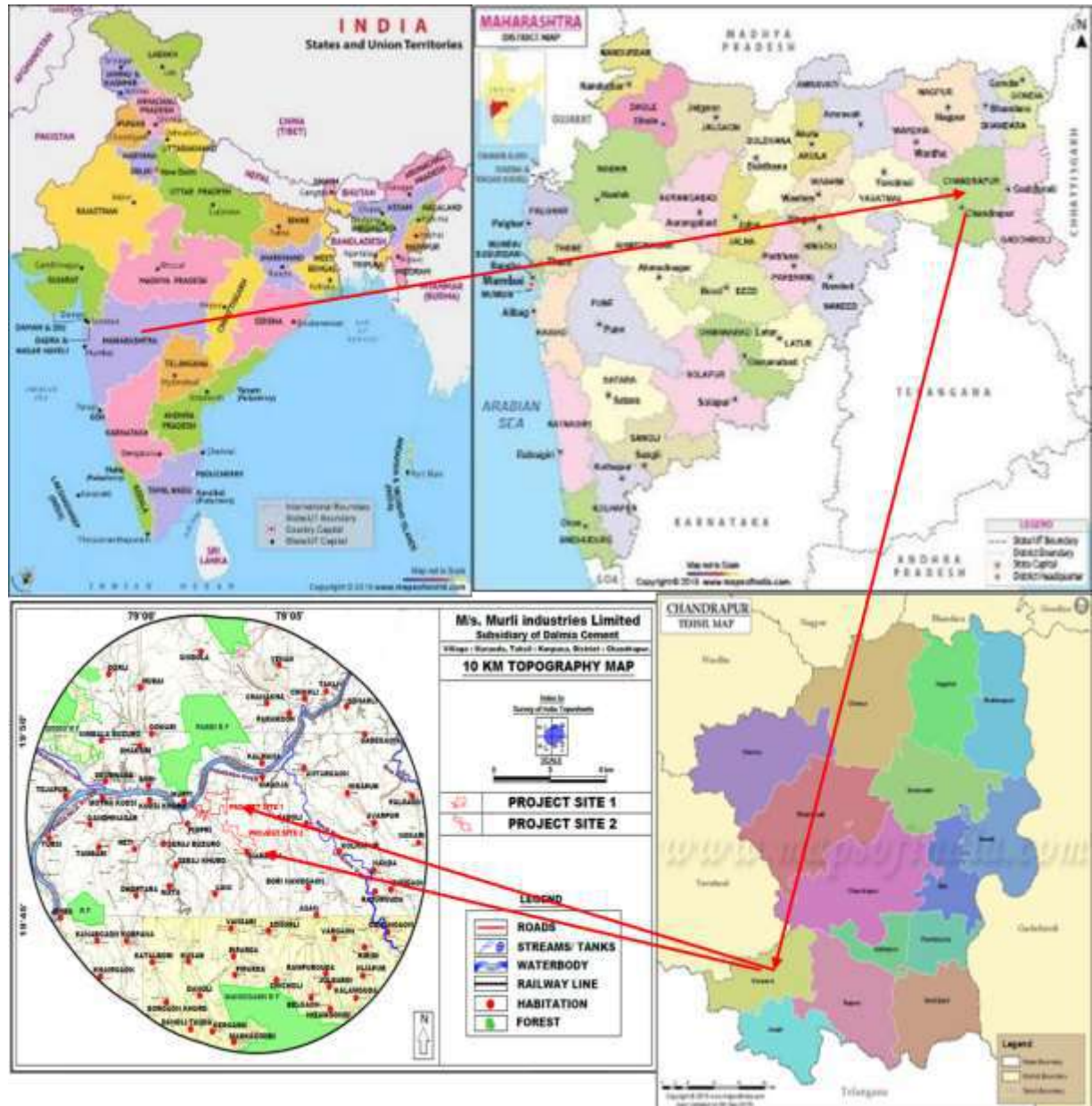


Fig I: index Map

3. Objective of the Study:

The Environmental clearance has been obtained by MIL for Zutting (18.06 Ha, 25.28 Ha, 42.16 Ha) and Pimpri (30.33 Ha.) Mines on dated 8th July 2010 (**Annexure - I**). Naranda Limestone mines of capacity 2.4 MTPA has obtained EC from MoEFCC dated 12th December 2008 (**Annexure - II**), subject to the compliance of specific and general condition. In compliance to the specific condition no. IV of EC ‘the Primary survey data of flora and fauna shall be submitted to the Ministry’ submitting herewith the present biodiversity assessment report.

4. Biodiversity assessment:

The primary data collection of flora and fauna has been carried out in the months of winter from November to January 2021. It has been done by the expert team with the help of primary and secondary sources.

Working team:-

The working team consists of the following members who are well qualified and specialist in their respective field.

1. Dr. D. B. Sawarkar, M.Sc. Ph.D. (Zoologist, NABET Approved FAE of EB)
2. Dr. R. Kasambe (Environmentalist)
3. Mrs. Suvarna Kawale Chute, M.sc (Environmentalist)
4. Ms. Varsha Nandeshwar, M.Sc. (Botany, Research Scholar)
5. Mr. Manohar Bhrushandi (Ichthyologist)
6. Mr. Anil Mahajan (Ornithologist).

Methodology :-

For assessing the current status of flora and fauna the rapid surveys were undertaken within 10 km. radius of the project site. For the assessment of flora, quadrat method, visual observation method was used and also forest working plan of the area was consulted. The plots were selected at various locations, within 10 km radius of the project site. For Fauna;

visual observations, interviews of the local people, Fisherman, Forest persons, academicians were carried out.

Within 10 km radial distance from project site water bodies present are Amal Nala, Bop nala, Nirguda nala, Wardha river, Penganga river etc. these water bodies irrigates various crops like cotton, wheat, gram and pulses and also support fish fauna and other animals in the surrounding area.

During the visits rapid faunal and floral survey was undertaken which reveals that the area has a very minimum animal activity, but minute observation at the various different habitat indicate presence of some animals including Garden lizard, snake, frogs etc.

The primary surveys were conducted during winter months and data gathering from secondary sources were continued afterwards.

The detailed report on biological survey including flora, fauna is given below:

1. Flora :

The vegetation around the site area is sparse. The project site area is covered by scanty scrub vegetation dominated by Acacia sp. Occasional presence of shrubs like *Phoenix acaulis* is noticed. Table -1 below shows the detailed list of flora found in the study area (10 Km).

