Dalmia cement

cement! sugar! refractories! power!

DCBL/Naranda Mine/Env/MoEF&CC/EC Compliance/112023/01 Date: 28.11.2023

Additional Principal Chief Conservator of Forests,
Ministry of Environment, Forest & Climate Change
Integrated Regional Office,
Ground Floor, East Wing, New Secretariat Building,
Civil Lines, Nagpur- 440001.

Sub: Compliance of Environmental Clearance for Naranda Limestone Mine (ML area 71.01 ha and production of 2.4 MTPA) at village Naranda, in Korpana Mandal, in Chandrapur Distt., in Maharashtra for the period of April 2023 to September 2023.

Ref: Environmental Clearance F. No. - J-11015/380/2007 -IA II (M), Date: 12.12.2008

Dear Sir,

With respect to the subject matter and referred above, we are submitting herewith the point wise half yearly compliance of Environmental Clearance for our Naranda Limestone Mines for the period of **April-2023 to September-2023**. Soft copy of the EC Compliance report has been emailed to eccompliance-mh@gov.in and also uploaded on MOEF&CC Parivesh Portal.

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), Survey No. 110, Dhankude Multi Purpose Hall, Baner Road, Baner, Pune – 411045.
2. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. CineMax Theatre, Sion (E), Mumbai - 400 022.
3. Regional Officer, Maharashtra Pollution Control Board (MPCB), 1st Floor, Udyog Bhawan, Railway Station Road, Chandrapur – 442401

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 – April 2023 to September 2023

Sr. No.	Condition	Compliance status
A	**Specific Conditions**	
(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.	Complying with Mining is being done in accordance with approved Review of Mining plan. At present, mine working is being operational in one pit only for excavation of mineral. Photograph of mine pit is shown below: 

Sr. No.	Condition	Compliance status
(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.	Complying with The first mine pit is operational and still active. Plantation has been done all along the Safety zone and Mines Lease Boundary. After taking whole material from the active pit, the exhausted pit area will be reclaimed by plantation so as to ensure that reclamation, forest cover and vegetation are visible during the first year of mining operations in the next pit. The condition is being adhered.
(iii)	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	Complying with, mining is being done as per approved Review of Mining Plan
(iv)	Primary survey data of flora and fauna shall be submitted to the ministry within six months.	Complying with 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 in Core and Buffer zone of ML area by NABET accredited FAE. Copy of the Biodiversity report 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. Necessary fund for implementation of the same shall be separately allocated and shall not be diverted for any other activity.	Complying with Conservation Plan for Wildlife has been prepared in consultation with the Office of the concerned Chief Wildlife Warden. Reports has already been submitted to Regional Office of the Ministry vide letter no. MIL/Mines/2009-10/503, dated 16.02.2010. Necessary fund for implementation of the same has been separately allocated and will 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.	Complying with Mining is being done by controlled blasting technology. Use of Delay Detonator, Non-Electric detonator & Controlled blasting to minimize Fly rock and Ground Vibration. Regular monitoring of ground vibration is being practiced. Maximum peak particle velocity result is below 5 MM/Sec. We are adopting the measures for prevention of blasting associated impact on nearby houses and agricultural fields. The condition may be treated as complied.
(vii)	Continuous air ambient quality monitoring system shall be installed before three months of start of mining activity at appropriate sites (including cement	Complying with Online continuous ambient air quality monitoring station has been installed at mines

Sr. No.	Condition	Compliance status
	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.	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. through NABL accredited laboratory. Assessment of the silica in silt in being carried out and records are being maintained. Report enclosed 

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td>(viii)</td><td>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.</td><td>Complying with

Need based assessment has been done in nearby villages by consulting local gram panchayat and nearby villagers to help in upliftment of poor section of society. Accordingly, DCBL providing employment opportunities to the personal residing nearby villages.

Under CSR activities, Infrastructure development, educational, Health and Vocational training, Agriculture & Animal Husbandry, Rainwater Harvesting, Environmental Awareness activities etc. are being organized for the nearby villagers.

<table>
<tr><th rowspan="2">SN</th><th rowspan="2">CSR Activities</th><th colspan="4">CSR expenditures (in Rs Lakhs)</th></tr>
<tr><th>2020-21</th><th>2021-22</th><th>2022-23</th><th>2023-24 (As on Oct 23)</th></tr>
<tr><td>1</td><td>Education</td><td>-</td><td>84823</td><td>257764</td><td>3500</td></tr>
<tr><td>2</td><td>Health</td><td>28850</td><td>960800</td><td>53100</td><td>0</td></tr>
<tr><td>3</td><td>Agriculture & Animal husbandry</td><td>-</td><td>250000</td><td>929928</td><td>698910</td></tr>
<tr><td>4</td><td>Women empowerment & Vocational Trainings</td><td>500</td><td>4000</td><td>157000</td><td>0</td></tr>
<tr><td>5</td><td>Infrastructure Development</td><td>-</td><td>975867</td><td>1665906</td><td>0</td></tr>
<tr><td>6</td><td>Event & day celebration</td><td>650</td><td>10350</td><td>30200</td><td>0</td></tr>
<tr><td>7</td><td>Plantation</td><td>-</td><td>-</td><td>850000</td><td>0</td></tr>
<tr><td colspan="2">Grand Total</td><td colspan="4">5368538</td></tr>
</table>
In addition to the above, mining project is being generated revenue to the government in the form of Royalty, DMF and NMET.

Better medical facilities, transportation and communication facilities are available and the, better admixture of the culture which results in preservation of cultural heritage and this project will uplift socio-economic level.

The 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.</td></tr>
</table>

Sr. No.	Condition	Compliance status
(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.	Complying with Under CSR activities, Infrastructure development, educational, Health and Vocational training, Agriculture & Animal Husbandry, Rainwater Harvesting, Environmental Awareness activities etc. are being organized for the nearby villagers. The details of the various initiatives taken under CSR along with activity wise expenditure details 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 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.	Complying with No agricultural land / public property is being damaged due to mining activity.

