

DCBL/ENV/MoEFCC/EC/COMPL/MINES/NARANDA/112022/01

Date: 05.11.2022

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

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

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

Dear Sir,

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

Submitted for your kind information and record please.

Thanking you

Yours Faithfully, For Dalmia Cement (Bharat) limited. Naranda Limestone Mines

Subbaraidu Ayyagari (Unit Head)

CC: 1. The Regional Director, Central Pollution Control Board (CPCB), Regional Office, Jog Centre, 3rd Floor, Mumbai Pune Road, Wakdewadi, Pune, Maharashtra – 411003.

2. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. CineMax Theatre, Sion (E), (Mumbai) - 400 022.

3. Regional Officer, Maharashtra Pollution Control Board (MPCB), 1st Floor, Udyog Bhawan, Railway Station Road, Chandrapur – 442401

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

MMM SC.

Table of Content

Sr. No.	Content	Pg. No
1.	Introduction	1
2.	Project Description	1-3
3.	Objective of the Study	5
4.	Biodiversity Assessment	5
5.	Working Team	5
6.	Methodology	5
7.	Flora	6-12
8.	Fauna	13-15
9.	Conclusion	16
10.	References	20

List of Tables

Sr. No.	Tables	Pg. No
1.	List of Flora	6-12
2.	List of Fishes	13
3.	List of Amphibian	13-14
4.	List of Reptile	14
5.	List of Aves	14-15
6.	List of Mammals	15

List of figures

Sr. No.	Tables	Pg. No
1.	Index Map	6-12
2.	Study Area	17

List of Photographs

Sr. No.	Tables	Pg. No
1.	Site Photographs	18-19

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 $19^{\circ}47'01.62"$ N to $19^{\circ}47'47.95"$ N and longitude $79^{\circ}02'51.19"$ E to $79^{\circ}03'50.62"$ 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 $19^{\circ}46'00"$ N to longitude $79^{\circ}03'30"$ E, latitude $19^{\circ}47'50"$ N to longitude $79^{\circ}03'35"$ E, & latitude $19^{\circ}47'50"$ N to longitude $79^{\circ}03'35"$ E resp. One mine of MIL is at Pimpri with latitude $19^{\circ}47'50"$ N & longitude $79^{\circ}03'35"$ 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:

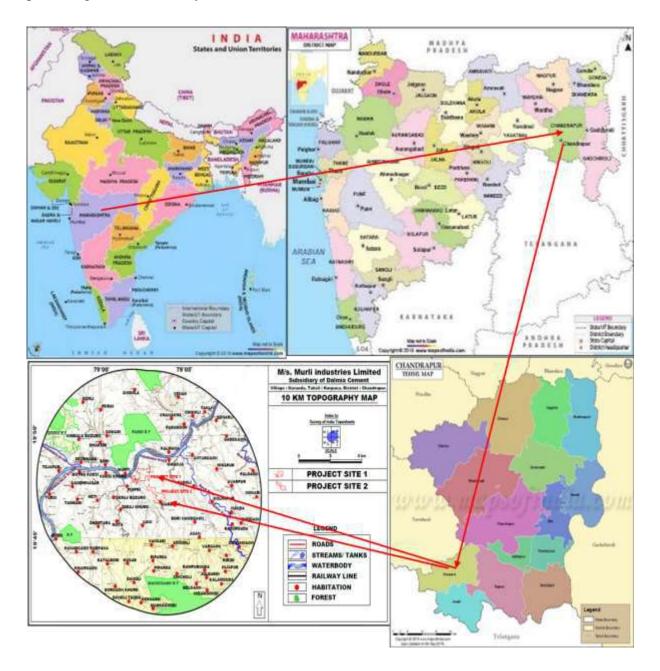
Topography of the site is saucer shaped. The highest elevation is about 403 m. AMSL is along southern periphery while lowest elevation of 170 m. AMSL is along river Penganga in the North-Eastern portion.

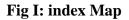
Accessibility:

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^{0} C. Thus, this area experience wet and dry climate; with dry conditions prevailing for most of the year.





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).

Botanical Name	Vernacular Name	Family
	Tree	
Acacia nilotica (Linn.), Willd ex	Gum Arabic tree(Bhabhul)	Fabaceae
Delile		
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	Longleaf Alyce clover (Shevra)	Fabaceae
Spreng.) Wight & Arn.		
Annona squamosa Linn.	Custard apple (Sitafal)	Annonaceae
Anogeissus latifolia (DC.) Wall.ex	Axlewood (Dhawda)	Combretaceae
Bedd.		
Anthocephalus cadamba (Roxb.)	Burflower tree (Kadamb)	Rubiaceae
Miq.		
Artocarpus lakoocha Roxb.	Lakoocha(Badhar)	Moraceae

Table-1:	List	of	flora
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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
	Silk cotton tree	Malvaceae
Bombax ceiba Linn.	(Katesawar)	
Borassus flabellifer Linn.	Doub plam	Arecaceae
Borassus flabellifer Linn.		
Buchanania cochinchinensis	(Charoli)	Anacardiaceae
(Lour.)		
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.)	(Gulmohar)	Fabaceae
Raf.		
Dendrophthoe falcata (Linn.f.)	Vanda	Loranthaceae
Etting.		
Desmodium scorpiurus (Sw.)	Samoan clover	Fabaceae
Desv.		
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.)	Haldu	Rubiaceae
Ridsdale		
Holoptelea integrifolia (Roxb.)	Indian elm(papra)	Ulmaceae
Planch.		
Madhuca longifolia var. latifolia	Indian butter tree (Moh)	Sapotaceae
(Roxb) A. Chev		
Mangifera indica Linn.	Mango(Aamba)	Anacardiaceae
Manilkara hexandra (Roxb.)	Khirni	Sapotaceae
Dubard		
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.)	Sandan(Tiwas)	Fabaceae
Hochr.		

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.	Sal tree	Dipterocarpaceae
F.		Dipterotarpateat
Soymida febrifuga (Roxb.) A. Juss.	Indian red wood	Meliaceae
Stereospermum chelonoides	Padal	Bignoniaceae
(Linn. F.) DC		
Syzygium cumini (Linn.) Skeels	(Jamun)	Myrtaceae
Tamarindus indica Linn.	Tamarind (chinch)	Caesalpiniaceae
Tectona grandis Linn.f.	Teak (Sagwan)	Lamiaceae
Terminalia arjuna (Roxb.ex DC.)	(Arjun)	Combretaceae
W.& A.		
Terminalia bellirica (Gaertn.)	(Behada)	Combretaceae
Roxb.		
Terminalia catappa Linn.	Wild Almond	Combretaceae
Terminalia chebula (Gaertn.)	(Hirada)	Combretaceae
Retz.		
Toona ciliata M. Roem.	Mountain cedar	Meliaceae
Woodfordia fruticosa (Linn.)	Red bell bush	Lythraceae
Kurz		
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.)	Коура	Amaranthaceae
R.Br.ex DC.		
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	Elephant foot yam(suran)	Araceae
(Dennst-Nicolson)		
Andrographis paniculata	Bhuinimb	Acanthaceae
(Burm.f.) Nees		
Argemone mexicana Linn.	Mexican poppy(Piwla dhotara)	Papaveraceae

Botanical Name	Vernacular Name	Family
Artemisia nilagirica (Clarke)	Indian warmwood (Dhordawna)	Asteraceae
Pamp		
Asparagus racemosus Willd	Shatawari	Asparagaceae
Bacopa monnieri (Linn.) Wettst.	Bramhi	Plantaginaceae
Baliospermum solanifolium	Danti	Euphorbiaceae
(Burm.) Suresh		1
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.)	(Panfuti)	Crassuliaceae
Oken		
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.	Periwinkle	Apocynaceae
Don		npoegnaceae
Celosia agrentia Linn.	Plumed cockscomb	Amaranthaceae
Var.cristata(Linn) O. Kuntze		
Celosia argentea Linn.		
Centella asiatica (Linnn) Urban	Cockscomb	Amaranthaceae
Centipeda minima (Linn.) A.Br.	Sneeze wort	Asteraceae
Aschers.		
Chenopodium album Linn.	Bathua,(Chakwat)	Amaranthaceae
Cissus quadrangularis Linn.	Asthisamhara(Hadjod)	Vitaceae
Cleome viscosa Linn.	Tickweed (Piwla tilwan)	Cleomaceae
Clerodendrum serratum (Linn.)	Bharangi	Lamiaceae
Moon	5	
Colocasia esculenta (Linn.)	Taro(Alu)	Araceae
Schott		
Commelina benghalensis Linn.	Bengal dayflower (Kena)	Commelinaceae
Convolvulus microphyllus Sieb.ex	Shankhpushpi	Convolvulaceae
Spreng		
Corchorus olitorius Linn.	Nalta Jute	Malvaceae
Costus speciosus (Koen.ex Retz.)	Crepe Ginger	Costaceae
Sm.		
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.)	Lemon grass	Poaceae
Stapf.	- 0	
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.)	Salparni	Fabaceae
DC.	-	
Desmostachya bipinnata (Linn.)	Halfa grass	Poaceae
Stapf		
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)	Himalayan nettle	Urticaceae
Friis		
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	Indrajav / pandhra kuda	Apocynaceae
(Linn.) Wall.ex A.DC.		
Hygrophila auraculata	Marsh Barbel (Talimkhana)	Acanthaceae
(Schumach) Heine		
Imperata cylindrica (Linn.)	Cogon grass (Dub)	Poaceae
Raeusch		
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)	Deokumbhi/ Dronpushpi	Lamiaceae
Spereng.		
Maranta arundinacea	Arrow root (Tikkor)	Marantaceae
Mentha piperita Linn.	Peppermint	Lamiaceae
Merremia gangetica (Linn.)	Undirkani	Convolvulaceae
Cufodont	-	
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.)	Pittapapda/ Ran kirayat	Acanthaceae
Nees.		
Phyllanthus urinaria Linn.	Chamber bitter(Lal bhuiaawali)	Phyllanthaceae
Picrorhiza kurroa Royle ex	Kutaki	Scrofulariaceae
Benth.		
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)	Sweet leaf	Asteraceae
Bertoni		
Tabernaemontana divaricata	Crape Jasmine(Tagar)	Apocynaceae
(Linn.) R. Br. ex Roem. & Schult		
Tephrosia purpurea (Linn.) Pers.	Sharpankha	Fabaceae
Thevetia peruviana (Pers.)	Yellow oleander (Ghanti)	Apocynaceae
Schum		
Trianthema monogyna Linn.	Desert horsepurslane	Aizoaceae
Tribulus terrestris Linn.	Puncture wine	Zygophyllaceae
Trichodesma indicum (Linn.)	Adhapushpi	Boraginaceae
Lehm		
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