Table-1: List of flora

Botanical Name	Vernacular Name	Family
Tree		
<i>Acacia nilotica</i> (Linn.), Willd ex Delile	Gum Arabic tree(Bhabhul)	Fabaceae
<i>Aegle marmelos</i> (Linn.) Corr.	Stone apple (Bel)	Rutaceae
<i>Ailanthus excelsa</i> Roxb.	Indian tree of heaven (Mahanimb)	Simaroubaceae
<i>Albizia lebeck</i> (Linn.) Benth.	Siris tree(Saras)	Momocaceae
<i>Alstonia scholaris</i> (Linn.) R. Br.	Devil's tree (Saptarni)	Apocynaceae
<i>Alysicarpus longifolius</i> (Rottle.ex Spreng.) Wight & Arn.	Longleaf Alyce clover (Shevra)	Fabaceae
<i>Annona squamosa</i> Linn.	Custard apple (Sitafal)	Annonaceae
<i>Anogeissus latifolia</i> (DC.) Wall.ex Bedd.	Axlewood (Dhawda)	Combretaceae
<i>Anthocephalus cadamba</i> (Roxb.) Miq.	Burflower tree (Kadamb)	Rubiaceae
<i>Artocarpus lakoocha</i> Roxb.	Lakoocha(Badhar)	Moraceae

Botanical Name	Vernacular Name	Family
<i>Averrhoa carambola</i> Linn.	Star fruit (Karambola)	Oxalidaceae
<i>Azadirachta indica</i> (L.) A. Juss	Indian mangrove (Kadunimb)	Meliaceae
<i>Bambusa bambos</i> (Linn.) Voss	(Bamboo)	Poaceae
<i>Bauhinia variegata</i> Linn.	Kachnar (Kanchan)	Fabaceae
<i>Bombax ceiba</i> Linn.	Silk cotton tree (Katesawar)	Malvaceae
<i>Borassus flabellifer</i> Linn.	Doub plum	Arecaceae
<i>Borassus flabellifer</i> Linn.		
<i>Buchanania cochinchinensis</i> (Lour.)	(Charoli)	Anacardiaceae
<i>Butea monosperma</i> (Linn.) Taub.	Flame of forest (Palas)	Fabaceae
<i>Cassia fistula</i> Linn.	Golden shower tree (Amaltash)	Fabaceae
<i>Citrus limon</i> (Linn.) Burm.f.	Lemon	Rutaceae
<i>Cordia dichotoma</i> Forst.f.	Lasoda tree (Bhokar)	Boraginaceae
<i>Crotalaria verrucosa</i> L.	Blue rattlepod (Bhat ghagari)	Fabaceae
<i>Dalbergia sissoo</i> Roxb.ex DC.	Indian rosewood (Shisam)	Fabaceae
<i>Delonix regia</i> (Bojer ex Hook.) Raf.	(Gulmohar)	Fabaceae
<i>Dendrophthoe falcata</i> (Linn.f.) Etting.	Vanda	Loranthaceae
<i>Desmodium scorpiurus</i> (Sw.) Desv.	Samoan clover	Fabaceae
<i>Diospyros melanoxydon</i> Roxb	Ebony (Tendu)	Ebenaceae
<i>Ficus benghalensis</i> Linn.	Banyan tree(Vad)	Moraceae
<i>Ficus hispida</i> Linn.f.	Hairy fig	Moraceae
<i>Ficus racemosa</i> Linn.	Cluster fig (Umbar)	Moraceae
<i>Ficus religiosa</i> Linn.	Sacred fig (Pimpal)	Moraceae
<i>Gmelina arborea</i> Roxb.	Gumhar (Shivan)	Lamiaceae
<i>Grewia asiatica</i> Linn.	Black current (Phalsa)	Malvaceae
<i>Haldina cordifolia</i> (Roxb.) Ridsdale	Haldu	Rubiaceae
<i>Holoptelea integrifolia</i> (Roxb.) Planch.	Indian elm(papra)	Ulmaceae
<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb) A. Chev	Indian butter tree (Moh)	Sapotaceae
<i>Mangifera indica</i> Linn.	Mango(Aamba)	Anacardiaceae
<i>Manilkara hexandra</i> (Roxb.) Dubard	Khirni	Sapotaceae
<i>Medicago polymorpha</i> L.	Bur clover	Fabaceae
<i>Melia azedarach</i> Linn.	Chinaberry	Meliaceae
<i>Mimusops elengi</i> Linn.	(Bakul)	Sapotaceae
<i>Moringa oleifera</i> Lam.	Drumstick tree (Shevga)	Moringaceae
<i>Morus alba</i> Linn.	Mulberry (Shahtoot)	Moraceae
<i>Murraya koenigii</i> (Linn.) Spreng.	Curry leaves tree	Rutaceae
<i>Nyctanthes arbor-tristis</i> Linn.	Night flowering Jasmine (Ratrani)	Oleaceae
<i>Ougeinia oojeinensis</i> (Roxb.) Hochr.	Sandan(Tiwas)	Fabaceae

Botanical Name	Vernacular Name	Family
<i>Phoenix sylvestris</i> (Linn.) Roxb.	Date palm	Areaceae
<i>Phyllanthus emblica</i> Linn.	Gooseberry (Saala)	Phyllanthaceae
<i>Plumeria rubra</i> Linn.	Chafa	Apocynaceae
<i>Pongamia pinnata</i> (Linn.) Pierre	(Karanj)	Fabaceae
<i>Premna serratifolia</i> Linn.	Agnimanth, Arni	Lamiaceae
<i>Prosopis cineraria</i> (Linn.) Druce	Ghar (Shami)	Fabaceae
<i>Psidium guajava</i> Linn.	Guava	Myrtaceae
<i>Rhus parviflora</i> Roxb.	Tintidika	Anacardiaceae
<i>Sesbania grandiflora</i> (Linn.) Pers	Agati	Fabaceae
<i>Shorea robusta</i> Roxb. Ex Gaertn. F.	Sal tree	Dipterocarpaceae
<i>Soymida febrifuga</i> (Roxb.) A. Juss.	Indian red wood	Meliaceae
<i>Stereospermum chelonoides</i> (Linn. F.) DC	Padal	Bignoniaceae
<i>Syzygium cumini</i> (Linn.) Skeels	(Jamun)	Myrtaceae
<i>Tamarindus indica</i> Linn.	Tamarind (chinch)	Caesalpiniaceae
<i>Tectona grandis</i> Linn.f.	Teak (Sagwan)	Lamiaceae
<i>Terminalia arjuna</i> (Roxb.ex DC.) W.& A.	(Arjun)	Combretaceae
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	(Behada)	Combretaceae
<i>Terminalia catappa</i> Linn.	Wild Almond	Combretaceae
<i>Terminalia chebula</i> (Gaertn.) Retz.	(Hirada)	Combretaceae
<i>Toona ciliata</i> M. Roem.	Mountain cedar	Meliaceae
<i>Woodfordia fruticosa</i> (Linn.) Kurz	Red bell bush	Lythraceae
<i>Ziziphus jujuba</i> Lam.	Common jujube (Bor)	Rhamnaceae
Herb & Shrub		
<i>Abelmoschus moschatus</i> Medik.	Musk mallow (wild bhendi)	Malvaceae
<i>Abrus precatorius</i> Linn.	Rosary pea (Gunja)	Fabaceae
<i>Abutilon indicum</i> (Linn.) Sw.	Indian mallow(petari)	Malvaceae
<i>Acalypha indica</i> Linn	Khokli	Euphobiaceae
<i>Achyranthes aspera</i> Linn.	Aghada	Amaranthaceae
<i>Adhatoda zeylanica</i> Medik.	Adulsa	Acanthaceae
<i>Agave americana</i> Linn.	Ghaipat	Asparagaceae
<i>Alternanthera sessilis</i> (Linn.) R.Br.ex DC.	Koypa	Amaranthaceae
<i>Amaranthus cruentus</i> Linn.	Red Amaranth	Amaranthaceae
<i>Amaranthus spinosus</i> Linn.	Spiny amaranth(kate chaulai)	Amaranthaceae
<i>Amaranthus tricolor</i> Linn.	Chaulai	Amaranthaceae
<i>Amberboa divaricata</i> Kuntze	Branched sweet- sultan(Sakaj)	Asteraceae
<i>Amorphophallus paeoniifolius</i> (Dennst-Nicolson)	Elephant foot yam(suran)	Araceae
<i>Andrographis paniculata</i> (Burm.f.) Nees	Bhuinimb	Acanthaceae
<i>Argemone mexicana</i> Linn.	Mexican poppy(Piwla dhotara)	Papaveraceae

