

Stage-I FC Compliance Report

For

Ex-post facto approval for diversion of
96.868 Ha. of forest land outside
mining lease area of Donimalai Iron
Ore Mine (ML No.2396) of Donimalai
(DM) Block Forest (Near
Narsinghapura village) in favour of
NMDC Limited Donimalai Township,
Sandur Tq, Ballari District

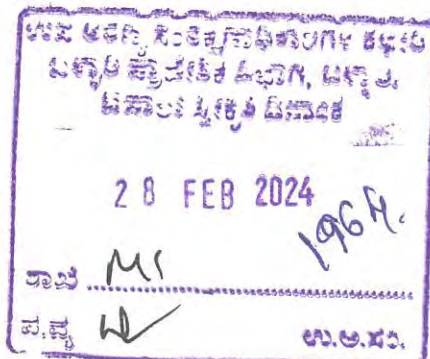
Proposal No.:FP/KA/Others/17464/2016

एनएमडीसी



NMDC

**M/s. NMDC Limited-
Donimalai Iron Ore Mine,
Sandur, Ballari Dist., Karnataka.**





ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
) भारत सरकार का उद्यम / A Govt. of India Enterprise(
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

DNM/ENV/Stage-1 Comp 96.868 Ha /2024/

Date:27/02/2024

To,
The Dy. Conservator of Forests,
Ballari Division,
Ballari.

Sub: Submission of compliance report to the conditions stipulated in Stage- I Forest Clearance for ex-post facto approval for diversion of 96.868 Ha. (Originally proposed 235.648 ha of forest land) of forest land outside mining lease area (ML No.2396) of Donimalai (DM) Block Forest (Near Narsinghapura village) in favour of Executive Director, NMDC Limited Donimalai Township, Sandur Tq, Ballari District – reg.

Ref:

- 1) Online Proposal No. FP/KA/Others/17464/2016
- 2) Government of India Ministry of Environment & Forests, New Delhi F.No.8-30/2022-FC Dt. 21.11.2023 (Stage-I approval).
- 3) ACS Office letter No.FEE71/FFM/2022 (E) dt.22.11.2023.
- 4) PCCF Office letter No.KFD/HoFF/A5-4 (GFL)/18/2018/FC dt. 23.11.2023.
- 5) Demand Notice received from DCF Office vide letter No.M1/MNG/NMDC/Infrastructure/2018-19/853 dt.02.12.2023.

Respected Sir,

With reference to above mentioned subject w.r.t Stage-I Forest Clearance (In-principal approval) ex-post facto approval for diversion of 96.868 Ha. (Originally proposed 235.648 ha of forest land) of forest land outside mining lease area (ML No.2396) of Donimalai (DM) Block Forest in favour NMDC Limited Donimalai Township, Sandur Tq, Ballari District vide above referred letters (2), (3) & (4). In this regard, following is the status of compliance against the conditions stipulated in Stage-I Forest Clearance of said diversion.

Sl. No.	Conditions Stipulated in Stage-I FC	Action taken for fulfilment of conditions
A	Conditions which need to be complied prior to handing over of forest land by the State Forest Department and compliance is to be submitted prior to Stage-II approval:	
1	Legal status of the diverted forest land share remains unchanged;	Noted and agreed with. Legal status of the diverted forest land will not be changed. User Agency i.e. NMDC Ltd., Donimalai has submitted the undertaking which is enclosed as Annexure-1 .
2	The State Govt. shall impose a penalty of five (5) times the NPV plus 12 percent simple interest till the deposit is made from the year 1997 as penalty for violation of FCA 1980 (i.e. 96.868 ha area under violation) as proposed by the State Government	Agreed and complied with. The Deputy Conservator of Forests, Ballari vide letter No. M1/MNG/NMDC/Infrastructure dtd.02.12.2023 has issued demand notice to NMDC, Donimalai project for payment of C.A, NPV, Penalty of five (5) times the NPV plus 12% simple interest till the deposit is made from the year 1997. The demand notice was uploaded in PARIVESH portal on 07.02.2024. The demand notice has been accepted

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।

पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028

Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028

Sl. No.	Conditions Stipulated in Stage-I FC	Action taken for fulfilment of conditions					
		by the Nodal Officer (FCA) Bengaluru. The total amount of demand note is Rs.281,98,95,103/- paid to Karnataka CAMPA Account No.1507319917464487, Union Bank of India vide UTR No. SBIN424050103808 Dt.20.02.2024. Copy of payment receipt is enclosed as Annexure-2. The details of amount are given below:					
		S.No	Specific Activities	Extent in Ha	Current Rate applicable (Rate/Ha)	Total amt. (in Rs.)	
		1.	CA	96.868	18,36,000	17,78,49,648	
		2.	NPV	96.868	12,28,590	11,90,11,056	
		3.	Penalty of five (5) times the NPV plus 12% simple interest till the deposit is made from the year 1997.	5 times NPV plus 12% interest from 1997 to 2023. Rs.2,52,30,34,399		2,52,30,34,399	
		Total					281,98,95,103/-
3	Compensatory afforestation shall be taken up by the Forest Department over 96.868 ha of Non-forest land for the CA purpose at the cost of the User Agency. The State Govt. shall submit the details of CA land (i.e. 96.868 ha) and submit the revised CA Scheme along with KML files. The State Govt. shall make balance seedling planation in the suitable DFL as identified and submit the KML files;	Agreed and complied with. For raising compensatory afforestation, NMDC has provided non-forest land 235.648 Ha in Sy.No.295 of Appenahalli village, Kudligi Taluk, Ballari District as the original proposal for forest diversion was for 235.648 Ha. The entire 235.648 Ha land has already been mutated in the name of Forest Department. Mutation copy is enclosed as Annexure-3. However, the stage-1 FC approval was granted for 96.868 Ha only. For raising the Compensatory Afforestation, NMDC Ltd. has paid CA charges of Rs.17,78,49,648 over 96.868 Ha in Karnataka CAMPA account on 20.02.24. The payment details are in Annexure-2.					
4	A protection and management plan shall be prepared w.r.t 138.778 Ha of interlocked forest land and the cost of the implementation of same shall be borne by the User Agency. The protection and management plan duly approved by the State Govt. shall be submitted to this Ministry.	Agreed and complied with. NMDC has prepared protection and Management Plan by engaging M/s. S N Vision, Raichur over 138.778 Ha of interlocked forest land. The copy of the same is enclosed as Annexrue-4. The cost of implementation of same shall be borne by NMDC and undertaking is submitted in this regard. (Annexure-5)					
5	Considering the fragmented nature of the interlocked forest area (i.e. 138.778 Ha) and vulnerability of the forest from incidence of forest fires, M/s NMDC is to be involved in the	Agreed. NMDC has prepared fire management plan in the forest patches of 138.778 Ha by engaging M/s. S.N. Vision, Raichur. The copy of same is enclosed as Annexure-6.					

Sl. No.	Conditions Stipulated in Stage-I FC	Action taken for fulfilment of conditions
	fire management in these forest patches during summer season. The protection and management of these interlocked forest patches will primarily be done by the forest department with assistance of M/s. NMDC Limited whenever required. In this regard an undertaking must be submitted by the M/s NMDC;	NMDC has already extending support to Forest Department by deploying Fire watchers during summer season. NMDC is having 2 nos of Fire Tender along with Fire Safety Department at Donimalai. The Fire safety Department is also extending full support to Forest Department in case of any fires. NMDC will extend all cooperation and assistance to Forest Department for fire management, if any in 138.778 Ha and undertaking is submitted in this regard. (Annexure-7).
6	The State Govt. shall prepare an Integrated Wildlife Management plan, in the surrounding of the forest area proposed for diversion and implement the same at the cost of User Agency;	Agreed. NMDC has prepared an Integrated Wildlife Management Plan by engaging M/s. S.N. Vision, Raichur. The copy of the same is enclosed as Annexure-8 . The Wildlife Management Plan shall be implemented at the cost of NMDC and undertaking is submitted in this regard. (Annexure-9).
7	The cost of felling of trees shall be deposited by the User Agency with the State Forest Department.	Agreed. NMDC Ltd., Donimalai will deposit the cost of felling of trees to the State Forest Department and undertaking is submitted in this regard (Annexure-10).
8	Compensatory afforestation over both non-forest land & degraded forest land, identified for CA purpose, shall be raised by the State Forest Department at the project cost within three years from the date of grant of Stage - II approval.	-----
9	The cost of compensatory afforestation at the prevailing wage rates as per compensatory afforestation scheme and the cost of survey, demarcation and erection of permanent pillars, if required on the CA land, shall be deposited in advance with the Forest Department by the user agency. The CA will be maintained for 10 years. The scheme may include afforestation of indigenous species with appropriate provision for anticipated cost increase for works Scheduled for subsequent years, into the account of National Authority, CAMPA managed by the State Govt.	Agreed and complied with As per the demand notice issued by the Deputy Conservator of Forests, Ballari vide letter No. M1/MNG/NMDC/Infrastructure dated 02.12.2023, NMDC Ltd., Donimalai remitted an amount of Rs.17,78,49,648/- vide UTR No. SBIN424050103808 Dt. 20.02.2024 for raising the compensatory afforestation at prevailing wage rates. Details of payment made is enclosed as Annexure-2 .
10	The land identified for the purpose of CA shall be clearly depicted on a Survey of India Toposheet of 1:50,000 Scale.	Agreed and complied with The land identified for the purpose of CA showing on Survey of India Topo-sheet on scale of 1:50,000 is attached as Annexure-11 .

Sl. No.	Conditions Stipulated in Stage-I FC	Action taken for fulfilment of conditions
11	The KML files of diverted area and the CA areas shall be uploaded on the e-green watch Portal with all requisite details prior to Stage II approval.	----
12	The User Agency shall transfer the funds towards the cost of Net Present Value (NPV) of the forest land being diverted under this proposal in accordance with the MoEF&CC's guidelines dated 06.01.2022 read with guidelines dated 19.01.2022 into the account of National Authority, CAMPA managed by the State Govt.	<p>Agreed and complied with</p> <p>As per the demand notice issued by the Deputy Conservator of Forests, Ballari vide letter No. M1/MNG/NMDC/Infrastructure dated 02.12.2023, NMDC Ltd., Donimalai remitted an amount of Rs.11,90,11,056/- vide UTR No. SBIN424050103808 Dt. 20.02.2024 towards Net Present Value (NPV).</p> <p>The details of payment made is enclosed as Annexure-2.</p>
13	The compensatory levies to be realized from the User Agency under the project shall be transferred/ deposited, through e-challan, in to the account of National Authority, CAMPA pertaining to the State concerned through e-portal (https://parivpsh.nic.in/).	<p>Agreed and complied with</p> <p>The compensatory levies of Rs.281,98,95,103/- i.e. penalty of five (5) times the NPV plus 12 percent simple interest till the deposit is made from the year 1997 to 2023 has been realized by NMDC Ltd., Donimalai through e-challan to the account of KARNATAKA CAMPA (IFSC Code: UBIN0996335, Account No. 1507319917464487) vide UTR No. SBIN424050103808 Dt. 20.02.2024.</p> <p>Details of payment made is enclosed as Annexure-2.</p>
14	State Government shall complete settlement of rights, in term of the Scheduled Tribes and Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, if any, on the forest land to be diverted and submit the documentary evidence, along with compliance of Stage-I approval, as prescribed by this Ministry's letter No. 11-9/1998-FC (Pt.) dated 03.08.2009 read with 05.07.2013, in support thereof.	<p>Agreed and complied with</p> <p>NMDC Ltd., Donimalai has obtained the FRA certificate in the form-II issued by the Deputy Commissioner, Ballari under Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006. The same has been submitted in the proposal.</p> <p>Copy of the FRA certificate enclosed as Annexure-12.</p>
15	The complete compliance report shall be uploaded on e-portal (https://parivesh.nic.in/).	Noted and agreed with.
16	At the time of payment of the Net Present Value (NPV) at the present rate, the user agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.	<p>Noted and agreed with</p> <p>NMDC shall undertake to pay additional amount of NPV, if so determined, as per the Final decision of the Hon'ble Supreme Court of India and undertaking is submitted in this regard (Annexure-13).</p>
17	Trees should be felled in phased manner as per the requirement in the approved plan with prior permission of concerned DFO.	<p>Noted and agreed with</p> <p>Undertaking for the same is enclosed as Annexure-14.</p>

Sl. No.	Conditions Stipulated in Stage-I FC	Action taken for fulfilment of conditions
18	The User Agency shall comply with the Hon'ble Supreme Court order on re-grassing and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner.	The stage-1 FC approval has been accorded for infrastructure area outside Mining Lease of Donimalai iron ore mine. The area is not meant for Mining. The gap plantation shall be raised in between the infrastructure facilities extend over 96.868 Ha. Undertaking is submitted in this regard which is enclosed as Annexure-15 .
19	Period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under.	Noted and agreed with The stage-1 FC approval has been obtained for already established infrastructure area over 96.968 Ha which is related to ancillary activities to Mining of Iron Ore from Donimalai Iron Ore Mine of NMDC. The Mining Lease for Donimalai Iron Ore Mine (ML No: 2396) is valid up to 03/11/2038.
20	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required.	Not Applicable as these infrastructure facilities does not fall under any schedule of EIA Notification 2006 which requires Environmental clearance. However, these infrastructure facilities of 96.868 Ha located outside ML area caters to Donimalai Iron ore Mine (Lease no: 2396). The Donimalai Iron Ore Mine has already got valid Environmental clearance issued by MOEFCC. The copy of EC is enclosed as Annexure-16
21	No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas.	Noted and agreed with No labour camp shall be established on the forest land. NMDC has already established LPG gas godown at Donimalai Township for catering to the requirements of employees and surrounding villagers including labour. Undertaking in this regard is submitted which is enclosed as Annexure-17 .
22	The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates.	Noted and agreed with The diverted forest land has already been demarcated on ground and erection of four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates is under process. Presently, the work is in tendering stage. An undertaking for completion of the work is submitted herewith and is enclosed as Annexure-18 .
23	The layout plan of the mining plan/proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal.	Noted and agreed with. NMDC Ltd., Donimalai will not change the layout plan of the infrastructure proposal without the prior approval of the Central Government and we will not use the forest land for any purpose other than that specified in the project proposal. In this regard, undertaking is enclosed as Annexure-19 .
24	The forest land proposed to be diverted shall under no circumstances be transferred to any	Noted and agreed with. In this regard, undertaking is enclosed as Annexure-20 .

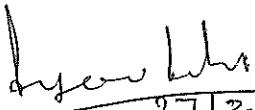
Sl. No.	Conditions Stipulated in Stage-I FC	Action taken for fulfilment of conditions
	other agency, department or person without prior approval of the Central Government.	
25	No damage to the flora and fauna of the adjoining area shall be caused.	Agreed. NMDC Ltd., Donimalai will not cause any damage to the flora and fauna of the adjoining area. In this regard, undertaking is enclosed as Annexure-21
26	The concerned Divisional Forest Officer, will monitor and take necessary mitigative measures to ensure that there is no adverse impact on the forests in the surrounding area.	----
27	Any other condition that the concerned Regional Office of this Ministry may stipulate with the approval of competent authority in the interest of conservation, protection and development of forests & wildlife.	Agreed. NMDC Ltd., Donimalai will abide to any other condition that the Ministry of Environment, Forest and Climate Change may stipulate from time to time in the interest of conservation, protection and development of Forest and Wildlife. In this regard, undertaking is enclosed as Annexure-22
28	The User Agency shall submit the annual self -compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly.	Agreed. NMDC Ltd., Donimalai will submit the annual self -compliance report in respect of the above stated conditions to the State Government, Integrated Regional Office, Bengaluru and MoEF&CC, New Delhi by the end of March every year. In this regard, undertaking is enclosed as Annexure-23.
29	The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.	Agreed. In this regard, undertaking is enclosed as Annexure-24.
30	Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by the Ministry's letter No. 5-2/20/2017-FC dated 28.03.2019.	Noted and agreed with. In this regard, undertaking is enclosed as Annexure-25.

In view of above submissions, it is to state that M/s NMDC Ltd., Donimalai has fulfilled & complied with all the conditions mentioned in Stage-I Forest Clearance for the said diversion/regularization which are prerequisites for processing for final Forest Clearance (Stage-II).

Considering the above compliance report, it is requested that the above proposal may please be processed further for final approval and awarding of final Forest Clearance under F(C) Act, 1980.

Thanking you sir,

Yours Sincerely,


27/2/24
Chief General Manager
NMDC Ltd., Donimalai

Encl.: As Above.

एनएमडीसी



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.

Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

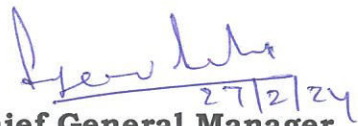
Annexure-1

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake to maintain the legal status of the diverted forest land to be remain unchanged in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(i) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No: 8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028

AGENCY COPY

यूनियन बैंक ऑफ इंडिया Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 15-02-2024

Agency Name.	NMDC LIMITED DONIMALAI
Application No	19917464487
MoEF/SG File No.	8-30/2022-FC
Location.	KARNATAKA
Address.	Donimalai Township, Dist. Bellary Pin: 583 118 (Karnataka) Bellary
Amount(in Rs)	2819895103/-

Amount in Words :Two Hundred and Eighty-One Crore Ninety-Eight Lakh Ninety-Five Thousand One Hundred and Three Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	KARNATAKA CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	1507319917464487 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

• This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक ऑफ इंडिया Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 15-02-2024

Agency Name.	NMDC LIMITED DONIMALAI
Application No	19917464487
MoEF/SG File No.	8-30/2022-FC
Location.	KARNATAKA
Address:	Donimalai Township, Dist. Bellary Pin: 583 118 (Karnataka) Bellary
Amount(in Rs)	2819895103/-

Amount in Words :Two Hundred and Eighty-One Crore Ninety-Eight Lakh Ninety-Five Thousand One Hundred and Three Rupees Only

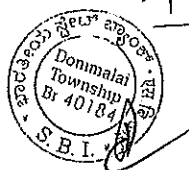
NEFT/RTGS to be made as per following details;

Beneficiary Name:	KARNATAKA CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	1507319917464487 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

• This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank, epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank

UTR: SBIN44050103808





एन एम डी सी लिमिटेड NMDC Limited

(भारत सरकार का उद्यम / A Government of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

ISO 9001 : 2008
ISO 14001 : 2004
OHSAS 18001 : 2007
SA 8000 : 2008

दोणिमलै उपनगर - 583 118
जिल्ला - बल्लारी, कर्नाटक
Donimalai Township - 583 118
Dist-Ballari, Karnataka

DNM/ENV/CA/MUT/2018/2087.

Date: 09.07.2018

The Dy. Conservator of Forests
Ballari Circle,
Ballari.

Sub: Submission of CA land details with Phahani (RoR) copies for an extent of 1300⁶ acres of C.A. land, which are required for Diversion of 75.92Ha. in Donimalai Range for Screening Plant-II construction, an extent of 159.01Ha. in Swamymalai Range for Kumaraswamy Iron Ore Mine (ML No.1111) & and extent of 235.64 Ha for regularization of Infrastructure facilities.

- Ref: 1) DCF letter No. M1/MNG/NMDC/ML No 1111/AR/CR-13/2014-15/1822 dtd.20.11.2017 for diversion of 159.01 Ha at KIOM.
2) DCF letter No. M1/MNG/others/NMDC/MLNo.2396/2015-16/2680 dtd. 26.02.2018 for diversion of 75.92 Ha at DIOM.
3) APCCF letter No. A5(4).GFL.CR.15/2015-16 dtd. 09.02.2016 for regularization of 235.648 Ha at Donimalai Complex.

Dear Sir,

With reference to the above, as desired, NMDC has to arrange C.A. land which are required in connection with diversion of 75.92 Ha, 159.01 Ha. and 235.648 Ha. of forest land as per the following diversion proposals :-

Sl.No.	Name of the proposal	Extent (Ha)	CA land required (Ha)
1	Diversion of Forest land (75.92Ha.) for construction of New Screening Plant at Donimalai Complex of NMDC Limited.	75.92	75.92
2	Diversion of un-diverted area over an extent of 159.01ha (Originally 167.63ha.) forest land for Kumaraswamy Iron Ore Mine, in ML No.1111, NMDC Ltd.	159.01	159.01
3	Regularization of 235.648 Ha. forest land for Infrastructure facilities outside ML area of Donimalai (including 41.648 Ha of land locked area lying between infrastructure facilities) at Donimalai Complex of NMDC Limited.	235.648	235.648
Total CA land required			470.578 Ha i.e.1162.82 acres

Contd.2.

:2:

Accordingly, we have arranged C.A. land for the said extent of 470.578 Ha (1162.82 acres) land, which has been already mutated in the name of Forest Department as per the following extents:-

Sl. No.	Sy.No. & location of CA land mutated in favour of Forest Department.	Area in Acres	Area in Hectares
1	Survey No. 295 of Ayppanhalli Village, Taluk: Kadligi, Ballari District	1115.01	451.238
2	Survey No. 432 of Kasapura Village, Kudligi Taluk, Ballari District	56.14	22.719
	Sub Total 'A'	1171.15	473.957
3	Survey No. 907 of Gudekote Village, Taluk :kudligi, Ballari District	39.64	16.042
4	Survey No. 908 of Gudekote Villalge, Taluk: Kudligi, Ballari District	89.30	36.139
	Sub Total 'B'	128.94	52.181
5	Balance land available with Forest Department from the previous proposals as per NMDC letter No.DNM/GM/TNFL/2016 dtd. 18.5.2016 of Survey No. 908 Gudekote Village, Kudligi Taluk, Ballari District.	6.899	2.792
	Sub Total 'C'	6.899	2.792
	Grand Total extent of CA land mutated in favaour of Forest Department (A) + (B) + (C)	1306.989	528.930

The mutation details along with Phahani of the above survey numbers are enclosed herewith for ready reference.

Considering the total extent of three diversion proposals is 1162.82 Acres, the same can be adjusted against the Survey No.295 of Ayappanhalli Village and Survey No. 432 of Kasapura Village as stated at Sl. No. 1&2 above, both of which constitute 1171.15 Acres.

Hence, it is requested to accept 1162.82 acres of C.A. land out of the 1306.989 acres and the balance 144.169 acres of land (1306.989 acres Minus 1162.82 acres = 144.169 acres) will be adjusted in the future diversion proposal of NMDC.

In view of the above, it is requested to accept the C.A. land and process our pending application for the three proposals as mentioned above.

Thanking you,

Yours Sincerely,


General Manager

Encl; As above.



595070543E

ಗ್ರಾಮ ನಮೂನೆ 2

ಕಾಲೋಕ್ತ ಮೊಜ್ಜರಾ

ರೆಕಾರ್ಡ್‌ ಆಫ್ ಲ್ಯಾಂಕ್ಸ್, ಗೇಣಿ ಮತ್ತು ಪಹಣಿ ಪ್ರಕ್ರಿಯೆ (RTC) ಫಾರಂ ನಂ.೦೬

Print Page No: 1/3
Valid from 06/07/2018 To Till Date

ಪ್ರಬಲ ಶ್ರಮ ಸಂಯಮ :

1

अपराध

अपराध

1

ಪ್ರಬಲ ಶ್ರಮ ಸಂಯಮ :

[illegible]

ಕಾಲೋದ್ದೇಶ : ೨೦೧೧

[illegible]

13. ದೂರವಾಹಿನಿ ಮುಖ್ಯಸ್ಥರು, ಬೆಂಗಳೂರು

12. **ଆମେରିକା ଶକ୍ତି ମନ୍ତ୍ରାଳୟ**

[illegible][illegible]

BTC DIGITAL | Y SIGNED BY: H KARTHIKESH ON 05/07/2018

BTIC Unique Number: T585C07C543F

ಕರ್ನಾಟಕ ಭೂಕಂಠಾನ್ವಯ ಮಾಪನ 1966 ರ ನಿಯಮ 40, 42, 58 ಮತ್ತು 70

ಮಹದೇಯ ನೇಜಪ್ಪಯ್ಯನು <http://andrecorads.kamalakavijay.org/verification> ಪರ್ನ್ ಸೈಟಿನಲ್ಲಿ ಅಥವಾ KA BHOOMI <RTU UniqueNumber> ಟಿಪ್ಪಣಿಮಾಡಿ 161 ನೇ ಸಂದೇಶ ಕಳುಹಿಸಿ ಪರಿಶೀಲಿಸಬಹುದು

Citizen may register their AADHAAR number and mobile number at www.landrecords.karnataka.gov.in to get SMS alerts about mutations on agricultural lands

ರೇಕಾರ್ಡ್ ಆಫ್ ರೈಟ್ಸ್, ಗೇಜೆ ಮತ್ತು ಪಹಣಿ ಪತ್ರಿಕೆ (RTC) ಫಾರಂ ನಂ.೦೬

[illegible]

RTC UniqueNumber: T585C07C543E

ಕರ್ನಾಟಕ ರೇಷಿಯೇಷನ್ ಕಮಿಷನ್ 1966 ರ ನಿಯಮ 40, 42, 58 ಮತ್ತು 70

ಪ್ರತಿ ಸಂವತ್ಸರದ 161 ರ ನಂದೇಶ ಕಟಹಿಸಿ ಪರಿಶೀಲಿಸಬಹುದು

ಮೈಸೂರು ನಗರ ಮಹಾನಗರ ಪಂಚಾಯತ್, ೨೦೧೬, ೧೪

ವಿಷಯ-ಪ್ರಾಚೀನ ಕಾವ್ಯಗಳ ಸಂಶೋಧನೆ

ಪ್ರಕಟಣೆಯ ವೆಬ್‌ಸೈಟ್‌ನಲ್ಲಿ <http://landrecords.karnataka.gov.in/landrecords> ಮತ್ತು ಸರ್ಕಾರದ ಜಮೀನ್‌ದಾರಿ ದಾಖಲೆಗಳನ್ನು ಪರಿಶೀಲಿಸಲು ಸಾಧ್ಯವಾಗುವಂತೆ ಮಾಡುವ ಯೋಜನೆಯನ್ನು ಕರ್ನಾಟಕ ಸರ್ಕಾರವು ಜಾರಿಗೆ ತಂದಿದೆ.

ಗೃಹ ಸಮಾಜ 2
ತಾಲ್ಲೂಕು ಮೊಟು

ರೇಕಾರ್ಡ್ ಆಫ್ ರೈಟಸ್, ಗೇಣಿ ಮತ್ತು ಜಮೀನ್ ಪತ್ರಿಕೆ (RTC) ಫಾರಂ ನಂ.02

Print Page No: 3/3
valid from 2018-07-06 16:18:00 To Till Date (2018-2019)

1. ಸರ್ಕಾರಿ ಸಂಖ್ಯೆ		2. ತಾಲ್ಲೂಕು		3. ಪೂರ್ವಾಧಿಕಾರಿ		4. ಸಂಖ್ಯೆ		5. ಸಂಖ್ಯೆ		6. ಸಂಖ್ಯೆ		7. ಸಂಖ್ಯೆ		8. ಸಂಖ್ಯೆ		9. ಸಂಖ್ಯೆ		10. ಸಂಖ್ಯೆ		11. ಸಂಖ್ಯೆ		12. ಸಂಖ್ಯೆ		13. ಸಂಖ್ಯೆ		14. ಸಂಖ್ಯೆ		15. ಸಂಖ್ಯೆ	
295																													
2. ತಾಲ್ಲೂಕು																													
3. ಮುಖ್ಯಸ್ಥ																													
4. ಮುಖ್ಯಸ್ಥ																													
5. ಮುಖ್ಯಸ್ಥ																													
6. ಮುಖ್ಯಸ್ಥ																													
7. ಮುಖ್ಯಸ್ಥ																													
8. ಮುಖ್ಯಸ್ಥ																													
9. ಮುಖ್ಯಸ್ಥ																													
10. ಮುಖ್ಯಸ್ಥ																													
11. ಮುಖ್ಯಸ್ಥ																													
12. ಮುಖ್ಯಸ್ಥ																													
13. ಮುಖ್ಯಸ್ಥ																													
14. ಮುಖ್ಯಸ್ಥ																													
15. ಮುಖ್ಯಸ್ಥ																													



ಕ್ರಮ ಸಂಖ್ಯೆ 2
ಕಾಲಾಕುರಿ ವೆಂಪು

ಪಾಲಕರು : ಕೊಡಗಿ
ಪಾಲಕರು : ಕೊಡಗಿ

ರೆಕಾರ್ಡ್ ಅಥವಾ ರೈಟ್ಸ್, ಗೇಣಿ ಮತ್ತು ಪಹಣಿ ಪತ್ರಿಕೆ (RTC) ಫಾರಂ ನಂ.02

Print Page No: 1/1
Valid from 05/07/2018 To Till Date

1. ಸರ್ಕಾರಿ ನೋಡ್ 432	3. ವೀಕ್ಷಣಾತ್ಮಕ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ (ಅ) ಪ್ರತಿಷ್ಠಾಪನಾ (ಬಿ) ಪ್ರತಿಷ್ಠಾಪನಾ (ಸಿ) ಪ್ರತಿಷ್ಠಾಪನಾ (ಡಿ)	4. ಕರಡು (ಅ) ಕರಡು (ಬಿ) ಕರಡು (ಸಿ) ಕರಡು (ಡಿ) ಕರಡು	5. ಕರಡು 0.00 0.00 0.00 0.00	6. ಕರಡು 0.00	7. ವರದಿ ಸಂಖ್ಯೆ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ	8. ವರದಿ ಸಂಖ್ಯೆ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ	9. ಕರಡು 0.00 0.00 0.00 0.00	10. ಕರಡು 0.00 0.00 0.00 0.00	11. ಕರಡು 0.00 0.00 0.00 0.00
---------------------------	---	--	---	-----------------	--	--	---	--	--

12. ವರದಿ ಸಂಖ್ಯೆ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ	13. ವರದಿ ಸಂಖ್ಯೆ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ	14. ವರದಿ ಸಂಖ್ಯೆ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ	15. ವರದಿ ಸಂಖ್ಯೆ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ ಪ್ರತಿಷ್ಠಾಪನಾ
---	---	---	---

RTC DIGITALLY SIGNED BY : H KARTHIKESH ON 05/07/2018
RTC Unique Number : TS85C07C549E
ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸರ್ಕಾರದ ನಿಯಮಾನುಸಾರ 1966 ರ ವಿಧಾನ 40, 42, 58 ಮತ್ತು 70
161 ಗೆ ಸಂಬಂಧಿಸಿದ ಕಟ್ಟಡದ ಪರಿಶೀಲನಾ ಪತ್ರವನ್ನು ಪಡೆಯಲು
Citizen may register their AADHAR number and mobile number at www.landrecords.karnataka.gov.in to get SMS alerts about mutations on agricultural lands

ದಿನಾಂಕ: 05/07/2018 16:28:46 ರೂ. 10
ವಿವರಣೆ: 05/07/2018 16:28:46 ರೂ. 10
ವರದಿ ಸಂಖ್ಯೆ: 05/07/2018 16:28:46 ರೂ. 10
ವರದಿ ಸಂಖ್ಯೆ: 05/07/2018 16:28:46 ರೂ. 10

ಮ್ಯುಟೇಶನ್ ಪ್ರತಿ

ಜಿಲ್ಲೆ: ಬಳ್ಳಾರಿ ದೆಹಿದಾಟು ವರ್ಷ: 2017-2018
 ತಾಲ್ಲೂಕು: ಕೂಡ್ಲಿಗಿ ವಹಿದಾಟು ಸಂಖ್ಯೆ: 55
 ಹೋಬಳಿ: ಗುಡೇಕೋಟೆ M.R.ನಂಬರ್: H15
 ಗ್ರಾಮ: ಅಪ್ಪಯ್ಯನಹಳ್ಳಿ

ಮೂಲ: ಜಿಲ್ಲಾಧೀಕಾರಿ ಆದೇಶ ಸಂಖ್ಯೆ: 63
 ಬದಲಾವಣೆ ರೀತಿ: ಕೋರ್ಟ್ ಆದೇಶ ದಿನಾಂಕ: 14/06/2018
 ಸ್ವಾಧೀನತೆ ರೀತಿ: ಪಹಣಿ ಬದಲಾವಣೆ

ಈಗಿನ ಸರ್ವೆ ನಂಬರಿನ ವಿವರ		(ವಿಸ್ತೀರ್ಣ ಎಕರೆ ಮತ್ತು ಗುಂಟೆಗಳಲ್ಲಿ)	
ಸರ್ವೆ ನಂಬರು	ಖೇತುದಾರು ವಿಸ್ತೀರ್ಣ ವಿವರ	ಭೂಕಂದಾಯ ವಿವರ	ಪಟ್ಟಿ ಮೆಚ್ಚಿನ ನಮೂನೆ
295/7	ಒಟ್ಟು: 1331.99.00.00	ಕಂದಾಯ: 0.00	ಪಟ್ಟಿ ಕವು
	ಒಟ್ಟು: 0.00.00.00	ಜೂಡಿ: 0.00	
	ಖರಾಬ್(ಬ): 0.00.00.00	ಸೆಪ್ಪು: 0.00	
		ನೀರಿನ ದರ: 0.00	

ಸರ್ವೆ ನಂಬರಿನಲ್ಲಿ ಸ್ವಾಧೀನದಾರರು ಮತ್ತು ಅವರ ವಿಸ್ತೀರ್ಣ

ಸರ್ವೆ ನಂಬರು	ಸ್ವಾಧೀನದಾರರ ಹೆಸರು	ವಿಸ್ತೀರ್ಣ	ಖಾತೆ ನಂಬರು	ಸ್ವಾಧೀನತೆಯ ರೀತಿ	ಪಕ್ಕು ಗುಂಟೆಗಳು ಸ್ಥಿತಿ	ಸೇರಿಸಲಾಗಿದೆ
295/7	General Manager N M D C Donimalai - ಇವರ ಪರವಾಗಿ ಅರಣ್ಯ ಇಲಾಖೆಗೆ ನಡುತೋಪು ಬೆಳೆಸಲು	1115.01.00.00 9905				
295/7	ಸರ್ಕಾರ ಗುಡ್ಡ	1324.68.00.00 9905		15/05/2017 MR H17/2016-2017		Original
295/7	ಸರ್ಕಾರ ಗುಡ್ಡ	209.67.00.00 9905		MR H17/2016-2017		ಬದಲಿಸಿದೆ

ಮ್ಯುಟೇಶನ್ ಆದೇಶದ ವಿವರ:

ವೊಕ್ಕಾಂ: ಕೂಡ್ಲಿಗಿ

ಮ್ಯುಟೇಶನ್ ಆದೇಶದ

ದಿನಾಂಕ: 06/07/2018

ಸಹ/-

ರಾಜಸ್ವ ನಿರೀಕ್ಷಕರು

ಹೋಬಳಿ

ಗುಡೇಕೋಟೆ

ಮೈಟೇಲನ್ ಡ್ರೈತಿ

ಜಿಲ್ಲೆ: ಬಳ್ಳಾರಿ ವಹಿವಾಟು ವರ್ಷ : 2017-2018 ಮೂಲ: ಜಿಲ್ಲಾಧಿಕಾರಿ ಕಛೇರಿ ಸಂಖ್ಯೆ: 63
 ಕಾಬುಣ್ಣು: ಕೂಡ್ಲಿಗಿ ವಹಿವಾಟು ಸಂಖ್ಯೆ: 126 ಬದಲಾವಣೆ ರೀತಿ: ಕೋಟಿ ಕಡಲೆ ದಿನಾಂಕ: 14/06/2018
 ಹೋಬಳಿ: ಗುಡೇಕೋಟೆ M.R.ನಂಬರ್: H50 ಸ್ವಾಧೀನತೆ ರೀತಿ: ಪಹಣಿ ಬದಲಾವಣೆ
 ಗ್ರಾಮ: ಗುಡೇಕೋಟೆ

ಕೆಳಗಿನ ಸರ್ವೆ ನಂಬರಿನ ವಿವರ (ವಿಸ್ತೀರ್ಣ ಎಕರೆ ಮತ್ತು ಗುಂಪೆಗಳಲ್ಲಿ)			
ಸರ್ವೆ ನಂಬರು	ಖೇತುವಾರು ವಿಸ್ತೀರ್ಣ ವಿವರ	ಭೂಕಂದಾಯ ವಿವರ	ಪಟ್ಟಿ ಮುಕ್ತನ ನಮೂನೆ
907/1*	ಒಟ್ಟು : 39.64.00.00 ಒಟ್ಟು : 0.00.00.00 ಖರಾಬ್(ಬ): 0.00.00.00	ಕಂದಾಯ : 0.00 ಜೂಡಿ: 0.00 ಸೆಪ್ಟೆ: 0.00 ನೀರಿನ ದರ : 0.00	ಮುಕ್ತನ ಕಲ್ಲು
908/1*	ಒಟ್ಟು : 110.30.00.00 ಒಟ್ಟು : 0.00.00.00 ಖರಾಬ್(ಬ): 0.00.00.00	ಕಂದಾಯ : 0.00 ಜೂಡಿ: 0.00 ಸೆಪ್ಟೆ: 0.00 ನೀರಿನ ದರ : 0.00	