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	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.

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

Table – 2: List of Fishes

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

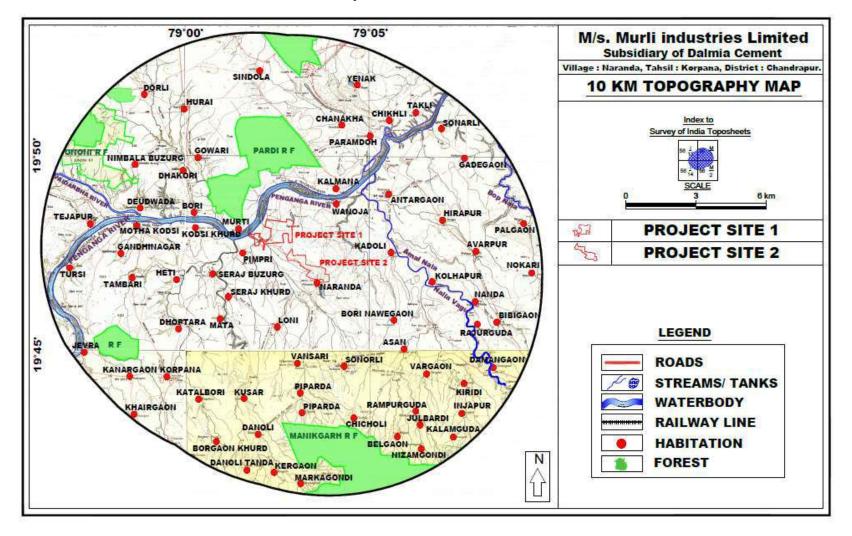
SN	Common Names	Scientific Names	Schedule	Part
1.	House shrew	Suncus murinus	V	-
2.	House rat	Rattus rattus	V	-
3.	Bandicoot rat	Bandicota bengalensis	IV	-
4.	Indian hare	Lepus nigricollis	IV	
5.	Five stripped squirrel	Funambulus pennanti	IV	-
6.	Blue bull	Boselaphus trgocamelus	III	
7.	Spotted Deer	Axis axis	III	
8.	Wild boar	Sus scrofa	IV	-
9.	Jungle cat	Felis chaus	II	Ι
10.	Indian fox	Vulpes bengalensis	II	II
11.	Common langur	Semnopithecus entellus	II	Ι
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

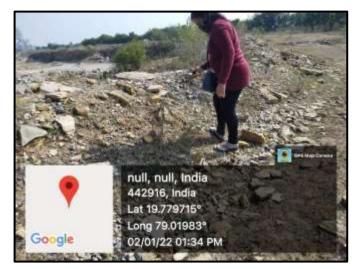
Site Photographs



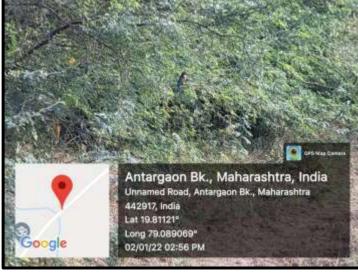














REFERENCES:

- 1) Datta, S.K. (1992) : " Amphibians of India : updated species list with distribution record" Hamaduyad, 17 1-13.
- 2) Ghosh A.K. (1994) : "The Red Data Book on Indian Animals", Pt.I- Vertebrasta. Zoological Survey of India, Kolkata.
- 3) Goyal A.K., Jain V.K. and Nayak A.K. (1998) : "Modern Trends in Biodiversity" Jaishree Prakashn, Muzaffarnagar"
- 4) D'Abreau (1924, 1927, 1935) "Records of Nagpur Museum, Fish, Amphibia, Reptiles and Birds".
- 5) Internet Access: Wikipedia.
- 6) Internet Access: www.iucnredlist.org
- 7) The wild life protection Act-1972.
- 8) M. Anji Reddy (2013): Environmental Impact Assessment, Theory and Practice. Pg. no. 421.

No. SEAC-2009/CR.12/TC.2 Environment department Room No. 217, 2nd floor, Mantralaya Annexe, Mumbai- 400 032. Dated: 8th July, 2010

To. M/s. Murli Industries Ltd. Korpana, district- Chandrapur, Maharashtra

Zutting (18.06 Ha), Zutting (25.28 Ha), Zutting (42.16 Ha) Limestone mines Subject: located at Korpana taluka of Chandrapur district. & Pimpri (30.33 Ha) Limestone mines located at Pimpri, taluka- Koprana, Dist- Chandrapur. -Environmental clearance regarding.

Sir.

This has reference to your letter dated 1st June, 2009 on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee in its 10th & 17th meetings SEAC in its 17th meeting recommended for prior Environment Clearance to State Level Environment Impact Assessment Authority (SEIAA) subject to submission of additional information on the points raised by SEAC. Subsequent information submitted by you, has also been considered by State Level Environment Impact Assessment Authority in its 22nd meeting held on 14th June, 2010.

It is noted that the proposal is for grant of Environmental clearance for Zutting (18.06 Ha). 2. Zutting (25.28 Ha), Zutting (42.16 Ha) Limestone mines located at Korpana taluka of Chandrapur district. & Pimpri (30.33 Ha) Limestone mines located at Pimpri, taluka- Koprana, Dist-Chandrapur. The project considered by SEAC under EIA Notification 2006, screening category is 1 (a).

Project information fro summarized as below:	om documents submitted by you & considered by SEAC & SEIAA is
A. Zutting (18.06 Ha)	Limestone mines located at Korpana taluka of Chandrapur district.
Name of the Destant	2 (10 ozzi

Name of the Project	Zutting (18.06 Ha) Limestone mines	
Project Proponent	M/s. Murli Industries Ltd.	
Project	The company has established 3 millions tones per year cement plant; The raw material requirement of the plant is limestone which will be envisaged from nearby limestone mines. Thus, Limestone will be mainly used as raw material for cement plant.	
Location of the project:	Korpana, district- Chandrapur, Maharashtra. Latitude : 19 ⁰ 46'00" Longitude : 79 ⁰ 03'30"	
Type of Project	Mining project	
Lease area	18.06 ha	
Mineral	Limestone	
Extractable geological reserves	Lime stone up to 15 m Depth -81,30,000 tonnes	
Proposed to mine	30,00,00 Tonnes	

Paban

Method	Open cast manual only by forming 3m x 3m benches by manual means, drilling by jack hammers and blasting will be carried out to produce the ore. Mining will be carried out involving digging, scrapping, loading & transportation.	
Estimated cost of the project	Rs. 50 Lakhs	
Water Requirement:	140 m ³ /day; project will require continuous supply of water, Source: Penganga river.	
Green Belt Development	Plantation will be done on 0.0520 Ha. Area.	
Solid Waste Management:	 Waste generated from mining operations will be alluvial soil and murrum which is inorganic in nature and dose not react with air or water hence, no possibility of chemical pollution. Waste material likely to e generated during proposed mine planning period over 1st year : 20880 M³ 	

B. Zutting (25.28 Ha) Limestone mines located at Korpana taluka of Chandrapur district.

Name of the Project	Zutting (25.28 Ha) Limestone mines
Project Proponent	M/s. Murli Industries Ltd.
Project	The company has established 3 millions tones per year cement plant (Environmental clearance was issued by MOEF for this project); The raw material requirement of the plant is limestone which will be envisaged from nearby limestone mines. Thus, Limestone will be mainly used as raw material for cement plant.
Location of the project:	Korpana, district- Chandrapur, Maharashtra. Latitude : 19 ⁰ 47'50" Longitude : 79 ⁰ 03'35"
Type of Project	Mining project
Lease area	25.28 Ha
Mineral	Limestone
Extractable geological reserves	Lime stone upto 10-15 m Depth 14.6 millions tonnes
Proposed to mine	0.6 MMTPA
Method	Open cast semi mechanize method. During first five years of working 3.0 million tonne limestone is proposed.
Estimated cost of the project	Rs. 50 Lakhs
Water Requirement	140 m³/day
Green Belt Development	2100 Trees/ha of land will be for plantation. Plantation will be protected from grazing and illicit felling.
Solid Waste Management:	 Waste material likely to be generated during proposed mine planning period over 5 year: 49375M³ Disposal: Generated waste will be dumped on predetermined non mineralized area.