Botanical Name	Vernacular Name	Family
<i>Artemisia nilagirica</i> (Clarke) Pamp	Indian warmwood (Dhordawna)	Asteraceae
<i>Asparagus racemosus</i> Willd	Shatawari	Asparagaceae
<i>Bacopa monnieri</i> (Linn.) Wettst.	Bramhi	Plantaginaceae
<i>Baliospermum solanifolium</i> (Burm.) Suresh	Danti	Euphorbiaceae
<i>Barleria prionitis</i> Linn.	Koranti	Acanthaceae
<i>Bidens pilosa</i> Linn.	Blackjack	Asteraceae
<i>Bixa orellana</i> Linn.	Lipstick tree(Sendri)	Bixaceae
<i>Boerhavia diffusa</i> Linn.	Punarnava	Nyctaginaceae
<i>Bryophyllum pinnatum</i> (Lam.) Oken	(Panfuti)	Crassuliaceae
<i>Cajanus cajan</i> (Linn.) Millsp	Pigeon pea (Tur)	Fabaceae
<i>Calotropis procera</i> (Ait.) Dryand	Rui	Asclepiadaceae
<i>Capparis zeylanica</i> Linn	Indian caper (Govindi)	Capparaceae
<i>Cassia occidentalis</i> (Linn.) Rose.	Ran takda	Fabaceae
<i>Cassia tora</i> (Linn.) Roxb.	Tarota	Fabaceae
<i>Catharanthus roseus</i> (Linn.) G. Don	Periwinkle	Apocynaceae
<i>Celosia agrentia</i> Linn. Var.cristata(Linn) O. Kuntze	Plumed cockscomb	Amaranthaceae
<i>Celosia argentea</i> Linn.		
<i>Centella asiatica</i> (Linn) Urban	Cockscomb	Amaranthaceae
<i>Centipeda minima</i> (Linn.) A.Br. Aschers.	Sneeze wort	Asteraceae
<i>Chenopodium album</i> Linn.	Bathua,(Chakwat)	Amaranthaceae
<i>Cissus quadrangularis</i> Linn.	Asthisamhara(Hadjod)	Vitaceae
<i>Cleome viscosa</i> Linn.	Tickweed (Piwla tilwan)	Cleomaceae
<i>Clerodendrum serratum</i> (Linn.) Moon	Bharangi	Lamiaceae
<i>Colocasia esculenta</i> (Linn.) Schott	Taro(Alu)	Araceae
<i>Commelina benghalensis</i> Linn.	Bengal dayflower (Kena)	Commelinaceae
<i>Convolvulus microphyllus</i> Sieb.ex Spreng	Shankpushpi	Convolvulaceae
<i>Corchorus olitorius</i> Linn.	Nalta Jute	Malvaceae
<i>Costus speciosus</i> (Koen.ex Retz.) Sm.	Crepe Ginger	Costaceae
<i>Crotalaria juncea</i> Linn.	Sunhemp (Sontag)	Fabaceae
<i>Crotalaria verrucosa</i> Linn.	Blue rattleweed (Bhat ghagari)	Fabaceae
<i>Cullen corylifolium</i> (Linn.) Medik	Scurfy pea (Bavanch)	Fabaceae
<i>Curculigo orchoides</i> Gaertn.	Golden eye grass (Kali musali)	Hypoxidaceae
<i>Curcuma angustifolia</i> Roxb.	East Indian arrowroot	Zingiberaceae
<i>Curcuma aromatica</i> Salisb.	Wild turmeric	Zingiberaceae
<i>Cymbopogon citratus</i> (D.C.) Stapf.	Lemon grass	Poaceae
<i>Cynodon dactylon</i> (Linn.)	Bermuda grass (Durva)	Poaceae

Botanical Name	Vernacular Name	Family
<i>Cyperus rotundus</i> Linn.	Coco grass (Barik motha)	Cyperaceae
<i>Cyperus scariosus</i> R.Br.	Nagarmotha	Cyperaceae
<i>Datura metel</i> Linn.	Black Dhotara	Solanaceae
<i>Desmodium gangeticum</i> (Linn.) DC.	Salparni	Fabaceae
<i>Desmostachya bipinnata</i> (Linn.) Stapf	Halfa grass	Poaceae
<i>Digera muricata</i> (Linn.) Mart.	False amarath (Getan)	Amaranthaceae
<i>Echinochloa frumentacea</i> Link	Sawa millet(Bhagar)	Poaceae
<i>Echinops echinatus</i> Roxb.	Utkatar	Asteraceae
<i>Eclipta prostrata</i> (Linn.) Linn.	Bringraj	Asteraceae
<i>Eleusine coracana</i> (Linn.) Gaertn.	Finger millet (Ragi)	Poaceae
<i>Euphorbia antiquorum</i> Linn.	Triangular spurge(Tridhar)	Euphorbiaceae
<i>Euphorbia hirta</i> Linn	Asthama weed	Euphorbiaceae
<i>Euphorbia neriifolia</i> Linn.	Indian spurge(mingut)	Euphorbiaceae
<i>Euphorbia thymifolia</i> Linn.	Laghududhika	Euphorbiaceae
<i>Evolvulus alsinoides</i> (Linn.)Linn	Dwarf morning glory(Vishnukranti)	Convolvulaceae
<i>Fagonia cretica</i> Linn.	Virgin's mantle(Dhamasi)	Zygophyllaceae
<i>Girardinia diversifolia</i> (Link) Friis	Himalayan nettle	Urticaceae
<i>Gloriosa superba</i> Linn.	Flame lily(Kal-lavi)	Colchicaceae
<i>Gossypium herbaceum</i> Linn.	Cotton	Malvaceae
<i>Helianthus annus</i> Linn.	Sunflower	Asteraceae
<i>Heliotropium indicum</i> Linn.	Indian heliotrope (Bhurundi)	Boriginaceae
<i>Holarrhena antidysenterica</i> (Linn.) Wall.ex A.DC.	Indrajav / pandhra kuda	Apocynaceae
<i>Hygrophila auraculata</i> (Schumach) Heine	Marsh Barbel (Talimkhana)	Acanthaceae
<i>Imperata cylindrica</i> (Linn.) Raeusch	Cogon grass (Dub)	Poaceae
<i>Imperata cylindrica</i> (Linn.) Raeusch		
<i>Jatropha curcas</i> Linn.	Mogli erand	Euphorbiaceae
<i>Lawsonia inermis</i> Linn.	Mehandi/ Henna	Lytheraceae
<i>Leonotis nepetifolia</i> (Linn.) R. Br.	Lion's ear (Dipmal)	Lamiaceae
<i>Lepidium sativum</i> Linn.	Garden cress(Aaliv)	Brassicaceae
<i>Leucas cephalotus</i> (Roth) Spereng.	Deokumbhi/ Dronpushpi	Lamiaceae
<i>Maranta arundinacea</i>	Arrow root (Tikkor)	Marantaceae
<i>Mentha piperita</i> Linn.	Peppermint	Lamiaceae
<i>Merremia gangetica</i> (Linn.) Cufodont	Undirkani	Convolvulaceae
<i>Mimosa pudica</i> Linn.	Touch me not(lajalu)	Fabaceae
<i>Mirabilis jalapa</i> Linn.	Four'o' clock(Gulbas)	Nyctaginaceae
<i>Nerium indicum</i> Mill.	Kanher	Apocynaceae
<i>Ocimum basilicum</i> Linn.	Sweet basil(Bhoo tulas)	Lamiaceae
<i>Ocimum sanctum</i> Linn.	Holy basil(tulsi)	Lamiaceae