Sr. No.	Condition	Compliance status
(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.	Complying with Rainwater Harvesting injection wells are constructed to recharge the ground water, in addition to this nearby village ponds are deepened to store more rainwater and also recharge the ground water to enhance the water table. Rain water during is being collected during rainy season in the lower bench of the mine to recharge ground water resources and water harvested in mines pit is being utilized in the mining operations, dust suppression and Plantation & greenbelt development.    
(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.	Following measure are being implemented followed to control the soil erosion and for silt management: 1. Formation of water garland to regulate and drain the rain waters from the quarry and direct its course away from the dumping area. 2. The dump is designed to have reserve slopes so that rain water does not flow through the dump slopes. 3. Provision of plantation around the foot of the dumps to control the soil erosion and

Sr. No.	Condition	Compliance status
		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.	Complying with The cultivable waste land within 5 km radius of the lease is identified and developed into productive land and made available to villages.
(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.	Complying with Garland drains constructed along the waste dumps to collect run off/storm water and routed to siltation pond of Capacity 1000 m3 then collected in mine pit. In addition to this, adequate number of check dams has been constructed at mines premises to arrest the silt. The collected water is being used for plantation & greenbelt development and water sprinkling on haul road. Photographs showing Garland drains & are shown below:  

Sr. No.	Condition	Compliance status
(xv)	Ground water in the core zone shall be regularly monitored for contamination and depletion due to mining activity and records 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	Regular monitoring of ground water in the core zone is being carried out in and around the mining area through online Piezometer and records are being maintained. Third Party Environmental monitoring is being carried out by M/s Go Green Mechanism Pvt Ltd who is NABL accredited laboratory. Photograph of piezometer is given below: The ground water quality monitoring reports are attached  

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td>(xvi)</td><td>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.</td><td>Water tankers provided for water sprinkling on haul roads 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 & latest fugitive emission report is enclosed

Fugitive Dust Emission Monitoring reports during the compliance period is as follows:

<table>
<tr><th>Month</th><th>Near Batching Area</th><th>Near Pump House Area</th><th>Near Crusher Area</th></tr>
<tr><td>Apr-23</td><td>185</td><td>226</td><td>140</td></tr>
<tr><td>May-23</td><td>95</td><td>66</td><td>34</td></tr>
<tr><td>Jun-23</td><td>166.81</td><td>144.21</td><td>207.76</td></tr>
<tr><td>Jul-23</td><td>172.07</td><td>247.49</td><td>219.02</td></tr>
<tr><td>Aug-23</td><td>186.97</td><td>263.23</td><td>279.52</td></tr>
<tr><td>Sep-23</td><td>188.99</td><td>273.99</td><td>277.25</td></tr>
</table>
</td></tr>
<tr><td>(xvii)</td><td>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.</td><td>The stipulation is being adhered. 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 to avoid any spillage of ore/ dust. Transportation done usually during day time.</td></tr>
<tr><td>(xviii)</td><td>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 fulltime 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 of less) shall be conducted followed blow up action</td><td>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 Equipment’s are being provided to works working in the mines.</td></tr>
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<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td></td><td>wherever required.</td><td></td></tr>
<tr><td>(xix)</td><td>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.</td><td>The condition is treated as complied. Village Road is not being used for transportation of minerals. Haul road has been constructed in mines for mines operation and being repaired time to time as per requirement.</td></tr>
<tr><td>(xx)</td><td>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.</td><td>Top soil is being stacked with proper slope and adequate safeguards. The topsoil in the mining area striped and preserved along the mine lease boundary for plantation & greenbelt development and excess topsoil utilized for backfilling and reclamation of mined out area.</td></tr>
<tr><td>(xxi)</td><td>Monitoring of soil samples for assessment of contamination due to mining activity shall be regularly conducted and records maintained.</td><td>Soil Monitoring is being done regularly are records are maintained. Latest Soil Report is enclosed</td></tr>
<tr><td>(xxii)</td><td>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.</td><td>Complying with

The Over burden (OB) generated during mines operation is being and will be stacked at earmarked dump site(s) as per the IBM approved 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 itself – sustaining. Compliance status of the same is being submitted to the MoEF&CC on half yearly basis.

The limestone production, reject and over burden generation details during last 5-year period is given below

<table>
<tr><th>SN</th><th>FY Year</th><th>Production (MT)</th><th>Over Burden (MT)</th><th>Reject (MT)</th></tr>
<tr><td>1</td><td>2018-19</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>2</td><td>2019-20</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>3</td><td>2020-21</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>4</td><td>2021-22</td><td>314200</td><td>8083</td><td>137307</td></tr>
<tr><td>5</td><td>2022-23</td><td>1038212</td><td>8390</td><td>482081.5</td></tr>
<tr><td>6</td><td>2023-24</td><td>669199.56</td><td>54272.64</td><td>337370.79</td></tr>
</table>
</td></tr>
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<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>As on Sep-23</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Total</td><td>2021611.6</td><td>70745.64</td><td>956759.29</td></tr>
</table>

Photographs of OB dump is shown below:

 

</td></tr>
<tr><td>(xxiii)</td><td>Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.</td><td>Complying with

Slope of the mining bench and ultimate pit limit is being maintained as per IBM approved mining plan. Photograph showing slope of mining benches is given below:

  </td></tr>
</table>

Sr. No.	Condition	Compliance status
(xxiv)	Drilling (if any) shall be conducted by using dust extractors/ wet drilling. Controlled blasting shall be undertaken.	The drilling and blasting operation is carried out during daytime only. We are using wet drilling by inbuilt water injection system for drills to suppress dust generation at source. Blasting operation is being done with controlled blasting technique by using NONEL, Muffle Blasting and Delay Detonators. Hence, the condition may be treated as complied.
(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.	Plantation is being carried out in ML area as per the Mining Plan and CPCB guidelines. Out of 71.01 ha of ML area, 42.82 ha area will be covered under plantation & greenbelt development at the end of conceptual period. At present, greenbelt & plantation has been done in 8.5 ha with plant species of 9396 nos. We have done the plantation during the compliance period is 1750 No. along the mining lease boundary, internal road and mining dump area etc. 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.	Complying with Regular monitoring of ground water level is being conducted in and around mining lease area. Installed one piezometer for continuous online ground water level monitoring in ML area. Ground water quality monitoring is being carried out for pre and post monsoon, monsoon and winter seasons. Report 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	No waste water is being discharged into natural stream. All the equipment and HEMM are outsourced and maintenance, repairing is being done at designated workshop only. Domestic sewage generated is being disposed through septic tank followed by soak pit.