Net

Chandrapur.			
Name of the Project	Pimpri(30.33 Ha) Limestone mines		
Project Proponent	M/s. Murli Industries Ltd.		
Project	The company has established 3 millions tones per year cement plant (Environmental clearance was issued by MOEF for this project); The raw material requirement of the plant is limestone which will be envisaged from nearby limestone mines. Thus, Limestone will be mainly used as raw material for cement plant.		
Location of the project:	Pimpri ,Korpana, district- Chandrapur, Maharashtra. Latitude : 19 ⁰ 47'50" Longitude : 79 ⁰ 03'35"		
Type of Project	Mining project		
Lease area	30.33 Ha		
Mineral	Limestone CaO: 48.42-50.64 %		
Extractable geological reserves	Lime stone upto 10-15 m Depth 09.75 millions tonnes		
Proposed to mine	6,00,000 TPA		
Method	Open cast semi mechanized method. Mining will be carried out by double shift involving digging, blasting, scrapping, loading, transportation and crushing.		
Estimated cost of the project	Rs. 50 Lakhs		
Water Requirement	140 m ³ /day		
Green Belt Development	protected from grazing and illicit felling.		
Solid Waste Management:	 Waste generated from mining operations will be alluvial soil and murrum which is inorganic in nature and dose not react with air or water hence, no possibility of chemical pollution Waste material likely to be generated during proposed mine planning period over 5 year: 12,600 M³ Generated waste will be dumped on predetermined non mineralized area 		

C. Pimpri (30.33 Ha) Limestone mines located at Pimpri, taluka- Koprana, Dist-Chandranar,

D. Zutting (42.16 Ha) Limestone mines located at Korpana taluka of Chandrapur district.

Name of the Project	1	Zutting (42.16 Ha) Limestone mines
Project Proponent	:	M/s. Murli Industries Ltd.
Project	:	The company has established 3 millions tones per year cement plant (Environmental clearance was issued by MOEF for this project); The raw material requirement of the plant is limestone which will be envisaged from nearby limestone mines. Thus, Limestone will be mainly used as raw material for cement plant.
Location of the project:		Korpana, district- Chandrapur, Maharashtra. Latitude : 19 ⁰ 48'45" Longitude : 79 ⁰ 02'30"
Type of Project	3	Mining project
Lease area		42.16 ha
Mineral	1	Limestone
Extractable geological	1	Lime stone upto 15 m Depth

Palian

reserves		22.6 mt
Proposed to mine	38	6,00,00 Tonnes
Method	:	Open cast manual only by forming 3m x 3m benches by manual means, drilling by jack hammers and blasting will be carried out to produce the ore.
Water Requirement	•	140 m ³ /day
Green Belt Development	:	Plantation will be done on 0.90 Ha. Area.
Solid Waste Management:	ŧ	 Waste generated from mining operations will be alluvial soil and murrum which is inorganic in nature and dose not react with air or water hence, no possibility of chemical pollution. Waste material likely to be generated during proposed mine planning period over 1st year : 49375 M³

Mine water: During monsoon there will be accumulation of water in the excavated pits which is proposed to be dewatered into a sump and will be pumped into desilting tanks. This water will be used for sprinkling of water and plantation.

Water conservation measures:

 Check dam will be constructed around the dump to prevent washing off of loose sediments.

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- 2. Brushwood Check dam
- 3. Stone Masonry check dams
- 4. Dry Stone Masonry check dams
- 5. Loose Boulder check dams

Rain water Harvesting:

- 1. It is proposed to recharge the 12 hand pumps with recharge pits around the hand pump
- Garland drain around the mining lease area will arrest the surface runoff and also act as recharging structure.

Air Pollution control measures:

- 1. Wet drilling of blast holes
- 2. Haulage roads will be frequently sprinkled with water.
- 3. Ore will be covered by tarpaulins to prevent spread of dust from it during transportation.
- Regular maintain ace of vehicles and machineries will be carried out in order to control emission.
- 5. Green belt development will be taken up all along the haul road and overburden dumps
- 6. Protective appliances will be provided to all the workers in dusty atmosphere.
- 7. A good house keeping will be practiced which help in controlling the pollution.

Environmental Management Plan: Capital cost will be Rs. 5.00 Lakhs and recurring cost will be Rs. 7.00 Lakh; Socio – Economic budget: Rs. 20 Lakh

Details of Public Hearing:

MPCB conducted Public hearing of M/s. Murli Industries Ltd , Village Naranda, Pimpri, Wanoja & Zutting, Tal- Korpana, Dist – Chandrapur for proposed project of cement lime mine & captive power generation of 50 MW on dated 27th April, 2007

Project proponent answered the various questions from local people.

 Project proponent clarified that full fledge air pollution control system like ESP, Bag house, Bag filter and dust collector will be provided to control dust emission.

Thank

- Project proponent clarified that all environmental, socio-economic norms will be cautiously implemented.
- 3. The proposal has been considered by SEIAA in its 22nd meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :-
 - Mining activity should not intersect ground water table.
 - Proponent should follow prevailing mines act and rules as well as other directions given by Director General of mines safety measures
 - (iii) No change in mining technology and scope of work, preliminary or otherwise relating to the project shall be taken up without obtaining due clearance from respective authorities.
 - (iv) No additional land in excess of said above shall be used /acquired for any activity of the project without obtaining proper permission.
 - Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project
 - (vi) No change in the calendar plan including excavation, quantum of mineral and waste shall be made.
 - (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.
 - (viii) The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
 - (ix) 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.
 - (x) For controlling fugitive natural dust regular sprinkling of water in vulnerable areas of the plant shall be ensured.
 - (xi) Dust fall measurement shall be periodically carried out including particle size analysis in work zone area. Results shall be submitted to the Regional Office of the Ministry and State Govt.
 - (xii) Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training & information on safety and health aspects.
 - (xiii) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
 - (xiv) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
 - (XY) First aid room shall be provided in the project. Regular medical checkup for workers and records maintenance shall be carried out.
 - (xvi) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
 - (xvii) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003. Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
 - (xviii) The solid waste shall be properly collected, segregated and disposed as per the provision of solid waste (Management and Handling) Rules, 2000.

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- (xix) Regular monitoring of the air quality, including SPM & SO2 levels both in work zone and ambient air shall be carried out in and around the project area and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.
- (xx) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
- (xxi) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.
- (xxii) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during nonpeak hours.
- (xxiv) Leq. of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like carplugs etc. shall be provided.
- (xxv) The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. On all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.
- (xxvi) Land-use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural 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 the plan and expenditure thereon shall be reported to the Govt. of Maharashtra.
- (xxvii) Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses. The roads shall be black topped.
- (xxviii)Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Govt. of Maharashtra within six months and thereafter every year from the next consequent year.
- (xxix) 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 plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- (xxx) Trenches / garland drains shall be constructed at foot of dumps and coco filters. installed at regular intervals to arrest silt from being carried to water bodies. Adequate number 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 be constructed for both mine pit and for waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years 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 desilted at regular intervals.

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- (xxxi) Prior permission from the competent authority shall be obtained for extraction of ground water, if any
- (xxxii) 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 records maintained.
- (xxxiii)Cultivable waste land (within 5 km of the lease) shall be identified and fodder farming or other suitable productive use of waste land shall be taken up in phased manner. Status of implementation shall be submitted to the Govt. of Maharashtra
- (xxxiv)Shelter Belt i.e. Wind Break of 30 m width and consisting of at least 5 tiers around lease facing the school / agricultural fields / human habitation etc. (if any in the vicinity) shall be raised.
- (xxxv) Monitoring of soil samples for assessment of transformation to acidic state or contamination due to mining activity (as applicable) shall be regularly conducted and records maintained.
- (xxxvi)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.
- (xxxvii) Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments 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 by follow up action wherever required.
- (xxxviii) Top soil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area. Top soil shall be separately stacked for utilization later for reclamation and shall not be stacked along with over burden.
- (xxxix)Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. 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 rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.

- (xl) Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.
- (xli) Adequate plantation shall be raised 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 / Agriculture Department. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. 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 Govt. of Maharashtra every year.
- (xlii) 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-

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monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected shall be regularly sent to MPCB, Central Ground Water Authority and Regional Director, Central Ground Water Board.

- (xliii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions 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
- (xliv) Action plan with respect to suggestions/improvements and recommendations made during public consultation/hearing shall be submitted to the Ministry and the State Govt, within six months.
- (xiv) A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests, 5 years in advance of final mine closure for approval
- (xlvi) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
- (xlvii) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <u>http://cnvis.maharashtra.gov.in</u>.
- (xlviii) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
- (xlix) Six monthly monitoring reports should be submitted to the Department and MPCB.
- (I) The project proponents during their inspection should give officials from the MPCB who would be monitoring the implementation of environmental safeguards full cooperation, facilities and documents/ data. A complete set of all the documents submitted to Department should be forwarded to the MPCB
- In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by SEAC & SEIAA.
- 4. The Environment department reserves the right to add more stringent conditions and revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
- Validity of Environment Clearance: The environmental clearance accorded shall be valid for a period of 5 years.
- 6. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
- The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981.