Botanical Name	Vernacular Name	Family
<i>Opuntia elatior</i> Mill.	Nagphani	Cactaceae
<i>Origanum majorana</i> Linn.	Marjoram	Lamiaceae
<i>Oxalis corniculata</i> Linn.	Creeping wood sorel	Oxiladaceae
<i>Paspalum scrobiculatum</i> Linn.	Kodo Millet	Poaceae
<i>Pavonia odorata</i> Willd.	Sugandhala/ Hribera	Malvaceae
<i>Peristrophe bicalyculata</i> (Retz.) Nees.	Pittapapda/ Ran kirayat	Acanthaceae
<i>Phyllanthus urinaria</i> Linn.	Chamber bitter(Lal bhuaiaawali)	Phyllanthaceae
<i>Picrorhiza kurroa</i> Royle ex Benth.	Kutaki	Scrofulariaceae
<i>Plumbago zeylanica</i> Linn.	Ceylon leadwort (chitrak)	Plumbaginaceae
<i>Portulaca oleracea</i> Linn.	Common Purslane (Ghol)	Portulacaceae
<i>Ricinus communis</i> Linn.	Castor (Arandi)	Euphorbiaceae
<i>Rumex vesicaris</i> Linn.	Ruby dock(Chuka)	Polygoniaceae
<i>Saccharum spontaneum</i> Linn.	Kans grass (Kamis)	Poaceae
<i>Salvia aegyptiaca</i>	Egyptian sage	Lamiaceae
<i>Sesbania sesban</i> (Linn.) Merr.	Common Seshan(Shewari)	Fabaceae
<i>Sida acuta</i> Burm.f.	Wireweed(Chikana)	Malvaceae
<i>Sida cordata</i> (Burm.f.) Borssum	(Bhumi peyari)	Malvaceae
<i>Sida cordifolia</i> Linn.	Flannel weed(Tupkaria)	Malvaceae
<i>Sida rhombifolia</i> Linn	Arrow leaf sida(. Saded)	Malvaceae
<i>Solanum americanum</i> Mill.	American black nightshade	Solanaceae
<i>Solanum anguivi</i> Lam.	African eggplant (Amb-keli)	Solanaceae
<i>Solanum virginianum</i> Linn.	Thorney nightshade (Kateringni)	Solanaceae
<i>Sphaeranthus indicus</i> Linn.	Gorakhmundi	Asteraceae
<i>Stevia rebaudiana</i> (Bertoni) Bertoni	Sweet leaf	Asteraceae
<i>Tabernaemontana divaricata</i> (Linn.) R. Br. ex Roem. & Schult	Crape Jasmine(Tagar)	Apocynaceae
<i>Tephrosia purpurea</i> (Linn.) Pers.	Sharpankha	Fabaceae
<i>Thevetia peruviana</i> (Pers.) Schum	Yellow oleander (Ghanti)	Apocynaceae
<i>Trianthema monogyna</i> Linn.	Desert horsepurslane	Aizoaceae
<i>Tribulus terrestris</i> Linn.	Puncture wine	Zygophyllaceae
<i>Trichodesma indicum</i> (Linn.) Lehm	Adhapushpi	Boraginaceae
<i>Tridax procumbens</i> Linn.	Tidax daisy (kambarmodi)	Asteraceae
<i>Typha elephantina</i> Roxb.	Elephant grass (Pan-kanis)	Typhaceae
<i>Urena lobata</i> Linn.	Caesar weed(Ran tupkuda)	Malvaceae)
<i>Urginea indica</i> (Roxb.) Kunth	Indian squill (Ran kanda)	Asparagaceae
<i>Vernonia cinerea</i> (Linn.) Less.	Little ironweed(Sadodi)	Asteraceae
<i>Vigna trilobata</i> (Linn.) Verdcour	Ranmath	Fabaceae
<i>Vitex negundo</i> Linn.	Nirgudi	Lamiaceae
<i>Xanthium strumarium</i> Linn.	Ghagara	Asteraceae
Climber		
<i>Argyreia nervosa</i> (Burm.f.) Boj.	Gugguli	Convolvulaceae
<i>Aristolochia indica</i> Linn.	Sapsand	Aristolocchiaceae

Botanical Name	Vernacular Name	Family
<i>Basella alba</i> Linn	Malbar spinach (Velbhendi)	Basellaceae
<i>Cayaponia laciniosa</i> (Linn.) C. Jeffrey	Lollipop climber (Shivlingi)	Cucurbitaceae
<i>Cissampelos pareira</i> Linn.	Velvet leaf (lahan Padwal)	Menispermaceae
<i>Citrullus colocynthis</i> (Linn.) Schard	Bitter apple (kadu indraavan)	Cucurbitaceae
<i>Citrullus lanatus</i> (Thunb.) Mats. & Nakai	Watermelon	Cucurbitaceae
<i>Coccinia grandis</i> (Linn.) Voigt	Ivy gourd (Tondali)	Cucurbitaceae
<i>Cocculus hirsutus</i> (Linn.) W. Theob.	Broom creeper (Vasanwel)	Menispermaceae
<i>Cuscuta reflexa</i> Roxb.	Giant dodder (Amarwel)	Convolvulaceae
<i>Dioscorea bulbifera</i> Linn.	Air yam(kadukaranda)	Discoreaceae
<i>Ipomoea batatas</i> (Linn.) Lam	Sweet potato	Convolvulaceae
<i>Ipomoea nil</i> (Linn.) Roth	Neelpushpi	Convolvulaceae
<i>Jasminum auriculatum</i> Vahl	Jasmine (Jui)	Oleaceae
<i>Leptadenia reticulata</i> (Retz.) W. & A.	Didi/ Khandodkee	Apocynaceae
<i>Luffa echinata</i> Roxb.	Bitter sponge gourd	Cucurbitaceae
<i>Momordica charantia</i> Linn.	Bitter gourd (Karale)	Cucurbitaceae
<i>Momordica dioica</i> Roxb.ex Willd.	Spiny gourd(Katwel)	Cucurbitaceae
<i>Operculina turpethum</i> (Linn.) Silva Manso	White day glory (Nasottar)	Convolvulaceae
<i>Piper nigrum</i> Linn.	Black pepper (Kale mire)	Piperaceae
<i>Praecitrullus fistulosus</i> (Stocks) Pangalo	Tinda(Dhemas)	Cucurbitaceae
<i>Rubia cordifolia</i> Linn.	Indian madder (Manjishtha)	Rubiaceae
<i>Smilax china</i> Linn.	Chobchini	Smilacaceae
<i>Teramnus labialis</i> (Linn.f.) Spreng.	Blue wiss (Ran udid)	Fabaceae
<i>Tinospora cordifolia</i> (Willd.) Miers	Gudwel	Menispermaceae
<i>Trichosanthes cucumerina</i> Linn	Snake gourd	Cucurbitaceae
<i>Trichosanthes dioica</i> Roxb.	Pointed gourd (Parwal)	Cucurbitaceae
<i>Tylophora indica</i> (Burm.f.) Merrill	Antamul	Apocynaceae
Hydrophytic plants		
<i>Azolla pinnata</i> R.Br.		
<i>Chara zeylanica</i> Willd.		
<i>Hydrilla verticillata</i> (L.F.) Royle		
<i>Lemna minor</i> L.		
<i>Nitella furcatus</i> (Roxb.) C. Agardh		
<i>Salvinia molesta</i> D.S.Mitch.		
<i>Vallisneria spiralis</i> L.		