ಸರ್ವೆ ನಂಬರಿನಲ್ಲಿ ಸ್ವಾಧೀನದಾರರು ಮತ್ತು ಅವರ ವಿಸ್ತೀರ್ಣ

ಸರ್ವೆ ನಂಬರು	ಸ್ವಾಧೀನದಾರರ ಹೆಸರು	ವಿಸ್ತೀರ್ಣ	ಖಾತೆ ನಂಬರು	ಸ್ವಾಧೀನತೆಯ ರೀತಿ	ಹಕ್ಕು ಗಳು ಖುಜ್ಜಿಗಳು ಸ್ಥಿತಿ
907/1*	General Manager N M D C Donimalai - ಇವರ ಪರವಾಗಿ ಅರಣ್ಯ ಇಲಾಖೆಗೆ ನಡುತೋಪು ಬೆಳೆಸಲು	39.64.00.00	9902	-	ಸೇರಿಸಲಾಗಿದೆ
907/1*	ಕರ್ನಾಟಕ ಸರ್ಕಾರ	39.64.00.00	9902	M 31/98-99	ತೆಗೆಯಲಾಗಿದೆ
908/1*	General Manager N M D C Donimalai - ಇವರ ಪರವಾಗಿ ಅರಣ್ಯ ಇಲಾಖೆಗೆ ನಡುತೋಪು ಬೆಳೆಸಲು	99.30.00.00	9902	-	ಸೇರಿಸಲಾಗಿದೆ
908/1*	ಸರ್ಕಾರ	89.30.00.00	9902	MNO 31/90-91	ತೆಗೆಯಲಾಗಿದೆ

ಮೈಟೇಲನ್ ಆದೇಶದ ವಿವರ :

ಮೊತ್ತಾಂಶ : ಕೂಡ್ಲಿಗಿ

ಮೈಟೇಲನ್ ಆದೇಶದ

ಸಹಿ/-

ಮೈಟೇಶನ್ ಪ್ರತಿ

ಜಿಲ್ಲೆ : ಬಳ್ಳಾರಿ ವಹಿದಾಟು ವರ್ಷ : 2017-2018 ಮೂಲ : ಜಿಲ್ಲಾಧಿಕಾರಿ ಆದೇಶ ಸಂಖ್ಯೆ : 63
 ತಾಲ್ಲೂಕು : ಕೊಡಗಿ ವಹಿದಾಟು ಸಂಖ್ಯೆ : 72 ಬದಲಾವಣೆ ರೀತಿ : ಕೋರ್ಪ್ ಆದೇಶ ದಿನಾಂಕ : 14/06/2018
 ಹೊಬಳಿ : ಗುಡೇಕೋಟೆ M.R.ನಂಬರ್ : H23 ಸ್ವಾಧೀನತೆ ರೀತಿ : ವಹಣೆ ಬದಲಾವಣೆ
 ಗ್ರಾಮ : ಕನಾಕುರ

ನರ್ವೆ ನಂಬರು		ಈಗಿನ ಸರ್ವೆ ನಂಬರಿನ ವಿವರ		(ವಿಸ್ತೀರ್ಣ ಎಕರೆ ಮತ್ತು ಗುಂಟೆಗಳಲ್ಲಿ)		ಚರಾ
		ಖೇತುವಾರು ವಿಸ್ತೀರ್ಣ ವಿವರ	ಭೂಕಂದಾಯ ವಿವರ	ಪಟ್ಟಾ	ಮಣ್ಣಿನ ನಮೂನೆ	
432/1*	ಒಟ್ಟು :	56.14.00.00	ಕಂದಾಯ	0.00	ಸರ್ಕಾರ ಕೆಂಪು	
	ಒಟ್ಟು :	0.00.00.00	ಜೂಡಿ:	0.00		
	ಖರಾಬ್(ಒ):	0.00.00.00	ಸೆನ್ನು:	0.00		
			ನೀರಿನ ದರ :	0.00		

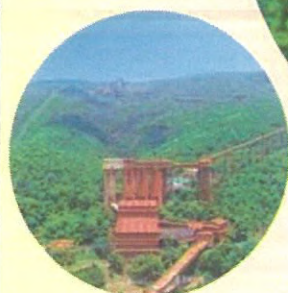
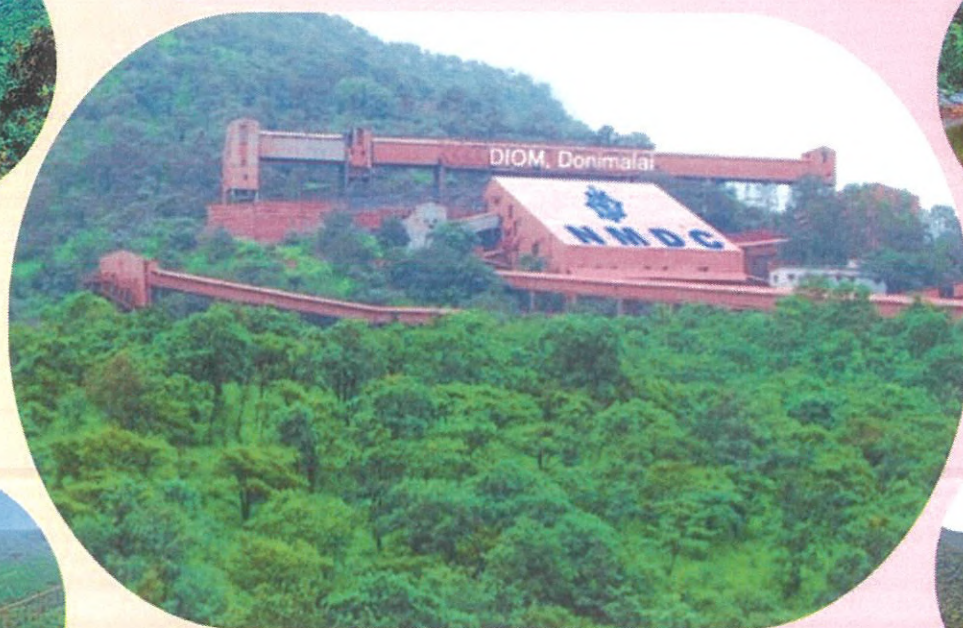
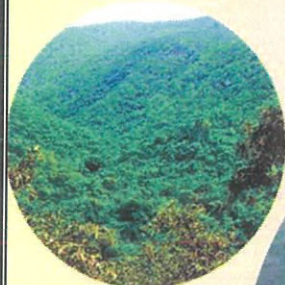
ಸರ್ವೆ ನಂಬರಿನಲ್ಲಿ ಸ್ವಾಧೀನದಾರರು ಮತ್ತು ಅವರ ವಿಸ್ತೀರ್ಣ

ಸರ್ವೆ ನಂಬರು	ಸ್ವಾಧೀನದಾರರ ಹೆಸರು	ವಿಸ್ತೀರ್ಣ	ಖಾತೆ ನಂಬರು	ಸ್ವಾಧೀನತೆಯ ರೀತಿ	ಹಕ್ಕುಗಳು ಉಣ್ಣುಗಟ್ಟಿ	ಸೇರಿಸಲಾಗಿದೆ
432/1*	General Manager N M D C Donimalai - ಇವರ ಪರವಾಗಿ ಅರಣ್ಯ ಇಲಾಖೆಗೆ ನಡುಪೋವು ಬೆಳೆಸಲು	56.14.00.00	9906	-		ಸೇರಿಸಲಾಗಿದೆ
432/1*	ಕಲ್ಲುಪ್ರದೇಶ	56.14.00.00	9906	ಸರ್ಕಾರಿ		ತೆಗೆಯಲಾಗಿದೆ

ಮೈಟೇಶನ್ ಆದೇಶದ ವಿವರ :
 ಮೊತ್ತಾಂಶ : ಕೊಡಗಿ
 ಮೈಟೇಶನ್ ಆದೇಶದ ದಿನಾಂಕ : 06/07/2018

ಸಹ/-
 ರಾಜಸ್ವ ನಿರೀಕ್ಷಕರು
 ಹೊಬಳಿ
 ಗುಡೇಕೋಟೆ

FOREST MANAGEMENT PLAN FOR INTERLOCKED FOREST AREA OF NMDC DONIMALAI, SANDUR



Prepared By-

S. N VISION

Email-info@frms.co.in

Website- www.frms.co.in

Content -1		
Sl.no	Title	Page no.
1	Background	5
2	Introduction	6-9
	Forest management	
	National Mineral Development Corporation (NMDC)	
	Donimalai Block	
3	Key Components of Vegetation Analysis includes	9-11
4.	Objectives	11
5.	Background of the Study Area	12-13
6.	Methodology	13-21
	Vegetation analysis	
	Soils and land resource appraisal	
7	Benchmark data of soil survey	22-27
	Physical properties	
	Chemical properties	
8	Land capability classification	27-29
9	Assessment of Soil yield & soil erosion in the study area	29-31
10	Runoff yield Estimation	31-36
11	Results and Discussions	37-56
	Vegetation analysis	
	Soil and land resource Appraisal of the study area	
	Slope characteristics	
	Drainage characteristics	
	Assessment of soil erosion	
	Criteria estimated for different conservation structures.	
12	Recommondations	57-60
13	Budget and Expenditure of the Study Area	61
14	Conclusion.	62
15	Annexures	65-67

CONTENT - 2		
Sl no.	Figures (Maps , Graphs, Pie chart)	Page no.
1	Map of Inter locked Forest NMDC (138.778 Ha).	8
2	Overview of study area Map 1	12
3	Study area map 2	13
4	Graphical representation of Grids	16
5	Configuration of main plot and sub plot	16
6	Map of vegetation and soil sampling sites in study area.	20
7	Contour map of study area.	25
8	Digital Elevation map of the study area.(DEM)	26
9	Drainage density map	27
10	Flow chart to Estimate potential soil loss in GIS Environment	30
11.	Geographical Representation of percentage distribution of flora.	38
12.	Graph showing dominant flora in the study area.	40
13.	RD,RF,RA & IVI of Donimalai block	40
14	Slope percentage map of study area	45
15	Slope map of the study area	45
16	Drainage network map of study area.	46
17	Drainage network map of the study area	47
18	Flow direction map of the study area.	49
19	Slope (in degree) map of the Study area	50
20	Spatial distribution of slope length (L)factor in the study area.	50
21	Spatial distribution of slope Steepness (S)factor in the study area.	51
22	Soil erosion classes identified in the study area.	52
23	Catchment area & Proposed SMC structure of the study area.	60

CONTENT - 3		
Sl no.	Tables	Page no.
1	Dimensions of the plots for different vegetation types	14
2	Geographic co-Ordinates of vegetation sampling points and soil sampling location	21
3	Soil analysis methods employed for soil analysis	22
4.	Classification criteria for various soil separates.	23
5	Land capability classes (LCC) and their description	28
6	Over view of data used for sediment analysis	31
7	Soil structure code for different structural analysis	35
8	Soil permeability class and permeability code	35
9	Girth class, basal area and volume per hectare	37
10	Basal area , volume and growing stock of tree species.	38
11	Diversity indices of the trees, shrubs, herbs.	39
12	Relative proportion of soil primary particles.	42
13	Slope classes identified in the study area	44
14	Distribution of annual rain fall for the past 10 years.	48
15	Descriptive statistics of soil loss in the study area	52
16	Soil erosion classes identified in the study area	53
17.	Details of proposed SMC structures of the area	54
18.	Timeline for establishment of the proposed conservation structure.	59
19.	Number of SMC structures located inside and out side (inside the forest) the study area.	59

1. BACKGROUND

A civil work, such as construction or development, on a Study area can have significant environmental consequences. A Study area, also known as a watershed or drainage basin, is an area of land where all precipitation that falls within it drains to a common point, usually a river or lake. Changes to the land within a Study area can affect water flow, quality, and the overall ecosystem. Civil works can increase the amount of sediment entering water bodies. This can lead to increased erosion, sedimentation in water bodies, and changes in the physical characteristics of rivers and lakes. Excessive sedimentation can degrade water quality and aquatic habitats. The aim of this consultancy project is to devise a catchment protection plan for sustainable restoration and protection of the Study area that is likely to be affected by the proposed project through engineering and biological measures that would help mitigate soil erosion along with moisture conservation for accelerated vegetation.

It can also impact the natural hydrological cycle of a Study area. Changes in land use, such as deforestation or urbanization, can alter the way water is absorbed into the ground and the rate at which it flows into rivers and streams, affecting overall hydrological processes. Construction activities associated with civil works can lead to soil compaction, land disturbance, and vegetation loss. This can increase the susceptibility of Study areas to soil erosion and reduce the natural capacity of the land to retain water.

Assessments of land degradation are essential for informed decision-making, policy development, and implementing sustainable land management practices to combat the negative effects of degradation on ecosystems, agriculture, and communities. To mitigate the negative impacts of civil works on Study areas, proper planning, environmental impact assessments, and sustainable engineering practices are essential. Balancing development with the preservation of natural ecosystems and the well-being of communities downstream is crucial for ensuring the long-term health and resilience of Study areas.

2. Introduction

2.1. Forest management

This management plan follows an ecosystem-based planning approach, which requires a careful consideration of ecological, cultural and economic values. It is based on protecting, maintaining, or where necessary, restoring fully functioning ecosystems at different spatial scales over long time frames. Following this approach, the management plan specifically describes the district and identifies objectives and actions within three main themes, reflecting ecological, cultural, and economic landscapes. Additional information in the plan includes descriptions of past activities, the public consultation process, proposed activities, research and monitoring requirements and details on plan administration. It can also impact the natural hydrological cycle of a Study area. Changes in land use, such as deforestation or urbanization, can alter the way water is absorbed into the ground and the rate at which it flows into rivers and streams, affecting overall hydrological processes. Construction activities associated with civil works can lead to soil compaction, land disturbance, and vegetation loss. This can increase the susceptibility of Study areas to soil erosion and reduce the natural capacity of the land to retain water.

Assessments of land degradation are essential for informed decision-making, policy development, and implementing sustainable land management practices to combat the negative effects of degradation on ecosystems, agriculture, and communities. To mitigate the negative impacts of civil works on Study areas, proper planning, environmental impact assessments, and sustainable engineering practices are essential. Balancing development with the preservation of natural ecosystems and the well-being of communities downstream is crucial for ensuring the long-term health and resilience of Study areas.

Natural resources are those products and features of the earth that permits them to support life and satisfy people needs (Anonymous, 1989). Land and water are the natural resources, which also include: Biological resources (Fauna & flora), Mineral resources (metallic & non-metallic) and other resources, like air, sunshine, and climate (UNEP, 1987). Natural Resources are used to make food, fuel and raw materials for the production of finished goods (Adriaan se, 1993). Due to the dependency of mankind on the finite land and water resources for his basic needs, the sustainable development of these resources avoiding irreversible consequences, assumes paramount importance (Kasturirangan, 1995). The social and economic development of our country is interlaced with our natural resources, and the way they are managed and exploited. To achieve this challenge the complete and up-to-date information of the resources to be managed is important in the resource-scare situation. Policy makers should have an efficient control mechanism in the form of regular feedback of information on the agriculture, forest resource, land degradation, etc. Soil

and water conservation are a crucial component of natural resource management that focuses on preserving, restoring, and sustainably utilizing two of the Earth's most vital resources: soil and water. This practice is essential for maintaining ecological balance, Supporting agricultural productivity, preventing environmental degradation, and ensuring the overall well-being of ecosystems and human societies. Effective soil and water conservation strategies are integral to achieving long-term sustainability and resilience in the face of various environmental, Soil and water conservation activities are necessary to achieve sustainability in agriculture, biodiversity conservation, climate change mitigation, maintain water quality, erosion control, flood prevention, reap economic benefits, and long-term resilience

2.2. National Mineral Development Corporation (NMDC)

National Mineral Development Corporation (NMDC) stands as a prominent Navratna Public Sector Enterprise under the Ministry of Steel, representing the Government of India. Recognized as the largest producer of iron ore in the country, NMDC boasts a remarkable presence with its highly mechanized iron ore mines situated in Chhattisgarh and Karnataka. The registered office of this significant entity is strategically located in Hyderabad, Telangana. NMDC's stature extends globally, as it is acclaimed as one of the world's low-cost producers of iron ore. In addition to its iron ore endeavors, NMDC holds the distinction of operating the sole mechanized diamond mine in India, situated in Panna, Madhya Pradesh.

The company's operational prowess is underscored by its iron ore production, surpassing 40 million metric tonnes annually from key production units in the Bailadila Sector of Chhattisgarh and Donimalai in the Ballari-Hospet region of Karnataka. NMDC, with an ambitious vision, aspires to achieve an iron ore production capacity of 100 million metric tonnes by the fiscal year 2030. Notably, all mining complexes operated by NMDC have received a prestigious 5-star rating from the Indian Bureau of Mines, Ministry of Mines, attesting to the company's commitment to scientific and sustainable mining practices.

Among its significant mining sites is the Donimalai Block, a region whose name is derived from Kannada words "Doni" and "Malai," signifying a boat-shaped forest hill. The Donimalai Township, enveloped by lush greenery, mirrors the boat shape, and it houses a population of 6555, with males constituting 52% and females 48%. The township boasts an impressive average literacy rate of 80%, exceeding the national average, with male literacy at 86% and female literacy at 74%. The Donimalai Iron Ore Project, commissioned in 1977, was a strategic move to boost lump ore exports from the Bellary-Hospet region through the new Madras Outer Harbour.

NMDC's commitment to the welfare of its employees and the local community is evident in the development of the Donimalai Township. The township is well-equipped with essential facilities such as

schools, hospitals, community centers, libraries, recreation clubs, shopping centers, gymnasiums, and stadiums, ensuring a holistic and sustainable living environment for its residents.

The significance of the Donimalai mechanized iron ore mines in the NMDC portfolio cannot be overstated. Located approximately 19 km from the Toranagallu Railway station by road, these mines have been a focal point of iron ore exploration since their inception in 1977. The ore extracted from this region boasts an impressive iron content of 65%, with the mines having a staggering capacity of 27.92 million tons. The annual extraction of about 4 million tons of ore is a testament to the scale of operations.

Despite the challenges posed by government policies, such as the ban on exports imposed by the Karnataka government, NMDC has navigated through such hurdles. As of now, the ban on exports has been lifted, showcasing the resilience and adaptability of NMDC in the dynamic landscape of the mining industry. This success is a testament to the strategic vision, operational efficiency, and commitment to sustainable practices that define the legacy of the National Mineral Development Corporation

2.3. Donimalai Block

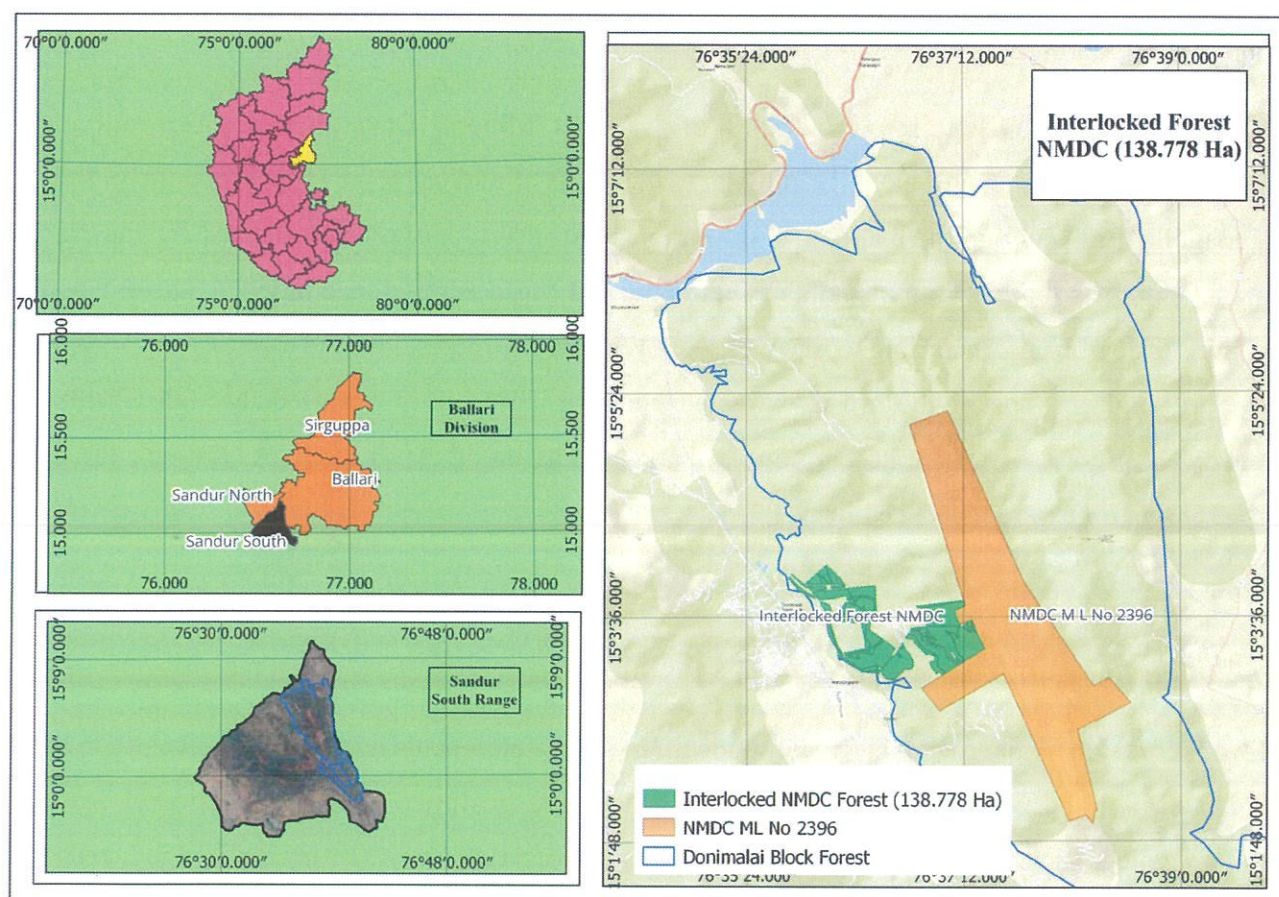


Fig 1 : Map of Inter locked Forest NMDC (138.778 Ha).

Donimalai derives its name from words Doni and Malai in Kannada. Doni is multi-purpose sailboat with a motor or lateen sails and malai means Hills. The shape of the township resembles the shape of boat(doni) and is fully surrounded by green Forest hills. And hence derived its name Donimalai meaning boat shaped forest hills.

Donimalai Township has a population of 6555. Males constitute 52% of the population and females 48%. Donimalai Township has an average literacy rate of 80%, higher than the national average of 74.0%: male literacy is 86% and, female literacy is 74%. In Donimalai Township, 10% of the population is under 6 years of age.

The Donimalai Iron Ore Project was commissioned in the year 1977. The Donimalai Iron Ore Project was primarily planned to enhance the export of lump ore from Bellary Hospet region through the new MOLP at Madras Outer Harbour. This Iron Ore Deposit is located at the south-eastern part of the Bellary-Hospet range.

NMDC has developed a Township at Donimalai. This Township is equipped with all necessary facilities like Schools, Hospital, Community Center, Library, Recreation Clubs, Shopping Centers, Gymnasiums and Stadium.

Donimalai mechanised iron ore mines of National Mineral Development Corporation (Now M/s.NMDC Limited) are located here. Donimalai township is at a distance of approximately 19 km from the Toranagallu Railway station by road. Exploration of iron ore activity was started by the National Mineral Development Corporation of India in Donimalai and was commissioned in 1977. The ore available here contains 65% of Iron. According to the N.M.D.C. Website the mines have the capacity of 27.92 million tons. About 4 million tons of the ore is extracted per year. The ore is exported through Chennai and Mormugao (Goa) ports. About 1286 employees work here as on 30 April 2012. At present, the ban by Karnataka Govt., on exports has been lifted.

3. Key Components of Vegetation Anlaysis includes:

a) Soil Conservation: Soil erosion is a major concern in many catchments due to factors like deforestation, improper land use, and poor agricultural practices. Study area treatment aims to prevent soil erosion by promoting practices such as contour ploughing, terracing, agroforestry, cover cropping, and reduced tillage. These practices help retain soil structure and fertility, preventing the loss of topsoil due to erosion.

b) Water Conservation: Effective water management is crucial for sustainable development within a catchment. This includes optimizing water use for agriculture, industries, and domestic purposes while ensuring that the ecosystem's water needs are met. Implementing techniques like rainwater harvesting, check dams, and water-efficient irrigation methods can help conserve water resources.

c) Afforestation and Reforestation: Vegetation plays a vital role in Study area treatment. Planting trees and other vegetation in critical areas helps stabilize soil, reduce erosion, and enhance water absorption. Forest cover also contributes to groundwater recharge and regulates stream flow, minimizing the risk of flooding during heavy rainfall.

d) Sediment Control: Sediment from eroded soil can impair water quality and disrupt aquatic ecosystems. To address this, catchment management may involve constructing sediment basins, silt fences, and erosion control structures to trap sediment and prevent its entry into water bodies.

e) Land-Use Planning: Proper land-use planning is essential to ensure that human activities within the catchment do not degrade soil and water resources. Regulatory measures, zoning regulations, and guidelines for sustainable land use can help prevent haphazard development that could lead to environmental degradation.

f) Monitoring and Assessment: Regular monitoring of soil quality, water quality, and ecosystem health helps track the effectiveness of Study area treatment measures. It allows for adjustments and improvements to be made based on real-time data.

In the given circumstances where the greatest dilemma is the population and economic development vis-à-vis protection of our depleting resource, the developmental planning based on the philosophy of sustainable development can only be a viable option.

Vegetation is an important part of the ecosystem that reflects the effects of the entire environment. The development and death or decay of plant species alters the pattern of the species distribution in a community. Vegetation ecology includes the investigation of species composition and the sociological interaction of species in communities. It puts emphasis on the study of composition, development, geographic distribution, and environmental relationships of plant communities. A detailed vegetation analysis provides information about species diversity, community organization, niche resources apportionment, and turnover rate of species in a forest ecosystem.

Assessing land degradation involves evaluating the decline in the quality and productivity of land due to various human and natural factors. This degradation can manifest as soil erosion, loss of vegetation cover, reduced soil fertility, and overall decline in ecosystem health. Various indicators and metrics can be

evaluated to quantify different aspects of land degradation. These could include metrics like soil erosion rates (measured in tons per hectare per year), changes in vegetation cover (measured as a percentage), and soil quality parameters (such as nutrient content and organic matter). The soil erosion has been recognized as one of the prime causes of soil degradation since it leads to the loss of fertile topsoil and soil organic matter, which are necessary for the growth and development of plants. Assessment of surface soil loss is considered as a prerequisite for soil and water conservation scientists and policymakers. An improved Revised Universal Soil Loss Equation (RUSLE) model for estimating soil loss studies in the area. On-site field surveys help assess the actual state of the land. This involves collecting soil samples, measuring erosion rates, observing vegetation health, and recording other relevant indicators. Satellite imagery and Geographic Information Systems (GIS) can provide valuable insights into land cover changes, vegetation health, and erosion patterns over time. Remote sensing tools can help identify areas prone to degradation and monitor changes at different scales.

Based on the assessment results, appropriate mitigation and restoration strategies can be developed and recommend. These could include implementing sustainable land management practices, reforestation, erosion control measures, and promoting community engagement. Periodic reassessment must be done for monitoring the effectiveness of mitigation measures and changes in land degradation over time.

4. OBJECTIVES

- ✓ To characterize vegetation analysis of the NMDC fragmented patches.
- ✓ To identify potential erosion risk areas and preparation of site-specific soil and water conservation.
- ✓ Treatment plan to mitigate soil erosion.
- ✓ To suggest *in-situ* moisture conservation plan for supporting regeneration of vegetation through site-specific SWC measures.
- ✓ To create benchmark data on parameters of Soil and land resource appraisal for subsequent monitoring and evaluation.

5. BACKGROUND OF THE STUDY AREA

The present NMDC fragment area for the Vegetative analysis plan is located in Sandur Taluk of Ballari district of Karnataka, India. The area falls under administrative control of Sandur south range of Ballari division.

The area lies between 15.30000° N and 15.336000° N latitude, 76.36000° E and 76.363600° E longitude respectively. The total geographical Study area is 138.778 Hectares. Shown in below fig .2.

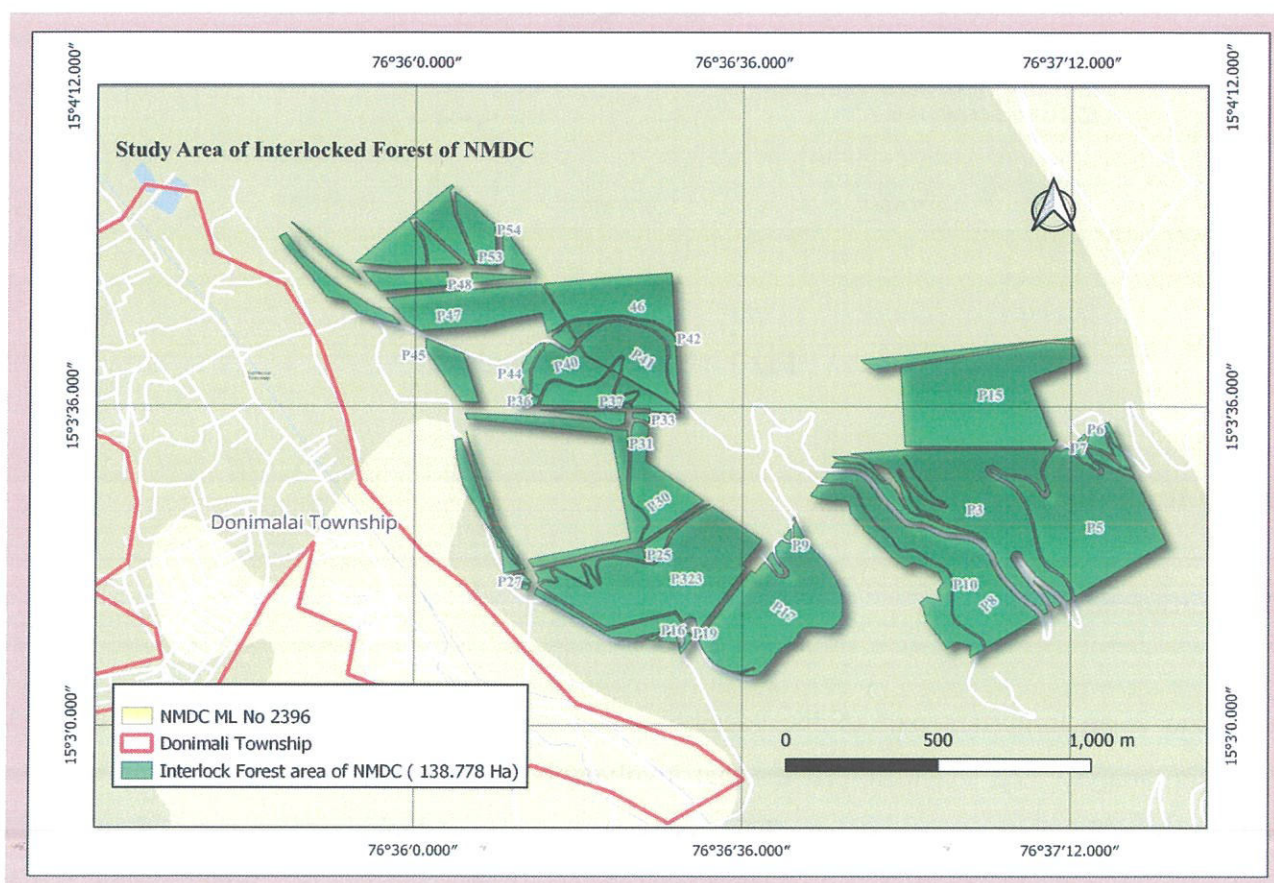


Fig.2 : Overview of study area Map 1

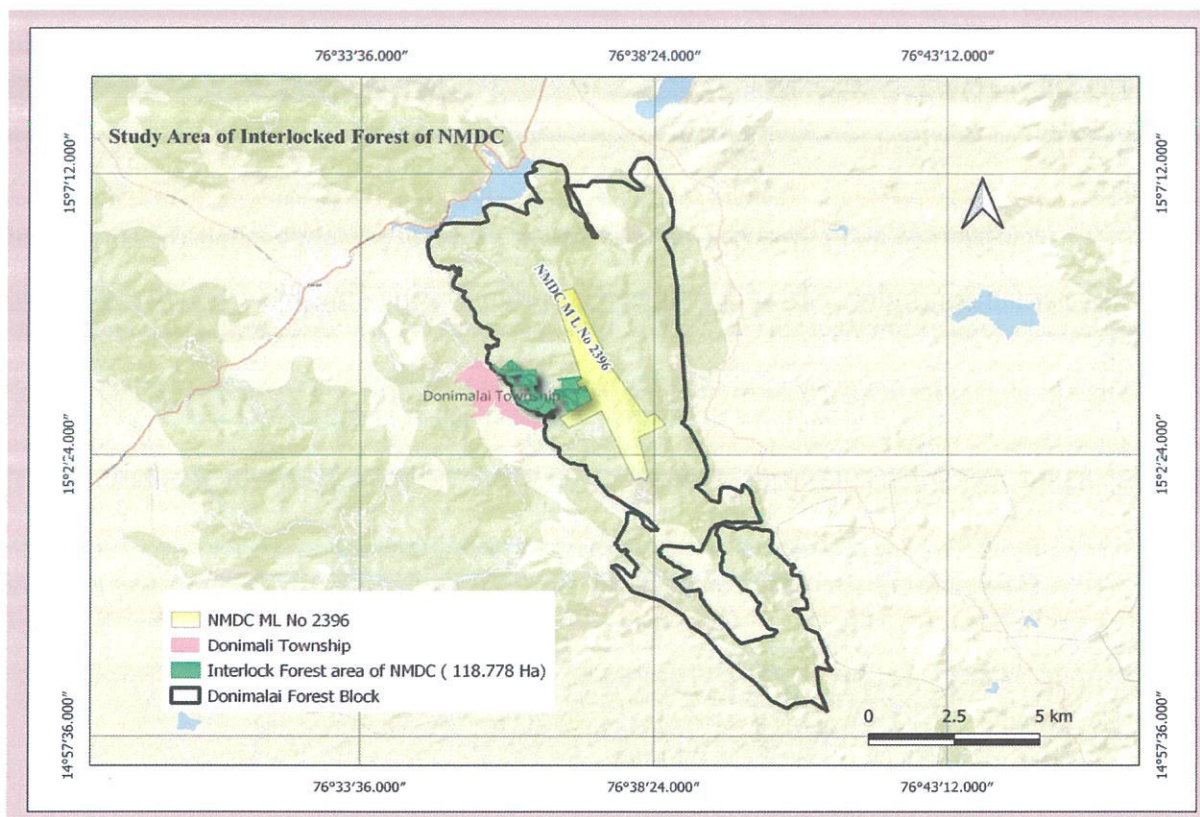


Fig 3 : Study area map 2

6. Methodology

A. Vegetation analysis

Vegetation is an important part of the ecosystem that reflects the effects of the entire environment. Vegetation analysis is a scientific process that involves the study and assessment of plant communities within a specific area or ecosystem. This analysis provides valuable information about the types, distribution, density, health, and ecological characteristics of plant species in a given region. Vegetation analysis serves various purposes, including ecological research, land management, conservation efforts, and environmental monitoring. The development and death or decay of plant species alters the pattern of the species distribution in a community. Healthy vegetation in Study areas provides habitat and food for a variety of wildlife species. Proper vegetation analysis can identify areas of high ecological value that should be protected or restored to maintain biodiversity. Understanding the composition and health of vegetation through analysis helps in sustainable resource management, ensuring that these resources are not overexploited.

- Forest resource assessments consist of information on basal area, volume. No of stems and density by plot method
- Forest resource assessment was done by sampling of plots of optimum area (0.56 Km² plots) for various parameters
- For assessment of growing stock, volume or number of stems, 0.1 ha plot was laid out. The following data filled in Form no. 3

Dimensions	Directions	Assessment done at the plot
1 m × 1 m	(NE & SW)	Herb and Grasses
3 m × 3 m	(NE & SW)	Shrub, Climbers, and tree regeneration
31.62 m × 31.62 m	All directions	All tree species

Table.1 Dimensions of the plots for different vegetation types

The sample plots were laid out following systematic sampling scheme. The systematic sampling was based on the system of grids of latitude and longitude.

- A reference point was identified, which could be identified on the map as well as located on the ground.
- While approaching the sample plot, stock assessment and mapping (earmarking the stocked area on the map), ground truthing of remote sensing data were done by traversing the forests (compartment/village /any other management unit)
- So as to cover the entire area making observational assessment of site quality, tree species composition and others.

Layout of Sample Plots in The Field

Step 1: From the reference point, the GPS point was recorded after reaching the center of the grid, and a square plot of 0.1 ha area (main plot) was laid out by measuring 22.36 m horizontal distance.

Step 2: Half of the diagonal in all the four directions at 45° in north-east, at 1.35mt in south-east, at 225° in south-west, and at 315° in north-west corners of the plot from true north.

Step 3: Nested quadrates of size $3\text{m} \times 3\text{m}$ and $1\text{m} \times 1\text{m}$ was laid out at a distance of 30 meters from the center of the central plot in all four directions along diagonals in non-hilly area and along trails in hilly areas for the enumeration of shrubs (including regeneration status) and herbs/grasses respectively.