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the Environment (Protection) Act, 1986 and rules there under. Hazardous Waster-(Management and Handling.) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

(Valsa R Nair Singh) ; Secretary Environment department & MS, SEIAA

Copy to:

- Shri, Ashok Basak, IAS (Retd.), Chairman, SEIAA, 502 Charleville, "A" Road, Churchgate, Mumbai- 400 020, Maharashtra.
- Shri, P.M.A Hakeem, IAS (Retd.), Chairman, SEAC, "Jugnu" Kottarant Road. Calicut- 673 006 Kerla.
- The Principal Secretary, Industry department, Govt. of Maharashtra. Mantralout. Mumbai - 400032., Maharashtra
- Member Secretary, Maharashtra Pollution Control Baord, with request to display = copy of the clearance.
- The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shank, Nagar, Bhopal- 462 016). (MP).
- 6. Regional Office. MPCB, Chandrapur
- 7. Collector, Chandrapur.
- IA- Division, Monitoring Cell, MoEl', Paryavaran Bhavar, CGO Complex, Louisi Road, New Delhi-110003.
- Director(TC-1).Dy Secretary(TC-2).Scientist-1,Environment department
 Select file (TC-3).

J-11015/380/2007- IA. II (M) Government of India Ministry of Environment & Forests

Telefax: 011-24367257 e-mail: w.bharat@nic.ni Paryavaran Bhavan, C.G.O. Complex, Lodhi Road, New Delhi-110003. Dated: December 12, 2008

To

M/s Murli Industries Ltd. Radha House, 239 East Wardhaman Nagar Nagpur – 440 008 Maharashtra.

Sub: 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 – reg. Environmental Clearance.

Sir,

The undersigned is directed to refer to your letter dated 10.04.2008, on the above mentioned subject. The Ministry of Environment and Forests has examined the application.

2. The proposal is for Limestone production at capacity of 2.4 MTPA. The reserves of limestone is 17.8 MT. Life of the mine at proposed rate of production will be 30 years. The limestone is for captive consumption for its cement plant located near the lease. Transportation of ore to cement plant will be by closed conveyor belt. Method of mining will be open cast mechanised. Drilling and blasting will be involved. The lease area is 71.01 ha, which is a govt. waste land. Out of 71.01 ha, only 34.84 ha will be under mining. An area of 3.11 ha will be kept for waste dump; 0.56 ha for infrastructure, 0.53 ha for roads; 10.50 ha for green belt; and 21.47 ha for future use. The lease area has undulating terrain having average altitudes of 185 m RL. Penganga river flows at a distance of 2.0 km from the lease. Reserve forest is at 7.0 km from lease boundary. Tadoba wildlife sanctuary is at a distance of 90.0 km from the lease. Ultimate depth of mining will be at 35 m below ground level (bgl). Ground water table is at 150 m bgl. Mining will not intersect water table. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Heritage sites etc. within 10 km from the lease area. Peak water requirement at the mine will be 131 KLD, which will be met from Penganga river. Solid waste of around 4.80 MT will be generated. These will be used for back-filling of the worked out pits. No relocation and rehabilitation of population will be involved. Approved mining plan (including progressive mine closure plan) was obtained from Indian Bureau of Mines on 04.11.2008. Public hearing was held on 27.04.2007. No diversion of forest land is involved. Cost of the project will be Rs 5.27 Crores.

3. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated September 14, 2006.

4. Based on the information submitted by you, as at Para 2 above and others, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification dated September 14, 2006, subject to the compliance of the following Specific and General conditions.

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.
- (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. This process will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore bearing area is worked for expansion.
- (iii) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- (iv) Primary survey data of flora and fauna shall be submitted to the Ministry within six months.
- (v) Conservation plan for wildlife shall be prepared in consultation with the office of the concerned Chief Wild Life 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
- (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.
- (vii) Continuous air ambient quality monitoring system shall be installed before three months of start of mining activity at appropriate sites (including cement plant) in consultation with the State Pollution Control Board/Regional office of Central Pollution Control Board. Ambient air quality data shall be regularly submitted to the Regional Office of the Ministry and other concerned departments.

The ambient air quality monitoring shall include PM_{10} . Regular analysis of silica content for PM_{10} shall be carried out. Assessment of silica in silt shall be regularly carried out and records maintained.

- (viii) Need based assessment for the near by villages shall be conducted to study economic measures which can 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.
- (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.
- (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 the plan and expenditure thereon shall be reported to the Regional Office of the Ministry from time to time.

- (xi) Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Regional Office of the Ministry within six months and thereafter every year from the next consequent year.
- (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 plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- (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.
- (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 number 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 designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years 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 desilted at regular intervals.

- (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 records maintained.
- (xvi) Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Regional Office of the Ministry.
- (xvii) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore / dust takes place. Transportation shall be done only during day time.
- (xviii) Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments 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 by follow up action wherever required.

- (xix) Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses. The roads shall be black topped.
- (xx) Top soil/ solid 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.
- (xxi) Monitoring of soil samples for assessment of contamination due to mining activity shall be regularly conducted and records maintained.
- (xxii) Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m 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 rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.

- (xxiii) Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.
- (xxiv) Drilling (if any) shall be conducted by using dust extractors/wet drilling. Controlled blasting shall be undertaken.
- (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 / Agriculture 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.
- (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 – premonsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected shall be regularly sent to MoEF, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (xxvii) The waste water from the mine shall be treated to conform to the prescribe 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 Environment & Forests, Central Pollution Control Board and the State Pollution Control Board.

- (xxviii) Prior permission from the competent authority shall be obtained for extraction of ground water, if any.
- (xxix) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions 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.
- (xxx) Action plan with respect to suggestions/improvements and recommendations made during public consultation/hearing shall be submitted to the Ministry and the State Govt within six months.
- (xxxi) A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests, 5 years in advance of final mine closure for approval.

B. General conditions

- (i) No change in mining technology and scope of working shall be made without 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.
- (iii) Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO₂, NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- (iv) Data on ambient air quality (RPM, SPM, S0₂, NO_x) 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.
- (v) Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.
- (vi) Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.
- (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.
- (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.

- (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 care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (x) A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (xi) The project authorities shall inform to the Regional Office of the Ministry 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.
- (xii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.
- (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.
- (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.
- (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.
- (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.
- (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.

5. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

6. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

7. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

8. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Yours faithfully,

(W. Bha **Deputy Director**

Copy to:

- 1. Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- 2. Secretary, Department of Environment, Government of Maharashtra, Mumbai.
- 3. Secretary, Department of Mines and Geology, Government of Maharashtra, Mumbai.
- 4. Secretary, Department of Forests, Government of Maharashtra, Mumbai.
- Chief Conservator of Forests, Regional Office, Ministry of Environment and Forest, Arera Colony, Bhopal -462016.
- Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- Chairman, Maharashtra State Pollution Control Board, 3rd&4th Floors, Sion Matunga Scheme Road No.6, Opp. Cine Planet, Sion Circle (E), Mumbai - 400 022.
- Member Secretary, Central Ground Water Authority, A2, W- 3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
- 10. District Collector, Chandrapur Distt., Government of Maharashtra.
- 11. El Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
- 12. Monitoring File.
- 13. Guard File.
- 14. Record File.

(W. Bharat Singh) Deputy Director

Dalmia Bharat Foundation improving lives



CSR Activities Location – Chandrapur FY. 2021-2022



- 1) Dalmia Bharat Foundation brief
- 2) CSR Programs –2021-22





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 Millennium Development Goals (MDGs).

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.



DALMIA BHARAT FOUNDATION

@

Chandrapur

Our focus areas :

- Education
- Health
- Livelihood
- Social Infrastructure
- Clean Energy



 An initiative by ACT-GRANTS and Dalmia Bharat Foundation.
 "BREATHE SAFE"

≻Total No. of Mask Distributed: 6250

≻No. of frontline health workers covered: 934

➢No. Of Grampanchayat Covered: 13

≻No. Of Nagarpanchayat Covered:2

Fight against Covid-19



Media Coverage:



Mask distribution





गडचांदर : मास्क वितरणप्रसंगी उपस्थित मान्यवर.

कोविड योद्ध्यांना मास्क वितरण

सकाळ वृत्तसेवा

महामारीच्या पार्शवभुमीवर कोरपना तात्ख्रक्यातील गावात विविध गावात डालमिया भारत फाउंडेशनतर्फे कोविड योदांना मास्कचे वितरण करण्यात आहे. महाराष्ट्रत डाल्डमिया भारत

Nagpur, Chandrapur-Today 05/03/2021 Page No 3

फाउंडेशनने २२००० मास्क वितरित करण्याचे ठरविले आहे. या गडचांदर, ता, ४ : कोरोना अनुपंगाने कोरपना ताऌक्यातील मुरली सिमेंट कंपनीच्या परिसरातील १५ ग्रामपंचायतींना च दोन नगरपरिषद यांना १२५० मास्क वितरित करण्यात करण्यात येत आहे. यावेळी फाउंडेशनचे पदाधिकार, नागरिकांची मोठ्या संख्येने उपस्थिती होती.