2. Fauna

The fauna includes:

1. Fish
2. Amphibians
3. Reptile
4. Aves
5. Mammals

Following faunal activity was observed within 10 Km of study area.

Table – 2: List of Fishes

Sr. No.	Common Names	Scientific Names	Local status
1.	Rohu	<i>Labeo rohita</i>	C
2.	Catla	<i>Catla catla.</i>	C
3.	Stinging catfish	<i>Heteropneustes fossilis</i>	C
4.	Gar fish	<i>Xenentodon cancila</i>	C
5.	Snake head	<i>Channa marulius</i>	C
6.	Magur	<i>Clarius batrachus</i>	R
7.	Barb	<i>Puntius species</i>	C
8.	Eel	<i>Anguilla bengalensis</i>	C
9.	Poshti	<i>Puntius sarana sarana</i>	C
10.	Mrigal	<i>Cirrhinas mrigala</i>	C
11.	Balm	<i>Mastacembelus armatus</i>	C

C- common R- Rare

Table-3 : List of Amphibian

Sr. No.	Common Names	Scientific Names	Schedule	Part
1.	Frog	<i>Rana tingerina</i>	IV	-
2.	Toad	<i>Bufo melanosticus</i>	-	-
3.	Ornate frog	<i>Microhyla ornate</i>	-	-

Sr. No.	Common Names	Scientific Names	Schedule	Part
4.	Bull Frog	<i>Rana cyanoflectis</i>	IV	-
5.	Tree frog	<i>Polypedates maculatus</i>	IV	-

Table- 4 : List of Reptiles

S N	Common Names	Scientific Names	Schedule	Part
1.	House gecko	<i>Hemidactylus gracilis</i>	-	-
2.	Bark gecko	<i>Hemidactylus leschenaulti</i>	-	-
3.	Garden lizard	<i>Calotis versicolor</i>	-	-
4.	Indian Chamaeleon	<i>Chamaeleo zeylanicus</i>	II	
5.	Keeled Common skink	<i>Mabuya carinata</i>	-	-
6.	Sand boa	<i>Erix conicus</i>	-	-
7.	Rat snake	<i>Ptyas mucosus</i>	II	II
8.	Common krait	<i>Bangarus caeruleus</i>	IV	
9.	Common cobra	<i>Naja naja</i>	II	II
10.	Viper	<i>Vipera russelli</i>	II	II

Table - 5: List of Aves

S N	Common Names	Scientific Names	Schedule	Part
1.	Spotted dove	<i>Stigmatopelia chinesis</i>	IV	-
2.	Laughing dove	<i>Stigmatopelia senegalensis</i>	IV	-
3.	Small blue Kingfisher	<i>Alcedo atnis</i>	IV	
4.	White breasted kingfisher	<i>Halcyon smyrnensis</i>	IV	-
5.	Asian koel	<i>Eudynamis scolopacea</i>	IV	-
6.	Greater coucal	<i>Centropus sinensis</i>	IV	
7.	Indian roller	<i>Coracias benghalensis</i>	IV	-
8.	Common hoopoe	<i>Upupa epops</i>	IV	-
9.	Copper smith barbet	<i>Magalaima haemacephala</i>	IV	-
10.	Indian robin	<i>Saxicoloides fullicata</i>	IV	-
11.	Red vented bulbul	<i>Pychonotus cafer</i>	IV	-
12.	Common tailor bird	<i>Orthotomus sutorius</i>	IV	-
13.	Purple sunbird	<i>Nictirinia asiatica</i>	IV	
14.	Paddy field pipit	<i>Anthus rufulus</i>	IV	
15.	Baya weaver	<i>Ploceus phillipnus</i>	IV	
16.	Indian treepie	<i>Dendrocitta vegabunda</i>	IV	
17.	Common myna	<i>Acridotheres tristis</i>	IV	-
18.	Black drongo	<i>Dicrurus macrocercus</i>	IV	-

S N	Common Names	Scientific Names	Schedule	Part
19.	Rose ringed Parakeet	<i>Psittacula krameria</i>	IV	-
20.	Red wattled lapwing	<i>Vanellus indicus</i>	-	-
21.	Green bee eater	<i>Merops orientalis</i>	-	-
22.	Shikra	<i>Accipiter badius</i>	-	-
23.	Barn owl	<i>Tyto alba</i>	IV	-
24.	Flameback woodpecker	<i>Dinopium bengalenses</i>		
25.	Orange headed thrush	<i>Zootheria citrina</i>		
26.	Common crow	<i>Corvus spendens</i>	-	-
27.	Cattle egret	<i>Bubulcus ibis</i>	IV	-
28.	Pond heron	<i>Ardeola grayii</i>	-	-
29.	Little cormorant	<i>Phalacrocax nigher</i>	IV	
30.	Snake bird	<i>Anhingo rufa</i>	IV	
31.	Brahminy duck	<i>Tadorna ferruginea</i>	IV	
32.	Asian openbill	<i>Anastomus oscitans</i>	-	
33.	Brahminy starling	<i>Sturnia pagodarum</i>	IV	
34.	Indian golden oriole	<i>Oriolus kundoo</i>	IV	-

Table – 6: List of Mammals

SN	Common Names	Scientific Names	Schedule	Part
1.	House shrew	<i>Suncus murinus</i>	V	-
2.	House rat	<i>Rattus rattus</i>	V	-
3.	Bandicoot rat	<i>Bandicota bengalensis</i>	IV	-
4.	Indian hare	<i>Lepus nigricollis</i>	IV	
5.	Five stripped squirrel	<i>Funambulus pennanti</i>	IV	-
6.	Blue bull	<i>Boselaphus trgocamelus</i>	III	
7.	Spotted Deer	<i>Axis axis</i>	III	
8.	Wild boar	<i>Sus scrofa</i>	IV	-
9.	Jungle cat	<i>Felis chaus</i>	II	I
10.	Indian fox	<i>Vulpes bengalensis</i>	II	II
11.	Common langur	<i>Semnopithecus entellus</i>	II	I
12.	common grey mongoose	<i>Herpestres edwardsii</i>	IV	-
13.	Fruit bat	<i>Rosettus leschnaulti</i>	V	-
14.	Short nosed fruit bat	<i>Cynopterus sphinx</i>	-	-

Conclusion:

Data collected during several field visits when interpreted along with available literature, reveals that the opencast mining activities will have very little or no impact on the surrounding flora and fauna of this area. There is possibility of indirect effect due to the increasing population and also due to vehicular traffic.