Step 4: Selected grids contained one central plot of 0.1 ha ($31.62\text{m} \times 31.62\text{m}$) were taken to assess the tree composition of the grid

The data of shrubs, climbers and regeneration status from all 4 quadrats of $3 \times 3\text{m}$ is taken at a distance of 30 meters from the center of the main plot of 0.1 ha. was collected and recorded in the 'plot enumeration form'. The data of herbs from all nested quadrates of $1\text{m} \times 1\text{m}$ laid within each quadrate of $3\text{m} \times 3\text{m}$ is to be collected and recorded in the 'plot enumeration form'

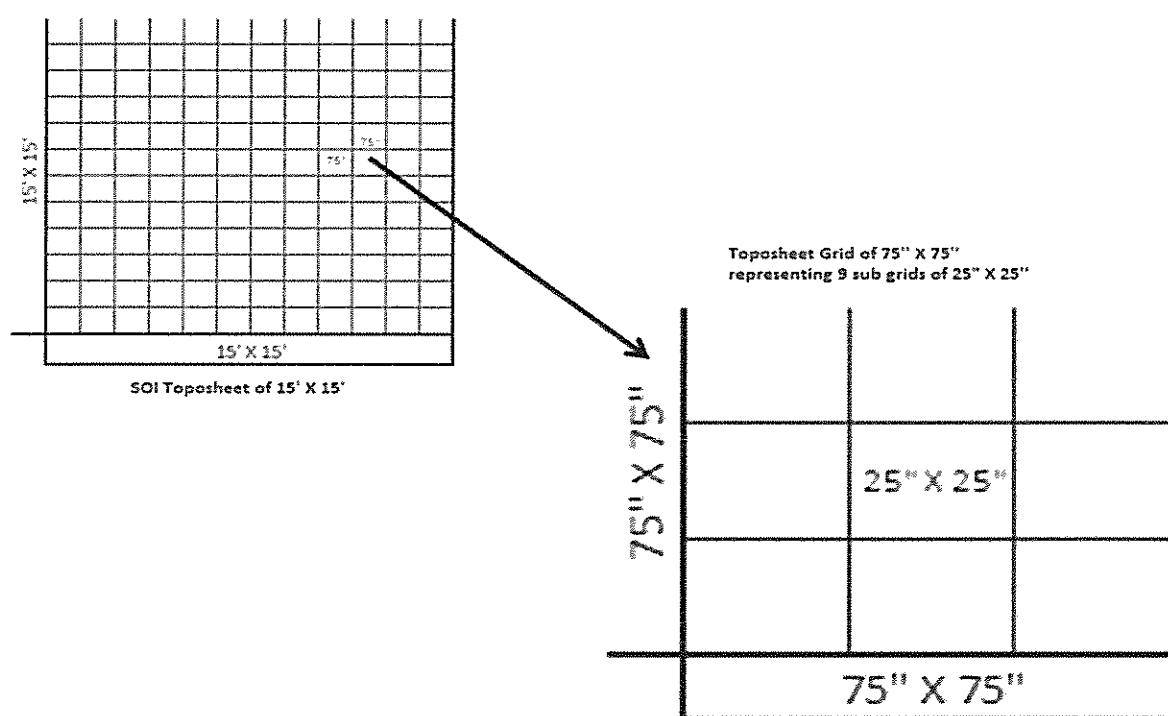


Fig. 4: Graphical representation of Grids

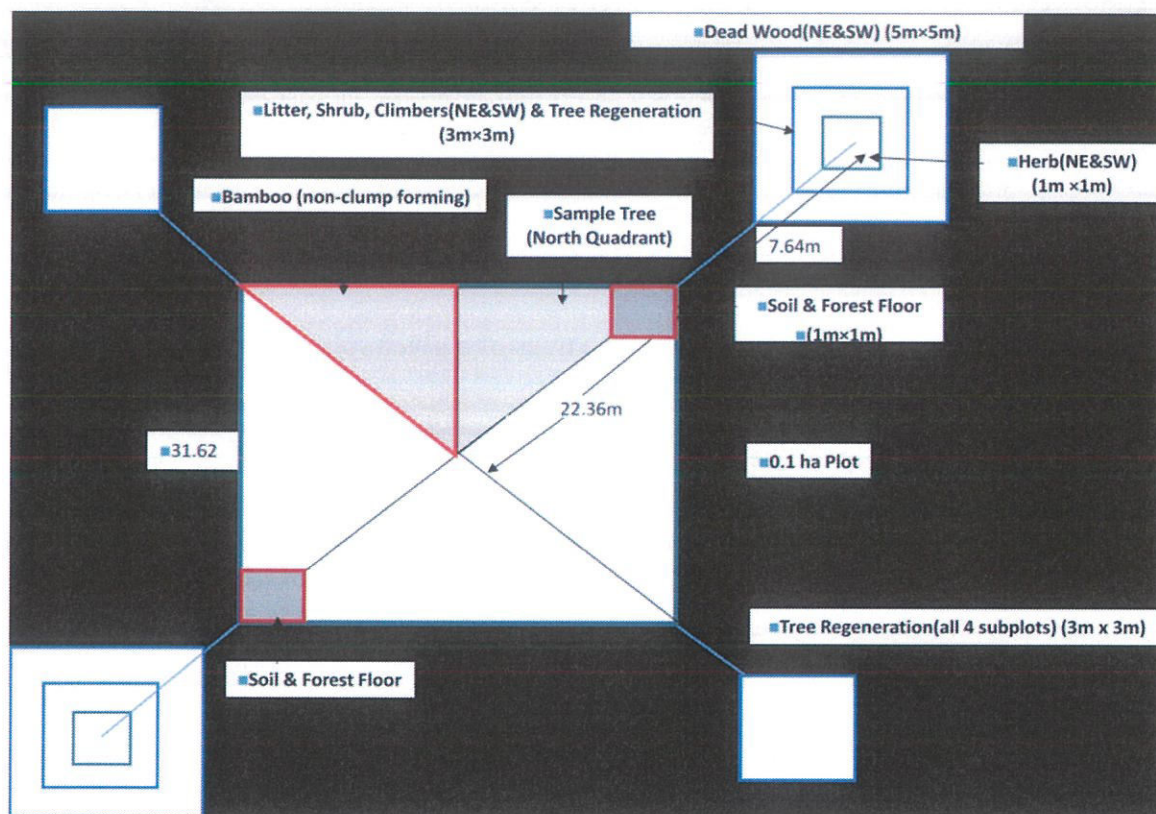


Fig.5. Configuration of main plot and sub plot

Biometric observations of Flora

- **Stem Density**

It is the number of individuals per unit area.

- **Total tree height (m)**

Tree height was measured from ground level to tip of the tree by using measuring pole as per Chaturvedi and Khanna (1982) and expressed in meters (m).

- **Girth at breast height (GBH) (cm)**

The girth at breast height (GBH) was recorded at 1.37 m with the help of tree caliper as per Chaturvedi and Khanna (1982) and expressed in centimeter (cm).

- **Girth class distribution**

Based on the girth recorded at breast height, the frequency distribution of various girth classes of tree species was done among different infestation levels in each location. Girth classes were classified under <30 cm, 31 cm-60 cm, 61-90 cm, > 91 cm classes.

- **Basal area**

The basal area is the cross-sectional area of all the trees of a given species combined.

$$\text{Basal area} = ((\text{GBH}) \times 2) / (4\pi)$$

Where, GBH is the Girth at breast height, $\pi = 3.143$

- **Total volume (m³)**

Total volume was determined by using formula suggested by Chaturvedi and Khanna (1982) and expressed in m³. The calculated volume expressed in m³ tree⁻¹ and m³ ha⁻¹. In this study form factor of 0.33 was considered for volume estimation.

$$\text{Total volume} = \text{Total height} \times \text{Basal area} \times \text{Form Factor}$$

Floristic composition

Floristic composition some time also termed as species composition which refers to 'the sum of all floral species presents in certain area with a specific geographical composition.' Life- forms have mutual relationships with environmental factors and can be viewed as strategies for obtaining resources. The floristic composition includes trees, shrubs and herbs.

Diversity Indices of Trees, Herbs and Shrubs

Shannon's Diversity Index: Tells both species richness and even-ness. Species richness = number of species. Species even-ness talks about the relative abundance among species. The more equitable the distribution of individuals among species, the greater is the even-ness. Species diversity increases as the number of species increases and number of individuals in the population are more evenly distributed among them.

$$\text{Formula is } -s H' = -\sum (P_i) (\ln P_i)$$

where \ln is log to the base 2,

$i = 1$ H' = diversity index

s = number of species

i = species identification number

Pi = proportion of individuals of the ith species in the total sample

The higher the H', the higher is the probability of the next individual belonging to a species not same as the previous one; the lower value, the reverse. The higher the H' value, the higher the diversity in the area of interest.

Simpson Index (1/D): It measures the probability that two individuals are randomly selected from a sample will belong to the same species. Simpson gave the probability of any two individuals drawn from clearly large community belonging to different species. It has been measured by the given formula:

$$D = \sum (p_i)^2$$

A value of D ranges from 0-1; zero represents no dominance and 1, for maximum dominance; viz: only one species in the sample data (Greenberg, 1956; Berger & Parker, 1970). For representing diversity (D), Simpson index are subtracted from their maximum value of 1; i.e., $1 - \lambda$. The Simpson's reciprocal index 1/D values start with 1 as lowest possible figure. This figure would represent a community containing only one species. The higher the value the greater the diversity.

Relative density, Relative frequency and Importance Value Index

Dominance analysis: In order to assess the relative share of each species in plant community, Importance Value Index (IVI) has been calculated using the frequency, density, abundance, relative frequency, relative density and relative abundance. (Basistha *et al.*, 2010)

Frequency (F) and Relative Frequency (RF):

Frequency (%): The frequency refers to the degree of dispersion of individual species in an area and usually expressed in terms of percentage occurrence (Sharma, 2005, Basistha *et al.*, 2010). It is calculated using the equation:

$$\text{Frequency (\%)} = \frac{\text{No. of quadrats in which the species occurred}}{\text{Total number of quadrats studied}} \times 100$$

$$\text{Relative Frequency (\%)} = \frac{\text{Frequency of the species}}{\text{Total frequency of all the species}} \times 100$$

Density (D) and Relative Density (RD): Density is an expression of the numerical strength of a species where the total number of individuals of each species in all the nested quadrat divided by the total number of nested quadrats studied (Sharma, 2005). Density is calculated by the equation:

$$\text{Density} = \frac{\text{Total number of individuals of a species in all quadrats}}{\text{Total number of quadrats studied}}$$

$$\text{Relative density (\%)} = \frac{\text{Density of the species}}{\text{Total density of all the species}} \times 100$$

Abundance (A) and Relative Abundance (RA): It is the study of the number of individuals of different species in the community per unit area. The quadrat method, samplings are made at random at several places and the number of individuals of each species was summed up for all the quadrat divided by the total number of quadrats in which the species occurred. It is represented by the equation (Sharma, 2005):

$$\text{Abundance} = \frac{\text{Total number of individuals of a species in all quadrats}}{\text{Total number of quadrats in which species occurred}}$$

$$\text{Relative abundance (\%)} = \frac{\text{Abundance of the species}}{\text{Total abundance of all the species}} \times 100$$

The relative frequency, relative density and relative abundance has been calculated to calculate the IVI value

Important Value Index (IVI): The concept of 'Important Value Index (IVI)' has been developed for expressing the dominance and ecological success of any species, with a single value (Mishra, 1968, Sharma, 2005). This index utilizes three characteristics, they are (i) Relative frequency, (ii) Relative density and (iii) Relative abundance. The three characteristics computed using frequency, density and abundance for all the species falling in all the quadrat by using the following formula.

$\text{IVI} = \text{Relative frequency} + \text{Relative abundance} + \text{Relative density} [\text{RF} + \text{RA} + \text{RD}]$ The IVI of all species, Genus, and Family has been calculated.

B. Soil and land resource appraisal: -

Soil sampling and processing

Soil sampling is a critical process in soil science and Natural resource management that involves collecting representative soil samples from a particular area for analysis. The soil samples were collected in random throughout the study area from a depth of 0-30 cm following standard sampling procedures. The soil samples were air dried in a shade environment. The air-dried soil samples were pounded and sieved through a 2mm sieve and stored in air tight container.

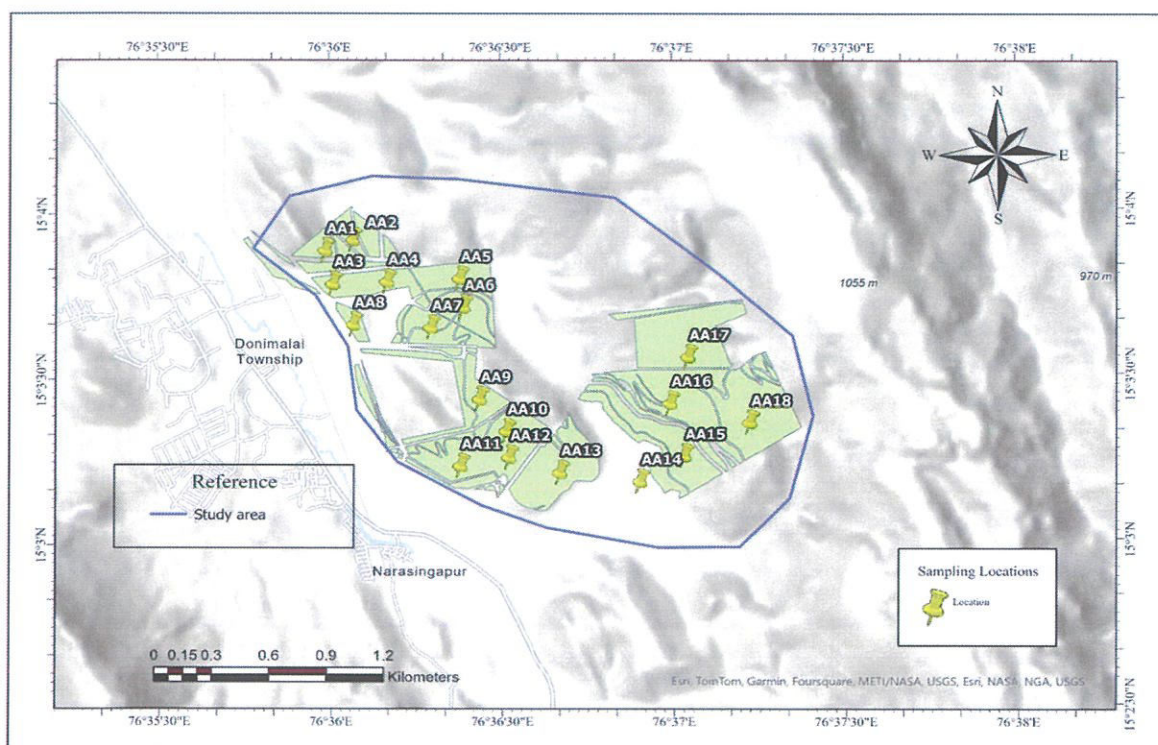


Fig.6 : Map of vegetation and soil sampling sites in Study area

Site No	Latitude	Longitude
AA1	15.06478	76.59986
AA2	15.0653	76.60123
AA3	15.06309	76.60023
AA4	15.06319	76.60288
AA5	15.06332	76.6064
AA6	15.06188	76.60657
AA7	15.06087	76.60499
AA8	15.06103	76.60123
AA9	15.05725	76.60734
AA10	15.05561	76.60864
AA11	15.05388	76.6064
AA12	15.05429	76.60876
AA13	15.05351	76.61122
AA14	15.05304	76.61512
AA15	15.05431	76.61726
AA16	15.05697	76.61659
AA17	15.0593	76.61747
AA18	15.05597	76.62046

Table. 2, Geographic co-ordinates of vegetation sampling points and soil sampling locations

7. Benchmark data of soil survey

To create the Bench mark data of soil physical and chemical status of the reserve forest, six randomly selected samples from upper, middle and lower reaches of the reserve forest were taken for soil sample analysis. Around 10 parameters were assessed using methods suggested and the data were used for assessment of vulnerable sites for run-off and soil loss calculation. Meanwhile this data was referred as Benchmark for assessment of monitoring and evaluation of project in the end.

Soil analysis and interpretation

The processed soil samples were used to estimate various soil properties using standard procedures and instruments as mentioned below.

Sl. No	Indicator List	Unit	Methodology	Reference
1.	Soil Organic Carbon	%	Chromic acid wet oxidation method	Walkley and Black, 1934
2.	Available Nitrogen	kg ha ⁻¹	Alkaline permanganate method	Subbiah and Asija, 1956
3.	Soil Electrical Conductivity (EC)	dSm ⁻¹	1: 2.5 soil water suspension	Gupta and Dakshin Moorthy (1980)
4.	Soil pH	-	1: 2.5 soil water suspension	Gupta and Dakshin Moorthy (1980)
5.	Bulk density	g/cm ³	Cylinder method	Gupta and Dakshin Moorthy (1980)
6.	Water holding capacity	%	Keen and Raczkowski method	Keen and Raczkowski, 1921
7.	Soil texture	-	International pipette method	Piper, 1966
8.	Volume expansion	%	Keen and Raczkowski method	Keen and Raczkowski, 1921

Table.3 : Soil analysis methods employed for soil sample analysis

A.,Physical properties

Particle size analysis

The particle size distribution of soil samples was determined by the international pipette method as described by Black (1965) using sodium hydroxide as a dispersing agent. An aliquot of clay + silt and clay were pipetted out from the dispersed suspension from specified depth at specific time intervals depending on the temperature of the suspension. The total sand was separated by the sieving method, silt, and clay by a sedimentation method. The weight of each fraction was taken and presented as a per centage of the <2 mm soil to name particle size as per the USDA system

Name of soil separate	Diameter limits (in mm) (USDA classification)
Clay	less than 0.002
Silt	0.002 - 0.05
Very fine sand	0.05 - 0.1
Fine sand	0.1 - 0.25
Coarse sand	0.25 - 2

Table 4: Classification criteria for various soil separates

B. Chemical properties

Soil reaction

Soil pH was determined by taking 10 g soil in 1:2.5, soil : water suspension by dipping the combined electrode (glass electrode plus calomel electrode) using a digital pH meter (Jackson, 1973). The soil pH values were interpreted based on the interpretation criteria given by Natrajan et al., 2016.

Electrical conductivity

The electrical conductivity of soils was measured in 1: 2, soil: water extract using an electrical conductivity bridge (Jackson, 1973). The results were expressed as $\text{dS} \times \text{m}^{-1}$ at 25 °C.

Soil organic carbon (SOC)

The organic carbon content in the soil sample was determined by treating a known weight of finely powdered soil (0.5 g) with the known excess quantity of chromic acid (sulfuric acid and potassium dichromate) to oxidize the organic carbon present in the soil to carbon dioxide. After oxidation, the untreated potassium dichromate left in the contents was back titrated against standard ferrous ammonium sulphate using the diphenylamine indicator (Walkely and Black, 1934). The soil organic carbon content was expressed in $\text{g k} \times \text{g}^{-1}$

Available nitrogen

The available nitrogen content of the soil was determined by the modified alkaline KMnO_4 method, where the organic matter in soil was oxidized with alkaline KMnO_4 solution.

The ammonia (NH_3) evolved during oxidation was distilled and trapped in boric acid mixed indicator solution. The total amount of NH_3 was estimated by titrating with standard acid (Subbiah and Asija, 1956).

Available phosphorus

Available phosphorus in soil samples was extracted by Olsen's method (0.5 NaHCO_3) for soils with $\text{pH} \geq 6.5$ and Brays and Kurtz method ($0.03\text{N } \text{NH}_4\text{F} + 0.025\text{N HCl}$) for soils with $\text{pH} < 6.5$ as described by Jackson (1973). Phosphorus in the extractant was complexed by molybdenum and reduced by ascorbic acid in the presence of H_2SO_4 and estimated by using spectrophotometry at 660 nm.

Available potassium

Available potassium was extracted with neutral normal ammonium acetate ($\text{pH } 7.0$) and the content of potassium in the soil solution was estimated by a flame photometer (Jackson, 1973).

Cation exchange capacity

The cation exchange capacity of soils was estimated by taking a known quantity of soil which was leached several times with neutral normal ammonium acetate solution and washed with alcohol to remove the excess electrolyte. Potassium ions displaced the adsorbed NH ion by leaching the soil with a 10 % KCl solution. Finally, the NH_4^+ ion present in the leachate was determined by the distillation method as described by Page et al. (1982).

Dataset and generation of thematic maps

The study involves use of GIS for preparation of various thematic maps and creation of database through generation of land use map, soil map, contour map, elevation and slope. Cartosat DEM having 30m resolution was used to generate various hydrological entities like flow direction, flow accumulation and drainage lines. It was also utilized to generate topographical parameters like elevation and slope. The end-products of various hydrological processing were used to estimate LS factor values of the entire study area.

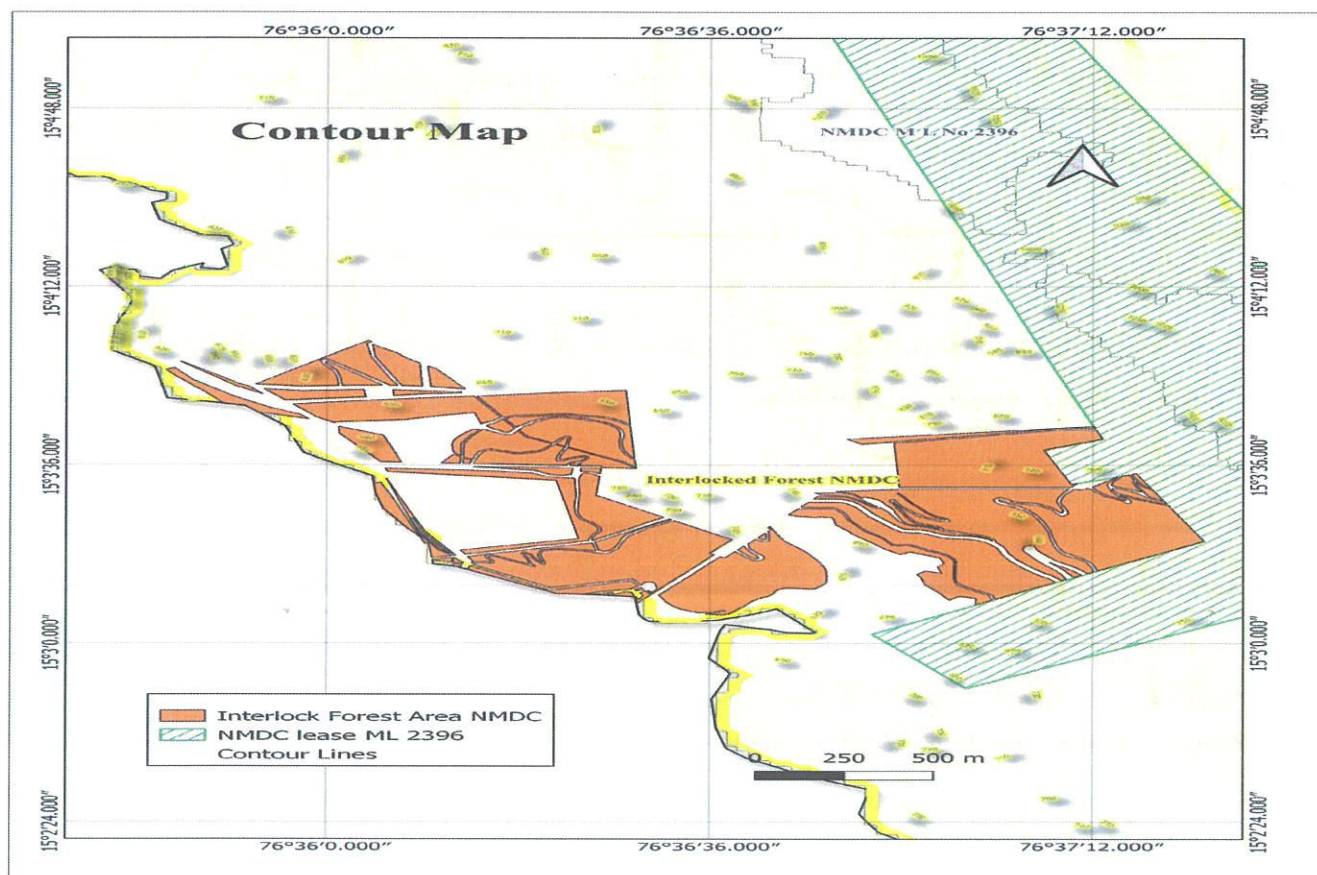


Fig. 7: Contour map of study area

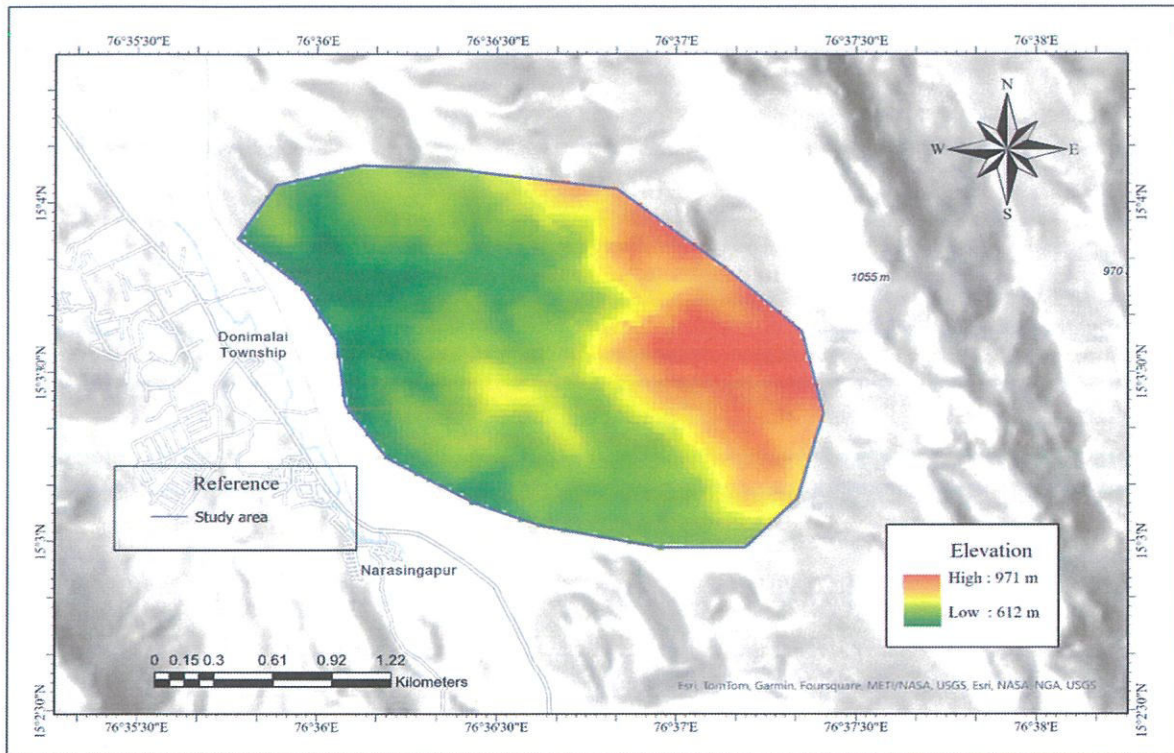


Fig.8. (DEM) Digital Elevation Map of Study area

Topographic attributes

The DEM was used to generate the slope, aspect, drainage attributes and other related parameters using the surface and hydrology tools in the spatial analyst toolbox in the ArcGIS software.

Drainage density

Drainage density is a geomorphological and hydrological term used to describe the amount of stream channel length within a given area of a watershed or drainage basin. It is a measure of how well-developed the stream network is within a landscape.

Mathematically, drainage density (Dd) is calculated using the formula;

$$Dd = (\text{Total Drainage Length}) / (\text{Study area})$$

Drainage density is typically expressed in units of length per unit area (e.g., km/km² or m / (m²) . High drainage density indicates a well-connected and well-developed stream network, while low drainage density suggests a less-developed network with fewer and longer channels.

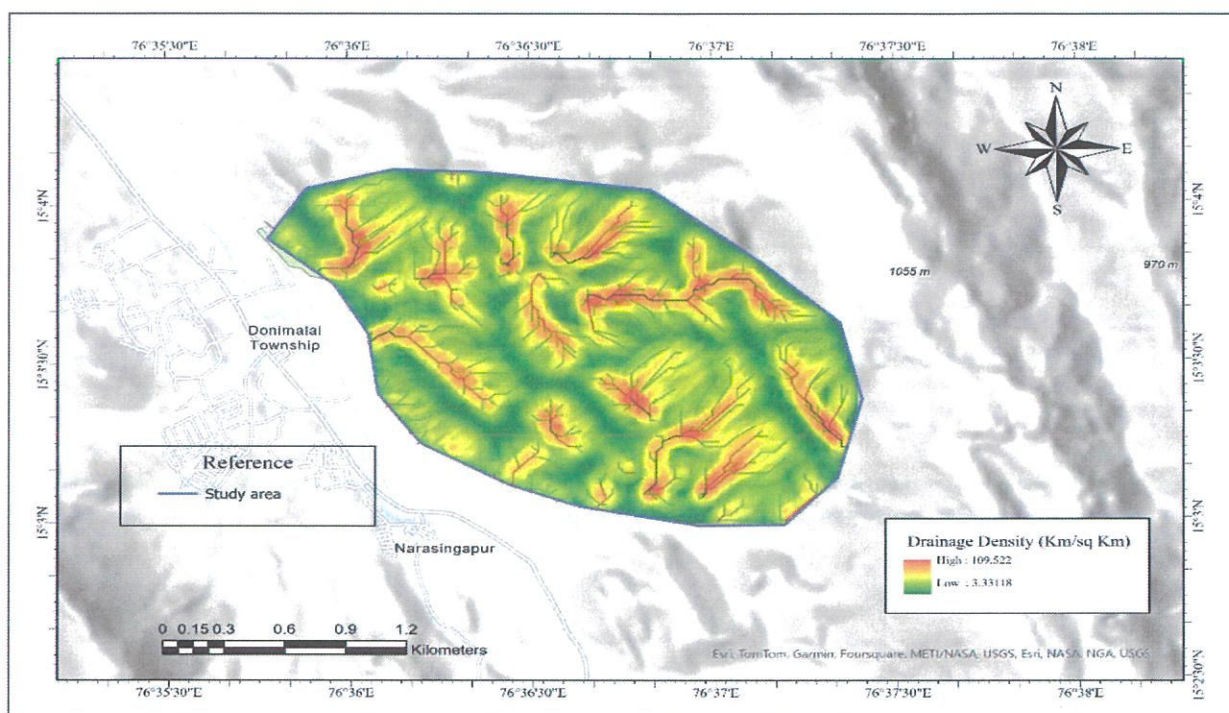


Fig 9. Drainage Density Map

8. Land capability Classification

Land capability classification is a systematic approach that categorizes land based on its suitability for different land uses, taking into consideration its physical characteristics, limitations, and potential. This classification helps guide land management decisions, land-use planning, and sustainable development by matching the capabilities of the land with appropriate land uses to optimize its productivity while minimizing negative impacts on the environment. The land capability classification system provides valuable information for policymakers, land planners, and landowners to make informed decisions about land use, conservation, and resource management.

The classification considers factors like slope, drainage, erosion, depth of soil, and soil quality. The main goal is to ensure that land is used in a way that is compatible with its inherent capabilities and limitations. While the USDA's system is widely used, variations of land capability classification systems exist in different countries and regions, adapted to local conditions and needs. By applying land capability classification, land managers and planners can make more informed decisions about sustainable land use, preventing soil degradation, protecting ecosystems, and ensuring that the land is utilized in a way that maximizes its potential while minimizing negative impacts. This system divides land into eight land capability classes (LCC) (I to VIII).

Table 5 : Land Capability Classes (LCC) and their description

LCC	Description	Colour code
I	Land with slight limitations, suitable for a wide range of crops without significant soil conservation measures. Highly productive and minimal restrictions	Light Green
II	Land with moderate limitations that can support most crops but might require moderate soil conservation practices to prevent erosion.	Yellow
III	Land with moderate limitations that restricts the choice of crops and requires careful management to prevent erosion and degradation.	Red
IV	Land with severe limitations that limits the choice of crops and requires intensive soil conservation measures.	Cadet Blue
V	Land with very severe limitations that is suitable only for limited agricultural uses or pasture.	Dark green
VI	Land with limitations that make it suitable primarily for pasture, rangeland, or wildlife habitat.	Orange
VII	Land with severe limitations that are suitable only for forestland or wildlife habitat.	Brown
VIII	Land with limitations that preclude it from being used for commercial crop production, suitable mainly for wildlife habitat, recreation, or preservation.	Purple

Limitations:

e- erosion/run off limitation

s- soil limitation (soil depth, gravelliness, light/heavy texture, salinity/alkalinity)

c-climate limitation

w-excess of water (wetness high water table, drainage) limitation.

9. Assessment of sediment yield and soil erosion in the Study area

Soil erosion is a threat to the ecosystem, human health and economy on a larger scale. Hence, assessing the extent of soil erosion in a particular region or area forms the basis for taking up apt combating measures. Numerous models have been used to estimate soil erosion status. Within these models, the universal soil loss equation (USLE) and its derivatives, revised USLE (RUSLE) and modified USLE (MUSLE) are the most widely used empirical models because of their minimal data and computation requirements.

Revised Universal Soil Loss Equation (RUSLE) and other varieties of tools and methods have been applied to make empirical quantification of soil loss at global, regional, and watershed levels. For a tropical environment soil erosion estimation, RUSLE could be useful. The Revised Universal Soil Loss Equation (RUSLE) is an upgrade of USLE that is land use independent. It can be used on cropland, disturbed forestland, rangeland, construction sites, mined land, reclaimed land, military training grounds, landfills, waste disposal sites, and other lands where Rainfall and its associated overland flow cause soil erosion. RUSLE is one of the reliable techniques that can be applied in tropical and subtropical areas and even in forest-dominated watersheds.

The major changes compared to USLE are in the values given for erosion as modified by vegetative cover and better calculations of the slope (LS) factors, as well as more advanced computerization. RUSLE gives more credit to the ability of surface residues to reduce erosion, as well as residues incorporated in the soil near the soil surface. Where USLE assumed that runoff was uniform over the catchment, RUSLE takes better into account that some runoff is channelled into rills and gullies. RUSLE also captures better than USLE that long rains can saturate the soil, leading to reduced intake and greater erosional runoff. In contrast with USLE, RUSLE can handle converging and diverging terrain and considers areas with net sedimentation. Even though RUSLE overestimated the erosion rate, it has been considered as the best fit model for this area as RUSLE has given closest value to the observed, since the other two models have given under estimated values. GIS and remote sensing technology have found wide-ranging applications in various fields. Its use for executing soil erosion models has been shown by multiple authors time and again.

Flow Methodology for RUSLE

RUSLE model (Renard et.al., 1997) is a comprehensive and empirical model which holistically includes all those factors which mainly affects soil erosion namely rainfall, soil characteristics, topography and land cover management was used. The equation is represented as;

$$A = RKLSCP$$

Where, A = Predicted annual soil loss per unit area (ton/ha/year)

R = Rainfall- runoff erosivity factor in (MJ.mm/ha/hr/year)

K = Soil erodibility factor (ton.ha.hr/ha/MJ/mm)

LS = Slope Length-Steepness factor (dimensionless)

C = Cover management factor (dimensionless)

P = Conservation support practice factor (dimensionless)

Data Processing and RUSLE factor generation The remotely sensed data as well as data derived from meteorological data and soil data were super imposed and integrated in a GIS environment to estimate soil erosion in the study area as shown in Fig 6. Maps of all the RUSLE factors was also generated digitally in a GIS software. The generated maps were overlayed by employing RUSLE model to compute annual soil erosion rates and identify vulnerable sites.

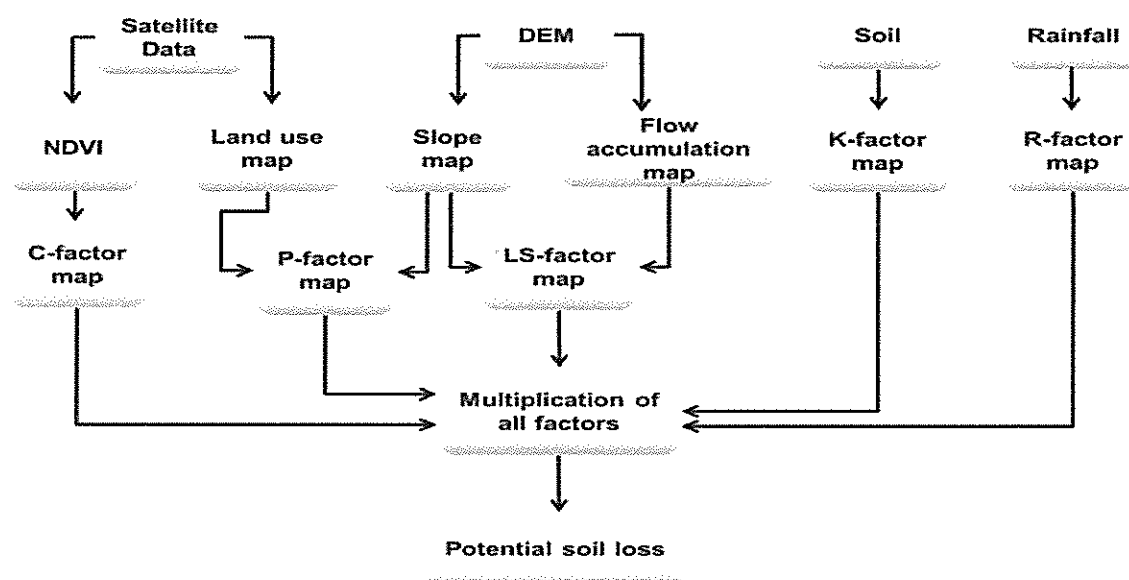


Fig. 10. Flow chart to estimate potential soil loss in GIS Environment.