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Health



Free health Check-up Camp

 Organised Two free health Checkup camp (B.P, Sugar,oral cancer, gynac related diseses etc) at Sangoda and Antargaon village in association with PHC Kawthala and Tata Trust Chandrapur.

> Total beneficiary: 1.Sangoda : 107 & 2.Antargaon: 114







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Vehicle Support for Covid Vaccination to THO Korpana

Vehicle Support for one month to SDO office, Primary Health Center Naranda to mobilize staff, vaccine distribution and for door to door vaccination in our project villages. Covered 2 PHC and **1 PHC subcenter**



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fites

COVID-19 সমিতখনের স্থানবাঁমনাক্ষা দ্ব কল মহন্ব ১)থিং-18 বাঁ अंयुष राज्यधरात लग्नीचरन सोलना जालु करण्यान अन्तेली आहे. त्या अनुवंगानं जिल्ह्यात घोठना प्राण्णावर कोविड 19 नियमक तथीकरव होने अगंच स्वन्ध्यक बाहे. (मा गारीवा



BLOOD DONATION CAMP AT VANOJA

- Organised Blood Donation Camp at Vanoja village in association with District Govt. Hospital Chandrapur
- No. of Blood Donor: 28









- Total 6250 Mask distributed directly to frontline health workers, in 13 Gram Panchayat, 2 Nagar Panchayat, 2 Police station, 2 Rural Hospital
- Covid Vaccination Drive : DBF supports in mobilization and registration of villagers to PHC Naranda &
 PHC Kawthala for Covid Vaccination Drive: Till date we have covered 6806 people to get vaccinated
 Covered 10 villages :1.Naranda 2.Vanoja 3.Sangoda 4.Kadholi 5.Asan B.k 6.Antargaon 7.Zoting
 8.Pimpalgaon 9.Gadchandur 10.Loni
- Support in Covid Vaccination drive to District administration: 100000 Auto Disable (A.D) Syringe (0.5 ml) hand over to District Health Officer
- Felicitation of frontline Health worker of PHC Naranda and PHC Kawthala by Unit Head-MIL-DCBL,HR-Head.
- Vehicle Support for one month to SDO office, Primary Health Center Naranda to mobilize staff, vaccine distribution and for door to door vaccination in our project villages . Covered 2 PHC and 1 PHC subcenter



Livelihood & Skill Training



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. Procurement plan sanctioned in IMC. Tendering & purchasing process at state & Institutional level initiated through GEM portal.

*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 proposed free travelling pass to girl students to encourage more admission.











Social Infrastructure



CLEAN ENERGY: SOLAR STREET LIGHT

Installation of 20 solar street lights in 5 village 1.Sangoda 2.Vanoja 3.Antargaon 4.Kadholi kh 5.Pipari

Two High mast Light at Naranda







Size of the Pond:

- Length-400 ft. Breadth-170 ft. Depth- 5ft.
- Excavated 5 ft. more.Now Total depth 10ft

> <u>Advantages:</u>

- 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.

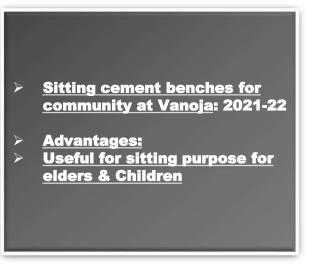
















Safe Drinking Water Facility: 2021-22

Safe drinking water facility: Installation of RO Unit & Construction of RO Shade at Vanoja

No. of beneficiaries impacted: 180 HH No. of villages covered: 1







Safe Drinking Water Facility: 60 LPH RO installed at PHC Naranda

E-Learning kit setup & Installation done at 4 School

E-Learning kit setup & Installation done at 2 Anganwadi

2 LPG Gas cylinder and Shegdi provided to Anganwadi at sangoda village: Support to mid day meal cooking at Anganwadi.



Media Coverage



डिजिटल लर्निंग लॅबोरेटरी वर्ल्ड ऑन व्हील्स का ग्रुभारं

गडचांद्र (ता.प्र.) - अब गडचिरोली के ग्रामीणों को हाईटेक बनाने के लिए कंम्प्यटर का प्रशिक्षण दिया जाएगा, जिससे ग्रामीण क्षेत्र के नागरिक भी अब कंष्ण्यटर का ज्ञान ले सकेंगे. इसके लिए डालमिया भारत फाउंडेशन ने वागई ऑन वहीत्म नाम से एक मोबाइल कंप्युटर और डिजिटल साक्षरता लैब शुरु की गई

एचपी इंडिया के सहयोग से वर्ल्ड ऑन व्हील्स की साझेदारी से श्वंद्रपुर के मरली सीमेंट प्लांट के आसपास के गांवों में यह बस कार्यरत रहेगी.

इस पहल से कंपनी ने मार्च २०२२ तक ६०० विद्यार्थियों तक पहुंचने की योजना बनाई है. इन गांवों में युवाओं, महिलाओं. आशावर्करों और किसानोंकी संख्या



अधिक है, पहचाने गए कुल गांवों में से कंपनी ने सीमेंट प्लांट से ५ कि.मी. के दायरे में ६ गांवों को प्राथमिकता दी है जो प्रशिक्षण प्राप्त करने वाले पहले व्यक्ति होंगे, कंपनी का लक्ष्य स्कलों और कॉलेजों तथा बडे समदीय तक पहुंचते हए आशा वर्कर, पीएवसी स्टाफ, महिला स्वयंसहायता सदस्यों. सीमेंट प्लांट में सरक्षा कर्मचारियों. किसानों आदि को प्रशिक्षित करने की योजना है, अब तक २४० विद्यार्थियों के लिए पाठवक्रम शरु करने की तैयारी है, उन्हें कोविंड

पोटोकॉल के अनसार बैचों में विभाजित किया जाएगा, पाठ्यक्रम परा करने के बाद प्रशिक्षण लेनेवाले कंप्युटर का उपयोग ई-लर्निंग के मुल उद्देश्य, ईमेल भेजने, इंटनरेट बैंकिंग सेवाओं का उपयोग कर सकेंगे. लैब का उदघाटन २८ जनवरी को जिलाधिकारी अजय गुल्हाने, कंपनी प्रमुख हकीम्हीन अली की उपस्थिती में किया गया. अतिरिक्त जिलाधिकारी विद्यत वरखेडकर, कंपनी के ओर से सुनीलकुमार भुसारी, गिरीश सोमाणी, अरविंद ठाकर, चंद्रदीप टामटा पराग पापंडीवार, प्रशांत भौमनवार, कंप्युटर टेनर गौरव वांहरे, समूह संगठक लक्ष्मण कलमेथे आदि उपस्थित थे. इस समय अतिथियों ने अपने विचार व्यक्त किए. (को)