During the field visits no endangered species were spotted. To be more precise no endangered flora and fauna was found except the occasional occurrence of python, Indian fox, common langur of Schedule-II, no other animal found is endangered. The villagers know about the python is non-poisonous however they are well aware about the importance of the species, so generally these are not killed and protected species.

The study carried out in the core and buffer zone, about the flora and fauna, was reviewed from Red Data Book and Wildlife Protection Act 1972.

Study Area (10 Kms radius)

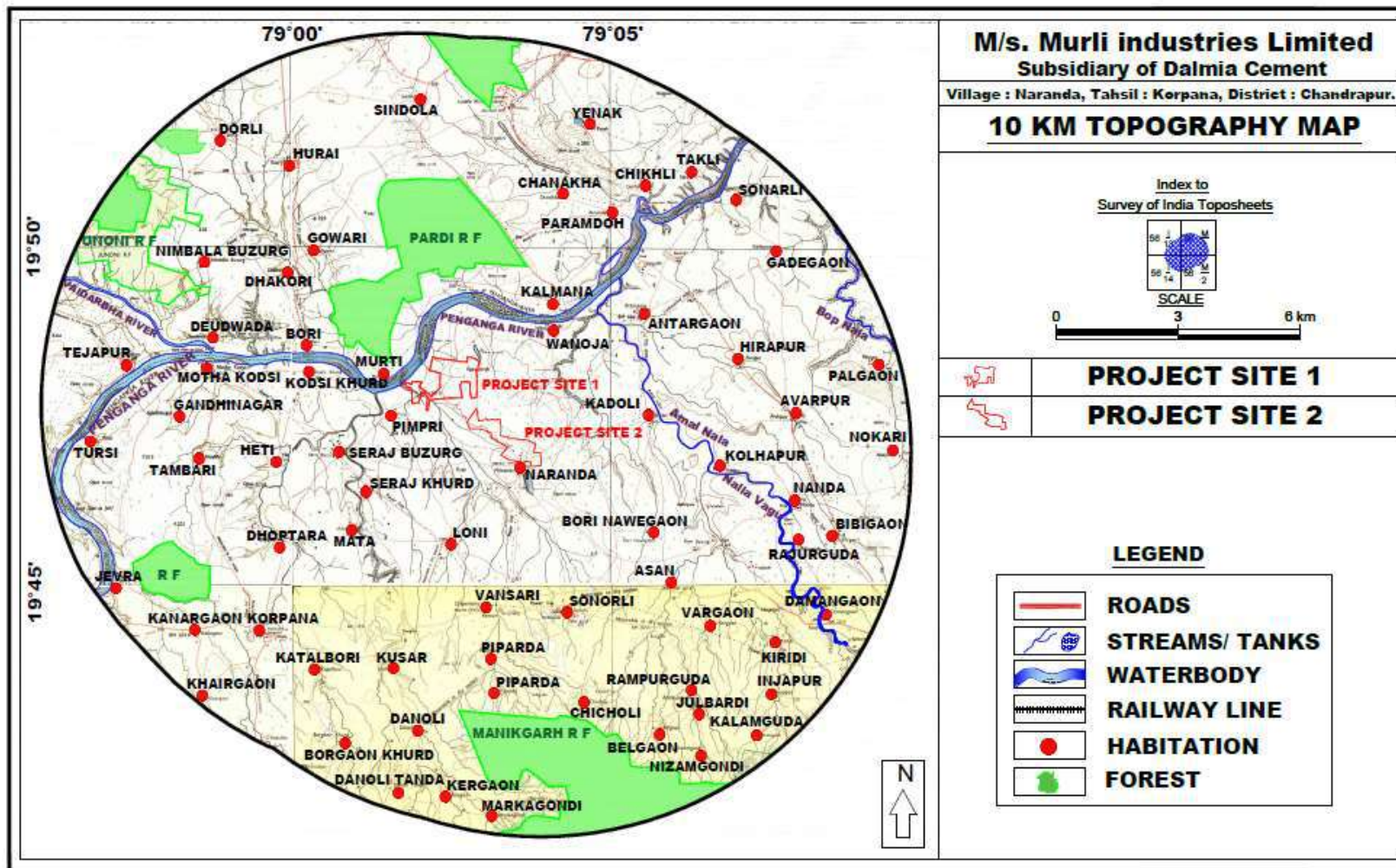
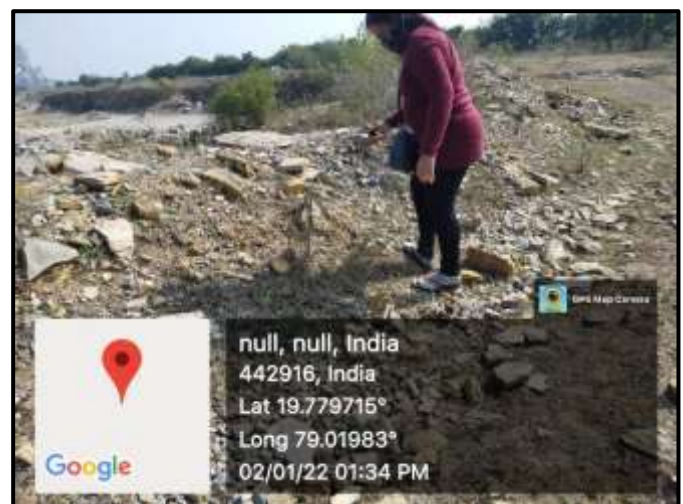


Fig II: Study Area

Site Photographs






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- 4) D’Abreau (1924, 1927, 1935) “Records of Nagpur Museum, Fish, Amphibia, Reptiles and Birds”.
- 5) Internet Access: Wikipedia.
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- 8) M. Anji Reddy (2013): Environmental Impact Assessment, Theory and Practice. Pg. no. 421.



Health: Arogya Melava & Blood Donation Camp



- Blood donation camp at kadholi kh on the occasion of Datta Jayanti week.
- No. of blood donor:52
- PHC Sub center Antargaon & Dalmia Bharat Foundation Naranda organized "Arogya Melava" at Sangoda Dr.Lande medical officer of PHC Nanda fata & supporting staff of PHC, Sarpanch Sangoda Mrs. Ranjana Bonde, Asha worker present in the program. Objective of this program is to counselling, personal hygiene, disease, symptoms, treatment, nutrition and awareness about schemes for pregnant women.
- Total beneficiary of the health camp 94.