Sr. No.	Condition	Compliance status
	Board and the State Pollution Control Board.	
(xxviii)	Prior permission from the competent authority shall be obtained for extraction of ground water, if any.	Complying with NOC for dewatering of 46 KLD ground water has been granted from Central Ground Water Authority 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 ores for transportation shall be committed. The trucks transporting ore shall not pass through wild life sanctuary.	Complying with Vehicular emission being under control and regularly monitored and being allowed only PUC certified vehicles in ML area for mining excavation activities and transportation. Limestone is being transported from crusher to plant through covered conveyer belt. All Vehicles transporting ore is being covered with tarpaulin to control dust emission. No overloading of ores is done for mineral transportation. No wild life sanctuary is located near ML area.
(xxx)	Action plan with respect to suggestions/ improvements and recommendation made during pubic consultation / hearing shall be submitted to the Ministry and the State Govt. within six months.	Action plan with respect to suggestions/ improvements and recommendation made during consultation / hearing has been compiled in final EIA report.
(xxxi)	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.	Noted Final Mine Closure Plan (FMCP) will be submitted to IBM and MoEF&CC as per prevailing rules for necessary approval. As our Mining Lease is valid up to dated period up to 06-04-2036.
B.	**General Condition**	
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	The stipulation is being adhered and there is no change in mining technology and scope of working as the mining is being done in accordance with approved Review of Mining Plan and there is no change in mining technology and scope of working. For any change in mining technology and scope of working we shall obtain prior approval of the Ministry of Environment & Forests.
(ii)	No change in the calendar plan including excavation, quantum of mineral (iron ore) and waste shall be made.	Noted There is no change in the Calendar Plan for the production of Quantum of Mineral

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td></td><td></td><td>Limestone and Waste. However, less production of limestone as per Calendar plan due to less demand of cement in market.</td></tr>
<tr><td>(iii)</td><td>Four ambient air quality monitoring station shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO2, NOx 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.</td><td>Complying with

Ambient air quality monitoring stations are established in the core zone as well as in the buffer zone.

Summary of ambient air quality monitoring results for core zone & buffer zone are given below.

Summary of ambient air quality in core zone are given below.

<table>
<tr><th>Month</th><th>PM 2.5 (µg/m3)</th><th>PM 10 (µg/m3)</th><th>SO2 (µg/m3)</th><th>NO2 (µg/m3)</th></tr>
<tr><td>Standard</td><td>60.0</td><td>100.0</td><td>80.0</td><td>80.0</td></tr>
<tr><td colspan="5">AAQMS-1 : Near Explosive Magazine</td></tr>
<tr><td>Apr-23</td><td>17.00</td><td>42.00</td><td>10.00</td><td>14.00</td></tr>
<tr><td>May-23</td><td>21.00</td><td>38.00</td><td>9.00</td><td>12.00</td></tr>
<tr><td>Jun-23</td><td>28.33</td><td>45.65</td><td>9.22</td><td>16.20</td></tr>
<tr><td>Jul-23</td><td>28.74</td><td>49.36</td><td>10.76</td><td>14.99</td></tr>
<tr><td>Aug-23</td><td>30.41</td><td>53.76</td><td>12.59</td><td>17.83</td></tr>
<tr><td>Sep-23</td><td>33.74</td><td>64.49</td><td>15.89</td><td>17.87</td></tr>
<tr><td colspan="5">AAQMS-2 : Near Mines Office</td></tr>
<tr><td>Apr-23</td><td>16.00</td><td>32.00</td><td>10.70</td><td>13.40</td></tr>
<tr><td>May-23</td><td>17.00</td><td>47.00</td><td>12.40</td><td>14.60</td></tr>
<tr><td>Jun-23</td><td>26.24</td><td>49.82</td><td>11.40</td><td>12.98</td></tr>
<tr><td>Jul-23</td><td>28.32</td><td>51.25</td><td>12.55</td><td>13.33</td></tr>
<tr><td>Aug-23</td><td>29.58</td><td>54.43</td><td>10.43</td><td>16.44</td></tr>
<tr><td>Sep-23</td><td>27.91</td><td>59.04</td><td>12.36</td><td>17.35</td></tr>
<tr><td colspan="5">AAQMS-3 :Near Old Working Area</td></tr>
<tr><td>Apr-23</td><td>17.00</td><td>32.00</td><td>9.40</td><td>12.80</td></tr>
<tr><td>May-23</td><td>21.00</td><td>52.00</td><td>9.90</td><td>13.10</td></tr>
<tr><td>Jun-23</td><td>28.33</td><td>51.21</td><td>8.61</td><td>16.20</td></tr>
<tr><td>Jul-23</td><td>29.99</td><td>53.01</td><td>10.84</td><td>18.17</td></tr>
</table>
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</table>

Sr. No.	Condition	Compliance status

Aug-23	**31.66**	**55.80**	**12.51**	**17.30**
Sep-23	**28.74**	**60.07**	**11.31**	**15.78**
AAQMS-4 : Old Waste Dump Area				
Apr-23	**18.0**	**40.0**	**11.0**	**15.3**
May-23	**18.0**	**44.0**	**7.4**	**11.3**
Jun-23	**22.50**	**46.2**	**12.1**	**18.2**
Jul-23	**27.49**	**48.30**	**13.77**	**15.91**
Aug-23	**29.58**	**51.82**	**11.42**	**17.83**
Sep-23	**27.49**	**55.08**	**1.67**	**16.61**

Summary of ambient air quality in Buffer zone are given below.

Month	PM 2.5 (µg/m3)	PM 10 (µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)
Standard	**60.0**	**100.0**	**80.0**	**80.0**
Location :- Near Naranda Village				
Apr-23	14.00	28.00	7.60	10.70
May-23	14.00	29.00	7.70	11.60
Jun-23	26.24	42.79	10.53	15.74
Jul-23	27.08	44.26	11.47	15.91
Aug-23	26.24	47.52	9.07	17.09
Sep-23	27.91	52.94	11.04	16.22
Location:- Antargao Village				
Apr-23	18	33	8.6	10.4
May-23	15	31	9.6	13.2
Jun-23	26.66	40.6	8.07	11.6
Jul-23	41.11	24.99	10.45	12.84
Aug-23	25.41	46.28	9.64	15.32
Sep-23	26.24	52.32	10.77	16.22
Location:- Near Vanoja Village				
Apr-23	15	35	11.2	14
May-23	17	28	8.8	11
Jun-23	24.16	40.47	10.85	13.53

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Jul-23</td><td>26.66</td><td>44.29</td><td>10.49</td><td>14.99</td></tr>
<tr><td>Aug-23</td><td>28.33</td><td>49.71</td><td>10.94</td><td>16.26</td></tr>
<tr><td>Sep-23</td><td>27.91</td><td>51.88</td><td>11.41</td><td>15.39</td></tr>
<tr><td colspan="5">Location:- Near Vansadi Village</td></tr>
<tr><td>Apr-23</td><td>19</td><td>37</td><td>9.9</td><td>12</td></tr>
<tr><td>May-23</td><td>22</td><td>40</td><td>11.1</td><td>13.1</td></tr>
<tr><td>Jun-23</td><td>23.74</td><td>42.64</td><td>9.77</td><td>12.77</td></tr>
<tr><td>Jul-23</td><td>24.58</td><td>43</td><td>9.8</td><td>12.84</td></tr>
<tr><td>Aug-23</td><td>26.66</td><td>46.37</td><td>9.77</td><td>15.88</td></tr>
<tr><td>Sep-23</td><td>25.82</td><td>50.42</td><td>11.33</td><td>13.69</td></tr>
</table>
</td></tr>
<tr><td>(iv)</td><td>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.</td><td>Ambient Air Quality Monitoring carried out through NABL accredited laboratory, data is being submitted to the IRO, MoEF&CC, Nagpur and MPCB along with the half yearly compliance report.</td></tr>
<tr><td>(v)</td><td>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.</td><td>Complying With

Fugitive dust emissions from all the sources are controlled i.e. Limestone Crusher attached with bag filters, Blast hole drilling is practiced by wet method, regular water spraying on haul roads, trucks covered with tarpaulin cover, on mineral heaps while loading, at crusher hopper and at conveyor transfer points etc. blasting is carried during non-windy times.</td></tr>
<tr><td>(vi)</td><td>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.</td><td>Complying with.