Table 6 : Overview of data used for sediment analysis

S. No.	Data	Sensor	Source	Usage	Time
1	NASA Shuttle Radar Topographic Mission (SRTM-DEM 30 m)	Interferometric SAR radar	https://earthexplorer.usgs.gov/	Digital Elevation Model (DEM) creation	2019
2	Normalized Difference Vegetation (NDVI)	Landsat 8 OLI	https://earthexplorer.usgs.gov/	NDVI Map creation with red and NIR bands of 30m resolution	2022
3	Land Use and Land Cover	Landsat 8 OLI	https://earthexplorer.usgs.gov/	Red, Blue, green and NIR bands	2022
4	Rainfall data	Gridded data (0.25°×0.25°)	https://www.imdpune.gov.in	Rainfall information	1986 to 2020

10. Runoff yield estimation

The US Soil Conservation Service (SCS-CN) Curve Number method (SCS, 1972) as given in Eq. (ia) and (iia) below was used for assessing the runoff yield in NMDC dam . This method involves relationship between land use, land treatment, hydrological condition, hydrologic soil group, and antecedent soil moisture condition and curve number of the drainage basin. It is widely and efficiently used for planning the structures aimed at water storage and erosion control. The curve number (CN) is the watershed coefficient which represents the runoff potential of the land cover soil complex.

$$Q = (P - 0.2S)^2 / (P + 0.8S) \dots\dots\dots (ia)$$

Where,

Q= Surface runoff in mm, P= Rainfall in mm, S= Storage capacity in mm,

$$S = (25400 / CN) - 254 \dots\dots\dots (iia)$$

CN = Value of curve number (CN) depending on land use conditions and hydrologic soil groups.

Hydrological soil group (HSG) of NMDC Dam falls under group A and C varying from low runoff potential to moderately high runoff potential. Hence average condition of hydrological soil group 'B' is considered for runoff curve number. AMC-2 conditions are considered here for runoff estimation. NMDC Dam comes under degraded scrub with average condition of hydrological soil group 'B' and so runoff curve number is taken as 47 as determined by Tripathi (1999). The Annual runoff yield is determined using the average annual rainfall.

Estimation of Soil loss

The soil erosion rate from NMDC area was estimated using Universal Soil Loss Equation (USLE) developed by Wischmeier and Smith (1978) as given in Eq. (i). Universal soil loss equation (USLE) was derived empirically from approximately 10,000 plot-years of data (Wischmeier and Smith 1978) and may be used to calculate erosion at any point in a watershed that experiences net erosion. The equation has become a useful tool for planners to keep soil erosion within permissible limits of soil loss tolerance by managing slope length, terrace spacing and cropping practices (Singh et al. 1981). Using GIS, predicted soil loss will be classified into following soil erosion risk classes viz., very low ($0-5 \text{ t ha}^{-1} \text{ yr}^{-1}$), low ($5-10 \text{ t ha}^{-1} \text{ yr}^{-1}$), moderate ($10-15 \text{ t ha}^{-1} \text{ yr}^{-1}$), moderately high ($15-20 \text{ t ha}^{-1} \text{ yr}^{-1}$), high ($20-40 \text{ t ha}^{-1} \text{ yr}^{-1}$) and very high ($>40 \text{ t ha}^{-1} \text{ yr}^{-1}$) as per Singh et al. (1992).

$$A = R K L S C P \quad \dots\dots\dots (i)$$

Where, A is computed soil loss ($\text{t ha}^{-1} \text{ yr}^{-1}$), R is the rainfall-runoff erosivity factor, K is a soil erodibility factor, L is the slope length factor, S is the slope steepness (gradient) factor, C is a cover management factor, and P is a supporting conservation practices factor.

Meanwhile, from the equation (i), the rainfall erosivity (R) factor was derived using the relationship between rainfall erosivity index and annual rainfall, developed by Ram Babu et al. (2004) with the data available from 123 meteorological observatories in India. The formula as below.

$$Y = 81.5 + 0.380X \quad \dots\dots\dots (ii)$$

Where, Y is the average annual erosion index ($\text{t ha}^{-1} \text{ cm}^{-1}$) in equation (ii) and X is the average annual rainfall (mm) in equation (ii).

For the present study area, the average annual rainfall data of surrounding NMDC Dam micro-watersheds is 498.5 mm which is taken from IMD gridded data and is used in the calculation of R-factor.

Soil erodibility (K) factor was estimated by an empirical equation developed by Wischmeier et al. (1971) and an attribute table was prepared for different soil types using the relation:

$$100K = 2.1 \times 10^{-4} (12 \text{ OM}) M^{1.14} + 3.25 (S2) + 2.5 (P3) \dots \text{(iii)}$$

Where, OM = organic matter (%), M = (% silt + % very fine sand) (100 - % clay), S = soil structural code, P = profile permeability class.

The LS factor expresses the effect of topography (hill slope length and steepness) on soil erosion. L, the slope-length factor, is the ratio of soil loss from the field slope length to that from a 22.04 m of slope length under identical conditions. The slope steepness factor (S), is the ratio of soil loss from the field slope gradient to that from a 9% slope under otherwise identical conditions. The LS-factor was determined from the equation used by Jain et al. (2010) for the calculation of the S (slope steepness) and L (slope length) factors:

$$L = 1.4 (AS/22.13)^{0.4} \dots \text{(iv)} \text{ and } S = (\sin\beta / 0.0896)^{1.3} \dots \text{(v)}$$

Where, AS: Study area (m²) and slope angle in degrees.

The C value is calculated using the equation (vi) developed by De Jong (1994) for the study area with similar land use of degraded forest. As such negligible mechanical or biological measures are adopted in forest area; a conservation practice (P) factor value of 0.6 is assigned to degraded forest land and lands with scrub/rock outcrop.

$$C = 0.431 - 0.805 \text{ NDVI} \dots \text{(vi)}$$

Parameters for Estimation of Soil loss

RUSLE model (Renard *et.al.*, 1997) is a comprehensive and empirical model which holistically includes all those factors which mainly affects soil erosion namely rainfall, soil characteristics, topography and land cover management was used. The equation is represented as;

$$A = R * K * L * S * C * P$$

Where,

A = Predicted annual soil loss per unit area (ton/ha/year)

R = Rainfall- runoff erosivity factor in (MJ.mm/ha/hr/year)

K = Soil erodibility factor (ton.ha.hr/ha/MJ/mm)

LS = Slope Length-Steepness factor (dimensionless)

C = Cover management factor (dimensionless)

P = Conservation support practice factor (dimensionless)

Rainfall- runoff erosivity factor (R):

The R factor is the measure of the strength of the specific rainfall to cause erosion. Rainfall influences soil erosion by leading to detachment of soil particles and transporting it to farther locations by overland flow. Various intrinsic characteristics of the rainfall decides the amount of erosion. Rainfall intensity is one of the major factors which decides the rate of erosion. The factor quantitatively depicts the erosivity of the local average annual rainfall. Long term data regarding the rainfall amounts and rainfall intensities is required in order to compute the R-factor. The rainfall intensity data of the study area could not be drawn because of the absence of a rain gauge, well established empirical equations using total rainfall are widely employed. The R- factor was estimated using the average annual rainfall acquired from the data provided by the nearest metrological station using the empirical relationship (Babu et al., 2004). $R = 81.5 + 0.375A$

$$R = 81.5 + 0.375 \cdot A$$

($340A \leq 3500\text{mm}$) Where, A is the Average Annual Rainfall in mm

a) Soil erodibility factor (K):

Soils inherently show resistance or susceptibility to erosion depending upon its intrinsic properties. This is a function of its texture, organic matter content, drainage potential, structural integrity, and its cohesiveness. Soils resistance to erosion is depicted in terms of K-factor. Resistance to erodibility indicates resistance to detachment as well as transportation. The study area was divided into different physiographic units called soil phases. Soil phases are distinguished within soil series mainly based on differences in surface of soil texture, slope, gravelliness etc. Surface soil samples were collected from each soil phases and analysed in the laboratory for texture, Organic matter content and structural characteristics, which are necessary for estimation of K-factor. The equation developed by Wischmeier and Smith, 1965; Renard et al., 1997 was used to compute K factor.

$$K = 1.2917 \{ (2.1 \times 10^{-4} M^{1.14} (12-a) + 3.25(b-2) + 2.5(c-3) \} / 100$$

Where,

$M = (\text{per cent silt} + \text{percent very fine sand}) (100 - \text{per cent clay})$

'a' is per cent organic matter

'b' is the soil structure code used in soil classification;

'c' is the permeability class;

Soil Structure	Soil Structure code
Very structured or particulate	1
Fairly structured	2
Slightly structured	3
Solid	4

Table.7. Soil structure code for different structural classes

Permeability class	Permeability Code
Rapid	1
Moderate to rapid	2
Moderate	3
Moderate to slow	4
Slow	5
Very slow	6

Table.8, Soil permeability code & various permeability classes

b) SLOPE LENGTH AND STEEPNESS FACTOR (LS):

Soil length factor (L)

The L factor values of the micro-watershed area were calculated by using Carto-DEM (spatial resolution of 30 meters). After filling all the sinks in the DEM data, flow direction, and flow accumulation, raster's are generated by using Arc-hydro tools in a GIS platform. The flow accumulation raster data is used for the generation of L factor by adopting the following equation.

Where,

22.13 = the RUSLE unit plot length (m) and

$$L = \left(\lambda / 22.13 \right)^m$$

L = (Flow accumulation*cell size/22.13)^m

m = a variable slope-length exponent.

Slope length λ is defined as the horizontal distance from the origin of overland flow to the point where either the slope gradient decreases enough that deposition begins

The slope-length exponent m is calculated as,

$$m = \beta / (1 + \beta)$$

$$\beta = (\sin\theta / 0.0896) / [3.0(\sin\theta)^{0.8} + 0.56]$$

Where, θ = slope angle

C. The slope steepness factor (S)

The slope steepness factor values of the micro-watershed area were generated by using a slope map, which was generated from CartoSat-DEM, in degree and per centage raster formats. The degree raster format should be converted to radians, as ArcGIS consider angle in radians only. The S factor was derived by adopting the given formula which is evaluated from (McCool *et al.*, 1987, 1993)

$$S = 10.8\sin\theta + 0.03 \quad S < 9\% \text{ (i.e., } \tan\theta < 0.09)$$

$$S = (\sin\theta / \sin 5.143) 0.6 \quad S \geq 9\% \text{ (i.e., } \tan\theta \geq 0.09)$$

D. Crop cover and management factor (C)

It is defined as the ratio of soil loss from land cropped under specific conditions to the corresponding loss from clean-tilled, continuous fallow (Wischmeier and Smith, 1978). It describes the effect of vegetation and crop types on soil erosion. Its value ranges between 0 (waterbodies) and 1 (barren land). High C factor value for barren lands indicate that there is lack of vegetation, surface cover and root biomass to resist soil from getting eroded. The C factor map of the area was generated by visual interpretation of satellite data. The land use/land cover map was reclassified based on C factor values using tools in GIS software by assigning C factor values.

E. P Factor (Conservation/support practice factor)

The support practice factor (P-factor) is the soil-loss ratio with a specific support practice to the corresponding soil loss with up and down slope tillage. The P factor represents the effect of various conservation and support practices being taken up in the study area, on soil erosion.

The remotely sensed data, meteorological data and soil data was used to generate all the inputs required to perform the RUSLE model. They were generated on a GIS platform. All the factor maps generated were rasterized by maintaining uniform projection as well as cell size, in order to avoid erroneous execution and misinterpretation of results.

11. RESULTS AND DISCUSSION

A. Vegetation Analysis

Vegetation analysis was conducted within the Study areas with the aim of shedding light on the botanical makeup and ecological characteristics of this region. The findings offer a glimpse into the tapestry of plant life thriving in this ecosystem, as well as the potential implications for biodiversity conservation, land management, and sustainable resource use

Forest types in the Study area

(a) Type 5A/C3: Southern dry mixed deciduous forest

(b) Type-5D-S1 Dry deciduous scrub

The data shows that the majority of trees (902) fall in the girth class of 31-60 cm, indicating a significant presence of moderately sizes and younger trees. The girth class of <30 cm contains 115 trees. These trees are Smaller size and can contribute to the overall volume of wood in the forest stand. Managing these trees for sustainable harvesting is crucial for maintaining forest health. The presence of 313 trees in the girth class of 61-90 cm indicates the existence of larger and potentially more mature trees in the stand. These trees likely contribute significantly to the overall basal area and wood volume.

Table 9 : Girth classes, Basal area and Volume per hectare.

Number of trees in different Girth class (cm)				Basal area per ha (m ²)	Volume per ha (m ³ /ha)
<30	31-60	61-90	>91		
115	902	313	104	0.48	1.74

Table 10 shows that the basal area of 0.48 m²/ha suggests that the forest stand has moderate tree density. It provides information about how much space trees occupy on the forest floor. A higher basal area may indicate denser tree growth. The volume of wood per hectare, 4.36 m³/ha, is an important metric for assessing the forest's potential timber yield. It represents the amount of wood available for various purposes such as lumber, pulp, or firewood. The total basal areas of 66.6134 m² and total volume of 605.072m³ provide an overall picture of the forest's resources This information is crucial for forest management decisions, including sustainable harvesting practices.

The number of stems per hectare (11) and the total number of stems (1434) indicate the tree population density. This information is useful for understanding the forest's ecological health and assessing regeneration potential. These results can guide forest management practices Sustainable forestry practices aim to maintain or increase these metrics over time to ensure long- term ecological and economic benefits. Conservation efforts can also benefit from understanding the current state of the forest. Forests provide essential ecosystem services, such as carbon sequestration, water regulation, and habitat for wildlife. These metrics can help assess the capacity of the forest to provide these service

Table 10 : Volume, Basal Area and Growing Stock of trees

Volume, Basal Area and Growing stock of trees and shrubs						
Total area in ha	Basal area per ha (m ²)	Volume per ha (m ³)	Total basal area (m ²)	Total volume (m ³)	Total no of stems per ha	Total no stems
138.778	0.48	4.36	66.6134	605.072	11	1434

The results indicate that trees were the major life forms with 41 per cent species followed by shrubs with 32% and the least was herbs with 27% in the entire Study area

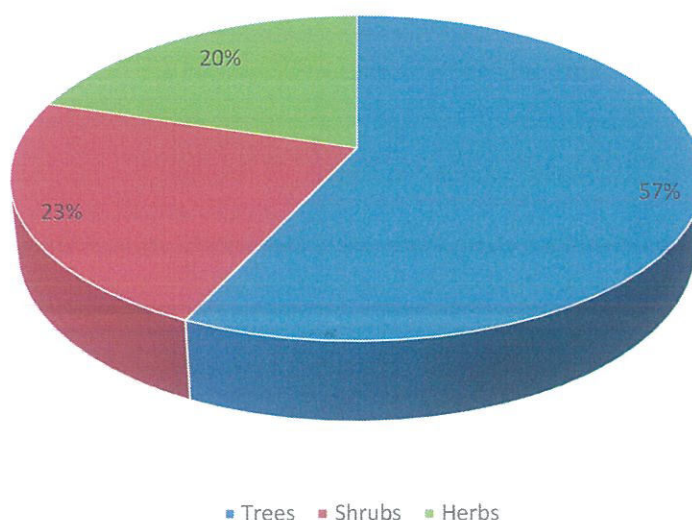


Fig.11 : Graphical representation of percent distribution of flora

The data indicates the presence of three primary flora types: trees, shrubs, and herbs. Among these, the tree flora type exhibits the highest species richness with 14 species, followed by shrubs with 10 species, and herbs with 11 species. The highest Shannon's diversity index is observed in the tree flora type (2.59),

indicating that this category has the highest overall biodiversity when considering both species richness and evenness. Shrub flora type follows closely with a Shannon's diversity index of 2.38, indicating a diverse and relatively even distribution of species. The herb flora type has a slightly lower Shannon's diversity index of 1.61, suggesting a slightly less diverse or less evenly distributed community compared to trees and shrubs.

The highest Simpson's diversity index is found in the tree flora type (0.92), indicating a relatively high diversity with a lower chance of two randomly selected individuals belonging to the same species. Shrub flora type also demonstrates a relatively high Simpson's diversity index. The herb flora type has a slightly lower Simpson's diversity index of 0.68, suggesting a relatively lower diversity compared to trees and shrubs, but still indicating a diverse community.

The diversity of flora types and their indices reflect the ecological complexity and health of an ecosystem. High diversity in tree and shrub categories is beneficial as it can provide habitat and food sources for various wildlife species, enhance ecosystem stability, and contribute to overall ecosystem resilience. Monitoring these diversity indices over time can help assess changes in ecosystem health and guide conservation efforts.

Table 11. Diversity indices of Trees, Herbs and Shrubs

SL.NO	Flora type	No of species	Shannon's diversity index	Simpson's diversity index
1	Tree	23	2.59	0.92
2	Shrub	10	2.38	0.76
3	Herb	11	1.61	0.68

Dominant Flora

The top dominant floral composition in the Study area are *Chloroxylon swietenia*, *Albizia procera*, *Annona reticulata*, *Cassia fistula*, *Boswellia serrata*, *Acacia leucocephala*, *Aegale marmelos*, *Acacia catechu*, *Ficus amplissima*, *Gardenia gummifera*, *Madhuca longifolia*.

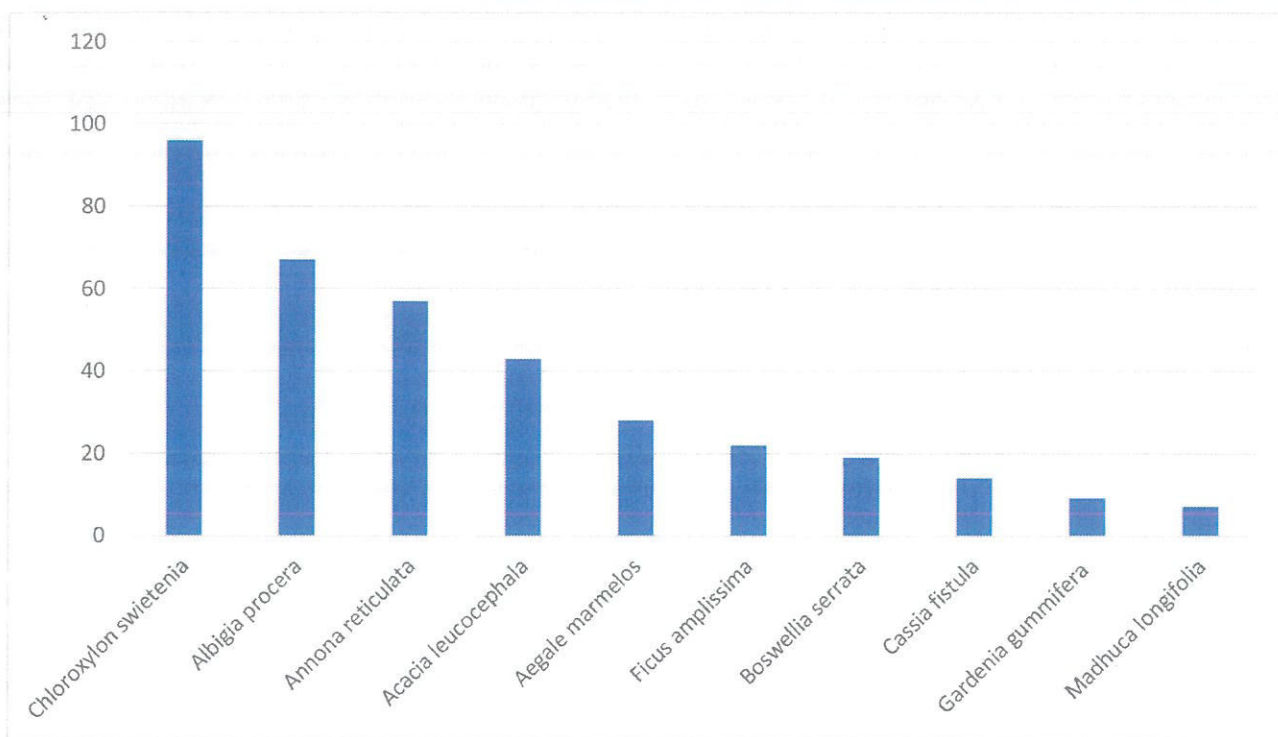


Fig .12. Graph showing the dominant flora in the Study area

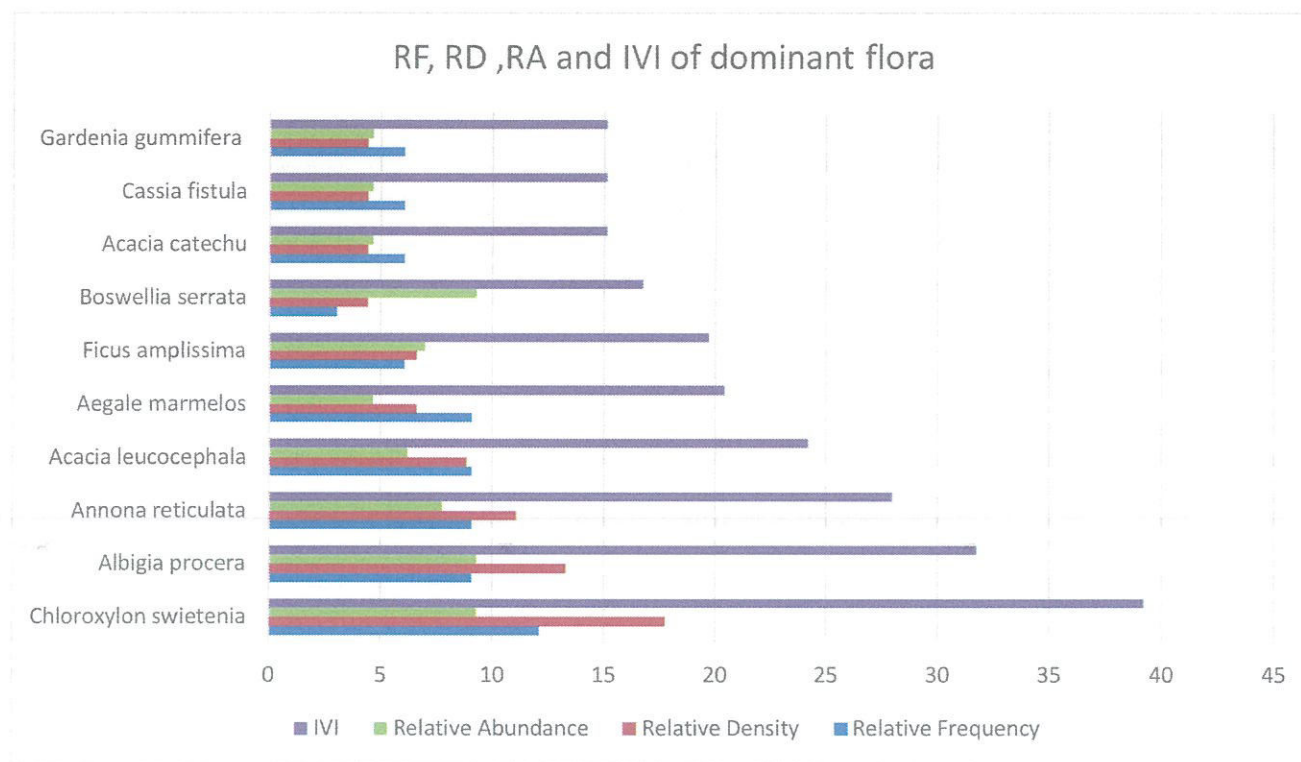


Fig.13 . RD, RF, RA and IVI of Dominant flora

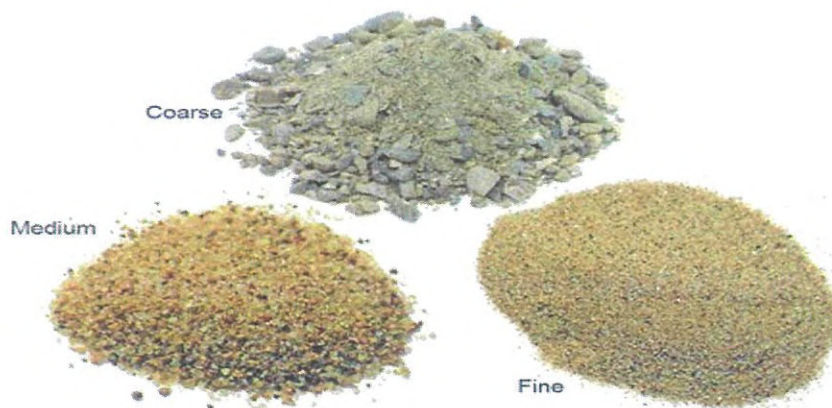


B. Soil and land resource appraisal of the Study area

Soil Characteristics of Study area

- Soil physical properties

The proportion of sand, silt and clay in soil samples are depicted in Table 12 . The results showed that the soils of the study area were clay, sandy loam, and sandy clay loam in texture.



SL. No.		Relative	Proportion (in per	cent)		
	Fine Sand	Coarse Sand	Total Sand	Silt	Clay	Texture
1	0.40	19.60	20.00	21.00	59.00	Clay
2	0.58	28.22	28.80	18.50	52.70	Clay
3	0.58	28.22	28.80	18.50	52.70	Clay
4	0.76	37.24	38.00	13.00	49.00	Clay
5	0.40	19.60	20.00	21.00	59.00	Clay
6	0.79	38.61	39.40	17.20	43.40	Clay
7	0.47	22.93	23.40	34.40	42.20	Clay
8	0.86	42.14	43.00	14.00	43.00	Clay
9	1.26	61.74	63.00	16.00	21.00	Sandy Clay Loam
10	1.25	61.02	62.27	5.25	32.25	Sandy Clay Loam
11	1.29	63.31	64.60	9.00	24.00	Sandy Clay Loam
12	1.29	63.31	64.60	9.00	24.00	Sandy Clay Loam
13	1.29	63.31	64.60	9.00	24.00	Sandy Clay Loam
14	1.44	70.56	72.00	10.00	18.00	Sandy Loam
15	1.54	75.46	77.00	9.00	14.00	Sandy Loam
16	1.26	61.74	63.00	16.00	21.00	Sandy Clay Loam
17	1.26	61.74	63.00	16.00	21.00	Sandy Clay Loam

Table 12: Relative proportion soil primary particles.

C. Slope characteristics

Slope condition

The elevation of the study area varied from 536 metres to 1019 metres above mean sea level. The DEM of the study area was extracted and used for generation of slope map. The whole study area was classified into seven different slope classes (Table 13) based on the guidelines of All India Soil and Land use Survey (AIS & LUS)

The study area comprises of both the extremes such as highly undulating lands to nearly level lands. Terrain of the study area consists of seven classes of slope which are enumerated below and given in table 13. Slope map of the study area is given in figure 22.

a) Nearly level

The land having 0-1% slope is described as nearly level land. This class is mainly observed in plain areas with least undulations. About 2 hectares area, which is about 0.51 per cent of the total geographical area is having nearly level slope.

b) Very gently sloping

This class covers land with 1-3% slope and found mainly in plains and it is associated with nearly level slope. The extent of area where in this type of slope is 7 hectares covering 1.79 per cent of the total geographical area.

c) Gently sloping

This is the land where slope is about 3-5% and it is extended over 12 hectares area of the Study area. This class covers 3.08 per cent of the total geographical area.

d) Moderately sloping

The land with 5-10% of slope falls under this classification and covers 26 hectares of area and is about 6.67 per cent of the total geographical area.

e) Strongly sloping

Strongly Rolling land shows 10-15% of slope and distributed over 36 hectares of area covering 9.23 per cent of the total geographical area of the Study area.

f) Moderately steep to steep

Moderately steep to steep land shows 15-25% of slope and distributed over 98 hectares of area covering 25.13 per cent of the total geographical area of the Study area.

g) Steep

The land which is having slope of 25-33% is classified under this slope class. This class covers an area of 65 hectares which is about 16.67 per cent of the total geographical area of the Study area.

h) Very Steep

More than 33-50% of slope is considered as steeply sloping. The area covered by this slope class is about 99 hectares and the extent is about 25.38 per cent of the total geographical area. This is the most prominent steep class of the Study area as most of them are very hilly leading to more soil loss.

i) Extremely Steep

More than > 50 % of slope is considered as the maximum slope limit. The area covered by this slope class is about 45 hectares and the extent is about 11.54 per cent of the total geographical area.

As per the above analysis, it is observed that the Undulating or flat land (1-3% and 3-5%) covers a very little area of together 5% TGA. The substantial portions are covered by Very steep (33-50%) and extremely steep (>50%) slope class which occupies about 46% of the Study area which is leading the main cause of huge soil loss.

These areas may have limitations for certain land uses due to their steepness, which could impact construction feasibility and erosion control. Steeper slopes are more susceptible to soil erosion, and special erosion control measures may be required in these areas to protect the soil and local ecosystems.

Table 13 : Slope Classes identified in the Study area

SL. No.	Slope Classes	Area (in Ha)	% of TGA
1	Nearly level (0-1%)	2	0.51
2	Very gently sloping (1-3%)	7	1.79
3	Gently sloping (3-5%)	12	3.08
4	Moderately sloping (5-10%)	26	6.67
5	Strongly sloping (10-15%)	36	9.23
6	Moderately steep (15-25%)	98	25.13
7	Steep (25-33%)	65	16.67
8	Steeply Sloping (33-50%)	99	25.38
9	Extremely Steep (>50%)	45	11.54

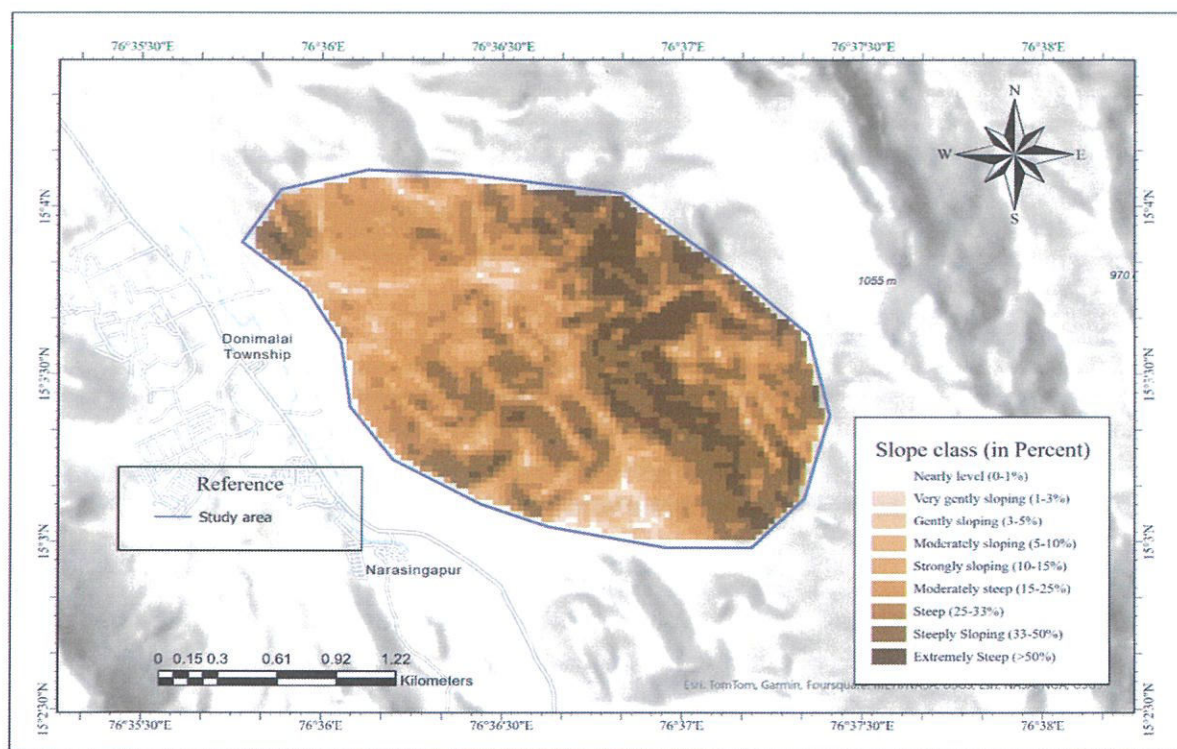


Fig 14 .- Slope (in percent) map of the Study area.

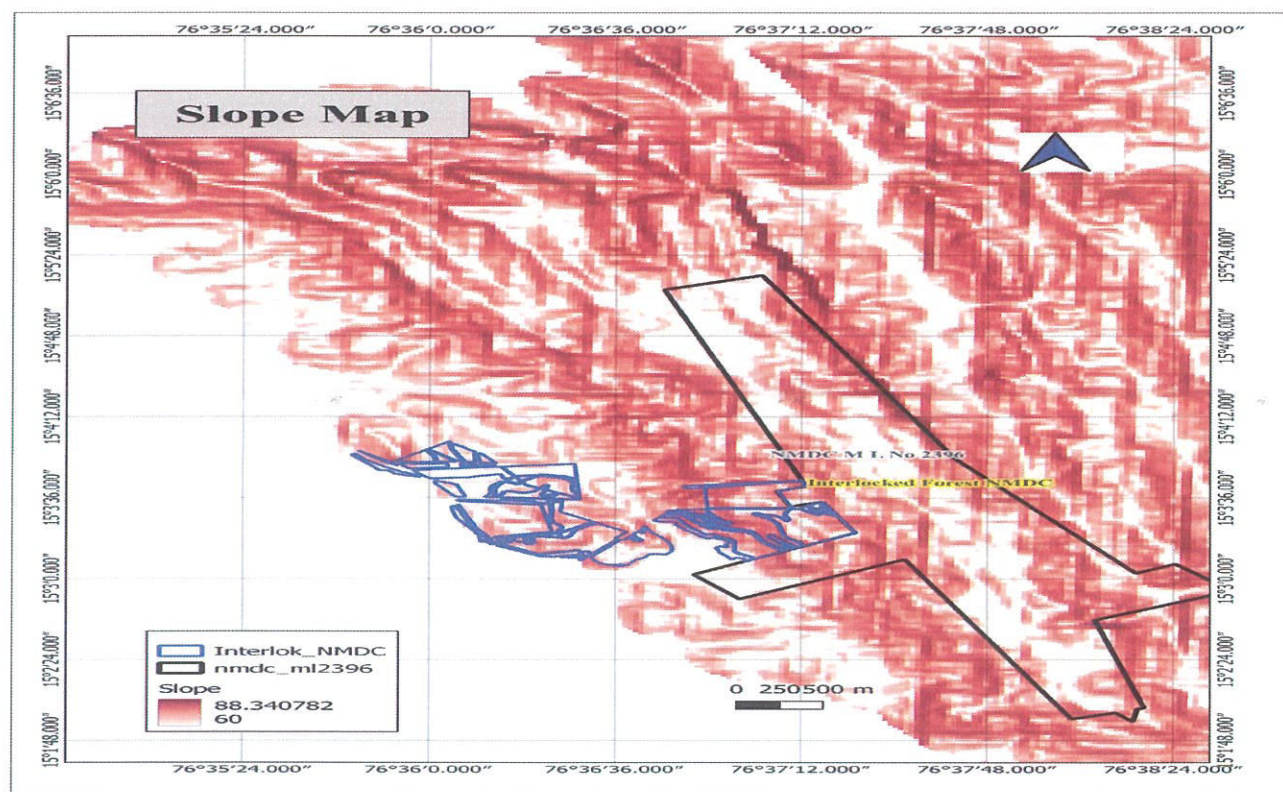


fig 15 : Slope map of the Study area

D. Drainage characteristics of the Study area

The drainage characteristics of a Study area, also known as a watershed or drainage basin, refer to the various features and patterns related to the movement of water across the landscape within that specific area. These characteristics play a crucial role in understanding the hydrology, geomorphology, and environmental dynamics of the region. Factors like slope, geological features, and topography are reflected in the drainage patterns of an area. The study area majorly consists of dendrite drainage pattern which looks like the branching pattern of tree roots. The collective pattern of streams and their course constitutes drainage pattern. Drainage pattern, drainage order and drainage density are the major drainage parameters in a Study area.

Drainage Pattern

The arrangement of streams in a drainage network, influenced by underlying geological and topographic conditions. The drainage pattern of the Study area is depicted in Fig. 16. The geospatial analysis reveals the total length of all the drainages in the Study area is ~ 121.38 kms.