Support to Govt. Health Initiative

TB Orientation Program:




- Organized the TB Orientation program to women SHG members at Naranda in association with The Union Organisation, Taluka Health Department and PHC Naranda.
- Total 78 members present in the program.
- No. of villages covered: 2

Support to Govt. Health Initiative



- Dalmia Bharat Foundation as Ni-kshay Mitra distributed the Nutrition Kit to two identified T.B patients under the " Pradhanmantri T.B Mukd Bharat Abhyan " at PHC Naranda. DBF will support the patient upto six month. Chief guest of the program HR Head -Mr. Abhishek Kumar Mishra and Taluka Health Officer Dr. Swapnil Tembhe distributed the kits. THO appreciates the DBF's initiatives.
- No. of Beneficiary:6



Support to Govt. Health Initiative

Health & Sanitation:



PROJECT BAALA

महिलाओं को टी स्वास्थ्य विषयक जानकारी

प्रधानमंत्री स्वास्थ्य कक्षा कार्यक्रम के अंतर्गत महिलाओं को टी स्वास्थ्य विषयक जानकारी प्रदान करने के लिए एक कार्यक्रम आयोजित किया गया। कार्यक्रम में महिलाओं को टी स्वास्थ्य विषयक जानकारी प्रदान करने के लिए एक कार्यक्रम आयोजित किया गया।


संज्ञक: 17 September 2022

Veterinary Health Check-up Camp



- Dalmia Bharat Foundation and Veterinary department jointly conducted veterinary camp at Antargaon, Sangoda, Vanoja, Kadholi kh, Pipari, Naranda village in Korpana block. Extension officer (Vet.)-panchayat samiti Korpana Dr. Rathore , Dr. Kinkhede and supporting staff were present in the camp.
- Total cattles 450 in which 320 cattles (Cow, Bullock, buffalo) & 130 Goats treated through this camp.

"World On Wheels"-A Digital Literacy Program



- Today DBF & NIIT foundation started CCFL(Certificate Course in Financial Literacy) batch at Adarsh Kisan Vidyalaya & Jr. college Naranda. 24 students enrolled for the course. It is an online course running in HP-WoW digital bus .Certificate will get from NIIT after successfully course completion
- CCFL exam (Financial Literacy) conducted by NIIT foundation in HP-WoW digital bus. Total 24 students attended the exam. 100 % students passed the exam

Dalmia
Bharat Foundation

Social Infrastructure

Social Infrastructure

Beautification of village Entry Gate Sangoda


Before	After
	
	

Social Infrastructure
Anganwadi E-Learning Kit Setup & Installation



- E-Learning kit setup & installation in 15 Anganwadi under Digital Anganwadi Initiative
- No. of Villages covered:13
- No. of students covered: 260

Social Infrastructure
Drinking water facility: Installation of 1000 LPH RO Unit & Construction of RO Shade at Vanoja



- Installation of 1000 LPH RO Unit & Construction of RO Shade at Vanoja
- No. of beneficiaries impacted: 180 HH
- No. of villages covered: 1


Social Infrastructure
Rectification of Sites : 1.Paver block fixing at Z.P School vanoja 2.Community hall Naranda P school Pipari



Before

After

Social Infrastructure
GREEN ENERGY: SOLAR STREET LIGHT
Installation of Four Solar Street Light at Kadholi kh/PHC Naranda :



- No. of beneficiaries impacted: 382 HH
- No. of villages covered: 2
- PHC:1
- No. of beneficiaries impacted: 32 villages

Social Infrastructure

- **Library Development Support:**
- **Village: 1.Sangoda 2.Kadholi kh 3.Antargaon**



- Provided Books, Tables & Chairs, Cupboard, Floor mat etc.
- No. of villages covered :3

Climate & water

Plantation: Sites:1.Vanoja Road 2.Kadholi kh Road 3.Naranda Bus stand to PHC road 4.PHC Naranda



- Tree Plantation Program: Total 2500 tree plantation done by SHG members. Site selected: 1.Vansadi to Vanoja Road 2.Kadholi kh Road 3.PHC Naranda in presence of Plant head-Mr.Subbaraidu Ayyagari, land team, Plant HR-head-Mr.Abhishek Kumar Mishra, security head, Admin head ,sarpanch kadholi kh, SHG members etc.
- No. of villages covered 3: 1.Naranda 2.Vanoja 3.sangoda
- No. of Population covered:5200





Social Infrastructure

Support to Kabaddi Sports Team in project Villages





- Provided Kabaddi Sports Kit to teams
- No. of team supported:3

Climate & water

VILLAGE POND DEVELOPMENT: 2022-23

Village: Naranda

- **Size of the Pond:**
- Length-400 ft. Breadth-170 ft.
- Depth-10ft.
- Excavated 5 ft. more.
- Now Total depth 10ft
- **Advantages:**
- Useful specially in summer for animal drinking purpose.
- Recharge all water resources
- Will increase water table
- Farmers nearest to site will get benefitted for critical irrigation to crops in dry span.

Climate & water
Water harvesting structure

Well Recharge Pit: 3
 Large Pit: 10
 Harvesting capacity created: 479000 cu.m

RWH-1 Naranda RWH-4 Pipari RWH-2 Pipari

Community Development

- Meeting with Ajay Bahuddeshiy Sanstha with unit head regarding Jalparni weed project, in which they skilled the shg women members and making different types innovative products from this weed... They showcased some products to unit head during discussion. Checking the possibility of the same in our project villages also.
- DBF organized meeting of selco foundation with women SHG regarding discussion on different micro-enterprises, enterprunership development, market linkages, bank linkages etc in HP-digital wow bus. Total 15 SHG women were attended the meeting.

Climate & water
Water Positivity Index _Chandrapur

No. Bore well Recharge Pit: 3
 No. of Recharge Pit: 10
 Total Water Harvesting capacity created: 4.78 Lakh Cu.m

#	Particulars	in Lakh KL
1	Annual fresh water Consumption FY 22-23 (A)	2.20
2	20x Quantity against Annual Consumption - B = A * 20	43.91
3	Potential created through Plant and Mines and CSR Till March 2022 (C)	4.71
4	Balance to be created as on 31 Mar 22 - D = B - C	39.20
5	FY 2023 TARGET (E)	4.00
6	Achieved FY 2023 (F)	4.78
7	Acheivement %	119.50
8	Cumulative Acheivement as on 31 March 2023 - G = C = F	9.49

Community Development

- Self Defence Training Program:**
- Dalmia Bharat Foundation & Environment department (DCBL) jointly conducted "Self Defense Training Program " at Adarsh Kisan Vidyalay & Jr. college Naranda. Demonstrated the self defense technique specially for girl students to analyze a dangerous situation and take actions to overcome them effectively. Training been given by renowned resource person Mr. Abhilash Ashtankar a state level Judo expert and his student Sujal Pawar. Program were attended by Sunil Kumar Bhusari sir as chief , School committee members, principal, teacher staff, & senior citizen of the village.
- Total 150 students participated in the program. Students and teachers feels very happy for first time such initiative.