Noise levels are monitored and maintained within the prescribed limit of 85 dB(A).
Personnel protective equipment like ear plugs/muffs is provided to all workers engaged in mining operations.</td></tr>
</table>

Sr. No.	Condition	Compliance status
(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 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	No industrial waste water is being generated due to mining activity. All the equipment and HEMM are outsourced and maintenance & repairing work is being done at designated workshop only.
(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.	Complying with. PPEs have been provided and used by the persons engaged in drilling, dozing and loading and unloading operation to protect workers from respiratory illness and other hazards. Vocational Training (VT) is being provided as under required VT Rules 1966 to impart regular safety and awareness training. Regular check-up of workers is being carried out and till date no any abnormality is observed.  
(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.	Local labors (residing in nearby village) engaged for mining and allied operation are. All other outside workers are being accommodated in Temporary Labour colony with all necessary infrastructure and facilities.

<table>
<tr><th>Sr. No.</th><th>Condition</th><th>Compliance status</th></tr>
<tr><td></td><td></td><td> 

Established OHS centre to facilitate medical health check-up of workers engaged in mining operation.</td></tr>
<tr><td>(x)</td><td>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.</td><td>Complying with

A separate environmental management cell comprising of qualified and experienced staff is established under the control of Environment Head who report to Unit head.</td></tr>
<tr><td>(xi)</td><td>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.</td><td>Complying with

This is an existing and ongoing limestone mining project.</td></tr>
<tr><td>(xii)</td><td>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.</td><td>Expenditure towards environmental protection is being submitted in six monthly compliance report. Fund earmarked for environmental protection measures is being and will be kept in separate account. Environment Expenditure for the compliance period is given below:
<table>
<tr><th>Sr. No.</th><th>Activity</th><th>Expenditure (In Lakhs) (April-23 to September-23)</th></tr>
<tr><td>1</td><td>Operation and Maintenance of Air Pollution Control Equipment</td><td>2.4</td></tr>
<tr><td>2</td><td>Environment Monitoring</td><td>2.85</td></tr>
<tr><td>3</td><td>Plantation & Greenbelt Development</td><td>4.51</td></tr>
<tr><td></td><td>Total</td><td>9.76</td></tr>
</table>
Year wise expenditure towards environmental protection is enclosed as Annexure -</td></tr>
</table>

Sr. No.	Condition	Compliance status
		05
(xiii)	The project authorities shall inform to the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work	Complying with This is an existing and ongoing limestone mining project.
(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.	Complying with Already in the practice and will continue in future also to comply all the conditions as advised by the authority.
(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.	Complying with No suggestion / representation received against EC.
(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.	Complying with
(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.	Complying with Advertisement was published in Two newspapers and copies were submitted to MOEF&CC, New Delhi and their regional office at Bhopal.
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 /	Noted.

Sr. No.	Condition	Compliance status
	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.	
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.

Annexure-01

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 0f 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 47^0 C maximum and minimum is 8^0C. Thus, this area experience wet and dry climate; with dry conditions prevailing for most of the year.