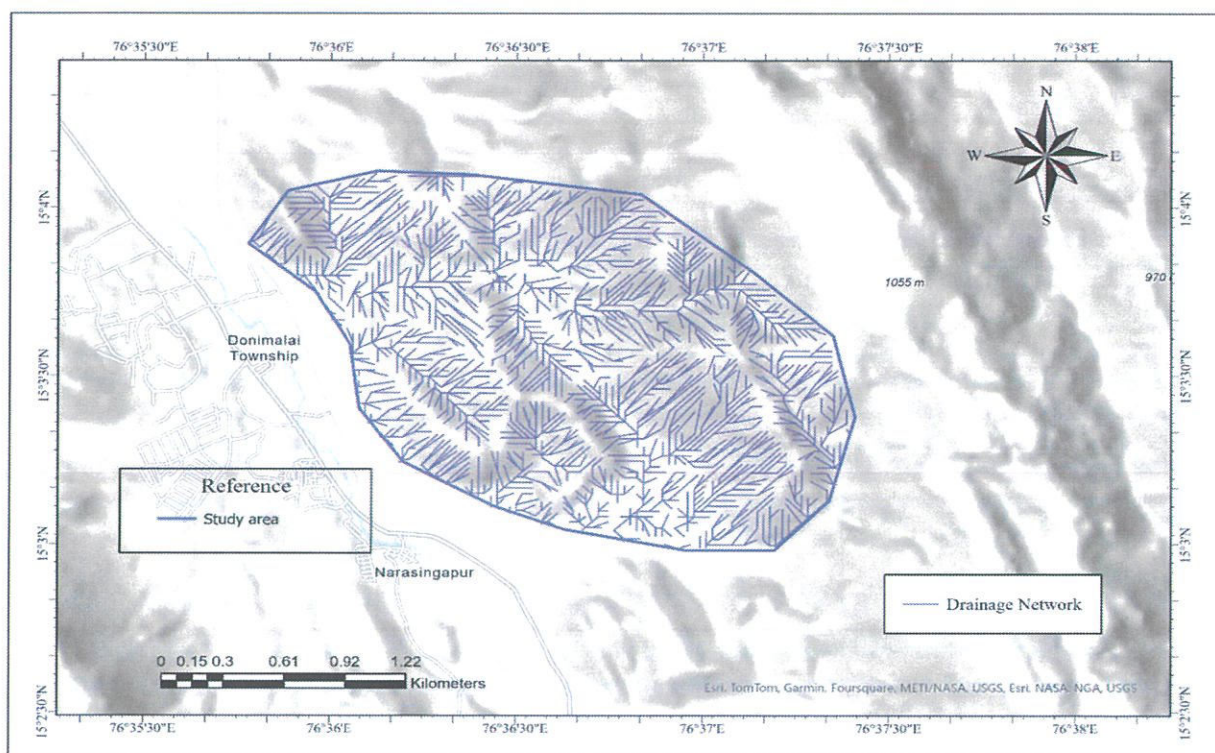


Fig-16. Drainage network map of the Study area

Drainage Order

Drainage order is a hierarchical classification system used to categorize different segments or channels within a drainage network based on their position within the network. This classification helps in understanding the organization and structure of the drainage system in a particular watershed or Study area. First-order streams are the smallest, formed by the convergence of small rills, while higher-order streams result from the confluence of lower-order streams.

Streams with higher orders tend to have larger Study areas and greater discharge. Geospatial analysis shows that the Study area has first, second, third and fourth order drains. Due to the increase number of first order drains, this order is not shown in the map (Fig. 17). The Study area consists of 87.7 kms of first order drains, 22.52 kms of second order drains, 7.53 kms of third order drains and 3.6 Km of fourth order drains.

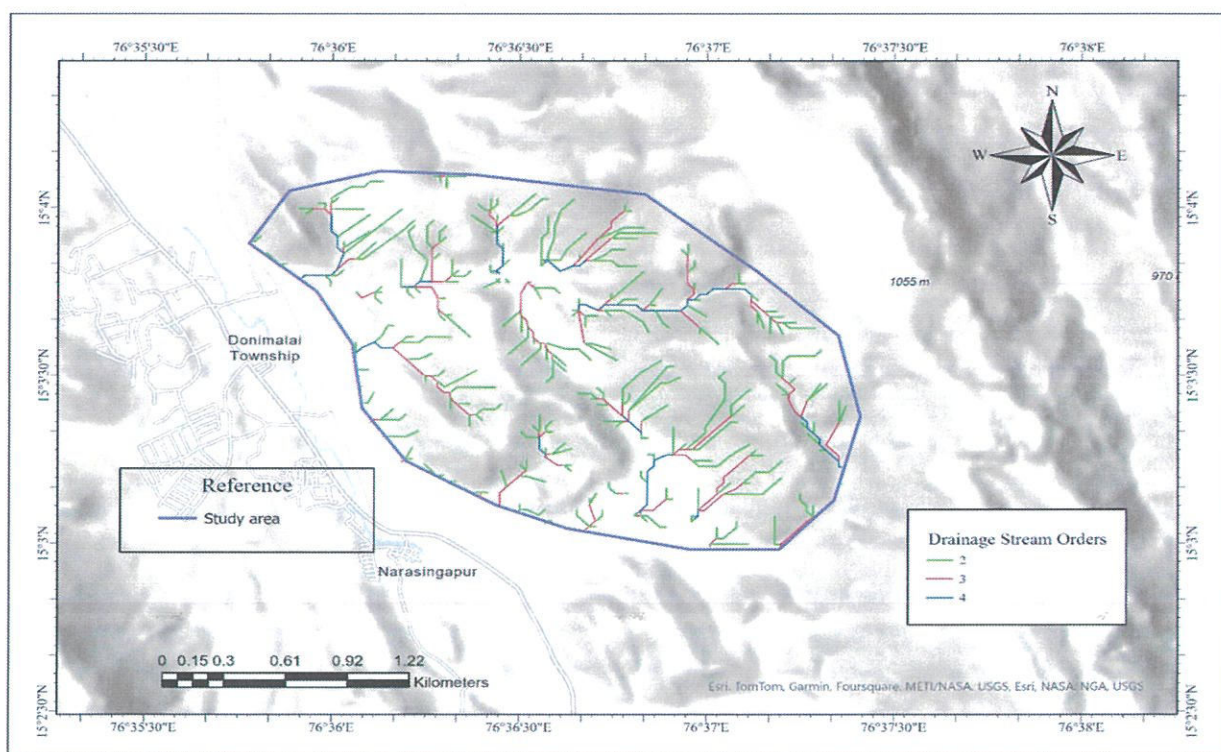


Fig-17. Drainage order map of the Study area.

E. Assessment of Soil erosion in the Study area

Estimation of soil erosion using RUSLE model in a GIS environment

The Revised Universal Soil Loss Equation (RUSLE) is a widely used model for estimating soil erosion. It considers various factors that contribute to soil erosion and combines them into a single equation to estimate soil loss. When used within a Geographic Information System (GIS) environment, RUSLE can provide spatially explicit information about soil erosion risks across a landscape. The individual RUSLE factors were computed using GIS tools and functions. The factors are

- Rainfall erosivity factor (R)
- Soil erodibility factor (K)
- Slope length and steepness factor (LS)
- Cover and management factor (C)
- Support practices factor (P)

Rainfall erosivity factor (R)

The ten-year average annual rainfall of the Study area was found to be 713.89 mm. The month wise rain fall data is listed in table 14. is the rainfall distribution curve showing the month wise distribution of rainfall between 2013-22 in the Study area.

Year	Annual Rainfall (in mm/year)
2013	661.920
2014	820.040
2015	706.330
2016	302.870
2017	679.330
2018	405.200
2019	736.340
2020	1009.670
2021	955.110
2022	862.100
Average	713.890

Tabel-14 . Distribution of Annual Rainfall for the past 10 years

Rainfall erosivity (R)

factor was estimated using the empirical relationship given by Rambabu et al., 2004. The R factor value was estimated to be $349.21 \text{ MJ mm ha}^{-1} \text{ h}^{-1}$ since, only a single value was available a map was not generated for this factor and was just used as a numerical value during the modelling process.

Soil Erodibility factor (K)

The soil analysis data of the soil samples were obtained and the K factor values of the respective soil series were calculated using the same. Soil analysis data i.e., soil texture (% sand, silt and clay), organic matter content, soil permeability class and soil structural class were used. The K factor value was found to have been highly influenced by the organic matter and soil texture. The K factor value of the soils in the study area was found to be 0.09 and 0.15. But for the empirical formula we obtained a value of $K=0.4$ using USDA soil data.

Using the previous studies, we obtained the K factor ranged between 0.09 – 0.15 and the same was used in ARC-GIS software for the Soil Maps. But in empirical formula for average conditions, we used the K value obtained through USDA that is 0.4. since, only a single value was available a map was not generated for this factor and was just used as a numerical value during the modelling process.

Slope length, steepness factor (LS)

The DEM of the study area was use to generate the flow direction map (Fig. 18), flow) and slope maps in both per cent (in degrees (Fig. 19), which were used to estimate and generate slope length factor (L) and slope steepness factor (S) factor. The slope length (L) factor ranged between 0 to 51.98. The spatial distribution of L factor in the Study area is depicted in Fig. 20. and steepness factor in fig 21.

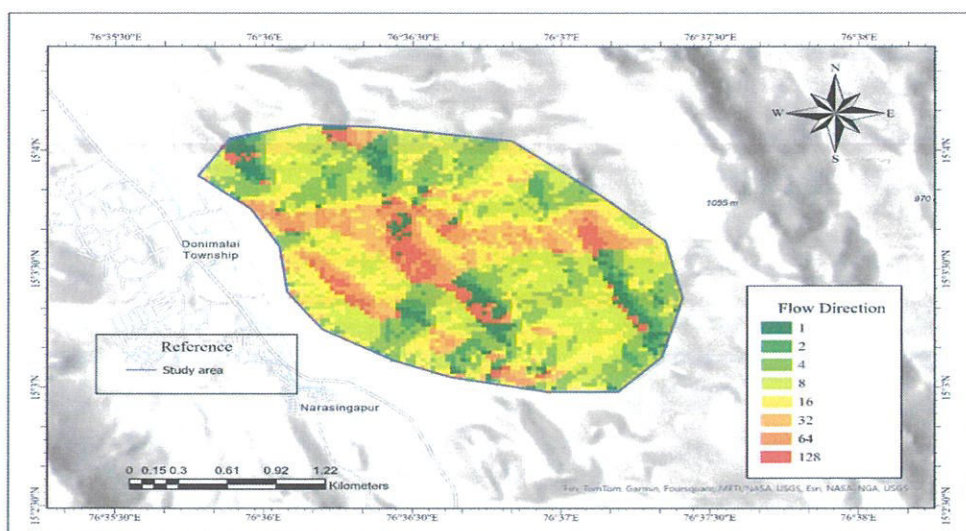


Fig-18 . flow direction map of the Study area

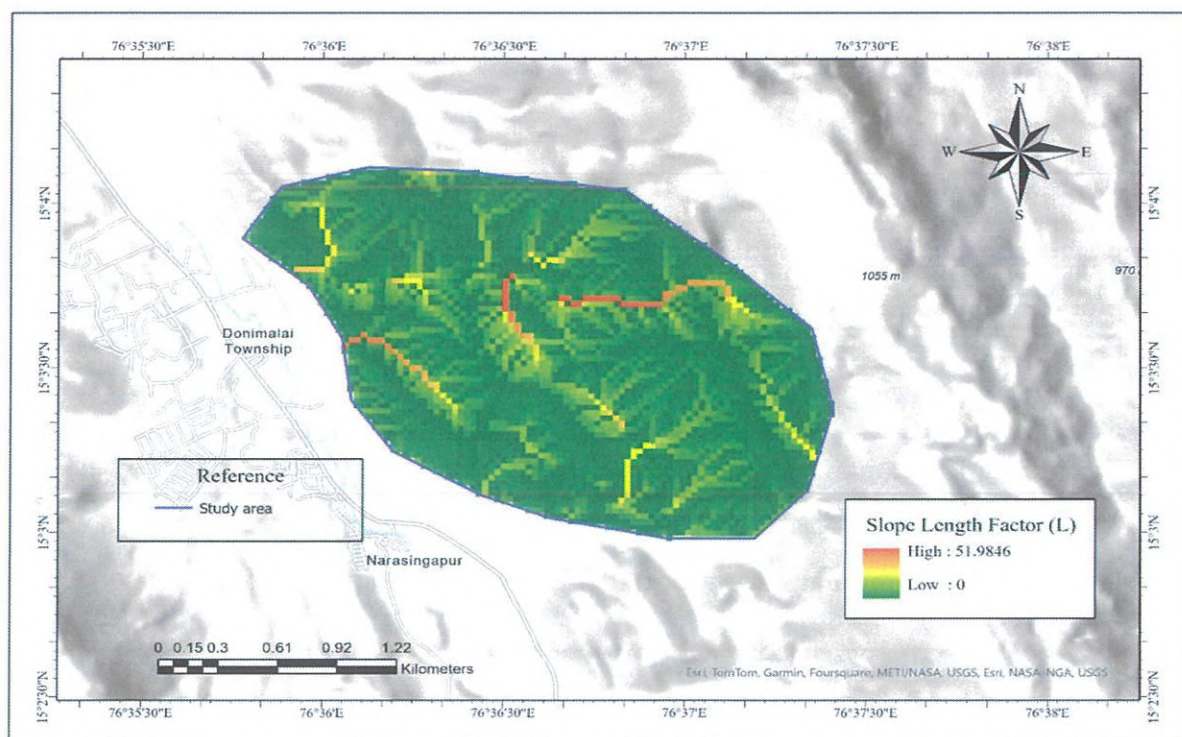
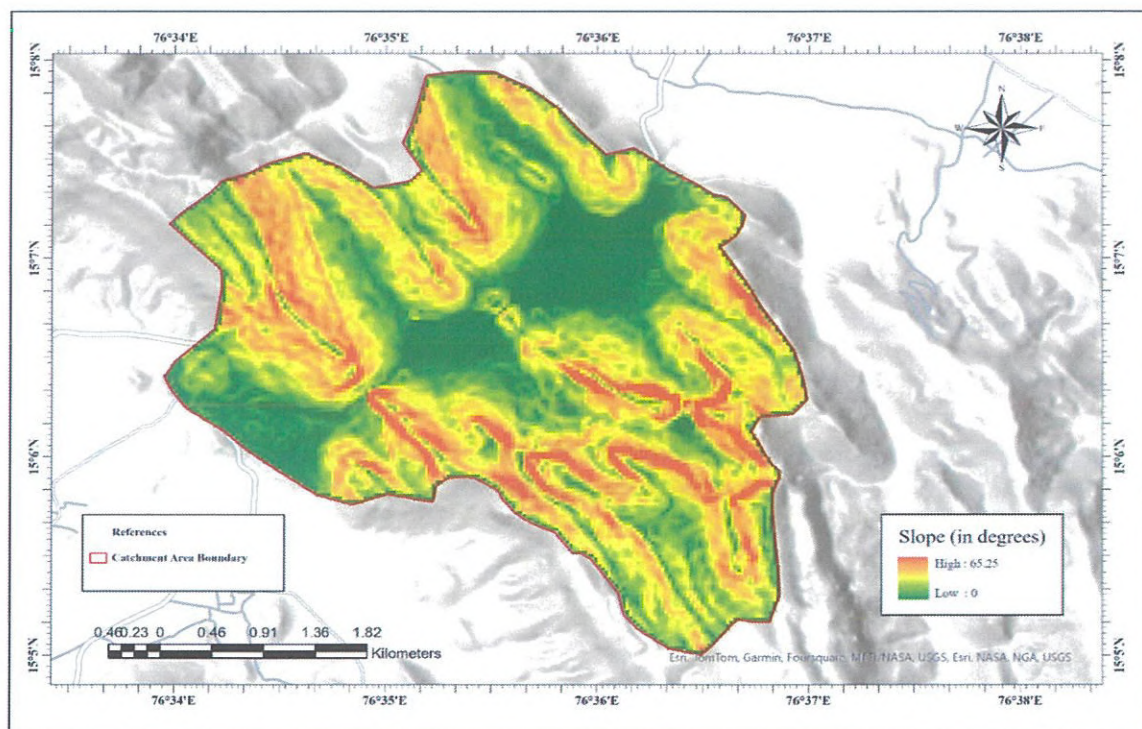


Fig 20 - Spatial distribution of slope length (L) factor in the Study area.

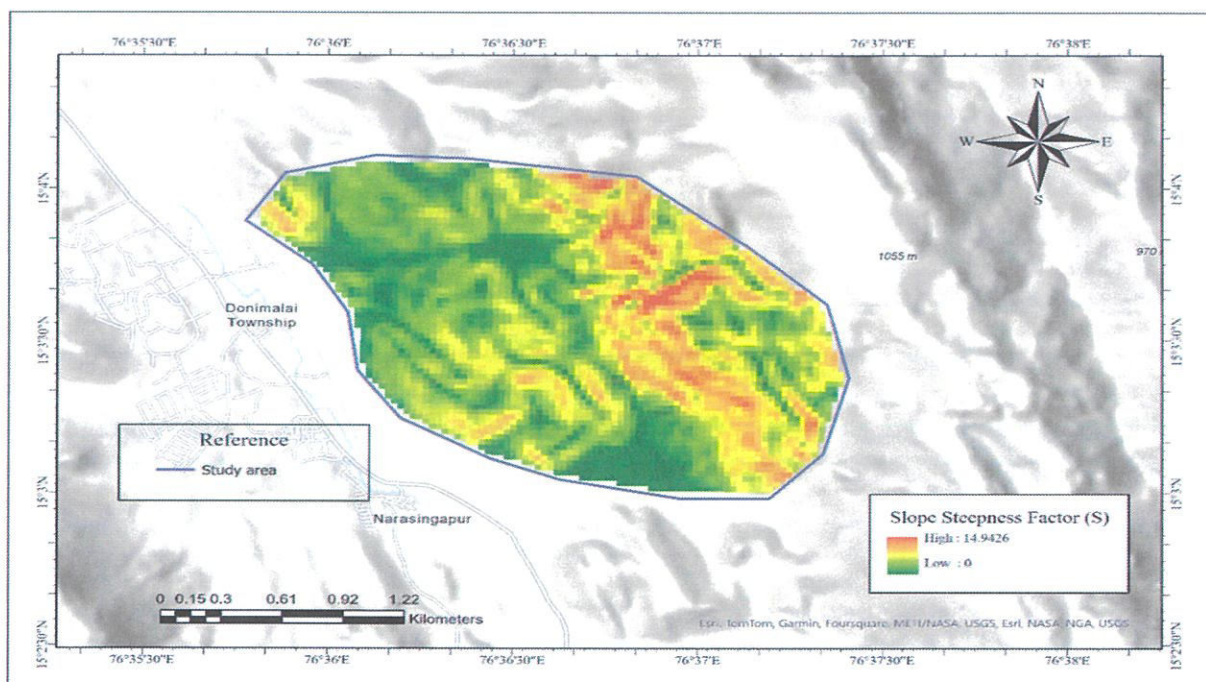


Fig 21 - Spatial distribution of Slope steepness (S) factor in the Study area

Cover and management factor (C)

The C factor values ranged between 0 to 0.6. C Factor values are obtained from the LULC Landsat 8 Bands from the previous study. C Factor of 0.4 value is for the shrubland. Since area is small, we considered Shrubland for the whole area and used it as a single factor. Hence map is not generated.

Support practices factor (P)

The respective P factor values for individual land use/land cover classes was obtained from similar studies. The P factor value is considered 1 for Shrub land and for Barren Land as there were no Support Practices are carried out in the area we considered it as a single value of 1 and map is not generated for it.

Soil erosion risk assessment

In order to execute the RUSLE model and obtain the average annual soil loss (A) in the Study area, all the factor maps which were generated using different tools and methodologies were overlaid using raster calculator in the spatial analyst toolbox in a GIS environment. The A values ranged between 0 to 64.41 t/ha/yr, in the entire study area. The average annual soil loss (A) of the whole area was found to be 4.109 t/ha/yr. The descriptive statistics of the same is shown in table 15. Higher A values indicated high

sediment yield and vice versa. The study area was classified into 6 different soil erosion risk classes which are very low (0-5 t/ha/yr), low (5-10 t/ha/yr), moderate (10-15 t/ha/yr), moderately high (15-25 t/ha/yr), High (25-50 t/ha/yr) and Extremely High (>50t/ha/yr).

Table 15 : Descriptive Statistics of soil loss in the Study area

Sl. No.	Soil Loss	Soil Loss (in t/ha/yr)
1	Minimum	0
2	Maximum	64.41
3	Average	4.109

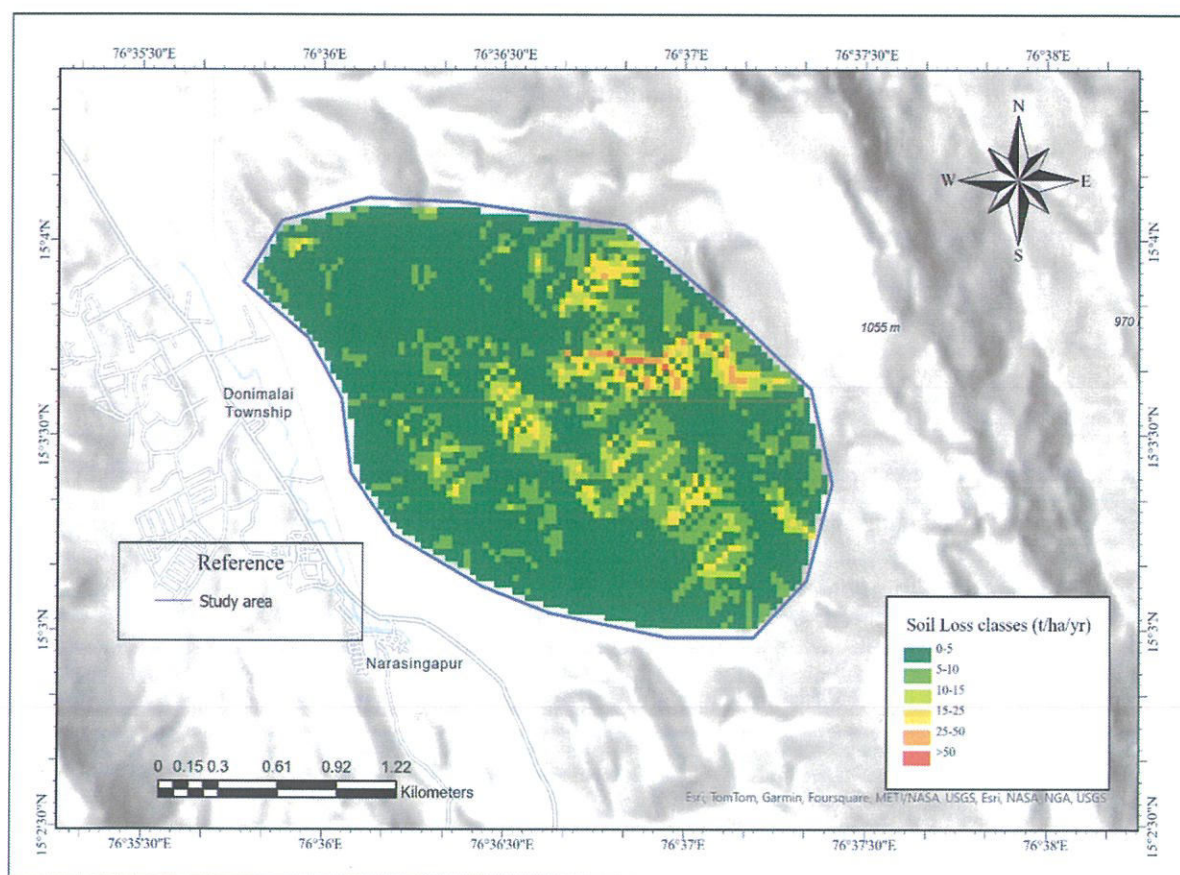


Fig 22 : Soil erosion classes identified in the Study area.

Table 16 : Soil erosion classes identified in the Study area.

Sl. No.	Soil erosion classes	Soil loss (t/ha/yr)	Area (in ha)	Area (%)
1	Very low	0-5	277.52	71.52
2	Low	5-10	69.31	17.86
3	Moderate	10-15	24.16	6.23
4	Moderate High	15-25	14.09	3.63
5	High	25-50	2.47	0.64
6	Extremely High	>50	0.46	0.12

The geospatial distribution of soil erosion classes in the area 71.52 per cent has very low erosion, 17.86 per cent has low, 6.23 per cent has moderate and 3.63 per cent has moderate to high risk, 0.64 per cent has high risk and about 0.12 percent of Land subjected to severely High soil erosion risk. Results shows that higher values of soil erosion are mainly witnessed on abrupt slopes adjacent to the drainage lines, which might be owing to the presence of highly weathered materials. Areas with high erosion risk are to be give high priority while considering taking up conservation measures. But the majority of the area comes under Very low to low soil erosion class (about 90% of area) which requires less care. Some control practices may be adopted for the risky areas.

Soil loss calculation for NMDC Study area using empirical formula of soil loss using RULSE method

The above calculated soil loss is obtained through digital elevation models from ARCGIS software using SRT DEM Landsat images and can be over-estimated. By using empirical formula for the soil loss calculation, the average soil loss was calculated as shown below.

The value of R,K,L,S,C,P factors obtained as shown below

$$R= 349.21 \text{ MJ.mm/ha/yr}$$

$$K=0.4 \text{ ton.ha.hr/ha/MJ/mm (from previous study)}$$

$$L=4.96$$

$$S=4.38 \text{ (Avg slope)}$$

$$C=0.4$$

$$P=1$$

$$A=R*K*L*S*C*P$$

$$A= 1213.84 \text{ t/ha/yr. (3.128 t/ha/yr for avg sloping condition)}$$

F. Criteria enlisted for different conservation structures

a) Check dam

- Check dams are stone masonry structures and are suitable for second and third order drains.
- The primary objective is to check the velocity of flowing water and soil transportation.
- Adjacent to agricultural lands.
- Drain should be narrow
- Sides should be stable.
- Drain depth less than 2 m and width less than 8 m.

b) Vegetative checks

- These are provided for first-order drains mainly to check the velocity of running water and soil erosion.
- These structures are suggested for the drains having soil presence and mainly for first order drains.
- The slope of the area should be nearly flat to moderate in agriculture lands and also upper reaches of the hilly terrains in non-agriculture lands.
- Drain depth less than 1 m and width less than 3 m.
- These structures are provided by constructing small bund across the drain..

d) Gabions

- These are dams made of wire basket comprising boulders and suggested for the steep sloped gullies.
- They check the velocity of the running water and hold silt.
- They are adopted in the high-slope areas and areas with high rainfall.

Table 17 : Details of proposed SMC structures of the area.

SL.NO	Name	Latitude	Longitude
1	Gabions	15.06186	76.61101
2	Gabions	15.0556	76.62117
3	Gabions	15.05895	76.60341
4	Gabions	15.05434	76.61506
5	Gabions	15.06148	76.61533
6	Gabions	15.06437	76.61159
7	Gabions	15.06101	76.61952
8	Check Dam	15.06129	76.60827
9	Check Dam	15.05253	76.61768
10	Check Dam	15.05413	76.60952
11	Vegetative check	15.06317	76.61806

12	Vegetative check	15.06221	76.61435
13	Vegetative check	15.06114	76.61456
14	Vegetative check	15.06155	76.61266
15	Vegetative check	15.06117	76.61351
16	Vegetative check	15.06103	76.61905
17	Vegetative check	15.06067	76.6203
18	Vegetative check	15.0608	76.61946
19	Vegetative check	15.06029	76.61675
20	Vegetative check	15.05951	76.6119
21	Vegetative check	15.05972	76.61013
22	Vegetative check	15.05893	76.61443
23	Vegetative check	15.05801	76.61325
24	Vegetative check	15.05763	76.614
25	Vegetative check	15.0585	76.61468
26	Vegetative check	15.05795	76.6149
27	Vegetative check	15.05648	76.61437
28	Vegetative check	15.05744	76.61745
29	Vegetative check	15.05627	76.61691
30	Vegetative check	15.0553	76.61641
31	Vegetative check	15.05517	76.61516
32	Vegetative check	15.05512	76.61679
33	Vegetative check	15.05564	76.61733
34	Vegetative check	15.05698	76.61788
35	Vegetative check	15.05656	76.61772
36	Vegetative check	15.05865	76.62001
37	Vegetative check	15.05929	76.62066
38	Vegetative check	15.05743	76.61133
39	Vegetative check	15.05687	76.61212
40	Vegetative check	15.05604	76.61255
41	Vegetative check	15.05944	76.61114
42	Vegetative check	15.05882	76.6098
43	Vegetative check	15.06284	76.61314
44	Vegetative check	15.06155	76.61616
45	Vegetative check	15.05594	76.60921
46	Vegetative check	15.05524	76.60893
47	Vegetative check	15.05593	76.60964
48	Vegetative check	15.05468	76.61005
49	Vegetative check	15.05462	76.61044
50	Vegetative check	15.05774	76.60639
51	Vegetative check	15.05435	76.61771
52	Vegetative check	15.05381	76.61657
53	Vegetative check	15.05242	76.61793
54	Vegetative check	15.05352	76.61912
55	Vegetative check	15.05708	76.62113
56	Vegetative check	15.05652	76.62254
57	Vegetative check	15.06375	76.61312
58	Vegetative check	15.06403	76.61239
59	Vegetative check	15.06568	76.61297

60	Vegetative check	15.06496	76.60978
61	Vegetative check	15.06576	76.60957
62	Vegetative check	15.06551	76.60181
63	Vegetative check	15.06424	76.60402
64	Vegetative check	15.0653	76.60339
65	Vegetative check	15.06543	76.60418
66	Vegetative check	15.06064	76.6057
67	Vegetative check	15.06023	76.60457
68	Vegetative check	15.05814	76.60566
69	Vegetative check	15.05975	76.60821
70	Vegetative check	15.0591	76.60867
71	Vegetative check	15.06103	76.60784
72	Vegetative check	15.06268	76.60952
73	Vegetative check	15.06573	76.60691
74	Vegetative check	15.06655	76.60703
75	Vegetative check	15.06638	76.60839
76	Vegetative check	15.06577	76.60093
77	Vegetative check	15.06483	76.60223
78	Vegetative check	15.06355	76.60304
79	Vegetative check	15.06025	76.60216
80	Vegetative check	15.05542	76.60355
81	Vegetative check	15.05611	76.6026
82	Vegetative check	15.05664	76.60667
83	Vegetative check	15.05101	76.61966
84	Vegetative check	15.05201	76.62093
85	Vegetative check	15.05515	76.6214
86	Vegetative check	15.05744	76.62021
87	Vegetative check	15.05268	76.61738
88	Vegetative check	15.05615	76.61391
89	Vegetative check	15.05077	76.61796
90	Vegetative check	15.05313	76.6092
91	Vegetative check	15.05386	76.60863
92	Vegetative check	15.05665	76.60525
93	Vegetative check	15.05691	76.6061
94	Vegetative check	15.06373	76.61608
95	Vegetative check	15.0615	76.61974
96	Vegetative check	15.05996	76.60328
97	Vegetative check	15.05913	76.60385

12. RECOMMENDATIONS

Recommendations based on Vegetation analysis

Species recommended for planting

A mixture of leguminous, wild fruit yielding species along with grasses are recommended to enrich site, prevent soil erosion and to restore biodiversity.

Species: *Anthocephalus cadamba*, *Gmelina arborea*, *Albizia lebbeck*, *Anogeissus pendula*, *Anogeissus latifolia*, *Leucaena leucocephala*, *Pongamia pinnata*, *Acacia catechu*, *Erythrina indica*, *Ailanthus excelsa*, *Ziziphus spp.*, *Syzygium cumini*, *Terminalia tomentosa*, *Azadirachta indica*, *Aegle marmelos*, *Jatropha curcas*, *Cordia myxa*, *Salvadora oleoides*, *Pithecellobium dulce*, *Lawsonia inermis*, *S. persica*, *Manilkara hexandra*, *Bombax ceiba* etc.

Grasses to prevent soil erosion and slope stabilization

Grass species: *Vetiveria zyzanoides*, *Cymbopogon martini*, *Cymbopogon flexuosus*, *Saccharum spontaneum*, *S. munja*, *Panicum antidotale*, *Cenchrus sp.*

Wind-Breaks

Wind-breaks are strips of trees and/or shrubs planted to protect fields, homes, canals or other areas from wind and blowing soil or sand.

- ✓ The important reasons for which wind-breaks are planted include:
- ✓ To protect livestock from cold winds
- ✓ To protect crops and pastures from hot, drying winds
- ✓ To reduce/prevent soil erosion
- ✓ To provide habitat for wildlife
- ✓ To reduce evaporation from farmlands
- ✓ To improve the microclimate for growing crops and to shelter people and livestock,
- ✓ To retard grass fire
- ✓ For fencing and boundary demarcation

When properly designed and maintained, windbreaks reduce the speed of the wind and thus its ability to carry and deposit soil and sand. They also improve growing conditions by decreasing water evaporation from soil and plants and can be used to reduce evaporation from water surfaces, such as irrigation ponds, canals or streams. In addition, wind-breaks can provide wide range of useful products, from poles and fuel-wood to fruit, fodder, fiber and mulch.

Species: In general, trees with narrow, vertical growth are ideal for wind breaks to minimize the land removed from crop production. Some fast-growing species should be used to establish the desired effect as rapidly as possible.

Some of the tree species used for wind-breaks are *Cassia, Leucaena, Casuarina, Acacia, Grevillea, Syzygium, Dalbergia etc.*

Soil Conservation Hedges

Trees can be planted on physical soil conservation works (grass strips, bunds, risers and terraces) wherein they play two roles: i.e., to stabilize the structure and to make productive use of the land they occupy. Stabilization is through the root system. In some of sloping landscapes of the country, the risers or terraces are densely planted with trees, with multiple uses being made of them for fruit, fodder and fuel wood.

In this system the major groups of components are: multipurpose and trees and common agricultural species. The primary role of multipurpose trees and agricultural species is soil conservation and provision of various tree products.

The following tree species are used for soil conservation: *Grevillea robusta, Acacia catechu, Pinus roxburghii, Acacia modesta, Prosopis juliflora, Alnus nepalensis, Leucaena leucocephala etc.*

Watling

Watling is a row of fence made out of vegetative materials preferably live cuttings across the contours to prevent soil erosion.

Species suitable: *Salix spp, Jatropha curcas, Erythrina spp, Vitex negunda, Adhatoda vasica etc.*

Bamboo planting

Bamboo is effective for soil conservation and in rehabilitation of degraded lands. The extensive underground interconnected rhizome and roots system with net structure effectively binds top soil and prevents sheet and gully erosion. It is effective tool to mitigate soil erosion, improve soil qualities and hydrological functions. In addition to stabilizing soils, bamboo contributes organic matter, increases fertility, microbial biomass and carbon content of soils. Because it can thrive in problem soils and it grows so fast, it is particularly efficient in repairing degraded land.

Species suitable: *Bambusa bambos, Dendrocalamus strictus, Bambusa vulgaris. Bambusa tulda etc.*

Rates are based on the pervious estimations of forest department. But Cost may vary as per the site requirement and design specification of structure. Estimated cost is only tentative, it may considerably increase or decrease as per the design specification, upper/middle/lower reach of the construction site and

availability of material, and the logistics of moving people, tools, and materials across the difficult terrain of the reserve forest hills.

Timeline of work

Table. 18, Timeline for establishment of the proposed conservation structures.

Structure	Nov	Dec	Jan	Feb	Mar	April	May
Boulder Check							
Gabion Check							
Check Dam							
Vegetative Check							
Staggered Contour Trenches							

Table, 19 : Number of SMC structures inside and out side the inter locked area

Sl. no	Particulars	Inside the inter locked area	Out side the inter locked /Inside the forest area
1	Gully checks	9	14
2	Gabion checks	5	4



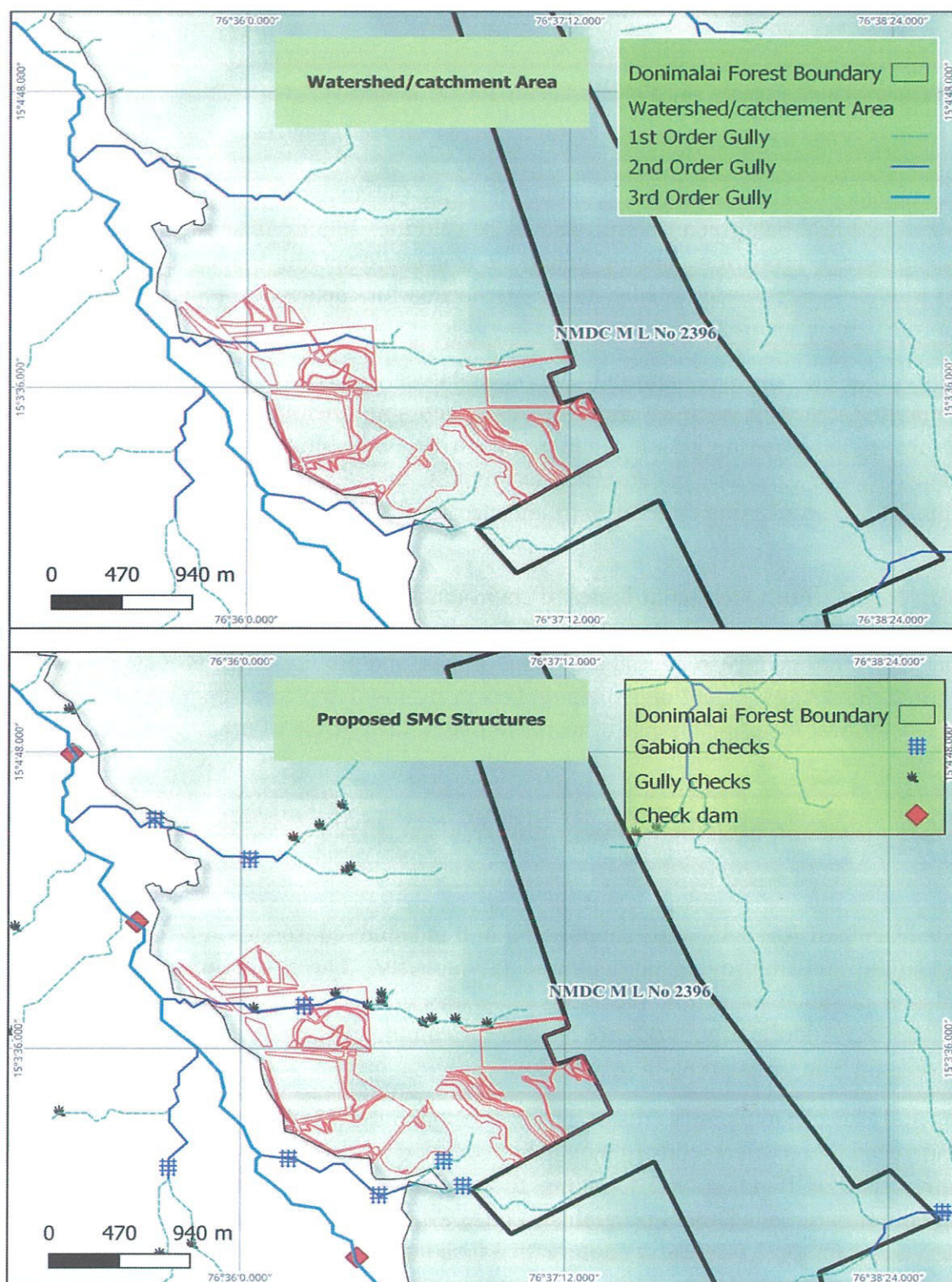


Fig. 23 : Catchment area and Proposed SMC Structure of the study area.