Community Development

- Event & day Celebration:
 - AKAM




Safety Week: Drawing competition



Skills & Livelihood:




- Micro-enterprises: Vermicelli making group activity
 - Beneficiary: 10
 - Name of SHG- Vedanti SHG
 - Name of Village: Naranda






Skills & Livelihood:

- Livelihood Trainings to SHG women members & Girls
 - "Entrepreneurship Development training program" in nearby villages for women SHG members & for girls.. like Bakery products making training, Fast food, Pickle & Papad, poultry etc. Inauguration done by Sh. Abhishek Kumar Mishra (HR-Head) & Awdhut Musale (HR-IR).
 - Total 120 women members participated in the program.
 - Total villages covered:5

Skills & Livelihood:

- Micro-enterprises: Nursery Development
 - Support to Nursery development .SHG started nursery microenterprise at Naranda





Skills & Livelihood:

Micro-enterprises: Paper Plate (disposable) making group activity: Antargaon



- DBF supported to purchase raw material
- No. of Beneficiary: 10
- Name of Village: Antargaon

Sustainable Agriculture:

Knapsack Power Spray Distribution to farmers:



- No. of villages covered: 4
- No. of beneficiary farmer: 200
- Beneficiary contribution: 40%

Objective:


1. To save time, pump rent, and labour cost. Etc
2. On time pest control at the time of critical stage of crops
3. To save the crop from heavy infestation of pest & diseases attack
4. Ultimately to increase the productivity of the crop

Sustainable Agriculture:

Bio-pesticide : Demonstration Dashparni ark making:

Demonstration on Dashparni ark making for organic pest control method to SHG women farmer at Naranda. useful for spraying on cotton, soyabean, vegetables. It will help farmers to reduce the input cost. SHG farmers also planned to marketing of the products at minimum cost.

Total 10 SHG women farmer participated in the program.



Skills & Livelihood:

Sustainable Agriculture: Seed Treatment Demonstration Program for Soyabean Crop:



- Dalmia Bharat Foundation and Taluka Agriculture department Korpana jointly organized Soyabean seed treatment demonstration program prior seed sowing (kharip season) at Antargaon & Vanoja project villages. The main objective of this program is to facilitate the farmers to protect their crop from seed borne diseases. Application of fungicide to protect the crop from fungal infection, application of insecticide is to protect the crop from pest attack and application of Rhizobium bio-fertilizer is to fix the aerobic nitrogen fixation so that more nodule formation at root level and ultimately will increase the production of soyabean per acre.
- Total 75 farmer participants registered for the program.

Skills & Livelihood: Convergence

STRIVE SKILL STRENGTHENING FOR INDUSTRIAL VALUE ENHANCEMENT



- A World Bank funded Project sanctioned to Government ITI Rajura, Dist. Chandrapur. We are associated with the ITI as an Industrial partner. Institute Management Committee (IMC) registration done.
- Started 3 short term (3 month duration) courses by ITI to increase the intake capacity of students.
- Each batch will be of 20 students.
- ITI provided facility of free travelling pass to girl students to encourage more admission.

Dalmia
Bharat Foundation

Media Coverage

Skills & Livelihood:

Water Positivity Target & Achievement:

Location	Target FY 23	Ach. FY 23	Ach %
Chandrapur	4.00	4.78	119.66

OML Target & Achievement:

One Million Livelihood in Nos

Target FY 23	Ach FY 23	Ach %
1100	1461	132.82

Media Coverage



Dalmia
Bharat Foundation

Media Coverage

जगदकला धर्म पर जागतकला कार्यक्रम

City Pulse
जनशिक्षण कार्यक्रमों में बढ़ती संलग्नता

महिलाओं को टी स्वस्थ विद्युत जानकारी

राष्ट्रीय स्वास्थ्य परियोजना का प्रयास

Dalmia Bharat Foundation

THANK YOU!

Dalmia Bharat Foundation



Mahabal Enviro Engineers Pvt. Ltd.

PLOT NOS. 13,14,17,18, GRAMPANCHAYAT BOKHARA, CHHINDWARA ROAD, KORADI, NAGPUR, MAHARASHTRA, INDIA
Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

TEST REPORT



Report No: ME-NG01544-230204-SA-DCL-CHANDRAPUR Date: 04.02.2023
ULR No: TC748723000001418F


Name and Address of Customer	DALMIA CEMENT (BHARAT) LTD. Naranda (Mines), Naranda-Korpana Road, Chandrapur.		PO No: 4584000530/289 PO Date:
Sample Description / Type	Ground water	Sample Collected by	Laboratory
Sampling Location	Naranda Lease Boundary	Sample Quantity / Packing	2L X 1 No. PVC Can
Date of Sampling	24.01.2023	Date of Receipt of Sample	25.01.2023
Sampling Procedure	IS:3025(Part I):1987 RA 2019; APHA 23 rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	25.01.2023	Date of Completion of Analysis	03.02.2023

Sr. No.	Parameter	Unit	Result	Method Reference
Discipline: Chemical Testing; Product Group: Water (Ground Water)				
1	pH	-	7.0	APHA 23 rd Ed. 2017, 4500-H ⁺ -B, 4-35
2	Electrical Conductivity	μ S/cm	948	APHA 23 rd Ed. 2017, 2510-B, 2-58
3	Total Dissolved Solids	mg/L	562	IS 3025 (Part 15):1984 RA 2017
4	Alkalinity Total (as CaCO ₃)	mg/L	334	IS 3025 (Part 23):1986 RA 2019
5	Total Hardness (as CaCO ₃)	mg/L	444	APHA 23 rd Ed. 2017, 2340-C, 2-48
6	Chloride (as Cl)	mg/L	69.0	APHA 23 rd Ed. 2017, 4500-Cl-B, 4-75

END OF REPORT

- Note:
1. BQL- Below Quantification Limit.
 2. LOQ- Limit of Quantification.
 3. The result listed refers only to the tested sample(s) and applicable parameter(s).
 4. This report is not to be reproduced except in full, without the written approval of the laboratory.
 5. Any complaint pertaining to the report can be addressed to mahabalreports@gmail.com

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QF/SALE/02
Issue No 03
Date 05.12.2019
Amd 01 Date
24.12.2022


Harish Mendhi
Technical Manager
Chemical Testing



PLANTATION DETAILS FOR THE PERIODS OCT 2022 -MARCH-23

Sr.No	Sampling Name	Sampling Planted (No.)
1	Neem	440 No.
2	Karanj	370 No.
3	Maharukh	360 No.
4	Arjuna	346 No.
	Total Sampling plantation at Naranda Limestone Mines	1516 No.

PLANTATION TILL DATE:

Sr.No	Particular	Details
1	Old Plantation at Naranda Limestone Mines till 2021-22	6130 Plants
2	Plantation During Oct 22 to March -23	1516 Plants
3	Total Plants Planted at Naranda Limestone Mines till Date	7646 Plants
4	Total Area Covered under Green Belt	7.8 Hact.

FUTURE PLANTATION PLAN :

Sr.No	YEAR	NO OF SAMPLINGS FOR PLANTATION
Proposed Plan		
1	2023- 24	9680
2	2024-25	9060
3	2025-26	9030