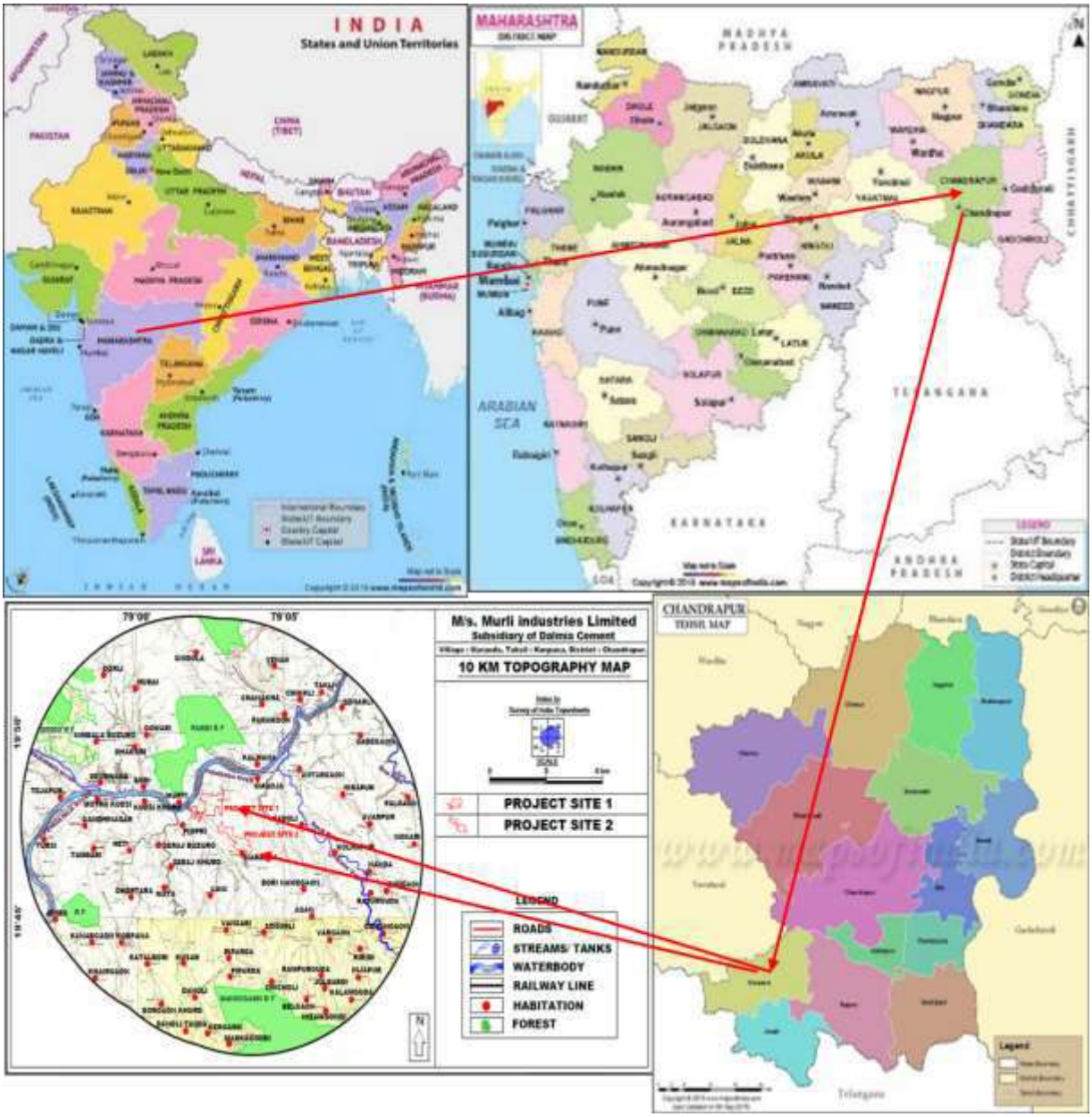

Fig I: index Map

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

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

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

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

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

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

Botanical Name	Vernacular Name	Family
Basella alba Linn	Malbar spinach (Velbhendi)	Basellaceae
Cayaponia laciniosa (Linn.) C. Jeffrey	Lollipop climber (Shivlingi)	Cucurbitaceae
Cissampelos pareira Linn.	Velvet leaf (lahan Padwal)	Menispermaceae
Citrullus colocynthis (Linn.) Schard	Bitter apple (kadu indravan)	Cucubitaceae
Citrullus lanatus (Thunb.) Mats. & Nakai	Watermelon	Cucubitaceae
Coccinia grandis (Linn.) Voigt	Ivy gourd (Tondali)	Cucubitaceae
Cocculus hirsutus (Linn.) W. Theob.	Broom creeper (Vasanwel)	Menispermaceae
Cuscuta reflexa Roxb.	Giant dodder (Amarwel)	Convolvulaceae
Dioscorea bulbifera Linn.	Air yam(kadukaranda)	Discoreaceae
Ipomoea batatas (Linn.) Lam	Sweet potato	Convolvulaceae
Ipomoea nil (Linn.) Roth	Neelpushpi	Convolvulaceae
Jasminum auriculatum Vahl	Jasmine (Jui)	Oleaceae
Leptadenia reticulata (Retz.) W. & A.	Didi/ Khandodkee	Apocynaceae
Luffa echinata Roxb.	Bitter sponge gourd	Cucurbitaceae
Momordica charantia Linn.	Bitter gourd (Karale)	Cucurbitaceae
Momordica dioica Roxb.ex Willd.	Spiny gourd(Katwel)	Cucurbitaceae
Operculina turpethum (Linn.) Silva Manso	White day glory (Nasottar)	Convolvulaceae
Piper nigrum Linn.	Black pepper (Kale mire)	Piperaceae
Praecitrullus fistulosus (Stocks) Pangalo	Tinda(Dhemas)	Cucurbitaceae
Rubia cordifolia Linn.	Indian madder (Manjishtha)	Rubiaceae
Smilax china Linn.	Chobchini	Smilacaceae
Teramnus labialis (Linn.f.) Spreng.	Blue wiss (Ran udid)	Fabaceae
Tinospora cordifolia (Willd.) Miers	Gudwel	Menispermaceae
Trichosanthes cucumerina Linn	Snake gourd	Cucurbitaceae
Trichosanthes dioica Roxb.	Pointed gourd (Parwal)	Cucurbitaceae
Tylophora indica (Burm.f.) Merrill	Antamul	Apocynaceae
Hydrophytic plants		
Azolla pinnata R.Br.		
Chara zeylanica Willd.		
Hydrilla verticillata (L.F.) Royle		
Lemna minor L.		
Nitella furcatus (Roxb.) C. Agardh		
Salvinia molesta D.S.Mitch.		
Vallisneria spiralis 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	*Labeo rohita*	C
2.	Catla	*Catla catla.*	C
3.	Stinging catfish	*Heteropneustes fossilis*	C
4.	Gar fish	*Xenentodon cancila*	C
5.	Snake head	*Channa marulius*	C
6.	Magur	*Clarius batrachus*	R
7.	Barb	*Puntius species*	C
8.	Eel	*Anguilla bengalensis*	C
9.	Poshti	*Puntius sarana sarana*	C
10.	Mrigal	*Cirrhinas mrigala*	C
11.	Balm	*Mastacembelus armatus*	C

C- common R- Rare

Table-3 : List of Amphibian

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

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

Table– 4 : List of Reptiles

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

Table - 5: List of Aves

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

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

Table – 6: List of Mammals

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

Conclusion:

Data collected during several field visits when interpreted along with available literature, revels 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)