13. BUDGET AND EXPENDATURES.

A. Afforestation Work outside the Forest Area:(Rs 48.26 lakhs)

The allocated funds of Rs .48.26 lakhs support afforestation initiatives beyond forest boundaries, including roadside planting and urban greening projects. These activities require resources for identifying suitable sites for tree planting, procuring planting materials, and implementing maintenance plans to ensure the long-term survival of trees. Additionally, funds are needed for capacity-building programs to train local residents in tree care and maintenance techniques.

Identifying suitable sites for tree planting based on ecological considerations and community preferences, procuring planting materials such as saplings, seeds, and soil amendments, implementing maintenance plans to ensure regular watering, pruning, and pest control, conducting capacity-building programs to train local residents in tree care and maintenance techniques, engaging local governments and community organizations in urban greening initiatives to enhance the livability and environmental sustainability of urban areas.

Afforestation outside forest areas contributes to environmental quality, reduces soil erosion, and enhances urban aesthetics. By greening roadsides, stabilizing slopes, and enhancing green infrastructure, this activity improves air and water quality, reduces heat island effects, and provides habitat for urban wildlife. It also promotes community engagement and social cohesion by involving local residents in tree planting and maintenance activities, fostering a sense of ownership and stewardship of urban green spaces.

B. SMC Works (Soil and Moisture Conservation Works): (Rs 8.45 lakhs)

The allocated funds of Rs .8.45 lakhs support soil and moisture conservation efforts aimed at mitigating land degradation and improving agricultural productivity. These activities require resources for implementing a range of measures, including gully checks, gabion check dams, contour bunding, and vegetative barriers. Additionally, funds are needed for community engagement programs to involve local farmers in soil and water conservation practices.

Conducting gully checks to identify erosion-prone areas and implement remedial measures such as contour bunding and vegetative barriers, constructing gabion check dams to control runoff and retain soil moisture, implementing contour bunding and terracing to reduce soil erosion and improve water infiltration, conducting community engagement programs to raise awareness about the importance of soil and water conservation and train local farmers in conservation techniques.

Soil erosion and moisture loss are significant threats to agricultural sustainability, water quality, and ecosystem health. SMC works help protect soil fertility, retain moisture, and enhance water infiltration, thereby promoting soil health, crop yields, and water security. By preventing soil erosion, protecting watersheds, and enhancing ecosystem services, this activity supports food security, water management, and climate resilience.

14. CONCLUSION

In conclusion, the Study area Treatment Plan for the NMDC dam highlights the critical need for immediate action to address the vulnerability of the delineated Study area. The prevalence of strong to very steep slopes, scanty vegetation, degraded scrubs, heavy runoff, and low infiltration rates underscores the urgency of implementing soil and water conservation measures.

The identified issues, such as the steep slopes, smaller Study area, and undulated topography, contribute to a mean annual soil loss of $16.61 \text{ t ha}^{-1} \text{ yr}^{-1}$, emphasizing the gravity of the situation. Without intervention, there is a looming threat of further degradation of the reserve forest, jeopardizing the sustenance of growth and vegetation in the area.

Geospatial techniques have been employed to create maps that serve as invaluable tools for effective planning of forest resources. These maps, integral to the proposed treatment plan, delineate suitable sites for soil and water conservation structures. By leveraging these geospatial tools, we can enhance the precision of our efforts, facilitating the efficient implementation of treatment measures and contributing to the conservation of moisture and control of soil erosion.

In essence, the proposed Study area Treatment plan not only identifies the pressing issues but also provides a tangible roadmap for sustainable resource management. It is imperative that we act swiftly and decisively to protect the ecosystem, ensuring the long-term health and viability of the NMDC dam Study area. The judicious implementation of these measures will not only safeguard the environment but also contribute to the overall success and longevity of the power generation project.

ANNEXURES

15.FIELD PHOTOS

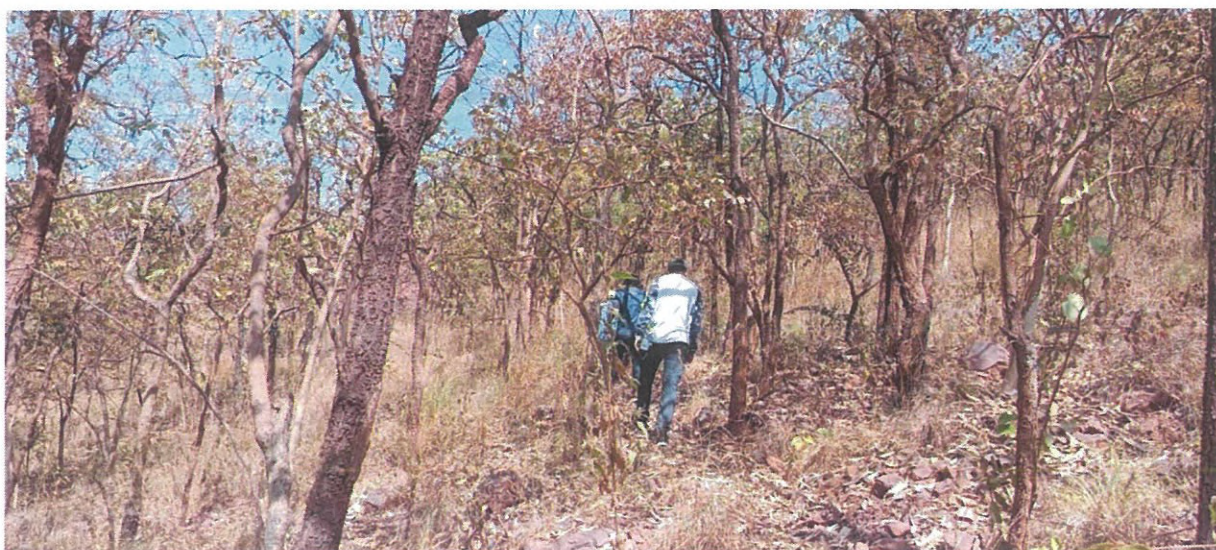
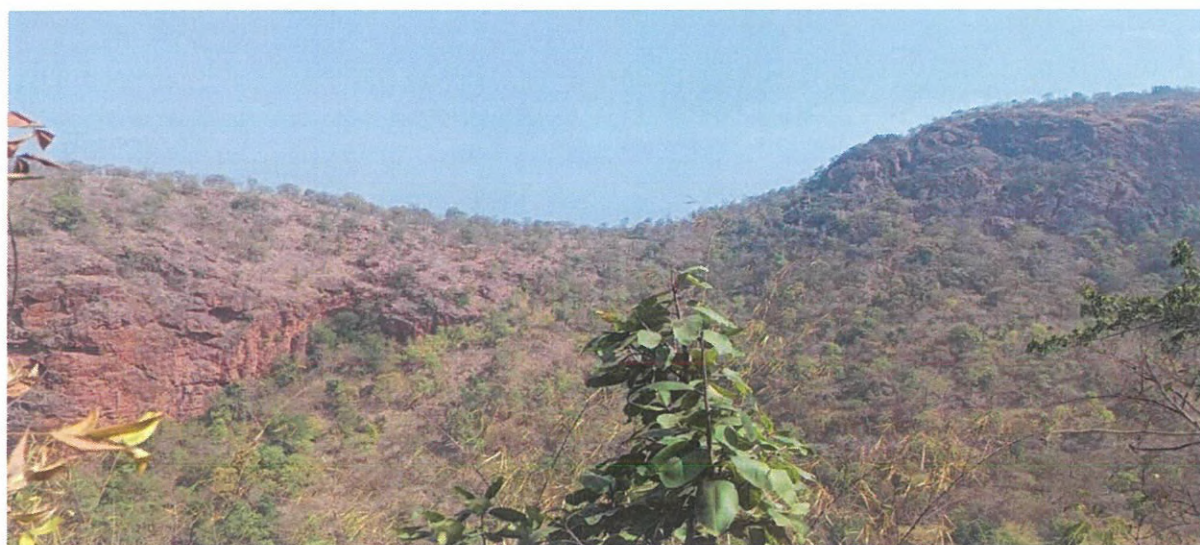
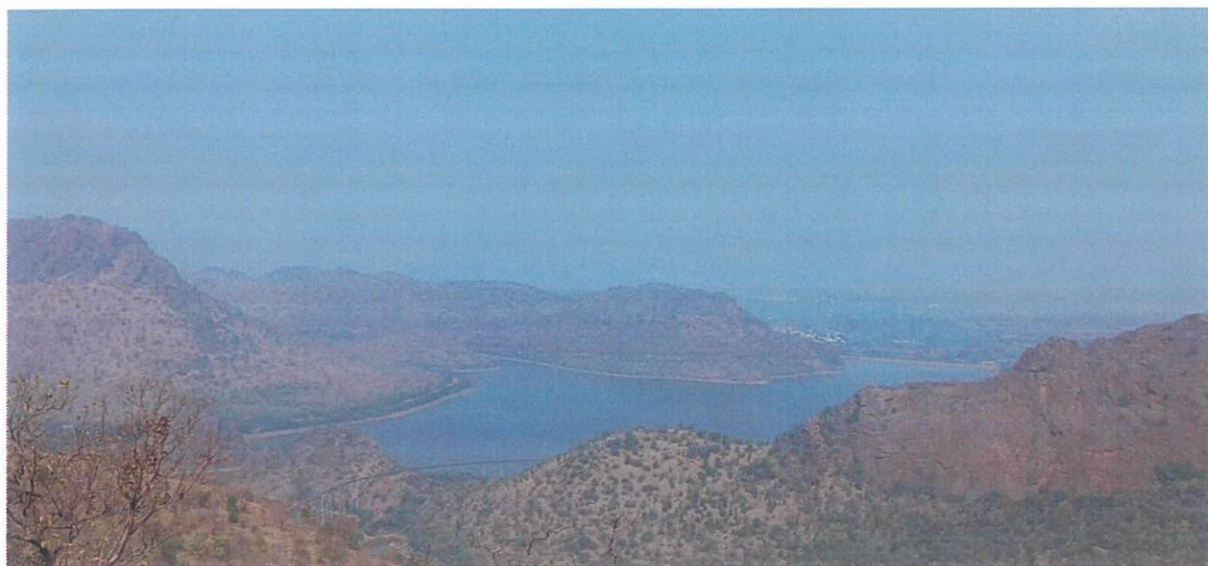


Plate 1: Traversing in the Study area

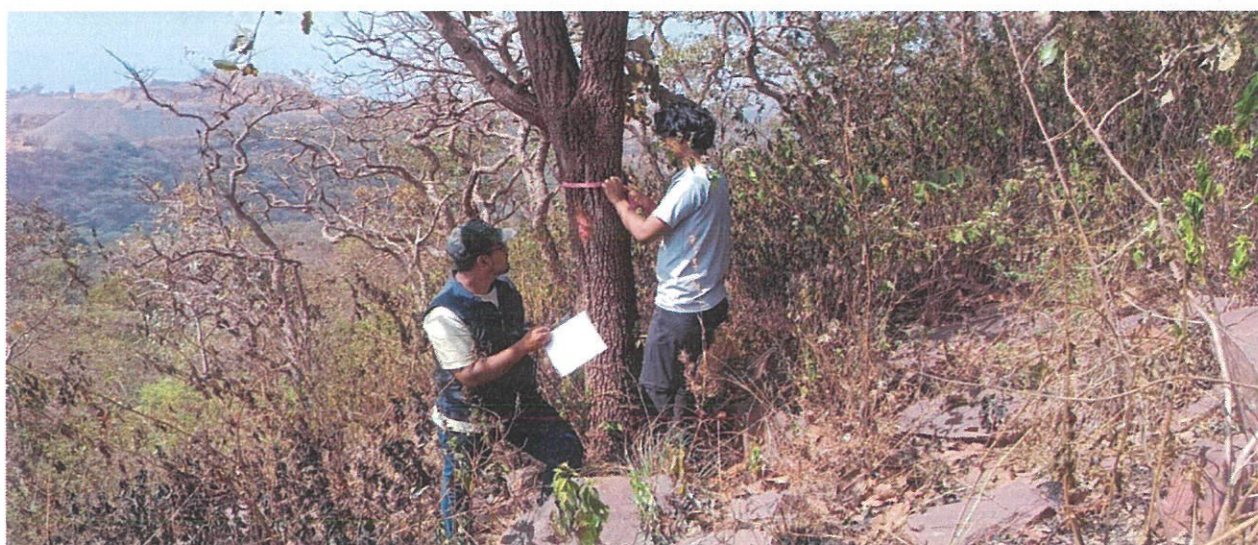


Plate 2: Laying of Plots for Vegetative Assessment

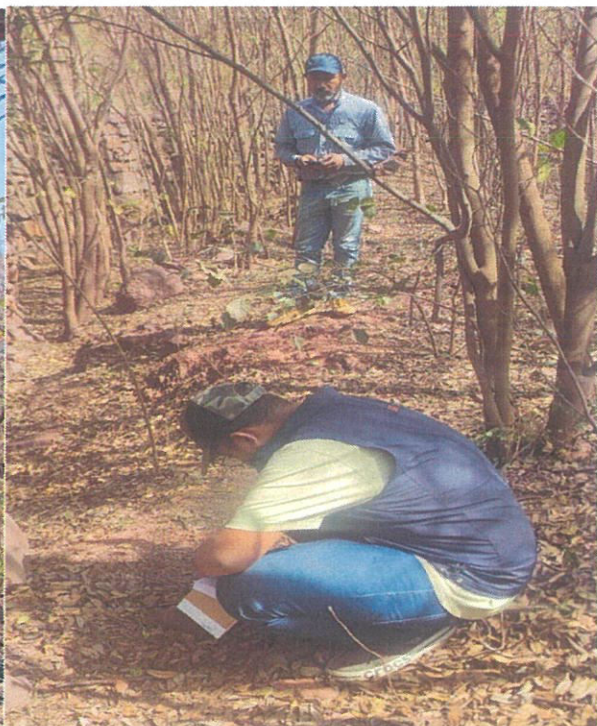
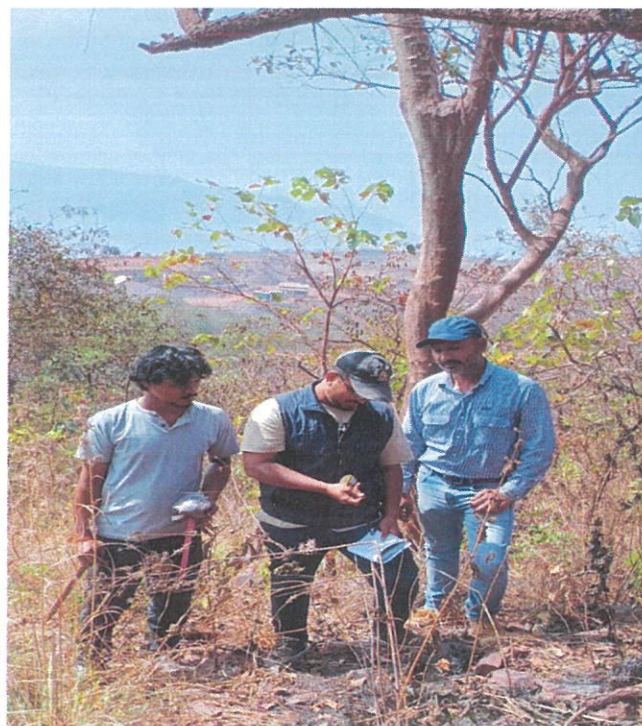
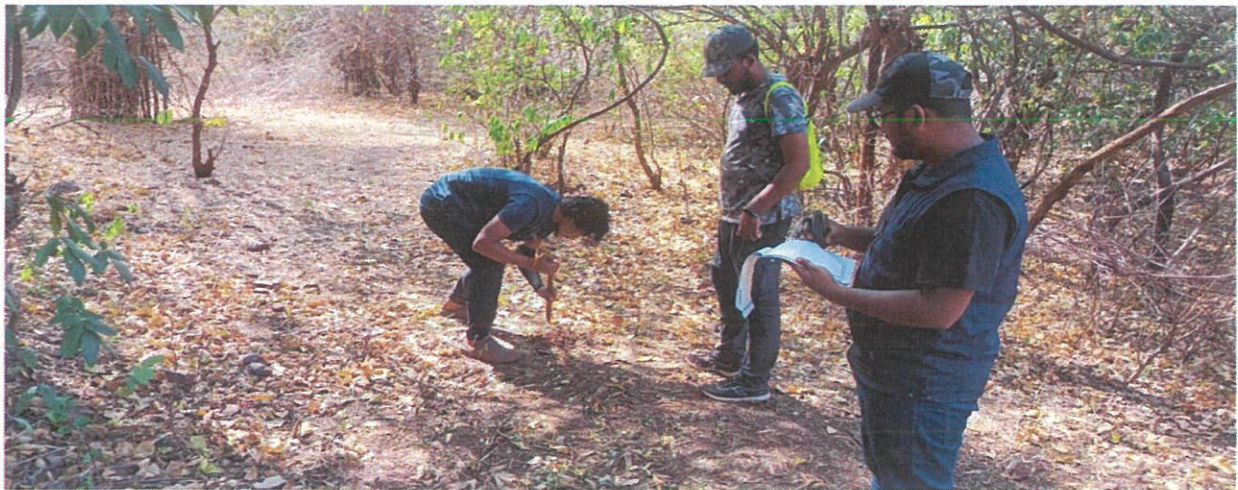


Plate 3: Collection of Field data.

Details for scrutiny of projects proposed Area of 138,778 Ha

Location: NMDC Interlocked Forests

Range: Ballari

Sl No.	Particulars of the work	2024-25				2025-26				2026-27				2027-28				2028-29				Total Amount (6+10+14+18+22+26+30)
		Extent (In Ha/Km) /Qty. (In Nos/Cum/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km) /Qty. (In Nos/Cum/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km) /Qty. (In Nos/Cum/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km) /Qty. (In Nos/Cum/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km) /Qty. (In Nos/Cum/Km)	Unit Cost (In lakhs)	Per	Amount	
1	2	3	4	5	6.00	7	8	9	10.00	11	12	13	14.00	15	16	17	18.00	19	20	21	22	23
C	Afforestation work in Out side the Forest area																					

1 Road side planting (Interlocking paths)

a	Advance works	5	0.906	1	4.53	0	0.000	0	0.00	0	0.00	0	0.00	0	0.000	0	0.00	0	0.000	0	0.00	4.53
b	Raising of Plantation	0	0.000	0	0.00	5	3.054	1	15.27	0	0.00	0	0.00	0	0.000	0	0.00	0	0.000	0	0.00	15.27
c	Maint. of 1 year old Plantation	0	0.000	0	0.00	0	0.000	0	0.00	5	1.642	1	8.21	0	0.000	0	0.00	0	0.000	0	0.00	8.21
d	Maint. of 2 year old Plantation	0	0.000	0	0.00	0	0.000	0	0.00	0.00	0.00	0.00	0.00	5	1.166	1	5.83	0	0.000	0	0.00	5.83
e	Maint. of 3 year old Plantation	0	0.000	0	0.00	0	0.000	0	0.00	0	0.00	0	0.00	0	0.000	0	0.00	5	1.419	1	7.10	7.10
f	Maint. of 4year old Plantation	0	0.000	0	0.00	0	0.000	0	0.00	0	0.00	0	0.00	0	0.000	0	0.00	0	0.000	0	0.00	0.00
	Total of B1				4.53				15.27				8.21				5.83				7.10	40.94

2	Planting of medicinal plants and its maintenance (below the conveyor)	0	Ls	0	5.00	0	Ls	0	0.50	0	Ls	0	0.55	0	Ls	0	0.61	0	0.67	7.32		
Total of C					5.00				0.50				0.55				0.61		0.67	7.32		
D	SMC Works																					
1	Gully checks (In cum)	9	0.015	1	0.14	9	0.017	1	0.15	9	0.018	1	0.16	9	0.020	1	0.18	9	0.022	1	0.20	0.82
2	Construction of Gabian check dams	5	0.250	1	1.25	5	0.275	1	1.38	5	0.303	1	1.51	5	0.333	1	1.66	5	0.366	1	1.83	7.63
Total of D					1.39				1.52				1.68				1.84				2.03	8.46
Grand Total					10.92				17.29				10.44				8.28				9.79	56.71
Grand Total																				56.71		



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

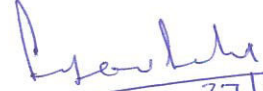
Annexure-5

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that "Protection and Management plan has been prepared w.r.t 138.778 ha of interlocked forest land and the cost of the implementation of the same shall be borne by us in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(iv) of Stage-I/ in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं । हिन्दी में पत्र व्यवहार का स्वागत है ।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028

FOREST FIRE MANAGEMENT PLAN FOR INTERLOCKED FOREST AREA OF NMDC DONIMALAI, SANDUR



Prepared By-

S. N VISION

Email-info@frms.co.in

Website- www.frms.co.in

CONTENT -1

Sl no.	Title	Page no.
1	Project background	4-5
2	Introduction	
2.1	National Mineral Development Corporation (NMDC)	
2.2	Project Site	
2.3	Donimalai Block	
3	Glimpse of Donimalai	5-9
4	Forest Fire and its type	9-11
5	Analysis of Existing infrastructure for fire protection	11-15
6	Proposal for strengthening forest fire measure	16-18
7	Forest management Approaches	18-20
7.1	Fire management plan	
6.2	Forest resources	
8	Objectives	21-22
9	Methodology	23-29
9.1	Preventive measures	
9.2	Combative measures.	
9.3	Post forest fire measures	
10	Impact of forest fire.	30-32
10.1	Environmental impacts	
10.2	Socio- economic impact	
11	Recovery and Rehabilitation.	33
12	Result and Discussion.	33-37
12.1	Preventive strategies	
12.2	Proposed structure for the area	
13	Recommendation.	38-42
14	Budget and Expenditure	43-46
15	Conclusion	47
16	Annexures	56

Sl no.	Figures (Maps)	Page no.
1	Map of projected site	7
2	An over view of Donimalai Block map	8
3	Fire line map of the study area	13
4	Study area of interlocked forest	22
5	Fire incidence map of study area	22
6	Proposed SMC structures of the study area	37
7	Road side plantation works in interlocked forest of NMDC	41
8	Fire incidences in Donimalai forest Block for the year - 2023	49

CONTENT - 3

Sl no.	Tables	Page no.
1	Species wise volume of the forest tree species in Donimalai block	20
2	Details of the proposed SMC structures of the study area.	35-37
3	Time liner for establishment of the proposed conservation structures	42
4	Tools and Equipements.	42
5	Fire incident areas in Donimalai block in the year - 2023	50-53

1. Project Background

The initiation of the Forest Fire Management Plan (FFMP) for the NMDC (National Mineral Development Corporation) Mining Area at Sandur, located in the Ballari District of Karnataka, arises from the critical need to address the escalating risks of forest fires and their potential impact on the delicate balance between mining activities and environmental conservation. This targeted plan is meticulously crafted to navigate the unique ecological landscape surrounding the Sandur forest, with a primary objective of preventing, managing, and mitigating the risks associated with forest fires.

Encompassing a substantial land area within the Bellary-Hospet range, the NMDC mining area at Sandur is a pivotal player in India's iron ore production. Recognizing the vulnerability of the Sandur forest ecosystem to forest fires, the project places a strong emphasis on integrating effective fire prevention and management strategies with mining operations to preserve biodiversity and protect the region's ecological integrity.

The core focus of the FFMP is to conduct a comprehensive assessment of potential fire risks within the Sandur forest. Identifying fire-prone zones, vulnerable habitats, and key vegetation types forms the foundation for developing strategies aimed at early detection, rapid response, and the creation of firebreaks to contain and control wildfires. The central aim is to establish a robust forest fire management system that minimizes the impact of fires on the ecosystem.

Recognizing the absence of a predefined strategy for forest fire management in the immediate vicinity, the FFMP underscores the necessity for proactive measures within the Sandur forest. This includes the establishment of firebreaks, creation of buffer zones, and designated areas tailored specifically to facilitate the harmonious coexistence of mining activity and the prevention of destructive forest fires.

Environmental stewardship remains a guiding principle in the FFMP, with NMDC committing to surpass regulatory requirements. Cutting-edge monitoring systems, including satellite imagery and ground-based surveillance, ecological surveys, and predictive modeling, are integral components to facilitate informed decision-making and adaptive management practices, all geared towards achieving effective forest fire prevention and control.

Community engagement continues to be paramount to the success of the FFMP. NMDC recognizes the Forest resources management Services

importance of involving local communities in forest fire management efforts. Educational programs, outreach initiatives, and collaborative partnerships with local stakeholders will foster a shared responsibility for preventing and managing forest fires, ensuring the preservation of the Sandur forest's unique ecological heritage amidst mining activities.

As the NMDC Forest Fire Management Plan unfolds with a reinforced aim of preventing and managing forest fires, it seeks to set a precedent for responsible resource management within the context of mining. By embracing a holistic and region-specific approach, NMDC endeavors to showcase that mining activities and environmental conservation, including forest fire prevention, can be mutually beneficial, creating a model for sustainable practices that ensures the enduring vitality of the Sandur forest ecosystem for generations to come..

2. INTRODUCTION

2.1 National Mineral Development Corporation (NMDC)

National Mineral Development Corporation (NMDC) stands as a prominent Navratna Public Sector Enterprise under the Ministry of Steel, representing the Government of India. Recognized as the largest producer of iron ore in the country, NMDC boasts a remarkable presence with its highly mechanized iron ore mines situated in Chhattisgarh and Karnataka. The registered office of this significant entity is strategically located in Hyderabad, Telangana. NMDC's stature extends globally, as it is acclaimed as one of the world's low-cost producers of iron ore. In addition to its iron ore endeavors, NMDC holds the distinction of operating the sole mechanized diamond mine in India, situated in Panna, Madhya Pradesh.

The company's operational prowess is underscored by its iron ore production, surpassing 40 million metric tonnes annually from key production units in the Bailadila Sector of Chhattisgarh and Donimalai in the Ballari-Hospet region of Karnataka. NMDC, with an ambitious vision, aspires to achieve an iron ore production capacity of 100 million metric tonnes by the fiscal year 2030. Notably, all mining complexes operated by NMDC have received a prestigious 5-star rating from the Indian Bureau of Mines, Ministry of Mines, attesting to the company's commitment to scientific and sustainable mining practices. Among its significant mining sites is the Donimalai Block, a region whose name is derived from Kannada words "Doni" and "Malai," signifying a boat-shaped forest hill. The Donimalai Township, enveloped by lush greenery, mirrors the boat shape, and it houses a population of 6555, with males constituting 52%

and females 48%. The township boasts an impressive average literacy rate of 80%, exceeding the national average, with male literacy at 86% and female literacy at 74%. The Donimalai Iron Ore Project, commissioned in 1977, was a strategic move to boost lump ore exports from the Bellary-Hospet region through the new Madras Outer Harbour.

NMDC's commitment to the welfare of its employees and the local community is evident in the development of the Donimalai Township. The township is well-equipped with essential facilities such as schools, hospitals, community centers, libraries, recreation clubs, shopping centers, gymnasiums, and stadiums, ensuring a holistic and sustainable living environment for its residents.

The significance of the Donimalai mechanized iron ore mines in the NMDC portfolio cannot be overstated. Located approximately 19 km from the Toranagallu Railway station by road, these mines have been a focal point of iron ore exploration since their inception in 1977. The ore extracted from this region boasts an impressive iron content of 65%, with the mines having a staggering capacity of 27.92 million tons. The annual extraction of about 4 million tons of ore is a testament to the scale of operations.

Despite the challenges posed by government policies, such as the ban on exports imposed by the Karnataka government, NMDC has navigated through such hurdles. As of now, the ban on exports has been lifted, showcasing the resilience and adaptability of NMDC in the dynamic landscape of the mining industry. This success is a testament to the strategic vision, operational efficiency, and commitment to sustainable practices that define the legacy of the National Mineral Development Corporation.

2.2. Project site

The NMDC (National Mineral Development Corporation) mining area at Donimalai is strategically positioned at approximately 15°03'30.12"N and 76°34'45.08"E, situated about 19 km from the Toranagallu Railway station by road. This location is a crucial part of the iron ore production landscape, and the coordinates place it within the Bellary-Hospet range. The proximity of the project site to key transportation networks ensures efficient connectivity, facilitating the transportation of extracted iron ore to various destinations.

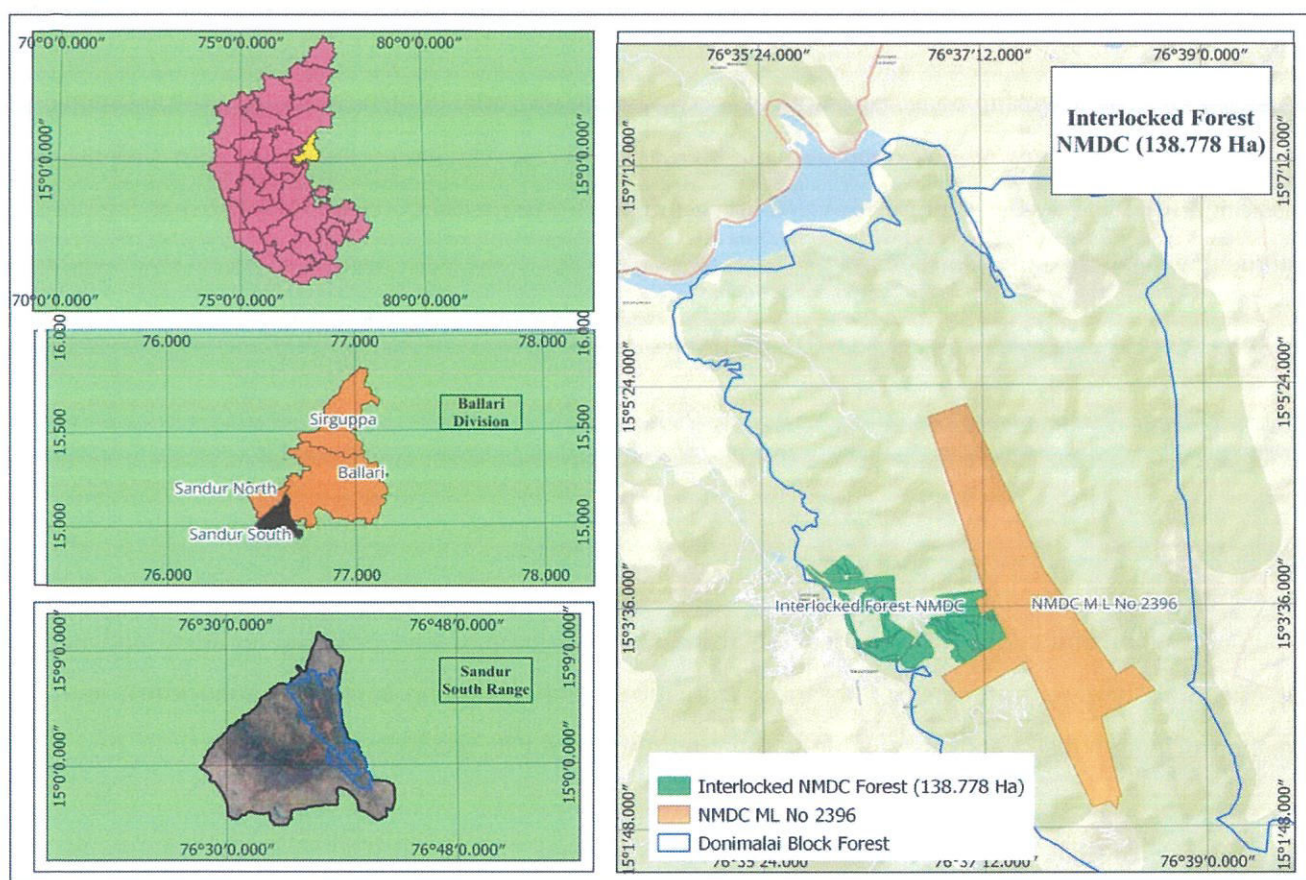


Fig 1 : Map of Projected site

Within a 10 km radius of the Donimalai NMDC mining area, the landscape encompasses diverse features. The surrounding region predominantly consists of mining complexes, including the mechanized iron ore mines, making up a significant portion of the area. The population centers include the Donimalai Township, which hosts essential facilities such as schools, hospitals, community centers, and recreational amenities. Additionally, there are commercial establishments catering to the needs of the local community and workforce.

The land use within the 10 km radius features agricultural areas supporting local farming communities, contributing to the regional economy. Furthermore, the landscape includes reserved state forests, with approximately 20% of the area covered in isolated pockets of forested land. These forested areas are vital for biodiversity and ecological balance.

The coordinates place the Donimalai NMDC mining area within an intricate tapestry of natural and human-made elements. While the focus is on mining activities, the landscape comprises a mix of industrial zones, residential clusters, and natural reserves. Contributing to the sustainable utilization of natural resources in the region.

2.3. Donimalai Block

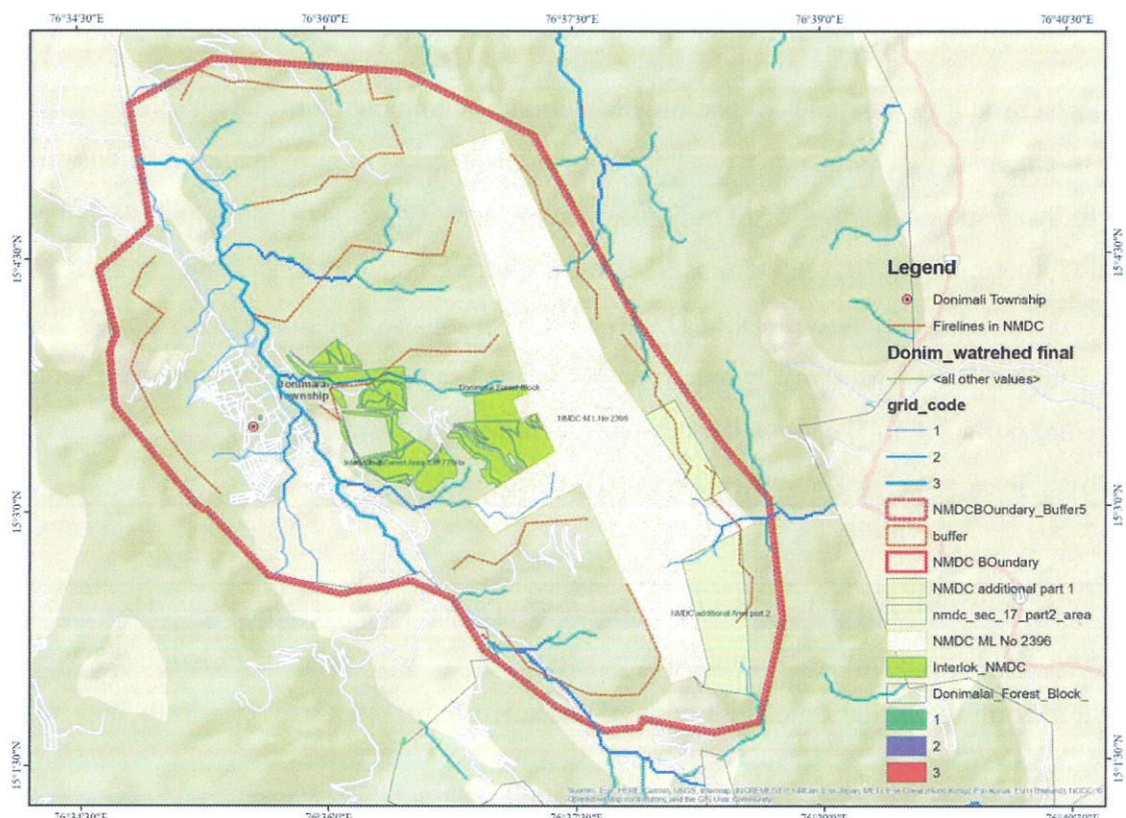


Fig 2. An overview of Donimalai Block Map

Donimalai derives its name from words Doni and Malai in Kannada. Doni is multi-purpose sailboat with a motor or lateen sails and malai means Hills. The shape of the township resembles the shape of boat (doni) and is fully surrounded by green Forest hills. And hence derived its name Donimalai meaning boat shaped forest hills.