डिजिटल लर्निंग लॅबोरेटरी बर्ल्ड ऑन व्हिल्सचा शुभारंभ चेड्यू (का.प.)-इं-लॉरिंगच्या माध्यमालुव विम्रूम इंप्रान परिवर्तन दालमिया भारत फाऊंडेशनचा पढाकार ustrained certury was पवरहेशनने प्रदेशका प्रेलला आहे. सामाधिक देवित्तानुव संगलय य बिजितन सामाना विर्मल काणान्य feixen mile statici and ज्यांन विहल्स वाहनावा सुमार्गम हि.२८ जानेवारी, २०२९रोजी Exemployed wathers wanty in wie warm, worken ministratio न्यांत्रा येथे असलेग्वा सृष्ट्री सीमेर सपुर संपटन लक्ष्या कुलयेथे उपरिवत होते, जावेळी कॉलवन्त्र 100 taxia anoran mana fran आहे. Plannt ante mit tall tote with gentlery ethesis floor PRAIN AND DRI 1824 MIRE CONT & Selling Berrill. EXCLUSION AND ADDRESS OF TAXABLE (unn) के 4 प्रमुख इच्छितुरीत जनवात हा डिकिटन भारतमपूर अभी का जनवारी को, मेगरफ व जिन्द्रीयांची और या ताल प्रस्त press washing arrived average गंग्राम सामग्रा हो सरकारी गांव काल गावही अपेक्ष गम्माम प्रसंग waised, these wither alongfield ant, fteffen umn ufeste farenfrumt eine une ver-unflafennenft marenfrum uff mire beft nich angefinn स्टाप्रसोन चेतक जांग संगयन न तंत्रहान साख्य करण्याचा मामग तटवाल कालिने सहते. महा una urakuman mineugi वलमिया प्रहल प्रायंश्वनवे अवभ उपक्रमास बंध मध्ये आपलेल्या डिजिटल रहतेत जरती सुवेरजा डिल्या, जयत वर्त्ताया बहिलांच from anotor alter केला आहे. फंपनी परिकारचरा पाव तालुकचारील प्रामीन मारात था fähltet underen somfelst לכתי לחיייקע אוולאלג ונולק BINGE IN BERGARY PINCE ाजन कहनाक महत्वाच तरत. अठ्यत, जवत यहावत महत्वन । अनुबंगाने दालनिया भारत. मुद्ध संगणक राध्यत करण्याः रावधिण्यात नेईल. प्राथमिक काउंडे समध्या माध्यमान्त inten in affirirs fare flaged आसंस्य केंद्रातील कर्मचारी, utimosiles universities elsevant thru ferre enterest unit weet annual, assistances there দেশৰ মানীয়ির ব্যালয়ার নাগা स्वीच या बडवांस प्रात्र क्यूचे कुटल्ला बचन गर, जातीच्या माध्यमानुन SHE IN MININ DESIGNAL TENTE MORENTE PRICE where any and a second ermfine mot eprit epres affirmet intrass confer serve सा सरकारणांचा प्राप्तच होईल. ईनेल दालभिया भारत युध कार्यले गरील, सार कार्ड आंग प्रदीगम जन जनकर भोगम केलि राजनिला state and a sector diam राष्ट्रंत, तारेण तालविका भारत BUI, THERE SPECT HOLD सम ही स्वर्थपूर्ण, इस्टरेट-संसंध काउंडी जनस्थार था। प्रभाषत आणि सीम उनी स्विधायन तथा। उपक्रमाता आभे स्वा दिन्दा कार्यक्रेजनस्थाः या प्रवद्धवे अवति संगतन्त्रता सृत्यून जणा जस्ते आहीचे प्रसित्तन स कारण्य केली आहे. आतमध्ये संपालका greffen wien unsame fi सरातानानून देशपात तेलार आखे and a serie units when we streffingt une nu eft seu e meaning ave weld shiften रक्षीन तथापित केली गोली आहे. जामें बरणाएँ शंस्था आहे. मणील from states month of miniude use are muchanes aferifing ante miffig fournet uner ante पोइन्जिम्बासीठी समूह संघटक माधाविक बेबाह रालविया घाल या कोर्यनी मुख्यत होनाम उसहे. त्यामाठी जाही बेर्यम त्यार साधन महणून वापरली जात. राजने, बसवाले सीस्टेटीगडी рай бала начаря ширriften ate murfben sovers anieth angle, minute feface offe static) and देखरेख आणि मामोमेट्रिया राविस्वासुन का पुत्रने तालमिय अनि विष्टम्बच सुबल्द प्रदेश नेतील जिल्लाफिकरी बालीनगल प्रेरिण्ड्य देखील आहे. आयुनिक आहत फाउँझानवी स्थापन फेली UCRIWE MININ फारदेशनची सफारमध भागतील अधिकाधिक नागरिक सामाजिक आर्थिक विकासायी at farmfland athe was वांगलक क लंडलान काका पहाते. भूमिका शाहिली आहे. व मुल्हाने बांच्या हम्मे करणाल क सिन सर्थिस सेंटर लगा अनुवंगाने चंद्रपूर जिल्ह्यात् दुर्गम क्ता, ना कार्यक्रमाता अतिरित्त सर्वमात् लोकांच्ये लासकीय भागत असरीत्या को स्वय farefund fige segant, geft treds cieffen feite बोजनांचा लाघ पीडचांचिमे लसेच जाल्ह्यपात चल्डे जांत प्लील्स ही वासीन सामलील लोकांस इंटरदेह लग उजेवारीन उत्पन्न जाले (भाग) लि. चे प्रमुख तकिम्हीन अली सा, सुलील ब्रागा घुलारी जाहीर नोटीस सर (टकनिकल हह), कमर्तिकल हेन गिगिश सीमली, अंत्रमीन देव को जनमेन का जनिर नोटीनाइमें समित फरण्यात खंट्टील रांस्टा, परंग प्रारंडीयत की, आपने पक्षका अधिकेक कोंग बागला डांगी जीट गं.5 व्लॉक (writeserrow-weg), eff.tht.are survey with fineral, orfur a his toric a boold boold boold he is seenil traces same

वेश्वील तक मजल्यावरील प्रजन्मा वाजुने प्रेजटून इमल इन्द्रन हि

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असलेल्या

कोरपना : इं-लर्निंगच्या माध्यमातन क्षेत्रात परिवर्तन घडविण्यासाठी दालमिया भारत फाऊंडेशनने पढाकार घेतला आहे. सामाजिक दायित्वातन संगणक व डिजिटल साक्षरता निर्माण करणाऱ्या डिजिटल लर्निंग लॅंबोरेटरी चर्ल्ड ऑन बिल्स या वाहनाचा अभारंभ नकताच जिल्हाधिकारी कार्यालय, चंद्रपुर येथे

कोरपना तालक्यातील नारंडा येथे डिजिटल लनिंग लॅंबोरेंटरी चाहनाचा शभारंभ करताना जिल्हाधिकारी गल्हाणे. सिमेंट

आहे. मार्च १०२२ पर्यंत ६०० हुन दालमिया भारत फाऊंडेशनने व्यक्त स्वयंसहायता महिला बचतगट, हेड गिरीझ सोमाणी, एडमीन हेड अधिक विद्यार्थी, स्वयंसहायता बचत) केलाआहे. या कंपनी परिसराच्या पाच आदींच्या, माध्यमातून, अधिकाधिक) चंद्रदीप टामटा, परांग पापंडीवर, सी. गटांच्या महिला, प्राथमिक आरोग्य किलोमीटर कार्यक्षेत्रात असलेल्या नागरिकांना संगणक सक्षर करण्याचा एस.आर. व्यस्थापक प्रशांत भिमनवार, केंद्राचे कर्मवारी, प्लांटमधील सुरक्षा आवांमध्ये प्राधान्याने हा उपक्रम प्रयत्न होईल. ई-मेल तबार करणे व अरविंद ठाकूर, भौरव वांदरे, लक्ष्मण कर्मचारी तसेच शतकर्याना संगणक व राशविण्यात येईल, प्राथमिक आरोग्य, पाठवणे, बॅकिंग सेवा, शासकीय, कक्रमेथे उपस्थित होते.

Media coverage received on launch of Wow Bus





 Daily Hunt News Link: दालमिया भारत तर्फे कोविड योध्यांना मास्कचे वाटप ि कि http://dhunt.in/djQZJ?s=a&uu=0xc777eb4887bbf139&ss=pd

Media coverage received on distribution of N95 masks



नवराष्ट्र

नारंडा येथे हायमास्ट टॉवरचे भूमिप्रजन

🔪कोरपना(वा). तालुक्यातील मौजा नारंडा येथे दालमिया सिमेंट कंपनीच्या सामाजिक दायित्व निधी अंतर्गत हायमास्ट लाईट टॉवरचे भूमिपुजन सामाजिक सभागृह व राष्ट्रसंत तुकडोजी महाराज यांच्या पतळ्याच्या परिसरात नारंडा ग्रामपंचायतच्या सरपंच अनू ताजने यांच्या हस्ते करण्यात आले. या करिता भारतीय जनता युवा मोर्चाचे जिल्हा उपाध्यक्ष आशिष

मागणी केली होती.

महाराज

नागरिकांना अडचणींचा सामना करावा लागत होता. त्यामुळे सदर बाबींची दखल घेत भाजयमो जिल्हा उपाध्यक्ष आशिष ताजने ताजने यांनी कंपनीकडे यासंदर्भात यांनी सामाजिक दायित्व निधी अंतर्गत हायमास्ट लाईट टॉवरची सदर मागणी केली व सदर मागणी मागणीच्या अनुषंगाने हायमास्ट लाईट टॉवर मंजुर करण्यात मंजूर करण्यात आली. सदर परसुटकर, आले. नारंडा येथे सामाजिक मागणी मंजुर झाल्यामुळे दोन्ही सभागह व राष्ट्रसंत तकडोजी परिसरात लाईटची व्यवस्था होणार आहे. यावेळी सामाजिक यांच्या पुतळ्याच्या परिसरात लाईटची व्यवस्था सभागह व राष्ट्रसंत तकडोजी नसल्यामुळे अंधार पडत होता. महाराज यांच्या पतळ्याच्या

तसेच कार्यक्रमाच्या



परिसरात भूमिपूजन करण्यात वेळी आले. भाजयमो जिल्हा उपाध्यक्ष आशिष ताजने, सरपंच अनू ताजने, उपसरपंच बाळा पावडे, पोलिस पाटील नरेश परसटकर. ग्रामपंचायत सदस्य बाबराव सिडाम, रुपाली उरकडे, रंजना शेंडे, उपासे, स्रेश पारील पारील नगोबा उरकुडे, कवडू उरकुडे, अनिल मालेकर, सत्यवान चामाटे, गौरव वांढरे, प्रवीण हेपट, मारोती शेंडे, मारोती बोबडे, योगीराज बोढे आदीं उपस्थित होते.

Chandrapur Edition 30 March 2022 Page No. 3 epaper.navarashtra.com





दालमिया भारत फाउंडेशनतर्फे चित्रकला स्पर्धा

कोरपना : दालमिया भारत फाउंडेशनतर्फे नारंडा येथील आदर्श किसान विद्यालयामध्ये राष्ट्रीय सुरक्षा सप्ताह साजरा करण्यात आला. यावेळी चित्रकला स्पर्धा घेण्यात आली. यांप्रसंगी विद्यार्थ्यांना सुरक्षाविषयक मार्गदर्शन करण्यात आले. विद्यार्थ्यांमध्ये जागरूकता निर्माण करण्याकरिता 'सुरक्षा' या विषयावर चित्रकला स्पर्धा घेण्यात आली. एकूण ३५ विद्यार्थ्यांनी या स्पर्धेत भाग घेतला. विद्यार्थ्यांना परितोषिक देऊन त्यांचा सत्कार करण्यात आला. दालमिया सिमेंट कंपनीतर्फे राजेश जुनोनकर, साई नरसिम्हा, अनिमेश यांनी मार्गदर्शन केले. कार्यक्रमावेळी विद्यालयाचे मोडकवार व इतर शिक्षकवृंद व दालमिया फाउंडेशनतर्फे प्रशांत भीमनवार, लक्ष्मण कुडमेथे, गौरव वांढरे, खुशाल नवले उपस्थित होते जन्मतन मंग्रेश माहरवार व आभार लोकेश फल्लयेले यांनी मानले.