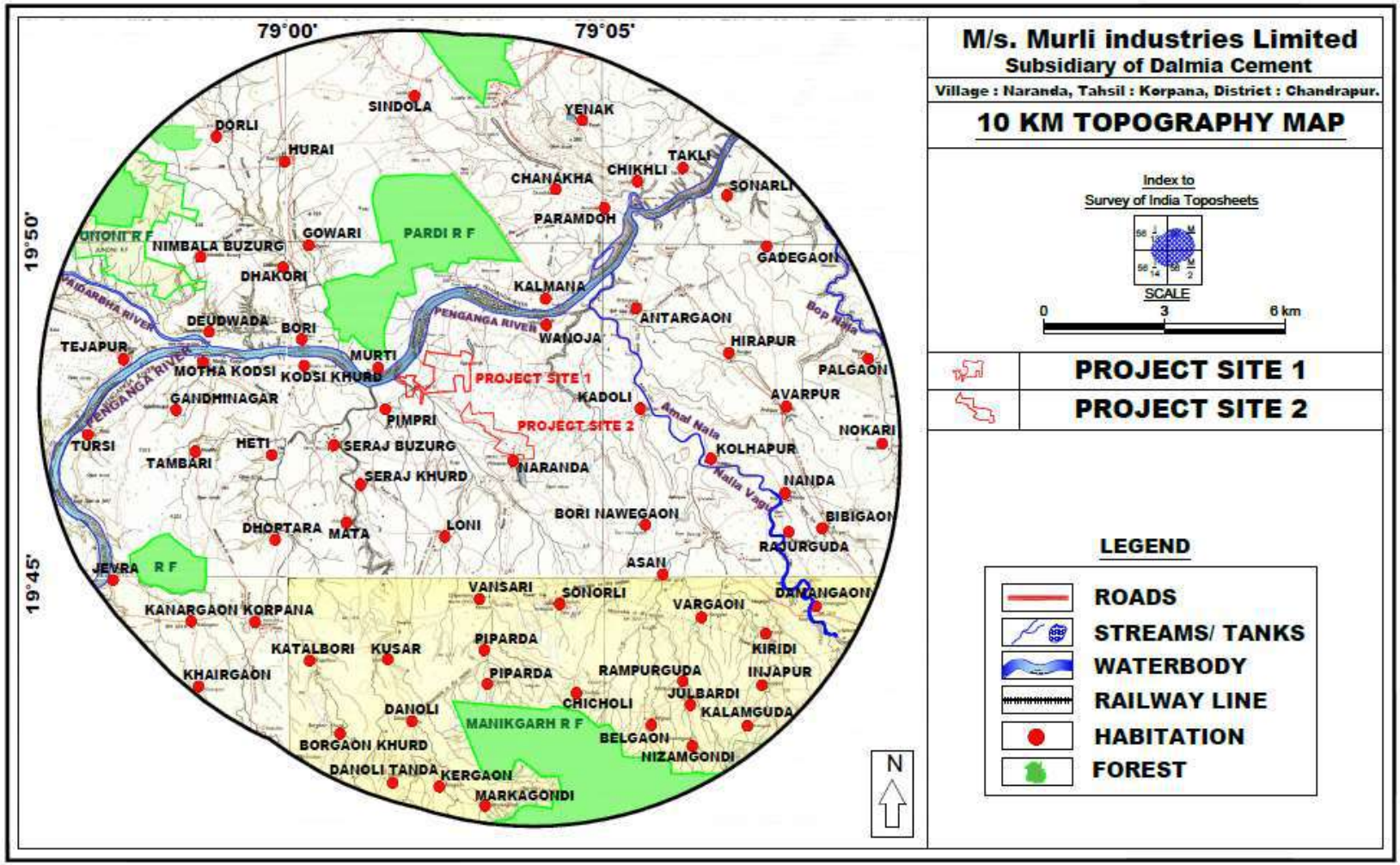

Fig II: Study Area

Site Photographs


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Unnamed Road, Loni, Loni, Maharashtra 442916, India
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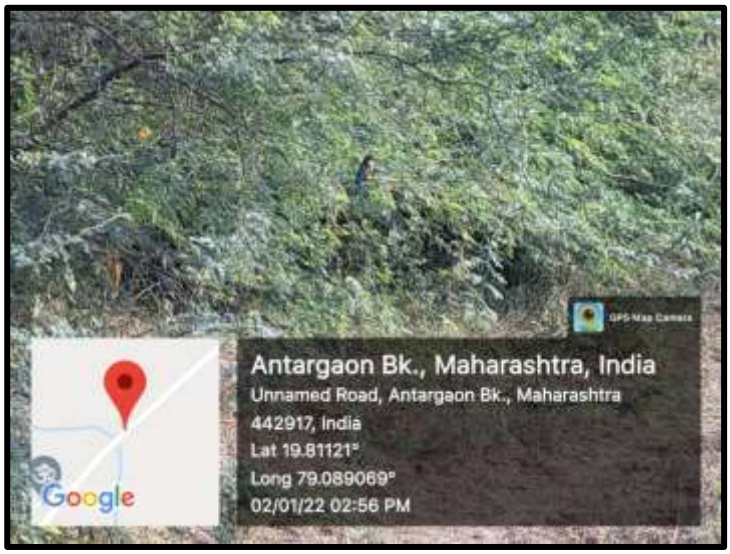
Long 79.050351°
09/01/22 02:22 PM
Google


Antargaon Bk., Maharashtra, India
Unnamed Road, Antargaon Bk., Maharashtra 442917, India
Lat 19.81121°
Long 79.089069°
02/01/22 02:56 PM
Google

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4) D'Abreau (1924, 1927, 1935) "Records of Nagpur Museum, Fish, Amphibia, Reptiles and Birds".

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7) The wild life protection Act-1972.

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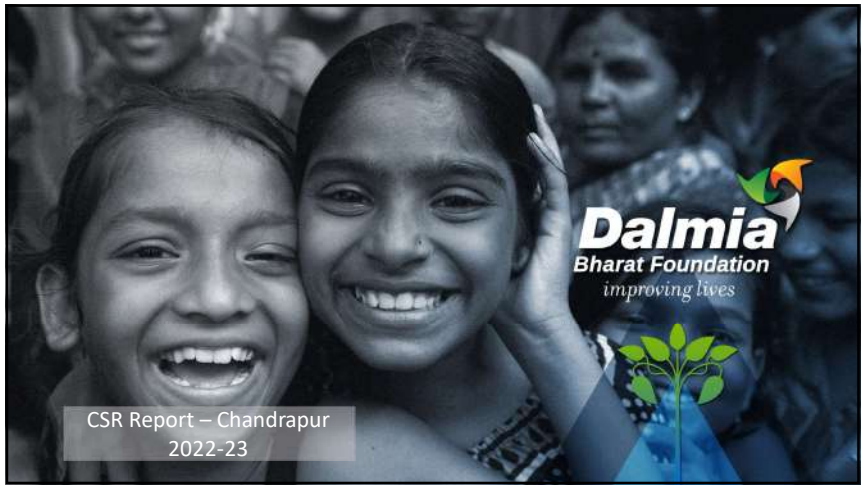

Dalmia
Bharat Foundation
improving lives
CSR Report – Chandrapur
2022-23


Dalmia
Bharat Foundation
DALMIA BHARAT FOUNDATION
Committed to carry forward the eight-decade long legacy of the Dalmia Bharat Group through conscientious corporate citizenship, the Foundation started its journey in the year 2009, as the Corporate Social Responsibility (CSR) arm of the Group companies, aligned to the UN Sustainable Development Goals (SDGs).
Driven by a corporate philosophy of Giving Back to Society, making a meaningful and lasting difference in the lives of people and communities, remains the cornerstone of Dalmia Bharat Foundation's commitment to sustainable development. The programme areas are Livelihood, Climate Action and Social Infrastructure.


Dalmia
Bharat Foundation
Health


Health
Health Check-up Camp : Organized health checkup for pregnant women, counselling and treatment camp of B.P, Sugar, cancer at PHC Sub-Center Antargaon. 25 protein powder tin distributed to pregnant women. Sarpanch Ms.Pode, Medical officer Shri.Bavane, CHO-Ms. Puja dandekar were present in the program.
Total beneficiaries 70.
PHC Naranda & Dalmia Bharat Foundation Naranda organized free health check-up camp at PHC Naranda under govt. health campaign of "Safe mother-Safe home" . Taluka health officer Korpana Dr. Swapnil Tembhe and supporting staff of PHC, Sarpanch Naranda Mrs. Anutai Tajne, Asha worker present in the program. Objective of this program is to councelling, personal hygiene, disease, symptoms, treatment, nutrition and awareness about schemes for pregnant women.
Total beneficiary of the health camp 175 . Protein powder distribution to 68 pregnant women done in this program

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

- Dalmia Bharat Foundation as Ni-kshay Mitra distributed the Nutrition Kit to two identified T.B patients under the " Pradhanmantri T.B Mukt Bharat Abhiyan " 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

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

lth & Sanitation:

Veternery 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.