Donimalai Township has a population of 6555. Males constitute 52% of the population and females 48%. Donimalai Township has an average literacy rate of 80%, higher than the national average of 74.0%: male literacy is 86% and, female literacy is 74%. In Donimalai Township, 10% of the population is under The Donimalai Iron Ore Project was commissioned in the year 1977. The Donimalai Iron Ore Project was Forest resources management Services

primarily planned to enhance the export of lump ore from Bellary Hospet region through the new MOLP at Madras Outer Harbour. This Iron Ore Deposit is located at the south-eastern part of the Bellary-Hospet range.

NMDC has developed a Township at Donimalai. This Township is equipped with all necessary facilities like Schools, Hospital, Community Center, Library, Recreation Clubs, Shopping Centers, Gymnasiums and Stadium.

Donimalai mechanised iron ore mines of National Mineral Development Corporation (Now M/s.NMDC Limited) are located here. Donimalai township is at a distance of approximately 19 km from the Toranagallu Railway station by road. Exploration of iron ore activity was started by the National Mineral Development Corporation of India in Donimalai and was commissioned in 1977. The ore available here contains 65% of Iron. According to the N.M.D.C. Website the mines have the capacity of 27.92 million tons. About 4 million tons of the ore is extracted per year. The ore is exported through Chennai and Mormugao (Goa) ports. About 1286 employees work here as on 30 April 2012. At present, the ban by Karnataka Govt., on exports has been lifted.

3. Glimpse of Donimalai NMDC Mining Area: General Characteristic Features

a) Topography: The Donimalai NMDC mining area primarily features undulating topography with some plains. It is situated in the Bellary-Hospet region, characterized by a mix of hilly terrain and relatively flat expanses.

b) Slope: The mining area is located at varying elevations, ranging from approximately 500 to 900 meters above sea level. The landscape exhibits undulating slopes and hillocks, contributing to the unique topographical features of the Bellary-Hospet range.

c) Configuration: The Bellary-Hospet range, within which the Donimalai mining area is situated, encompasses diverse geological formations. The region is marked by hills and valleys, with some areas exhibiting rocky landscapes, especially in proximity to the mining sites.

d) Rainfall: The average annual rainfall in the Donimalai mining area is approximately 800-850 mm.

The precipitation supports the region's ecosystems, including the diverse flora and fauna dependent on seasonal variations in water availability.

e) Climate: The area experiences a tropical climate, characterized by hot and dry conditions for a significant part of the year. The monsoon season contributes to a brief period of increased humidity and rainfall.

f) Temperature: The temperature in the mining area ranges from a minimum of around 15°C to a maximum of approximately 40°C. The region encounters variations in temperature based on seasonal changes.

g) Geology, Rock, and Soil: The geological composition of the Donimalai mining area includes rocks from the Archean era, predominantly comprising Gneisses, Schists, and Granite. The soil structure varies, with some areas exhibiting soil degradation, particularly in the vicinity of mining operations.

h) Forest Profile: The forest profile in the Donimalai region is characterized by dry deciduous forests. The dominant tree species may include species like *Hardwickia binata*, *Albizia amara*, *Acacia* species, and *Eucalyptus*. Afforestation efforts may have introduced additional species such as *Eucalyptus* hybrids.

i) Water Sources: Key water sources in the project area include natural water bodies like rivers and seasonal streams. The Donimalai mining area is likely to be influenced by nearby water sources, impacting the local ecology.

j) Flora: The original vegetation may have included dry deciduous forest species. Afforestation efforts and mining activities may have influenced the current composition, with a mix of native and introduced plant species. Surrounding agricultural fields contribute to the overall landscape.

k) Fauna: Fauna in the Donimalai mining area may include indigenous species adapted to the dry deciduous forest environment. Potential species could include Sloth bear, Indian Wolf, Jungle Cat, Jackal, Indian Hare, Leopard, Porcupine, and others.

l) Avifauna: Bird species in the area may encompass Peafowl, Kingfishers, Lapwings, Pigeons, Crows, Egrets, Partridges, Robins, Swifts, Hoopoes, Bee-eaters, Owlets, Kites, and Doves.

m) Reptiles: Reptile diversity may consist of Garden Lizards, Rat Snakes, Green Snakes, Indian Cobras, Russell's Vipers, Skinks, Chameleons, and others.

n) Amphibians: Amphibian species such as Bull Frogs and Common Indian Toads may inhabit the region, adapting to seasonal variations in water availability.

o) Insects & Arthropods: The mining area supports a variety of insects, butterflies, moths, and arachnids, contributing to the overall biodiversity of the ecosystem.

4. Forest Fire

A forest fire, or wildfire, is an uncontrolled and rapidly spreading fire that consumes vegetation in forested or wooded areas. These fires can vary in size and intensity, posing significant ecological and human risks. It is a natural phenomenon in many ecosystems, playing a role in ecological processes, but human-induced factors have significantly increased the frequency and intensity of wildfires.

1. Causes of Forest Fires:

Natural Causes: Lightning strikes, especially during thunderstorms, are a natural cause of forest fires. India's diverse climatic conditions make certain regions more prone to lightning activity.

Human Activities: Human-induced factors contribute significantly to forest fires. These include agricultural activities such as slash-and-burn farming, deliberate arson for land clearance, discarded cigarettes, campfires, industrial activities, and negligence during outdoor activities.

2. Spread:

Forest fires can spread at astonishing rates, influenced by factors such as wind speed, humidity levels, and the type of vegetation. In extreme conditions, wildfires can travel up to 14 miles per hour.

3. Impact:

Ecological Impact: In the United States, wildfires burn an average of 7 million acres annually, affecting

ecosystems, habitats, and wildlife. Severe fires can lead to long-term damage and loss of biodiversity.

Human Impact: Globally, wildfires threaten communities, causing evacuations and property damage. In recent years, countries like Australia, the United States, and Canada have experienced devastating wildfires, impacting thousands of people.

4. Prevention and Control:

Prevention: Public awareness and education campaigns, along with strict regulations, contribute to fire prevention. In the United States, over 85% of wildfires are human-caused, emphasizing the need for prevention measures.

Control: Firefighting efforts involve various techniques, including air support with water or fire retardants, creating firebreaks, and implementing controlled burns.

5. Environmental Factors:

Weather Conditions: Dry and windy conditions significantly increase the risk of wildfires. In Australia, the Bureau of Meteorology monitors fire weather conditions, providing forecasts to aid preparedness.

Fuel Load: The accumulation of dry vegetation, or fuel load, influences the intensity and behavior of wildfires. In Canada, fuel management strategies are employed to reduce fire risks.

6. Global Significance:

According to the World Meteorological Organization, wildfires release around 2.7 billion tons of carbon dioxide annually. The increasing frequency and intensity of wildfires contribute to climate change.

In 2019, the Amazon rainforest experienced a surge in wildfires, with more than 74,000 fires detected. These events raised concerns about the impact on biodiversity and the global climate.

7. Emergency Preparedness:

Communities in fire-prone areas invest in emergency preparedness, including evacuation plans, community drills, and communication strategies. In California, for instance, the Office of Emergency Services coordinates wildfire response.

8. Rehabilitation:

Post-fire rehabilitation is crucial to restoring ecosystems. In Australia, after the devastating 2019-2020

bushfires, initiatives like "Plant a Tree for Me" aimed to reforest affected areas.

9. Technology and Monitoring:

Satellite technology, like NASA's Fire Information for Resource Management System, monitors global fire activity. Early detection and monitoring systems aid in rapid response and resource allocation.

Understanding the complex dynamics of forest fires is essential for implementing effective prevention, management, and rehabilitation strategies to mitigate the impacts on both the environment and human communities.

Types of Forest Fires:

Forest fires vary in terms of their characteristics, causes, and impacts.

1. Ground Fires:

Characteristics: These fires burn in the organic layer of soil, often ignited by lightning strikes or human activities like campfires.

Spread: Ground fires can smolder for extended periods, spreading slowly but persistently through the layer of decomposing organic material.

Impact: While not as visually dramatic as other types, ground fires can cause significant damage to the forest floor, affecting soil composition and the regeneration of plant life.

2. Surface Fires:

Characteristics: Surface fires move along the forest floor, consuming grasses, bushes, and small trees.

Spread: They are characterized by a fast but generally manageable spread, especially in areas with dense underbrush.

Impact: Surface fires play a natural role in ecosystem maintenance by clearing dead vegetation, promoting new growth, and reducing the risk of more severe fires.

3. Crown Fires:

Characteristics: The most dangerous type, crown fires burn in the upper canopy of trees, spreading rapidly and causing extensive damage.

Spread: Fueled by strong winds and dry conditions, crown fires can advance quickly, leaping from treetop

to treetop.

Impact: Crown fires result in significant tree mortality, altering the structure of the forest and posing a severe threat to biodiversity. They are challenging to control and can cause extensive ecological damage.

4. Surface and Crown Fires (Mixed Intensity):

Characteristics: These fires exhibit a combination of surface and crown fire behavior.

Spread: The intensity and behavior of the fire vary based on factors such as fuel availability, weather conditions, and topography.

Impact: Mixed-intensity fires can have diverse ecological effects, depending on the interplay of surface and crown fire dynamics.

5. Ground and Surface Fires (Mixed Severity):

Characteristics: This type combines elements of ground fires, which burn in the soil, and surface fires, which move along the forest floor.

Spread: The severity of the fire can vary, impacting different levels of vegetation and soil.

Impact: Mixed-severity fires can create a mosaic of burn patterns, influencing the regeneration of plant species and contributing to landscape heterogeneity.

6. Spot Fires:

Characteristics: Spot fires occur when embers or sparks from a main fire ignite new fires at a distance from the primary fire front.

Spread: Wind carries burning embers, leading to the ignition of spot fires in areas ahead of the primary fire.

Impact: Spot fires can complicate firefighting efforts, making containment more challenging and increasing the overall extent of the fire.

Understanding these different types of forest fires is crucial for developing effective management and prevention strategies tailored to the specific characteristics of each fire type.

5. Analysis of Existing infrastructure for fire protection

A. Fire Prevention Measures:

Firebreaks and Buffer Zones: Assess the presence and effectiveness of firebreaks and buffer zones to prevent the spread of fires.

Vegetation Management: Evaluate vegetation control measures to minimize fuel for potential fires.

Hot Work Procedures: Examine protocols for hot work activities, ensuring they are conducted safely to prevent fire incidents.

B. Early Detection Systems:

Fire Detection Equipment: Review the type and distribution of fire detection equipment, including smoke detectors, heat sensors, and other early warning systems.

Monitoring and Surveillance: Assess the integration of technology, such as cameras and satellite monitoring, for real-time surveillance and early fire detection.

C. Firefighting Infrastructure:

Fire Hydrants and Water Supply: Check the availability and distribution of fire hydrants, ensuring an adequate and accessible water supply for firefighting.

Fire Extinguishers and Equipment: Evaluate the types and locations of firefighting equipment, including extinguishers, hoses, and other tools.

Emergency Response Planning: Review the emergency response plan, including evacuation procedures, communication systems, and coordination with local firefighting authorities.

D. Training and Drills:

Employee Training: Assess the training programs for employees regarding fire safety, response procedures, and the use of firefighting equipment.

Emergency Drills: Evaluate the frequency and effectiveness of emergency drills conducted on-site to ensure preparedness.

E. Regulatory Compliance:

Compliance with Standards: Ensure that the fire infrastructures adhere to national and international safety standards and regulations.

Inspections and Audits: Review records of regular inspections, audits, and compliance checks conducted by relevant authorities.

F. Community Engagement:

Communication with Local Communities: Assess the effectiveness of communication channels between the site and local communities regarding fire safety measures, evacuation plans, and community involvement in fire prevention.

G. Risk Assessment:

Fire Risk Assessment: Conduct a comprehensive fire risk assessment, considering factors such as weather conditions, historical fire data, and the nature of operations at the site.

H. Environmental Impact:

Environmental Protection Measures: Evaluate measures in place to minimize the environmental impact of potential fires, including strategies for protecting nearby forests and ecosystems.

6. Proposal for Strengthening Fire Protection Measures at NMDC Mines, Donimalai

a. Early Warning Systems:

Install Advanced Fire Detection Systems: Deploy cutting-edge smoke detectors, heat sensors, and flame detectors to ensure swift identification of potential fire incidents. Comprehensive Early Warning System: Implement an integrated system featuring sirens, alarms, and advanced notification mechanisms for efficient communication and timely response.

b. Firefighting Infrastructure:

Strategic Fire Hydrant Placement: Conduct a thorough assessment and strategically place additional fire hydrants throughout the mining area to optimize coverage.

Expanded Firefighting Equipment : Acquire and deploy additional firefighting equipment, including fire extinguishers, hoses, and mobile firefighting units, ensuring compliance with industry standards.

c. Water Supply and Storage:

Enhanced Water Infrastructure Evaluate and enhance the water supply infrastructure to ensure a reliable and substantial water source for firefighting activities.

Additional Water Storage Tanks: Propose the installation of strategically located water storage tanks to

cover critical areas vulnerable to fires.

d. Emergency Response Planning:

Comprehensive Emergency Response Plan: Conduct a comprehensive review and update of the emergency response plan, incorporating lessons learned from past incidents and aligning it with the specific risks associated with mining operations. **Regular Training Sessions and Drills:** Facilitate regular and realistic training sessions and drills to ensure all personnel are proficient in responding promptly and effectively to fire emergencies.

e. Firebreaks and Vegetation Management:

Effective Firebreaks and Buffer Zones: Implement and maintain a comprehensive network of firebreaks and buffer zones to impede the rapid spread of fires. **Robust Vegetation Management Plan:** Develop and execute a robust vegetation management plan to minimize the accumulation of combustible materials and reduce the risk of wildfires.

f. Technology Integration: **Cutting-edge Technological Solutions:** Integrate advanced technologies such as satellite monitoring, drones, and thermal imaging to enhance early detection capabilities. **Artificial Intelligence (AI) for Predictive Modeling:** Explore the integration of AI for predictive modeling to identify high-risk areas and optimize response efforts.

g. Regulatory Compliance: **Adherence to Stringent Standards:** Ensure strict compliance with national and international fire safety standards and regulations. **Routine Audits and Inspections:** Establish a routine schedule for internal and external audits to verify compliance and identify areas for continuous improvement.

h. Community Engagement and Awareness:

Comprehensive Community Programs: Develop and implement community awareness programs to educate local residents about fire safety measures, evacuation procedures, and community involvement in fire prevention. **Collaborative Partnerships:** Foster collaboration with local firefighting agencies and communities to create a shared responsibility for fire prevention and response.

i. Environmental Protection Measures: Mitigation of Environmental Impact Implement measures to minimize the environmental impact of potential fires, including protection protocols for nearby forests, water bodies, and wildlife habitats. Eco-friendly Firefighting Materials. Integrate eco-friendly firefighting materials and practices to align with sustainable and environmentally conscious initiatives.

j. Risk Assessment and Mitigation: Regular Risk Assessments Conduct regular and comprehensive risk assessments to identify potential fire hazards and vulnerabilities in the mining area. Robust Risk Mitigation Plan Develop and implement a robust risk mitigation plan to address identified vulnerabilities and enhance overall fire resilience.

7. Forest Management Approaches.

Implementing forest fire prevention, detection, and suppression measures to minimize the impact of wildfires on forest ecosystems and surrounding communities. Establishing fire lines, control points, and firebreaks to contain wildfires and prevent their spread during dry seasons. Conducting public awareness campaigns, training programs, and community firefighting brigades to enhance fire preparedness and response capabilities. Government of Karnataka has adopted various approaches to manage the forests in the country. Major strategies of forest management in Karnataka are: community forestry, leasehold forestry, government managed forestry, and protected forestry. In community forestry, state control and protected forests areas are being transformed to local people control. Local people are managing community forests, to meet their forest product needs, based on their indigenous knowledge synergized with technical inputs by the forestry technicians. Leaseholds forestry is practiced in Karnataka through handing over patches or blocks of degraded forest to local communities or private enterprise. The communities or enterprises have rights over land for leased period but they have to maintain or improve existing forest condition. In the hills, forest patches which are not under community control are under government control. The forests that are inaccessible, or far from the settlements are under this category. Protected forests are the legally strict areas where forests are preserved as biodiversity hotspots or protected areas.

7.1 The Fire Management Plan

In Karnataka, forest fires are a typical occurrence every year, especially in the tropical moist and dry deciduous woods. Forest fires affect all types of forests, though to varying degrees: community forests, leasehold forests, government managed forests, and protected forests. Because leasehold woods are typically small patches or blocks and are in a deteriorated state, they are less susceptible to forest fires. This management plan's approach to leasehold forestry is pro-poor leasehold forestry. Forest fires have a significant impact on protected forests, managed forests by the government, and community woods.

Forest fires pose a serious threat to community forests. Contiguous blocks and the implementation of passive forest management are the primary causes. Since there is no physical barrier separating forest patches in community forests, fire can spread quickly to neighboring community forests. Furthermore, there is no physical separation between the forest blocks that make up the CF, so the fire will quickly spread to nearby blocks. Forest fires can spread quickly and are challenging to contain due to a lack of adoption of fire prevention measures like building forest roads and fire lines. By removing dead and dying trees from the forest and placing more of an emphasis on conservation than management, community forestry is implementing the passive forest management technique.

A dense forest has been produced as a result of the approach. Trees are thus closer to one another, increasing the risk of fire and producing more leaves annually. Addressing the current forest fire challenges and institutionalizing the finest indigenous techniques are imperative. The fire management plan outlines fundamental knowledge about forest fires, current community-adopted methods of putting out forest fires, and fire preventive and control techniques to be implemented in protected, government-managed, and community-managed forests in Donimalai Block.

7.2 Forest Resources

Donimalai Block is rich in biodiversity due to a high variation in altitude and climate. Forest and shrub together covers 67.4% of the total area of the district. The average volume of growing stock is 152m³/ha with minimum 142 m³/ha and maximum 162 m³/ha (DFRS, 1999). Total volume and species wise volume offorest of the district is presented in Table 4.

Table 1. Specie wise volume of the forest in Donimalai Block

Sl.No	Name of tghe Species	Volume (cm3)
1	<i>Acacia catechu</i>	0.182461165
2	<i>Acacia leucocephala</i>	0.085687045
3	<i>Aegale marmelos</i>	0.138714017
4	<i>Albigia procera</i>	0.126336317
5	<i>Annona reticulata</i>	0.190467456
6	<i>Borassus flabellifera</i>	0.003875176
7	<i>Boswellia serrata</i>	0.040535928
8	<i>Capparis zeylanica</i>	0.133861789
9	<i>Cassia fistula</i>	0.109363057
10	<i>Chloroxylon swietenia</i>	0.036425397
11	<i>Commelina sinensis</i>	0.116059286
12	<i>Dalbergia paniculata</i>	0.114278344
13	<i>Euphorbia tirucalli</i>	0.088680981
14	<i>Ficus amplissima</i>	0.092621871
15	<i>Gardenia gummifera</i>	0.040867542
16	<i>Madhuca longifolia</i>	0.170745979
17	<i>Mallotus philippensis</i>	0.073946438

8. Objectives of the Fire Management Plan

The objective of the fire management plan is to safeguard forest and biological resources in Donimalai Block by reducing fire damages through mobilizing government, local bodies, non-governmental organization, private sector, civil society, and local people.

- 1). To characterize vegetation analysis of the NMDC fragmented patches.
- 2). To identify potential erosion risk areas and preparation of site-specific soil and water conservation.
- 3). Treatment plan to mitigate soil erosion.
- 4). To suggest in-situ moisture conservation plan for supporting regeneration of vegetation through site-specific SWC measures.
- 5). To create benchmark data on parameters of Soil and land resource appraisal for subsequent monitoring and evaluation.

The objective of the fire management plan is to safeguard forest and biological resources in Donimalai Block by reducing fire damages through mobilizing government, local bodies, non-governmental organization, private sector, civil society, and local people.

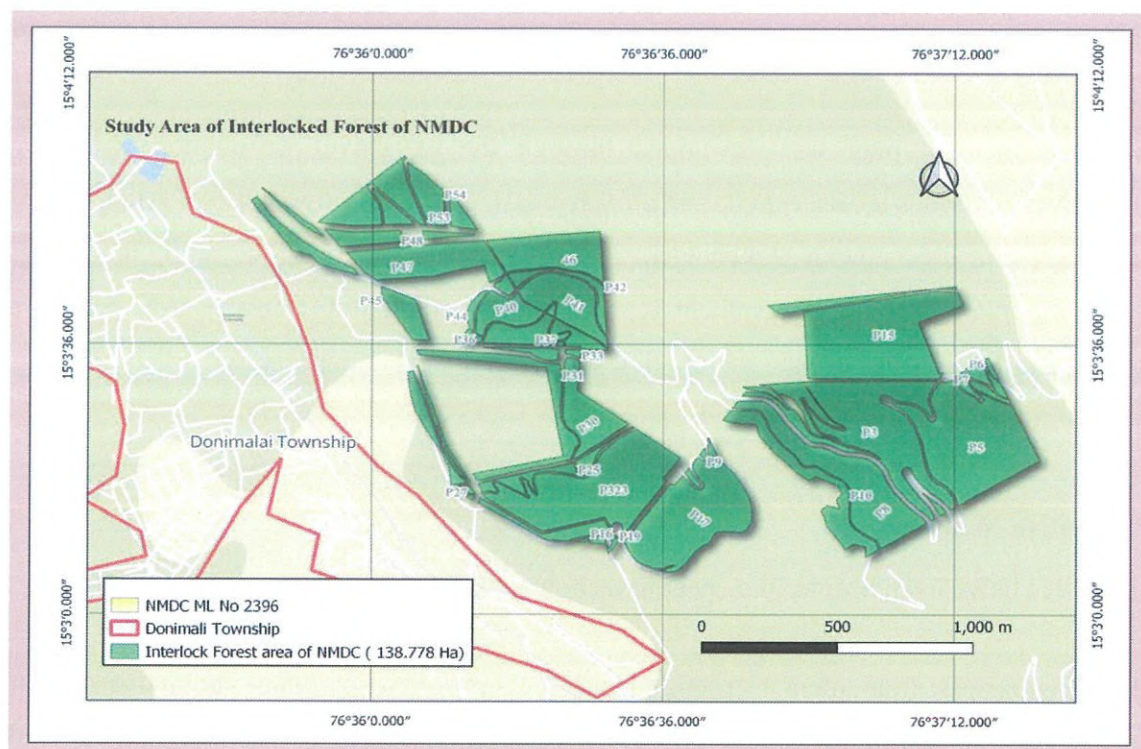


Fig 4 : Study area of the Interlocked Forest of NMDC

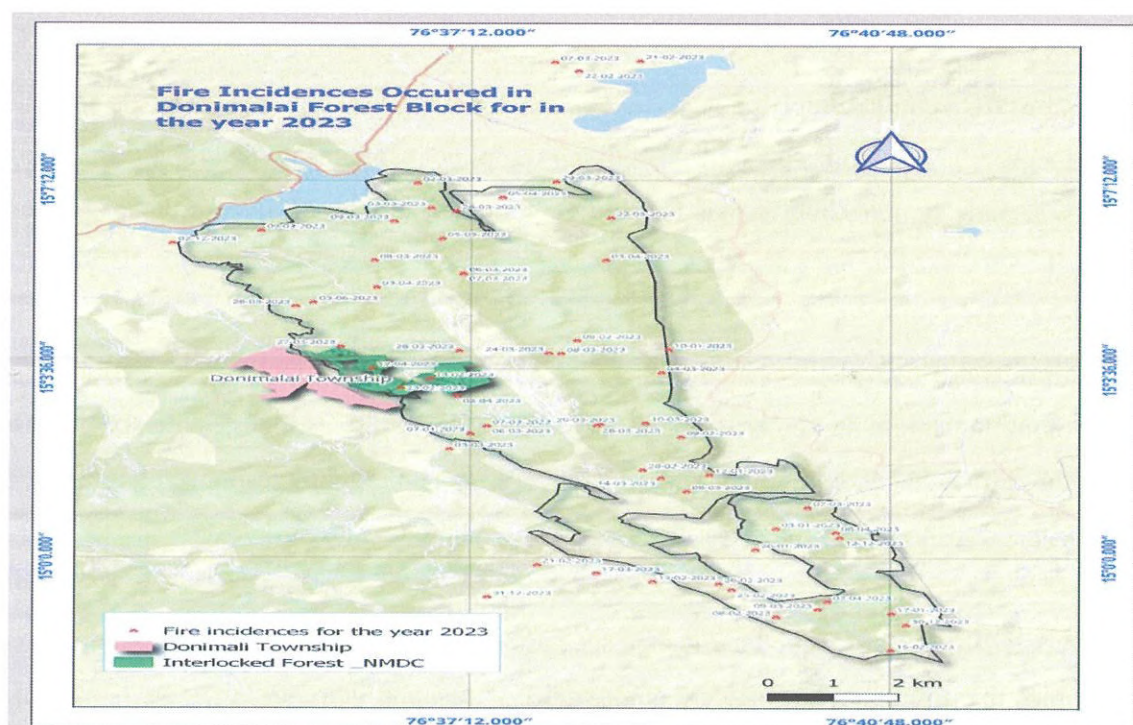


Fig.5: Fire incidence map of Donimalai Block

9. Methodology

The fire management plan was developed through the extensive consultation with government representatives at various levels, experts and professionals, and local communities. Participatory appraisal methods were executed among stakeholders including district forest office staff, non governmental organization personnel, local government representatives, community forestry user groups and their networking and federations, private sector, civil society and local communities.

Methods of Management of Fire

9.1 Preventive Measures

Certainly, let's delve even deeper into specific recommendations for each preventive measure .

- 1. Public Awareness:** Implement a structured awareness program, including interactive sessions, videos, and real-life case studies on the impacts of forest fires. Distribute informational materials in multiple languages to ensure broader community understanding. Utilize community influencers to reinforce fire safety messages within local neighborhood
- 2. Signage:** Install dynamic digital signages that can display real-time fire danger levels and emergency messages. Incorporate QR codes on signages linking to online resources with detailed fire safety instructions. Include symbols and visuals for better comprehension, especially for those with low literacy levels.
- 3. Joint Committees:** Develop a shared online platform for committee members to facilitate continuous communication and collaboration. Establish sub-committees focusing on specific aspects such as community engagement, equipment maintenance, and emergency response planning. Conduct joint field inspections to assess the effectiveness of implemented strategies.
- 4. Workshops with Forest Officials:** Arrange specialized training sessions for NMDC personnel, covering topics like fire behavior, incident command systems, and first aid. Facilitate hands-on training exercises in simulated fire scenarios to enhance practical skills. Encourage cross-training between NMDC and forest department staff for better coordination during emergencies.

5. Watch Towers: Equip watch towers with advanced fire detection technologies, such as infrared cameras and satellite monitoring systems. Implement a shift schedule for watchtower personnel, ensuring 24/7 vigilance during peak fire seasons. Establish a direct communication link between watchtower personnel and emergency response teams

6. Equipment Purchase: Invest in modern equipment with user-friendly interfaces and conduct regular training sessions for personnel. Implement a comprehensive equipment maintenance plan, including routine checks, repairs, and replacements. Explore partnerships with local firefighting equipment suppliers for quick access to spare parts and technical support.

7. Fire-line Formation: Utilize controlled burns strategically to create wider firebreaks, ensuring more effective containment. Implement a GIS (Geographic Information System) to map and monitor firebreak effectiveness over time. Collaborate with local environmental experts to minimize ecological impact during firebreak construction.

8. Early Burning: Develop a detailed prescribed burning plan, considering wind patterns, humidity, and ecological factors. Coordinate with meteorological agencies for weather forecasts to optimize safe burning windows. Establish a community notification system to inform nearby residents about planned burns well in advance.

9. Regular Drills: Simulate various scenarios, including equipment malfunctions and identify potential bottlenecks. Document lessons learned from each drill and use them to refine and update emergency response protocols. Practice failure, rapid fire spread, and mass evacuations during drills. Evaluate the effectiveness of communication

10. Community Engagement:

Establish a community task force consisting of local volunteers trained in basic firefighting and first aid. Organize community-based competitions and events to sustain interest and involvement in fire prevention efforts. Recognize and reward individuals or communities actively contributing to fire prevention initiatives.

9.2 Combative Measures

- 1. Formation of Rapid Response Team:** Establish dedicated Rapid Response Team (RRT) comprising trained personnel with expertise in firefighting, first aid, and emergency response. Equip the RRT with specialized firefighting gear, communication devices, and emergency medical supplies. Conduct regular training drills and simulations to enhance the team's efficiency and coordination during firefighting operations.
- 2. Schedule of Patrolling Staff/Vehicles:** Develop a comprehensive patrolling schedule covering peak fire seasons and high-risk periods. Implement rotating shifts for patrolling staff to ensure 24/7 coverage and minimize fatigue. Utilize both foot patrols and patrolling vehicles equipped with communication tools and firefighting equipment.
- 3. Hiring of Local Staff/Vehicles:** Collaborate with local communities to hire and train additional firefighting staff during critical periods. Establish contracts with local vehicle owners for the provision of firefighting vehicles and equipment. Ensure that local staffs are familiar with the terrain and possess local knowledge for effective firefighting and rapid response.
- 4. Basic Facilities for Watchers:** Provide basic facilities for watchers stationed at critical locations, including watchtowers. Install comfortable shelters with amenities like water, food, and sanitary facilities for extended stays. Ensure that watchers have access to reliable communication tools and are trained to report incidents promptly.
- 5. Advanced Communication Systems:** Implement advanced communication systems such as two-way radios, satellite phones, and mobile applications for real-time information exchange. Establish a centralized communication hub to coordinate efforts, receive incident reports, and disseminate instructions to response teams.
- 6. Early Warning Systems:** Integrate early warning systems, such as weather monitoring tools and fire detection technology, to provide timely alerts. Establish protocols for immediate response upon receiving

early warnings, including mobilizing response teams and notifying local communities.

7. Strategic Firebreak Management: Regularly monitor and maintain existing firebreaks to ensure they remain effective. Strategically position response teams near critical firebreaks during high-risk periods. Utilize controlled burns to reinforce and widen firebreaks in targeted areas.

8. Aerial Support Coordination: Establish protocols for coordinating with aerial firefighting resources, such as helicopters and planes. Ensure that response teams are trained to work in conjunction with aerial support, maximizing effectiveness in challenging terrains.

9. Emergency Medical Support: Equip response teams with basic medical supplies and provide training in basic first aid. Establish partnerships with local medical facilities for emergency medical support and evacuation if needed.

10. Continuous Training and Evaluation: Conduct regular training sessions to keep response teams updated on the latest firefighting techniques and equipment. Perform periodic evaluations of response team performance, identifying areas for improvement and addressing gaps in training.

By implementing these detailed recommendations, NMDC Donimalai can enhance its combative measures against forest fires, ensuring a swift and coordinated response to mitigate potential risks. Regular drills and evaluations will further refine the efficiency of the response teams over time.

Post-fire measures are crucial for assessing the impact of the incident, understanding its causes, and taking steps to prevent future occurrences. Here are detailed recommendations for post-fire measures, including the preparation of a burnt area report and identifying/prosecuting culprits:

9.3 Post Forest Fire measures

1. Preparation of Burnt Area Report: Conduct a comprehensive assessment of the burnt area, considering the extent of damage, ecological impact, and loss of biodiversity. Use satellite imagery, GIS technology, and ground surveys to map the affected areas accurately. Prepare a detailed Burnt Area Report documenting the severity of the fire, areas of regeneration, and potential risks for soil erosion.

2. Ecological Rehabilitation Plan: Develop an ecological rehabilitation plan in collaboration with

environmental experts and ecologists. Implement soil stabilization measures, such as reseedling with native vegetation, to promote ecosystem recovery. Monitor the rehabilitation process and adjust strategies as needed to facilitate natural regeneration.

3. Culprit Identification and Prosecution: Collaborate with law enforcement agencies to conduct a thorough investigation into the cause of the fire. Utilize forensic techniques and technology to identify potential culprits, including the examination of fire origin points. Prosecute individuals or entities responsible for intentional or negligent actions leading to the fire.

4. Community Engagement and Support: Engage with local communities affected by the fire to understand their needs and concerns. Provide support for affected residents, including assistance with rebuilding, access to medical care, and counseling services. Establish community forums to enhance communication and collaboration in fire prevention efforts.

5. Public Awareness on Post-Fire Recovery: Launch public awareness campaigns to educate local communities and stakeholders on the importance of post-fire recovery. Highlight the role of community members in supporting rehabilitation efforts, such as participating in reforestation initiatives.

6. GIS Mapping for Future Planning: Utilize GIS mapping to create detailed records of burnt areas, firebreak effectiveness, and areas susceptible to future fires. Integrate this data into future forest management and fire prevention plans for more informed decision-making.

7. Implementing Fire-Resistant Landscaping: Promote the use of fire-resistant plant species in affected and vulnerable areas during rehabilitation efforts. Collaborate with local nurseries to provide communities with access to fire-resistant plants for landscaping purposes.

8. Enforcement of Fire Safety Regulations: Strengthen enforcement of existing fire safety regulations and implement stricter penalties for violations. Conduct regular inspections to ensure compliance with regulations, especially in high-risk areas.

9. Remote Sensing for Early Detection: Invest in remote sensing technology to enhance early detection capabilities for potential fire risks. Implement automated monitoring systems that can detect changes in vegetation health and temperature anomalies indicative of fire.

10. Post-Incident Review and Improvement: Conduct a thorough post-incident review to analyze the effectiveness of emergency response and recovery efforts. Identify lessons learned and implement necessary improvements in policies, procedures, and equipment.

10. Impacts of Forest Fire

10.1 Environmental Impacts

A .Loss of Soil and Microorganisms

Fire-induced loss of soil cover negatively affects hydrological regimes and soil properties, leading to severe erosion and loss of productive topsoil. High economic losses are caused by damaging valuable timber and non-timber resources, natural regeneration, and planted forests (ITTO 1997). Most of the micro organisms that shelter on the surface are damaged by forest fire. Fire burnt area becomes dry and detrimental for the micro-organisms. About three-fourth area of the district is mountainous. When surface materials and undergrowth is consumed by fire, the bare area becomes susceptible to soil erosion. Various landslides can be observed in the fire affected areas of the district.

B. Change in Age Gradation

Forest fire is a threat for the fire sensitive species and it may lead to changing species composition in the long term. Species with the character of fire hardiness survive, and fire sensitive species disappear if the area is continuously affected by forest fire. There is no significant effect observed in the alteration of species composition in the district, but the age gradation is altered due to the effect of forest fire. Since regenerations and pre-matured trees are highly affected by fire and can not survive if fire incidents occur frequently. As a consequence, only mature trees exist in the forest which alters age gradation in the fire affected areas with the non-affected areas.

The above table shows that the area under regeneration, sapling and pole stage forest is negligible in the district. Most of the forests in the district are matured and semi-matured. Forest fire might have contributed to this result since the fire easily damages to regeneration and younger aged forest.

C. Environmental Pollution

Forest fires produce atmospheric pollutants. In addition, accumulation of pollutant gases after burning cause the temperature to rise, which contribute in the global warming. Although atmospheric pollutants

and their effects in temperature was not assessed due to limited time and resources availability, local communities realize that the surrounding atmosphere become polluted when fire incident occurs. It also causes respiratory problems such as asthma, bronchitis, etc.

D. Loss of Biodiversity

Local people set fire to reduce mosquitoes, scorpions and snakes, which directly affect the population of insects and herpeto-fauna. Forest fire causes loss of ground flora, undergrowth, under storey, and even tree crowns. Consequently, habitats of wildlife including insects, reptiles, birds, and small to mega mammals are being lost. Similarly, plant diversity is also affected due to the fire. Invasive species such as Eupatorium replace other plant species and they regenerate profusely after forest fire, which reduce species richness. Local communities noticed diminishing population of pigmy hog in repeatedly burned areas.

10.2 Socio-economic Impacts

A. Loss of Forest Products

It is observed in Donimalai Block that forest fire affects all parts of the trees including leaves, branches, timber and roots. Less intensive fire consumes leaves and small branches, and converts green branches and whole trees into dead ones. Highly intensive fire consumes all the materials including fallen trees, logs, and standing trees. The damages and losses of the matured or semi-matured trees have high economic impacts. The loss of timber and firewood is higher in government managed forest and protected areas as compared to community and leasehold forests. It is due to the active participation of local communities in preventing and suppressing fire in their forests.

Two types of log damages were observed in the district. First one is the total loss in which all logs are consumed by forest fire. Second, the partial loss or devaluation in which sawlog is converted into firewood. In case of firewood, almost complete loss was observed.

B. Loss of Regenerations

Regeneration is highly affected by forest fire since they are damaged even by surface fire. Surface fire is most common in the district. The loss of regeneration has ecological and economic impacts in the long run.

C. Loss of NTFPs

Most of the poor people, in Karnataka, depend on NTFPs for their livings as well as for medicine. NTFPs have a very crucial economic role in the rural community. In Donimalai Block, local communities residing in the villages, particularly far from Hetauda, consume NTFPs for traditional medicines. Kurilo Forest resources management Services

(*Asparagus racemos*), *Sarpagandha* (*Rauwolfia serpentina*), *Chiraito* (*Swertia chiraita*), *Jiwanti* (*Desmotrichum fimbritum*), *Majitho* (*Rubia manjigh*), *Somlata* (*Ephedra gerardiana*), *Sikakai* (*Acacia concinna*), *Pipla* (*Piper peepuloides*), *Satuwa* (*Paris polyphylla*), *Dalchini* (*Cinnamomum zeylanicum*), *Babiyo* (*Eulaloipsis binata*), *Dar* (*Boehmeria regulosa*), *Kaulo* (*Machilus odoratissima*), and various species of bamboos are important NTFPs used by the communities in the district. Most of the NTFPs including herbaceous plants and shrubs are more susceptible to forest fire since they are damaged by surface fire as well.