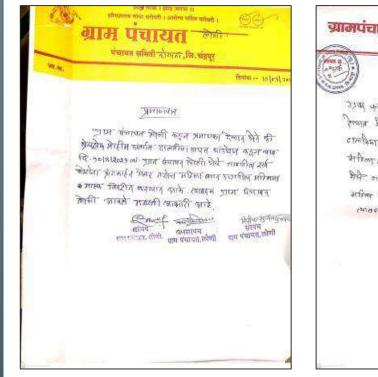
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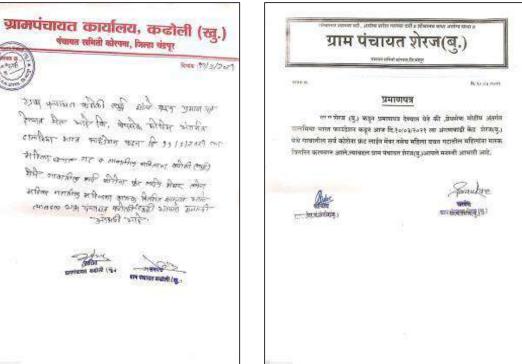
Media coverage received on distribution of N95 masks



Acknowledgement Letters







Appreciation letters received from various Gram Panchayats for distribution of N95 masks



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दालमिया ग्रुप ,नारंडा	प्रती,
the second se	कार्यक्रम समन्वयक
विषय :- राष्ट्रीय पल्स पोलिओ मोहीम ची जनआगृती करिता छापून दिलेल्या ६०	दालमिया सिमेंट कंपनी नारंडा
फ्लेक्स बैनर बाबत	
	विषय :- राष्ट्रीय कोविड -१९ लसीकरण मोहीम ची जनजागृती करिता छापून
उपरोक्त विषयाने आपण प्राथमिक आरोप्य केंद्र नारहा योनी दिनक	दिलेल्या बॅनर बाबत
भाषा के बाद को जन्म समय प्रतिमं आ महिम या जनजणना करण करता. का नुव	
१७/२८/२०२१ ला आणाऱ्या राष्ट्रल करने नागा है। विस्तेल्या ५० फ्लेक्स बैनर कसिता बेद्यकोच अधिकारों प्रावमिक आरण्य केंद्र नागदा क	उपरोक्त विषयाने आपण प्राथमिक आरोग्य केंद्र नारंडा साठी राष्ट्रीय कोविड -१९
दिलल्पा ५० प्रलेखरा बनर कारता वधकाय आवयता अवस्थित क	लसीकरण मोहीम चौ जनजागृती करिता छापून दिलेल्या बॅनर करिता वैद्यकीय अधिकारी
कार्यालयातफे आपल्या समुहाचे धन्यवाद.	प्राथमिक आरोग्य केंद्र नारंडा या कार्यालयातर्फे आपल्या समूहाचे धन्वदाद.
भीवण्यात अशाच महकायांची अपेक्षा	भविष्यात अशाच सहकार्यांची अपेक्षा
St.	-20
14	· M
बेहकीय अधिकारी	वैद्यकीय अधिकारी
प्रायमिक आरोग्य केंद्र नारंडा	प्राथमिक आरोग्य केंद्र नारंडा
	Scanned with CamScanner
	CS to avoid with Conducative

市东, 南京 / 593 /2020 कार्यालय वेद्यकोच अधिकामी

	सरकारमान्य सर्वोदय शिक्षण मंडळ, चंद्रपूर ब्दारा संचालित शाहरी किसान विद्यालय तथा जित्म महाविद्यालय, जारडा ता. कोरपना, जि. चंद्रपूर (महाराष्ट्र)- 442916				
रण्डर कारी नारंड २१	सांकेविक इ. ०५.०७.००२(एम.एस.मी.) संबाम्ण ३१६६ मु आईन इ. 27130712802	प्र.मुख्याध्वापक/प्राणार्ग श्री. एन. वू. माहोरकर मो.नं. 9423535072	स्प्रेंकतिक इर, ८५.८७.०९५(एग.एश.सी.) संयापना २००८		
**	जावक क्र.आ. कि.वि.ना/ प्रति, माज्यवस्थापक साहेव,		হিনাক : <u>08/02/202/</u>		
गपून	मुरली इंडर्ट्रीज लिमिटेड, डालमिया सिमेंट (भारत) लिगि	र्रेड			
जेविड -१९	नारंडा ता कोरपणा				

सर्व प्रथम मी आपल्या या प्रुप थे अभिनंदन करतो, त्यांनी आपल्या हि एस आर. फंड मधुन शालेय विद्यार्थ्यांना संगणकीय शिक्षणांची सौंय उपलब्ध व्हावी म्हणून आमच्या शाळेत सतत वर्ल्ड ऑन व्हील या डिजिटल बाहनातुन शाळेतील व गावातील सर्व विद्यार्थ्यांना संगणक साक्षरतेचे प्रशिक्षण देण्यात येत आहे. त्या वददल में शाळेच्या वतीने फार फार आभारी आहो.

आपला Hoursellend Master darsh Kisan Vidyalaya, Naranda Ta, Korpana, Dist, Chandrabur

Appreciation letters received from Govt Departments for various initiatives

Media Coverage

- 1) Dalmia Bharat Foundation brief
- 2) CSR Programs –2022-23





Health



BLOOD DONATION CAMP AT PHC NARANDA

- Organised Blood Donation Camp at at PHC Naranda in association with District Govt. Hospital,PHC Naranda,Tata Trust Chandrapur
- No. of Blood
 Donor: 58









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





Livelihood & Skill Training



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 biofertilizer** 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. No. of beneficiaries impacted:75 No. of villages covered: 2 (Antargaon & vanoja)





Bio-pesticide : Demonstration Dashparni ark making:



Demonstration on **Deshparmi 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.





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. Procurement plan sanctioned in IMC. Tendering & purchasing process at state & Institutional level initiated through GEM portal. *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.



Social Infrastructure

Safe drinking water facility:



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



CLEAN ENERGY: Installation of Two High Mast Light at Naranda



Provided 15 sitting cement benches for community at Vanoja village

impacted: 180 HH







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

No. of beneficiaries impacted: 382 HH No. of villages covered: 2

PHC:1 No. of beneficiaries impacted: 32





> VILLAGE POND DEVELOPMENT: 2022-23



Size of the Pond:

- Length-400 ft. Breadth-170 ft.
- Depth- 10ft.
- Excavated 5 ft. more.
- > Now Total depth 10ft

> <u>Advantages:</u>

- 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.



After

Total water harvesting capacity: 21000 cu.m





Event & day celebration

> AKAM celebration:

Celebration of Azadi Ka Amrit Mahotsav (theme-Mehandi)

Safety Week Celebration at School Naranda/sangoda







Safety Week:Drawing competition





Leverage



Leverage Data:

LOCATION: Chan	drapur	LEVERAGE FOR THE YEAR 2022-23 UPTO July 2022							
PARTICULARS	DESCRIPTION OF LEVERAGE	BENEFICIARY CONTRIBUTION	LEVERAGE DIRECTLY TO DBF Bank A/c	LEVERAGE DIRECTLY TO BENEFICIARY Bank A/c	CREDIT LINKAGES TO BENEFICIARY	LEVERAGE DIRECTLY TO THE PROJECT	REMARKS		
	SHG Bank Linkage	0	0	0	1862000	0	43 SHG members benefitted		
SUSTAINABLE	Farm school: soyabean seed treatment	0	0	0	0	10000	Two farm school		
LIVELIHOODS (including CLIMATE ACTION)	STRIVE project (Govt. ITI Rajura)	0	0	290000	0	3274000	Including staff training, books purchase, free bus pass to 50 girl student,Civil work,machine reparing,New tools & equipments purchase etc.		
Total		0	0	290000	1862000	3284000			
RURAL									
INFRASTRUCT									
URE									
Total									
GRAND TOTAL		0	0	290000	1862000	3284000			



Way forward



ŏ

1.AKAM celebration :Cleaning campaign, plantation, pinning flag

2.Veternery animal health checkup camp: 1.Naranda 2.Vanoja 3. sangoda 4.Antargaon 5.Kadholi kh

3.Plantation Prgram 1. Road side & 2. Common land (Horti. Plantation)

4.Will start work on cotton shrader proposal

5. Farm school on IPM/INM

6.Identification of site for water harvesting structure

7.Gramparivartan



CONTACT INFORMATION

Chandrapur New Delhi

Corporate Office: 11th & 12th floor, Hansalaya Building, 15, Barakhamba Road, New Delhi – 110001

t: 91 11 23465100 f: 91 11 23313303 e: corpcomm@dalmiabharat.com www.dalmiafoundation.org



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Email Id : lab@gogreenmechanisms.com

CERTIFICATE OF ANALYSIS

Report Number: GGMPL/271B/12

MURLI INDUSTRIES LTD.