Social Infrastructure

"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

Social Infrastructure

Beautification of village Entry Gate Sangoda

Before

After

Social Infrastucture

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 Infrastucture

utification of Sites : 1.Paver block fixing at Z.P School vanoja 2.Community hall Naranda

P school Pipari

re

After

Before

After

Social Infrastucture

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 Infrastucture

AN ENERGY: SOLAR STREET LIGHT

llation 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 Infrastucture

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

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

Social Infrastucture

Support to Kabaddi Sports Team in project Villages

Provided Kabaddi Sports Kit to teams

No. of team supported: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 coverd 3: 1.Naranda 2.Vanoja 3.sangoda
- No.of Population covered:5200

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

ell Recharge Pit:3
arge Pit: 10
Harvesting capacity created: 479000 cu.m

RWH-1 Naranda

RWH-4 Pipari

RWH-2 Pipari

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

- 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.

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:

- **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-entrprises: Vermicelli making group activity**

- No. of beneficiary: 10
- Name of SHG- Vedanti SHG
- Name of Village: Naranda

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:

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.

Sustainable Agriculture:

ıpsack 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

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 STRENGHTENING 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.

Skills & Livelihood:

Water Positivity Target & Achievement:

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

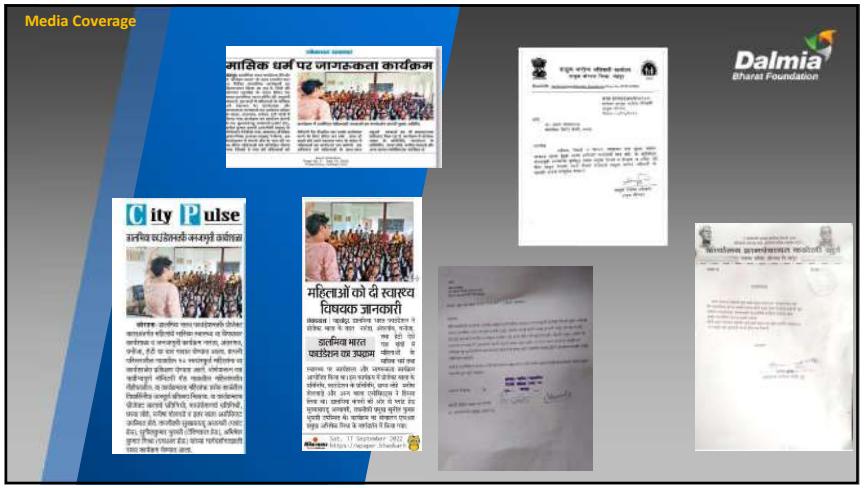
OML Target & Achievement:

One Million Livelihood in Nos		
Target FY 23	Ach FY 23	Ach %
1100	1461	132.82

Media Coverage

Media Coverage

Media Coverage



Dalmia Bharat Foundation

Dalmia Bharat Foundation

THANK YOU!

PARIVARTAN

QUARTERLY ISSUE
(JULY – SEPT' 23)

CHANDRAPUR

VILLAGES
16

POPULATION
15472

GREETINGS TO ALL!

We trust this note finds you well. It's with great pleasure that Dalmia Bharat Foundation (DBF) Team reflects on the incredible journey undertaken in the second quarter, and we are thrilled to share our collective achievements through the pages of our Quarterly CSR Magazine.

-Team DBF, Chandrapur

Dashparni Ark making demonstration by DBF team

SUSTAINABLE AGRICULTURE:

- 30 women trained to make on Dashparni ark, an organic pest control solution.
- This solution is suitable for cotton, soyabean, and vegetables.
- Helps farmers to reduce input cost.
- Increases HH income per annum by Rs.15250/- if sprayed on 1 acre of cotton
- Total 11 SHG women involved in the activity. Their present production capacity is 100 liters per month.

LIVELIHOOD:

- DBF team linked 8 BPL Families to the Veterinary Department Scheme for Goat Rearing.
- Document collection & submission to Vet. Department at Tehsil place completed.
- 4 Female goat & 1 male goat will be the pattern of support from the Govt. Scheme that provides 75% subsidy

DBF Field Staff collecting documents from BPL beneficiaries

- SHG received Rs. 1 Lakh loan for Agriculture purpose from CDCC bank, Korpana.
- A timely loan given to the members of Yahasvi, an SHG with female farmers.
- Beneficiaries belong to Pipari Village.

DBF team in CDCC bank along with SHG members

CLIMATE & WATER:

- Total 250 saplings planted in 3 villages namely Vanoja, Antargaon, Sangoda
- Tagar, Tamarind, Karanj, and Ashoka plants were some of the varieties used for plantation.
- SHG members, Grampanchayat Sarpanch & members will take care of the plantations.

Plantation by SHG members & awareness rally in village

Innovation and Success. A case study

DBF team explored and promoted the idea of selling coconuts. The idea was discussed with SHG members, which is a new business in this area. A coconut whole sale supplier was contacted for this purpose and after multiple negotiations with him, he agreed to give coconuts for selling to our SHG members. He gave 3000 coconuts at the rate of Rs.15 per piece which cost Rs.45000/-. He offered it on credit. SHG sold the coconuts at Rs.18 per piece to SHG members of others groups, which is 2 rupees less than the market price. And within 10 days SHG sold out all 3000 pieces for Rs.54000/- and earned a profit of Rs.9000/- with zero investment.

Name of SHG: Vedanti
Village: Naranda

GRAM PARIVARTAN

(An action towards bringing change)

Introduction

The Gram Parivartan Program was launched with the aim of providing livelihoods that are economically sustainable, ecologically responsible, and socially equitable. The objective is to foster sustainable economic progress within selected communities, where household chosen for participation is expected to achieve an additional annual income of Rs. 1,00,000. This can be achieved through individual or group interventions and can function independently or converged with government programs.

Cumulative Progress since Inception

Households Mapped 1235

Households with additional income 491

Interventions started 1185

Aggregate earnings Rs.362.89 Lakh

<25K	25K-50K	50K-75K	75K-1L	>1L
113	173	51	09	145

Community mobilization in GP project

Kitchen garden activity by SHG

SHG started selling Dashparni ark

Coconut selling by SHG in festive season

Goat vaccination by Pashusakhi

SOCIAL INFRASTRUCTURE:

- Govt. health cards distributed to 250 beneficiaries. DBF team supported PHC in mobilization of beneficiaries, uploading their details for card application and finally downloaded and distributed the card. This gives beneficiary a 5 lakh insurance cover.

- School Students from our core village attended live launch of Aditya L1 through our digital learning aid. 42 govt. school students took part in this event.

- Seed treatment demonstration to 54 farmers. Soya bean and bengalgram crops will benefit from this training initiative. 150 to 200 kilo gram of treated seeds required per acre.

- School bags distribution to top 3 students of 10th & 12th classes on the occasion of Independence.

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-NG07487-230429-SA- DCL-CHANDRAPUR	Date: 29.04.2023
ULR No.:	TC748723000006876F	

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 500 mL X 1 No. PVC Can 100 mL X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	22.04.2023	Date of Receipt of Sample	24.04.2023
Sampling Procedure	IS:3025(Part I):1987 RA 2019; APHA 23rd Ed. 2017, 1060-B, 1-40;		
Date of Start of Analysis	24.04.2023	Date of Completion of Analysis	29.04.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Water (Ground Water)			
1.	pH	-	6.9	APHA 23rd Ed. 2017, 4500-H+-B, 4-95
2.	Electrical Conductivity	µS/cm	944	APHA 23rd Ed. 2017, 2510- B, 2-58
3.	Total Dissolved Solids	mg/L	545	IS 3025 (Part 16):1984 RA 2017
4.	Chloride (as Cl)	mg/L	49.0	APHA 23rd Ed. 2017, 4500-Cl-B, 4-75
5.	Alkalinity Total (as $CaCO_3$)	mg/L	348	APHA 23rd Ed. 2017, 2320-B, 2-36
6.	Total Hardness (as $CaCO_3$)	mg/L	250	APHA 23rd Ed. 2017, 2340-C, 2-48

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

Harish Mendhi
Technical Manager
Chemical Testing

MAHABAL ENVIRO ENGINEERS PVT. LTD.

TC-7487

GO GREEN MECHANISMS PVT. LTD.

Head Office & Lab
Dayal Estate, National Highway No.8, Opp APMC Market Gate-1, Jetalpur, District-Ahmedabad-382426 Gujarat. INDIA

Mobile No : +91-7069072001 Email Id : lab@gogreenmechanisms.com

CERTIFICATE OF ANALYSIS

Report Number: GGMPL/PN/1102C/69/V4/01

Reporting Date : 07/09/2023

Dalmia Cement (Bharat) Ltd.
Naranda Limestone Mine Village Naranda Pimpri, Tahsil Korpana,Dist-Chandrapur

TC-7073

SAMPLE DETAILS

Lab ID:	Lab/PN/1102C/69/V4/01	Sampling Date:	29/08/2023
Sample Drawn By:	Laboratory Representative	Sample Receipt Date:	31/08/2023
Sample Type:	Water	Analysis Start Date:	01/09/2023
Sample Description:	G.W Of Naranda Borewell	Analysis End Date:	06/09/2023
Sample Quantity:	3.5L	Sampling Method:	GGMPL/WI/27A
Sample Condition:	Satisfactory	Packing:	Sealed

Sr.No	Parameters	Results	Unit	Test Method	Norm
1	Alkalinity as CaCO3	182.00	mg/L	APHA 23rd Edn 2320 B	-
2	BOD at 27 oC for 3 days	BQL (QL=2)	mg/L	IS 3025-Part 44	-
3	Chemical Oxygen Demand (COD)	BQL (QL=5)	mg/L	APHA 23rd Edn 5220 B	-
4	Chloride	51.48	mg/L	IS 3025- Part 32	-
5	Oil and Grease	BQL (QL=1)	mg/L	IS 3025- Part 39	-
6	pH at 25 °C	7.56	-	IS 3025- Part 11	-
7	Sulphate	61.48	mg/L	APHA 23rd Edn 4500 SO4 E	-
8	Total Dissolved Solids (TDS)	784.00	mg/L	APHA 23rd Edn 2540 C	-
9	Total Hardness as CaCO3	204.00	mg/L	APHA 23rd Edn 2340 C	-
10	Total Suspended Solids (TSS)	BQL (QL=5)	mg/L	APHA 23rd Edn 2540 D	-
11	Iron as Fe	1.02	mg/L	APHA 23rd Edn 3120 B	-
12	Carbonate as CaCO3	BQL (QL=2)	mg/L	APHA 23rd Edn 2320 B	-

NS=Not Specified, BQL=Below Quantification Limit,QL= Quantification Limit

A. B. Paty

Analyzed By
Aarmi Patel

GO GREEN MECHANISMS PVT. LTD. AHMEDABAD

Authorized Signatory
Manish Kumawat

GO GREEN MECHANISMS PVT. LTD.

Head Office & Lab
Dayal Estate, National Highway No.8, Opp APMC Market Gate-1, Jetalpur, District-Ahmedabad-382426 Gujarat. INDIA

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Sample Quantity:	3.5L	Sampling Method:	GGMPL/WI/27A
Sample Condition:	Satisfactory	Packing:	Sealed

Sr.No	Parameters	Results	Unit	Test Method	Norm
13	Bi Carbonate as CaHco3	182.00	mg/L	APHA 23rd Edn 2320 B	-
14	Conductivity	994	mS/cm	IS 3025- Part 14	-
15	Nitrate	2.21	mg/L	APHA 23rd Edn 4500 NO3 B	-

NS=Not Specified, BQL=Below Quantification Limit,QL= Quantification Limit

GO GREEN MECHANISMS PVT. LTD. AHMEDABAD

A. B. Patel

Analyzed By
Aarmi Patel

Authorized Signatory
Manish Kumawat

ANNEXURE - 04

PLANTATION AROUND LEASE BOUNDRY

PLANTATION AT WEST DUMP AREA

GREEN BELT AT MINES AREA

PLANTATION AT MINES LEASE BOUNDRY

ANNEXURE - 05

ENVIRONMENTAL EXPENDITURES

SN	Activity	Expenditures (In Lakhs)	
		2021-22	2022-23
1	Operation and Maintenance of Air Pollution Control Equipment	11.29	10.6
2	Fugitive Dust Emission Control Measures	10.6	6.5
3	Installation of Environment Monitoring Equipment - CAAQMS	55	-
4	Environment Monitoring	4.422	5.11
5	Greenbelt Development	2.504	6.57
	Sub Total	**83.816**	**28.78**
	Grand Total	**112.596**	

Sr. No.	Activity	Expenditure (In Lakhs) (April-23 to September-23)
1	Operation and Maintenance of Air Pollution Control Equipment	2.4
2	Environment Monitoring	2.85
3	Plantation & Greenbelt Development	4.51
	Total	**9.76**