Village-Naranda Taluka-Korpana, Dist-Chandrapur korapana road Maharashtra-442916



SAMPLE DETAILS

Sample Sample	Drawn By:	Lab/271B/12 Laboratory Re Water G.W Temporal 3L Satisfactory	presentative ry Hument Borewe	11	Sampling Date: Sample Receipt Date: Analysis Start Date: Analysis End Date: Sampling Method: Packing:	12/05/2022 14/05/2022 14/05/2022 21/05/2022 IS 3025 (pt-01 Sealed		60 pecification:
Sr.No	Paramete	ers	Results	Unit	Test Method		AL	PL
1	pH at 25 °C		7.32	-	IS 3025-Part 11		6.5 to 8.5	No Relaxation
2	Alkalinity as CaCO3		178.00	mg/L	APHA 23rd Edn 2320 B		200	600
3	Chloride		98.97	mg/L	IS 3025 -Part 32		250	1000
4	Conductivity		912.5	µs/cm	IS 3025 Part 14		NS	NS
5	Fluoride (F)		0.2024	mg/L	APHA 23rd Edn 4500 F D		1	1.5
6	Nitrate		0.6809	mg/L	IS 3025-Part 34		45	No Relaxation
7	Sulphate		141.14	mg/L	APHA 23rd Edn 4500 SO4	E	200	400
8	Total Dissolved Solids	i	612.00	mg/L	APHA 23rd Edn 2540 C		500	2000
9	Total Hardness as Ca	CO3	325.00	mg/L	APHA 23rd Edn 2340 C		200	600
•10	Iron as Fe		0.098	mg/L	APHA 23rd Edn 3120 B		0.3	No Relaxation

AL and PL = As Per IS 10500

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

AIMEDAB Authorized Signatory Analyzed By 0 Tantan Kumar Krima Solanki

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CERTIFICATE OF ANALYSIS

Report Number: GGMPL/271B/11

MURLI INDUSTRIES LTD.

Village-Naranda Taluka-Korpana, Dist-Chandrapur korapana road Maharashtra-442916



SAMPLE DETAILS

Sample Sample	e Drawn By: e Type: e Description: e Quantity: e Condition:	Lab/271B/11 Laboratory Re Water G.W Highway 3L Satisfactory			Sampling Date: Sample Receipt Date: Analysis Start Date: Analysis End Date: Sampling Method: Packing:	12/05/2022 14/05/2022 14/05/2022 21/05/2022 IS 3025 (pt-01 Sealed		60 pecification:
Sr.No	Parame	eters	Results	Unit	Test Method		AL	PL
1	pH at 25 °C		7.38		IS 3025-Part 11		6.5 to 8.5	No Relaxation
2	Alkalinity as CaCO3		185.00	mg/L	APHA 23rd Edn 2320 B		200	600
3	Chloride		107.47	mg/L	IS 3025 -Part 32		250	1000
4	Conductivity		948.9	µs/cm	IS 3025 Part 14		NS	NS
5	Fluoride (F)		0.2622	mg/L	APHA 23rd Edn 4500 F D		1	1.5
6	Nitrate		3.12	mg/L	IS 3025-Part 34		45	No Relaxation
7	Sulphate		149.38	mg/L	APHA 23rd Edn 4500 SO4	E	200	400
8	Total Dissolved Soli	ds	634.00	mg/L	APHA 23rd Edn 2540 C		500	2000
9	Total Hardness as C	CaCO3	310.00	mg/L	APHA 23rd Edn 2340 C		200	600
	Iron as Fe		0.162	mg/L	APHA 23rd Edn 3120 B		0.3	No Relaxation

AL and PL = As Per IS 10500

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

Analyzed By Krima Solanki



Authorized Signatory Tantan Kumar

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CERTIFICATE OF ANALYSIS

Report Number: GGMPL/964B/01/22

Dalmia Cement Bharat Limited Unit Chandrapur Cement Works (Earlier Murli Industries Ltd). Village-Naranda Taluka-Korpana,Dist-Chandrapur korapana road Maharashtra-442916



SAMPLE DETAILS

Lab ID:	Lab/964B/01/22	Sampling Date:	10/08/2022
Sample Drawn By:	Laboratory Representative	Sample Receipt Date:	11/08/2022
Sample Type:	Water	Analysis Start Date:	12/08/2022
Sample Description:	GWTempory Hutment Area	Analysis End Date:	22/08/2022
mple Quantity:	2 L	Sampling Method:	IS 3025(pt-01)/APHA 1060
Sample Condition:	Satisfactory	Packing:	Sealed
			Specification:

Sr.No	Parameters	Results	Unit	Test Method	AL	PL
1	pH at 25 °C	7.48	•	IS 3025-Part 11	6.5 to 8.5	No Relaxation
2	Alkalinity as CaCO3	164.00	mg/L	APHA 23rd Edn 2320 B	200	600
3	Chloride	116.96	mg/L	IS 3025 -Part 32	250	1000
4	Conductivity	1141.38	µs/cm	IS 3025 Part 14	NS	NS
5	Fluoride (F)	0.21	mg/L	APHA 23rd Edn 4500 F D	1	1.5
6	Nitrate	1.28	mg/L	IS 3025-Part 34	45	No Relaxation
7	Sulphate	142.48	mg/L	APHA 23rd Edn 4500 SO4 E	200	400
8	Total Dissolved Solids	662.00	mg/L	APHA 23rd Edn 2540 C	500	2000
9	Total Hardness as CaCO3	382.00	mg/L	APHA 23rd Edn 2340 C	200	600
10	Iron as Fe	0.086	mg/L	APHA 23rd Edn 3120 B	0.3	No Relaxatio

AL and PL as per IS 10500

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Analyzed By Jhanvi Chhasatiya



Authorized Signatory Tantan Kumar

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Report Number: GGMPL/964B/01/21 Dalmia Cement Bharat Limited Unit Chandrapur Cement Works (Earlier Murli Industries Ltd). Village-Naranda Taluka-Korpana, Dist-Chandrapur korapana road Maharashtra-442916



SAMPLE DETAILS

Sample Sample	Drawn By:	i.	Lab/964B/01/ Laboratory Re Water GWGate Hig 2 L Satisfactory			Sampling Date: Sample Receipt Date: Analysis Start Date: Analysis End Date: Sampling Method: Packing:	10/08/2022 11/08/2022 12/08/2022 22/08/2022 IS 3025 (Pt-0) Sealed	12.1)60 pecification:
Sr.No		Paramet	ers	Results	Unit	Test Method		AL	PL
1	pH at 25 °C	5		7.58	-	IS 3025-Part 11		6.5 to 8.5	No Relaxation
2	Alkalinity a	s CaCO3		172.00	mg/L	APHA 23rd Edn 2320 B		200	600
3	Chloride			108.97	mg/L	IS 3025 -Part 32		250	1000
4	Conductivit	y		1055.17	µs/cm	IS 3025 Part 14		NS	NS
				0.00	ma/l	APHA 23rd Edp 4500 E D		1	1.5

5	Fluoride (F)	0.26	mg/L	APHA 23rd Edn 4500 F D	1	1.5
6	Nitrate	2.32	mg/L	IS 3025-Part 34	45	. No Relaxation
7	Sulphate	136.19	mg/L	APHA 23rd Edn 4500 SO4 E	200	400
8	Total Dissolved Solids	612.00	mg/L	APHA 23rd Edn 2540 C	500	2000
9	Total Hardness as CaCO3	354.00	mg/L	APHA 23rd Edn 2340 C	200	600
010	Iron as Fe	0.13	mg/L	APHA 23rd Edn 3120 B	0.3	600

AL and PL as per IS 10500

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Analyzed By Jhanvi Chhasatiya

Authorized Signatory Tantan Kumar

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Annexure - 04

PLANTATION DETAILS FOR THE PERIOD APRIL 2022-SEPT 2022

Sr. No.	Sapling Name	Sapling Planted (No.)
1	Neem	525
2	Karanj	400
3	Maharukh	125
4	Arjuna	625
	Total Sapling Planted at Naranda Limestone Mines	1675

PLANTATION TILL DATE:

Sr. No.	Particular	Details
1	Old Plantation at Naranda Lime Stone Mines till 2021-22	6130 Plant s
2	Area Covered under Green Belt Till 2021-22	6.1 Hact
3	Plantation During April 22 to Sept 22	1675
4	Area Covered under Green Belt During April 22 to Sept 22	1.6 Hact
5	Total Plants Planted at Naranda Limestone Mines till Date	7805
6	Total Area Covered under Green Belt	7.8 Hact

FUTURE PLANTATION PLAN:

SL. No	YEAR	NO OF SAPLINGS FOR PLANTATION					
Proposed Plan							
1	2022-23	5960					
2	2023-24	9680					
3	2024-25	9060					

ANNEXURE -04

GREEN BELT AT MINES AREA



Plantation at Mines Lease Boundary



Plantation along the Mines Road



New Plantation at Mines Area