D. Detrimental to Human Health

Fire spreads diseases, particularly lungs and eye diseases, in the surroundings. Local communities in the district have experience of eye diseases in the past when the forest was damaged by fire. Moreover, forest fire creates environmental pollution which affects in the human health and economy.

E. Loss of Private Property

Sometimes, forest fire spreads to adjoining settlements which may lead to the loss of livestock, human life and properties.

11. Recovery and Rehabilitation

Recovery of fire damaged area is an important task to be planned. Following activities will be undertaken to recover the fire affected areas:

1. Clean up debris from fire lines
2. Removal of dead or affected trees
3. Regenerate fire damaged site

Fire damaged area will be rehabilitated through planting appropriate species. Priority will be given to NTFPs and fire resistant indigenous species

12. RESULTS AND DISCUSSION

12.1 Prevention Strategies

Formulation of National Forest Policy in 1988, The National Master Plan for Forest Fire Control, and Guidelines in 2018 are some of the key initiatives that the Government of India has taken to manage the fire. Common methods for prevention of fire used in India include - fire line clearance and controlled burning to limit fuel loads, silvicultural practices such as selective thinning and fire- adapted tree species planting in fire-prone areas, early warning, and fire hazard rating systems. The implementation of Joint

Forest Management (JFM) village level committees was another significant step in the micro-level management of forest fires in India.

The knowledge in systematic forest fire control is limited to the short term. There are weaknesses in the evaluation, ranging from fire detection to the coordination of preventive steps. At this time, the need to establish an adaptive management plan is critical. Sector-wise, with short- and long-term visions, clear points are suggested for the implementation of a holistic fire prevention plan in the light of climate change. Some of them include mitigation measures to minimize the uncertainty in baseline data, strengthen present fire-fighting programs, developing precautionary measures, integrating institutional efforts, publicity, extension, and training, legal measures, and funding of more programs aimed to improve the current status.

12.2 Proposed SMC structures for the area

A total of four gabion checks (6), four check dams (4) and hundred and eighteen vegetative checks (87) is necessary for the effective management of Soil water in the area. The locations of the structures are depicted in the map (Fig. 43). The details of the same are presented in Table32.

Criteria enlisted for different conservation structures

SL.NO	Name	Latitude	Longitude
1	Gabions	15.06186	76.61101
2	Gabions	15.0556	76.62117
3	Gabions	15.05895	76.60341
4	Gabions	15.05434	76.61506
5	Gabions	15.06148	76.61533
6	Gabions	15.06437	76.61159
7	Gabions	15.06101	76.61952
8	Check Dam	15.06129	76.60827
9	Check Dam	15.05253	76.61768
10	Check Dam	15.05413	76.60952
11	Vegetative check	15.06317	76.61806
12	Vegetative check	15.06221	76.61435
13	Vegetative check	15.06114	76.61456
14	Vegetative check	15.06155	76.61266
15	Vegetative check	15.06117	76.61351
16	Vegetative check	15.06103	76.61905
17	Vegetative check	15.06067	76.6203
18	Vegetative check	15.0608	76.61946
19	Vegetative check	15.06029	76.61675
20	Vegetative check	15.05951	76.6119
21	Vegetative check	15.05972	76.61013
22	Vegetative check	15.05893	76.61443
23	Vegetative check	15.05801	76.61325
24	Vegetative check	15.05763	76.614
25	Vegetative check	15.0585	76.61468
26	Vegetative check	15.05795	76.6149
27	Vegetative check	15.05648	76.61437
28	Vegetative check	15.05744	76.61745
29	Vegetative check	15.05627	76.61691
30	Vegetative check	15.0553	76.61641
31	Vegetative check	15.05517	76.61516
32	Vegetative check	15.05512	76.61679
33	Vegetative check	15.05564	76.61733
34	Vegetative check	15.05698	76.61788
35	Vegetative check	15.05656	76.61772
36	Vegetative check	15.05865	76.62001
37	Vegetative check	15.05929	76.62066
38	Vegetative check	15.05743	76.61133
39	Vegetative check	15.05687	76.61212
40	Vegetative check	15.05604	76.61255
41	Vegetative check	15.05944	76.61114
42	Vegetative check	15.05882	76.6098
43	Vegetative check	15.06284	76.61314

44	Vegetative check	15.06155	76.61616
45	Vegetative check	15.05594	76.60921
46	Vegetative check	15.05524	76.60893
47	Vegetative check	15.05593	76.60964
48	Vegetative check	15.05468	76.61005
49	Vegetative check	15.05462	76.61044
50	Vegetative check	15.05774	76.60639
51	Vegetative check	15.05435	76.61771
52	Vegetative check	15.05381	76.61657
53	Vegetative check	15.05242	76.61793
54	Vegetative check	15.05352	76.61912
55	Vegetative check	15.05708	76.62113
56	Vegetative check	15.05652	76.62254
57	Vegetative check	15.06375	76.61312
58	Vegetative check	15.06403	76.61239
59	Vegetative check	15.06568	76.61297
60	Vegetative check	15.06496	76.60978
61	Vegetative check	15.06576	76.60957
62	Vegetative check	15.06551	76.60181
63	Vegetative check	15.06424	76.60402
64	Vegetative check	15.0653	76.60339
65	Vegetative check	15.06543	76.60418
66	Vegetative check	15.06064	76.6057
67	Vegetative check	15.06023	76.60457
68	Vegetative check	15.05814	76.60566
69	Vegetative check	15.05975	76.60821
70	Vegetative check	15.0591	76.60867
71	Vegetative check	15.06103	76.60784
72	Vegetative check	15.06268	76.60952
73	Vegetative check	15.06573	76.60691
74	Vegetative check	15.06655	76.60703
75	Vegetative check	15.06638	76.60839
76	Vegetative check	15.06577	76.60093
77	Vegetative check	15.06483	76.60223
78	Vegetative check	15.06355	76.60304
79	Vegetative check	15.06025	76.60216
80	Vegetative check	15.05542	76.60355
81	Vegetative check	15.05611	76.6026
82	Vegetative check	15.05664	76.60667
83	Vegetative check	15.05101	76.61966
84	Vegetative check	15.05201	76.62093
85	Vegetative check	15.05515	76.6214
86	Vegetative check	15.05744	76.62021
87	Vegetative check	15.05268	76.61738

88	Vegetative check	15.05615	76.61391
89	Vegetative check	15.05077	76.61796
90	Vegetative check	15.05313	76.6092
91	Vegetative check	15.05386	76.60863
92	Vegetative check	15.05665	76.60525
93	Vegetative check	15.05691	76.6061
94	Vegetative check	15.06373	76.61608
95	Vegetative check	15.0615	76.61974
96	Vegetative check	15.05996	76.60328
97	Vegetative check	15.05913	76.60385

Table 2 : Details of the proposed SMC structures of the area

a) Check dam

- Check dams are stone masonry structures and are suitable for second and third order drains.
- The primary objective is to check the velocity of flowing water and soil transportation.
- Adjacent to agricultural lands.
- Drain should be narrow
- Sides should be stable.
- Drain depth less than 2 m and width less than 8 m.

b) Vegetative checks

- These are provided for first-order drains mainly to check the velocity of running water and soil erosion.
- These structures are suggested for the drains having soil presence and mainly for first order drains.
- The slope of the area should be nearly flat to moderate in agriculture lands and also upper reaches of the hilly terrains in non-agriculture lands.
- Drain depth less than 1 m and width less than 3 m.
- These structures are provided by constructing small bund across the drain..

d) Gabions

- These are dams made of wire basket comprising boulders and suggested for the steep sloped gullies.
- They check the velocity of the running water and hold silt.

They are adopted in the high-slope areas and areas with high rainfall.

13. RECOMMENDATIONS

Recommendations based on Vegetation analysis

Species recommended for planting

A mixture of leguminous, wild fruit yielding species along with grasses are recommended to enrich site, prevent soil erosion and to restore biodiversity. Species: *Anthocephalus cadamba*, *Gmelina arborea*, *Albizia lebbeck*, *Anogeissus pendula*, *Anogeissus latifolia*, *Leucaena leucocephala*, *Pongamia pinnata*, *Acacia catechu*, *Erythrina indica*, *Ailanthus excelsa*, *Ziziphus spp.*, *Syzygium cumini*, *Terminalia tomentosa*, *Azadirachta indica*, *Aegle marmelos*, *Jatropha curcas*, *Cordia myxa*, *Salvadora oleoides*, *Pithecellobium dulce*, *Lawsonia inermis*, *S. persica*, *Manilkara hexandra*, *Bombax ceiba* etc.

Grasses to prevent soil erosion and slope stabilization represented in fig 7.

Grass species: *Vetiveria zyzanoides*, *Cymbopogon martini*, *Cymbopogon flexuosus*, *Saccharum spontaneum*, *S. munja*, *Panicum antidotale*, *Cenchrus sp.*

Wind-Breaks

Wind-breaks are strips of trees and/or shrubs planted to protect fields, homes, canals or other areas from wind and blowing soil or sand.

- The important reasons for which wind-breaks are planted include:
- To protect livestock from cold winds
- To protect crops and pastures from hot, drying winds
- To reduce/prevent soil erosion
- To provide habitat for wildlife
- To reduce evaporation from farmlands
- To improve the microclimate for growing crops and to shelter people and livestock,
- To retard grass fire For fencing and boundary demarcation

The knowledge in systematic forest fire control is limited to the short term. There are weaknesses in the evaluation, ranging from fire detection to the When properly designed and maintained, windbreaks reduce the speed of the wind and thus its ability to carry and deposit soil and sand. They also improve

growing conditions by decreasing water evaporation from soil and plants and can be used to reduce evaporation from water surfaces, such as irrigation ponds, canals or streams. In addition, wind-breaks can provide wide range of useful products, from poles and fuel-wood to fruit, fodder, fiber and mulch.

Species: In general, trees with narrow, vertical growth are ideal for wind breaks to minimize the land removed from crop production. Some fast-growing species should be used to establish the desired effect as rapidly as possible.

Some of the tree species used for wind-breaks are Cassia, Leucaena, Casuarina, Acacia, Grevillea, Syzygium, Dalbergia etc.

Soil Conservation Hedges

Trees can be planted on physical soil conservation works (grass strips, bunds, risers and terraces) wherein they play two roles: i.e., to stabilize the structure and to make productive use of the land they occupy. Stabilization is through the root system. In some of sloping landscapes of the country, the risers or terraces are densely planted with trees, with multiple uses being made of them for fruit, fodder and fuel wood.

In this system the major groups of components are: multipurpose and trees and common agricultural species. The primary role of multipurpose trees and agricultural species is soil conservation and provision of various tree products.

The following tree species are used for soil conservation: *Grevillea robusta*, *Acacia catechu*, *Pinus roxburghii*, *Acacia modesta*, *Prosopis juliflora*, *Alnus nepalensis*, *Leucaena leucocephala* etc.

Watling

Watling is a row of fence made out of vegetative materials preferably live cuttings across the contours to prevent soil erosion.

Species suitable: *Salix spp*, *Jatropha curcas*, *Erythrina spp*, *Vitex negunda*, *Adhatoda vasica* etc.

Bamboo planting

Bamboo is effective for soil conservation and in rehabilitation of degraded lands. The extensive underground interconnected rhizome and roots system with net structure effectively binds top soil and

prevents sheet and gully erosion. It is effective tool to mitigate soil erosion, improve soil qualities and hydrological functions. In addition to stabilizing soils, bamboo contributes organic matter, increases fertility, microbial biomass and carbon content of soils. Because it can thrive in problem soils and it grows so fast, it is particularly efficient in repairing degraded land.

Species suitable: *Bambusa bambos*, *Dendrocalamus strictus*, *Bambusa sulgaris*. *Bambusa tulda* etc.

SN	Tools and Equipments	Quantity
1	Axe-hoe	20 sets
2	Back-pack Pump, Collapsible	20 sets
3	Boot	20 sets
4	Container, 1000 lit.	20 sets
5	Drip Torch	20 sets
6	First Aid Kit	25 sets
7	Gloves	40 sets
8	Helmet	20 sets
9	Hose Reel with Roller	10 sets
10	Jumpsuit	20 sets
11	Kestrel Weather Station	10 sets
12	Rake	40 sets
13	Rake-hoe	40 set
14	Swatter	20 set
15	Shovel	40 set
16	Water Pump, 3.5 HP	10 set

14. BUDGET AND EXPENDITURES

A. Prevention Programmes Works:

1. Awareness Programmes/Workshops/Training: (Rs .5.387 Lakhs)

Awareness programs, workshops, and training sessions are conducted to educate local communities, forest officials, and other stakeholders about the causes, effects, and prevention techniques of forest fires with the cost of 5.387 lakhs. These initiatives involve interactive sessions, presentations, and practical demonstrations to disseminate information on fire behavior, safety protocols, and emergency response strategies.

Awareness programs play a pivotal role in empowering individuals and communities to become proactive in preventing and managing forest fires. By enhancing knowledge and understanding, these initiatives promote a culture of fire safety and encourage responsible behavior among stakeholders. Moreover, they

foster collaboration and cooperation among various entities involved in fire management, strengthening overall preparedness and resilience.

2. Awareness Through Street Skits/Street Plays: (Rs .6.212 Lakhs)

Street skits and plays are creative and engaging mediums used to raise awareness about forest fire prevention and safety measures. These performances incorporate storytelling, drama, and humor to convey important messages in a memorable and impactful manner. They are often performed in public spaces, markets, and community gatherings to reach a diverse audience.

Street skits and plays are effective tools for reaching communities that may have limited access to formal education or communication channels. By leveraging entertainment and cultural expressions, these initiatives capture people's attention and evoke emotional responses, making the messages more relatable and memorable.

3. Conducting Regular Meetings with Forest Officials/CISF Staff:(Rs .2.312 Lakhs)

Regular meetings are organized to facilitate communication, collaboration, and coordination among forest officials, Central Industrial Security Force (CISF) staff, and other relevant stakeholders involved in forest fire management. These meetings provide a forum for sharing information, discussing challenges, and developing strategies to address emerging issues.

Regular meetings promote synergy and unity of purpose among different agencies and organizations responsible for forest fire management. By fostering open communication and mutual understanding, they help align priorities, resources, and efforts towards common goals. Moreover, these meetings enable proactive planning and decision-making, ensuring a coordinated and effective response to fire incidents.

4. Capacity Building Trainings: (Rs .10.353 Lakhs)

Capacity building trainings aim to enhance the knowledge, skills, and capabilities of individuals and organizations involved in forest fire prevention, detection, and suppression. These trainings cover a wide range of topics, including fire behavior, safety protocols, incident command systems, equipment operation, and emergency response procedures.

Capacity building trainings are essential for equipping personnel with the competencies and confidence needed to respond effectively to fire emergencies. By providing hands-on experience and simulation exercises, these trainings prepare responders to handle various scenarios and challenges they may encounter in the field. Moreover, they foster teamwork, leadership, and resilience, ensuring a competent and cohesive response during critical situations.

5. Engaging Fire Watchers/Staffs - 151 Days: (Rs .55.320 Lakhs)

Fire watchers and staff members are deployed to strategic locations within forested areas to conduct regular patrols, monitor fire-prone zones, and detect signs of smoke or fire activity. They are trained to identify potential fire hazards, report incidents promptly, and assist in initial response efforts.

Fire watchers serve as the eyes and ears on the ground, providing early detection and rapid response to forest fires. Their vigilance and presence help minimize the duration and extent of fire incidents, preventing them from escalating into major disasters. Additionally, fire watchers play a crucial role in educating visitors about fire safety measures and enforcing regulations to reduce the risk of human-caused ignitions.

6. Purchase and Installation of Signages:(Rs .23.205 Lakhs)

Signages are strategically installed at key locations within forested areas to provide information, guidance, and warnings to visitors. These signages include fire danger ratings, emergency contact numbers, evacuation routes, and safety instructions. They are designed to be highly visible and informative, using symbols, pictograms, and multilingual text to convey messages effectively.

Signages serve as important communication tools for promoting fire safety and environmental stewardship in forested environments. By providing clear and concise information, they help visitors understand the risks associated with forest fires and adopt appropriate precautions. Signages also play a vital role in guiding evacuation procedures during emergencies and directing responders to critical locations, enhancing overall preparedness and response capabilities.

B. Preventive Works:

1. Creation of Fire Lines: (Rs .1.067 Lakhs)

Fire lines, also known as firebreaks or fuel breaks, are cleared strips of land that act as barriers to slow or stop the spread of wildfires. They are typically created by removing vegetation and other combustible materials along designated paths, roads, or ridgelines to create defensible space and limit the advancement of flames.

Fire lines are critical preventive measures that help reduce the intensity and severity of wildfires. By creating breaks in fuel continuity, they interrupt the progression of fire fronts and provide safe zones for fire-fighters to operate. Fire lines also serve as containment boundaries, allowing for more controlled and manageable fire suppression efforts.

2. Maintenance of Fire Lines: (Rs . 0.534 Lakhs)

Regular maintenance of fire lines is essential to ensure their effectiveness and functionality over time. Maintenance activities may include vegetation clearing, mowing, grading, and erosion control measures to keep fire lines clear, accessible, and intact. Additionally, periodic inspections and repairs are conducted to address any damage or degradation caused by weathering or natural processes. Maintenance of fire lines is crucial for preserving their integrity and resilience against wildfire threats. Well-maintained fire lines provide reliable defense mechanisms that can be deployed quickly and efficiently during fire suppression operations. By investing in ongoing maintenance efforts, authorities can enhance the long-term sustainability and effectiveness of their wildfire prevention strategies.

3. Burning of Fire Lines Adjacent to Roads: (Rs .0.564 Lakhs)

Controlled burning or prescribed fire is used to reduce vegetation density and fuel loads along fire lines adjacent to roads. This proactive measure helps create wider buffers and safer access routes for fire suppression vehicles and personnel. Controlled burns are carefully planned and executed under favourable weather conditions to minimize smoke impacts and ensure safety.

Burning of fire lines adjacent to roads improves access and manoeuvrability for fire fighting crews, allowing them to establish effective containment lines and control points more efficiently. By reducing vegetation density, controlled burns create strategic barriers that impede the spread of wildfires and facilitate safer and more effective suppression operations along road networks.

4. Purchase and Installation of Signages/Hoardings: (Rs .23.205 Lakhs)

Similar to signages installed for awareness programs, this category involves the procurement and installation of additional signages or hoardings specifically focused on fire prevention and safety measures. These signages may include warnings about fire restrictions, prohibited activities, and penalties for violating regulations.

The purchase and installation of additional signages and hoardings reinforce key messages related to fire prevention and safety, increasing awareness and compliance among visitors and local communities. By strategically placing these visual reminders in high-traffic areas and sensitive ecosystems, authorities can deter risky behaviours, promote responsible conduct, and reduce the likelihood of human-caused wildfires.

C. Procurements:

1. Fire Safety Kit (Shoes, Torch, Shovel, etc.):(8.00 Lakhs) & fire fighting kit (Rs .23.205 Lakhs)

Fire safety kits contain essential personal protective equipment (PPE) and firefighting gear required for frontline responders engaged in wildfire suppression activities. These kits typically include fire-resistant clothing, protective footwear, helmets, goggles, gloves, flashlights, and fire fighting tools such as shovels, axes, and hose clamps. Procuring fire safety kits ensures that fire fighting personnel have the necessary equipment and gear to perform their duties safely and effectively in challenging wildfire environments. Personal protective equipment provides vital protection against heat, flames, smoke, and other hazards encountered during fire suppression operations, reducing the risk of injuries and fatalities among responders.

2. Procurement of Drones: (Rs .5.655 Lakhs)

Drones, also known as unmanned aerial vehicles (UAVs) or unmanned aircraft systems (UAS), are equipped with cameras, sensors, and GPS technology for aerial reconnaissance, surveillance, and monitoring of forested areas. These drones capture high-resolution imagery and real-time data to support fire detection, mapping, and situational awareness efforts.

Procuring drones enhances the capabilities and effectiveness of wildfire management operations by providing aerial intelligence and surveillance capabilities. Drones enable responders to rapidly assess fire behaviour, identify hotspots, and monitor fire progression in real-time from a safe distance. By augmenting ground-based resources with aerial assets, authorities can improve situational awareness, response coordination, and decision-making during wildfire incidents.

***NOTE : As Information given by Administration of NMDC Donimalai that NMDC has equipped with all modern fire fighting tools and field staff with years of experience in Controlling Forest fire Hence, above works proposed in this plan have to be considered in the current proposed plan as one of the future works that will be done in the year 2024 and the following years 2025 and 2026.**

Fire incident areas in Donimalai block in the year - 2023

ACQDate	Latitude	longitude	CircleName	Division	SubDivision	Range	Section	Beat	forset area
1-3-2023	1660027.3	678874.3551	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
1-7-2023	1663333.839	674150.302	Ballari	Ballari	Ballari	Sandur South	D_M_B	Bhujangangara	DONIMALI BLOCK
1-10-2023	1666310.502	677160.4527	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
1-12-2023	1661911.624	677833.1704	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
1-17-2023	1657052.911	680671.5817	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
1-20-2023	1659283.635	678568.0478	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	Non Forest Land
2-8-2023	1666613.894	675754.0931	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
2-8-2023	1656923.262	678906.6603	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
2-9-2023	1663236.063	677382.3638	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
2-13-2023	1658145.676	676991.8489	Ballari	Ballari	Ballari	Sandur South	D_M_B	Gollalingammanahalli	TONASAGERI RF
2-14-2023	1665256.205	673508.9391	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
2-15-2023	1655754.84	680672.8121	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
2-21-2023	1658716.534	675216.6415	Ballari	Ballari	Ballari	Sandur South	D_M_B	Gollalingammanahalli	TONASAGERI RF
2-21-2023	1676473.414	676640.4142	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	Buffer_Area

2-22-2023	1676114.356	675700.4983	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	Buffer_Area
2-23-2023	1664930.296	673063.3467	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
2-25-2023	1657870.172	678212.9551	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
2-26-2023	1658073.376	678012.4548	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
2-28-2023	1662069.923	676804.9934	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
3-2-2023	1672146.052	673257.7857	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-3-2023	1671268.639	673472.6741	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-3-2023	1662789.323	673831.6975	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Bhujangangara	SWAMYMALAI BLOCK
3-4-2023	1665503.22	677060.277	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-5-2023	1670188.638	673654.2475	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-6-2023	1668961.782	673991.6697	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-6-2023	1663597.97	674400.9737	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Bhujangangara	DONIMALI BLOCK
3-7-2023	1668961.782	673991.6697	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-7-2023	1663597.97	674400.9737	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Bhujangangara	DONIMALI BLOCK
3-7-2023	1676421.437	675332.8006	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	Buffer_Area
3-7-2023	1660772.27	679352.7035	Ballari	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK

3-8-2023	1669419.059	672617.3021	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-8-2023	1666154.419	675516.5743	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-8-2023	1661323.204	677488.3158	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
3-9-2023	1670446.809	670873.0586	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-9-2023	1670793.6	672912.9724	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-9-2023	1657188.577	679541.0588	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
3-10-2023	1663721.5	676833.4451	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
3-14-2023	1661784.33	677086.7219	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
3-17-2023	1658435.528	676122.1628	Ballari	Ballari	Ballari	Sandur South	D_M_B	Gollalingammanahalli	TONASAGERI RF
3-22-2023	1670941.822	676235.2361	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-24-2023	1666169.624	675328.3044	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-27-2023	1666379.201	672130.1555	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-28-2023	1667795.279	671429.7678	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-28-2023	1671163.025	673862.0453	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	Buffer_Area
3-28-2023	1666246.95	673949.3154	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
3-28-2023	1663624.734	676083.7052	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK

3-29-2023	1672208.772	675387.7052	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	Buffer_Area
3-29-2023	1663685.947	676131.6442	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
4-1-2023	1653113.074	683444.6542	Ballari	Ballari	Ballari	Sandur South	D_M_B	Gollalingammanahalli	Buffer_Area
4-2-2023	1664660.061	673936.2682	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
4-3-2023	1668468.128	672661.2126	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
4-3-2023	1669447.513	676169.0421	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
4-3-2023	1657461.827	679684.203	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
4-5-2023	1671641.18	674567.5335	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
4-8-2023	1659899.37	679790.8666	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
4-12-2023	1665618.599	672617.4888	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
6-3-2023	1667929.999	671697.5637	Ballari	Ballari	Ballari	Sandur South	D_M_B	Taranagar	DONIMALI BLOCK
12-2-2023	1669994.407	669511.0973	Ballari	Ballari	Ballari	Sandur South	D_M_B	Bhujangangara	Buffer_Area
12-12-2023	1659713.809	679855.4189	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
12-30-2023	1656645.599	680900.4619	Ballari	Ballari	Ballari	Sandur South	D_M_B	Rajapur	DONIMALI BLOCK
12-31-2023	1657582.365	674461.332	Ballari	Ballari	Ballari	Sandur South	D_M_B	Gollalingammanahalli	TONASAGERI RF

Fig 6: Fire incident areas in Donimalai block in the year - 2023

15. CONCLUSION

In conclusion, the Study area Treatment Plan for the NMDC dam highlights the critical need for immediate action to address the vulnerability of the delineated Study area. The prevalence of strong to very steep slopes, scanty vegetation, degraded scrubs, heavy runoff, and low infiltration rates underscores the urgency of implementing soil and water conservation measures.

The identified issues, such as the steep slopes, smaller Study area, and undulated topography, contribute to a mean annual soil loss of $16.61 \text{ t ha}^{-1} \text{ yr}^{-1}$, emphasizing the gravity of the situation. Without intervention, there is a looming threat of further degradation of the reserve forest, jeopardizing the sustenance of growth and vegetation in the area.

Geospatial techniques have been employed to create maps that serve as invaluable tools for effective planning of forest resources. These maps, integral to the proposed treatment plan, delineate suitable sites for soil and water conservation structures. By leveraging these geospatial tools, we can enhance the precision of our efforts, facilitating the efficient implementation of treatment measures and contributing to the conservation of moisture and control of soil erosion.

In essence, the proposed Study area Treatment plan not only identifies the pressing issues but also provides a tangible roadmap for sustainable resource management. It is imperative that we act swiftly and decisively to protect the ecosystem, ensuring the long-term health and viability of the NMDC dam Study area. The judicious implementation of these measures will not only safeguard the environment but also contribute to the overall success and longevity of the power generation project.

ANNEXURES

Location: Donimalai Block
of Ballari Taluk

Wildlife Management Plan for Interlocked Forests

Range: Ballari

Sl No.	Particulars of the work	2024-25				2025-26				2026-27				2027-28				Total Amount (In lakhs)
		Extent (In Ha/Km (In Nos/Cu m/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km (In Nos/Cu m/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km (In Nos/Cu m/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km (In Nos/Cu m/Km)	Unit Cost (In lakhs)	Per	Amount	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	31
A	Awareness Works																	
1	Awareness programme s / work shops / training	5	0.15	1	0.750	5	0.165	1	0.825	10	0.1815	1	1.815	10	0.19965	1	1.997	5.387
2	Awareness through street skits/street plays	5	0.15	1	0.750	10	0.165	1	1.650	10	0.1815	1	1.815	10	0.19965	1	1.997	6.212
3	Conducting regular meetings with Forest Officials/CI SF Staff	-	Ls	-	0.500	-	Ls	-	0.550	-	Ls	-	0.605	-	Ls	-	0.666	2.321
4	Capacity building Trainings	5	0.25	1	1.250	10	0.275	1	2.750	10	0.3025	1	3.025	10	0.33275	1	3.328	10.353

5	Engaging Fire watchers / Staffs-151 Days	15	0.922	1	13.830	15	0.922	1	13.830	15	0.922	1	13.830	55.320
6	Purchase and installation of signages	-	Ls	-	5.000	-	Ls	-	6.050	-	Ls	-	6.655	23.205
Total of A					22.080				27.140				28.471	102.796
B	Preventive works													
1	Creation of fire lines	5	0.046	1	0.230	5	0.0506	1	0.253	5	0.0557	1	0.278	1.067
2	Maintenance of fire lines	5	0.023	1	0.115	5	0.0253	1	0.127	5	0.0278	1	0.139	0.534
3	Burning of fire lines adjacent to roads	5	0.05	1	0.250	5	0.019	1	0.095	5	0.0209	1	0.105	0.564
4	Purchase and installation of signages/Hoardings	-	Ls	-	5.000	-	Ls	-	5.500	-	Ls	-	6.655	23.205
Total of B					5.595				5.975				7.229	25.371

C	Procurement of Fire Fighting Gear(Shoes, Bottles, Torch.etc)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000
1	fire safety kit(shoes, torch, shoevel etc)	-	Ls	-	5.000	-	Ls	-	5.500	-	Ls	-	6.050	-	Ls	-	6.655	23.205		
2	Procurement of Drones	-	Ls	-	4.000	-	Ls	-	0.500	-	Ls	-	0.550	-	Ls	-	0.605	5.655		
Total of C					9.000				6.000				6.600				7.260	28.860		
TOTAL					36.675				37.080				40.312				42.960			
<p>* Note :- As Information given by Addministarion of NMDC Donimalai that NMDC has equipped with all modern fire fighting tools and field staff with years of experience in Controllinfg Forest fire Hence, above works proposed in this plan have to be considered in the current proposed plan as one of the future works that will be done in the year 2024 and the following years 2025 and 2026.</p>																				

* Note :- As Information given by Administarion of NMDC Donimalai that NMDC has equipped with all modern fire fighting tools and field staff with years of experience in Controllinf Forest fire Hence, above works proposed in this plan have to be considered in the current proposed plan as one of the future works that will be done in the year 2024 and the following years 2025 and 2026.



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654


Annexure-7

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that the interlocked forest area (i.e. 138.778 Ha) and vulnerability of the forest from incidence of forest fires, NMDC shall be involved in the fire management in these forest patches during summer season. The protection and management of these interlocked forest patches will primarily be done by the forest department with assistance of NMDC Limited whenever required in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(v) of Stage-I/ in-principle approval under FC Act, 1980 accorded vide F.No: 8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028

INTEGRATED WILDLIFE MANAGEMENT PLAN FOR INTERLOCKED FOREST AREA OF NMDC DONIMALAI, SANDUR



Prepared By-

S. N VISION

Email-snvisionrcr@gmail.com

Website- www.snvision.com

TABLE OF CONTENTS -1

Sl. No.	Topics	Page no.
1	Background	4
2	Introduction	5
A	NMDC (NATIONAL MINERAL DEVELOPMENT CORPORARTION)	5
B	Donimalai Block	6
3	Project site	7
4	Objectives	8
5	Donimalai NMDC Mining area: General characteristics features.	10
6	Materials and Methodology	11
7	Sampling strategies for various classes	13
A	Diversity of Mammals	15
B	Diversity of Reptiles in the study area	19
C	Amphibians Diversity in the study area	21
D	Avian Diversity in the study area	23
E	Diversity of Arthropods in the study area	29
8	Conservation action plan for wild life management Recommendations for NMDC mining area.	35
9	Conservation strategies Tailored specifically for the protection of Leopard and Sloth bear.	39
10	Recommended wildlife habitat improvement & Conservation action for mining area.	42
11	The Budget expenditure	45
12	Conclusion	53
13	Annexures (Field Photos)	55-57

TABLE OF CONTENTS- 2

Sl. No.	Figures (Maps)	Page no.
1	Map of the Donimalai block of area-138.778 Ha	6
2	Map of projected area	7
3	LULC (Land Use Land Cover) map of study area	11
4	Schematic representation of Transect layout in the field	12

TABLE OF CONTENTS-3

Sl. No.	Tables	Page no.
1	Checklist of mammalian diversity present in a study area.	17
2	Checklist of Reptiles diversity present in a study area.	20
3	Checklist of Birds diversity present in a study area.	22
3A	Checklist of Bird Species Recorded from the Study Area, Their Habitat of Occurrence & Conservation Status.	24
4	Checklist of Arthropods diversity present in a study area.	30

1. Project Background

The initiation of the Integrated Wildlife Management Plan (IWMP) for the NMDC (National Mineral Development Corporation) Mining Area at Sandur, located in the Ballari District of Karnataka, takes on a pivotal role in addressing the delicate balance between mining activities and wildlife conservation. This project is meticulously crafted to navigate the unique ecological landscape surrounding the Sandur forest, with a primary objective of interlinking fragmented forest areas within the region.

Encompassing a substantial land area within the Bellary-Hospete range, the NMDC mining area at Sandur is a key player in India's iron ore production. Acknowledging the importance of the Sandur forest, an ecosystem integral to the region, the project emphasizes the coexistence of mining operations with the preservation and enhancement of biodiversity.

The core focus of the IWMP is to conduct a comprehensive assessment of existing wildlife habitats within the Sandur forest. Key species and their ecological dependencies are identified to form the foundation for developing strategies aimed at mitigating potential impacts from mining activities. The central aim, now reinforced, is to interlink fragmented forest areas within the region, creating cohesive wildlife corridors that enable the movement of fauna across the landscape.

Recognizing the absence of a predefined sanctuary in the immediate vicinity, the IWMP underscores the necessity for proactive conservation measures within the Sandur forest. This includes the establishment of wildlife corridors, buffer zones, and designated areas tailored specifically to facilitate the harmonious coexistence of mining activity and the preservation of diverse flora and fauna native to the region.

Environmental stewardship continues to be a guiding principle in the IWMP, with NMDC committing to surpass regulatory requirements. Cutting-edge monitoring systems, ecological surveys, and predictive modeling are integral components to facilitate informed decision-making and adaptive management practices, all geared towards achieving the interlinking of fragmented forest areas.

Community engagement remains paramount to the success of the IWMP. NMDC recognizes the importance of involving local communities in wildlife conservation efforts, particularly in the context of creating interlinked forest areas. Educational programs, outreach initiatives, and collaborative partnerships with local stakeholders will foster a shared responsibility for the interconnectedness and preservation of the Sandur forest's unique ecological heritage amidst mining activities.

As the NMDC Integrated Wildlife Management Plan unfolds with a reinforced aim of interlinking fragmented forest areas, it seeks to set a precedent for responsible resource management within the context of mining. By embracing a holistic and region-specific approach, NMDC endeavors to showcase that mining activities and environmental conservation can be mutually beneficial, creating a model for sustainable practices that ensures the enduring vitality of the Sandur forest ecosystem for generations to come.

2. INTRODUCTION

2.1. National Mineral Development Corporation (NMDC)

National Mineral Development Corporation (NMDC) stands as a prominent Navratna Public Sector Enterprise under the Ministry of Steel, representing the Government of India. Recognized as the largest producer of iron ore in the country, NMDC boasts a remarkable presence with its highly mechanized iron ore mines situated in Chhattisgarh and Karnataka. The registered office of this significant entity is strategically located in Hyderabad, Telangana. NMDC's stature extends globally, as it is acclaimed as one of the world's low-cost producers of iron ore. In addition to its iron ore endeavors, NMDC holds the distinction of operating the sole mechanized diamond mine in India, situated in Panna, Madhya Pradesh.

The company's operational prowess is underscored by its iron ore production, surpassing 40 million metric tonnes annually from key production units in the Bailadila Sector of Chhattisgarh and Donimalai in the Ballari-Hospet region of Karnataka. NMDC, with an ambitious vision, aspires to achieve an iron ore production capacity of 100 million metric tonnes by the fiscal year 2030. Notably, all mining complexes operated by NMDC have received a prestigious 5-star rating from the Indian Bureau of Mines, Ministry of Mines, attesting to the company's commitment to scientific and sustainable mining practices.

Among its significant mining sites is the Donimalai Block, a region whose name is derived from Kannada words "Doni" and "Malai," signifying a boat-shaped forest hill. The Donimalai Township, enveloped by lush greenery, mirrors the boat shape, and it houses a population of 6555, with males constituting 52% and females 48%. The township boasts an impressive average literacy rate of 80%, exceeding the national average, with male literacy at 86% and female literacy at 74%. The Donimalai Iron Ore Project, commissioned in 1977, was a strategic move to boost lump ore exports from the Bellary-Hospet region through the new Madras Outer Harbour.

NMDC's commitment to the welfare of its employees and the local community is evident in the development of the Donimalai Township. The township is well-equipped with essential facilities such as schools, hospitals, community centers, libraries, recreation clubs, shopping centers, gymnasiums, and stadiums, ensuring a holistic and sustainable living environment for its residents.

The significance of the Donimalai mechanized iron ore mines in the NMDC portfolio cannot be overstated. Located approximately 19 km from the Toranagallu Railway station by road, these mines have been a focal point of iron ore exploration since their inception in 1977. The ore extracted from this region boasts an impressive iron content of 65%, with the mines having a staggering capacity of 27.92 million tons. The annual extraction of about 4 million tons of ore is a testament to the scale of operations.

Despite the challenges posed by government policies, such as the ban on exports imposed by the Karnataka government, NMDC has navigated through such hurdles. As of now, the ban on exports has been lifted,

showcasing the resilience and adaptability of NMDC in the dynamic landscape of the mining industry. This success is a testament to the strategic vision, operational efficiency, and commitment to sustainable practices that define the legacy of the NMDC Ltd.,

2.2. Donimalai Block

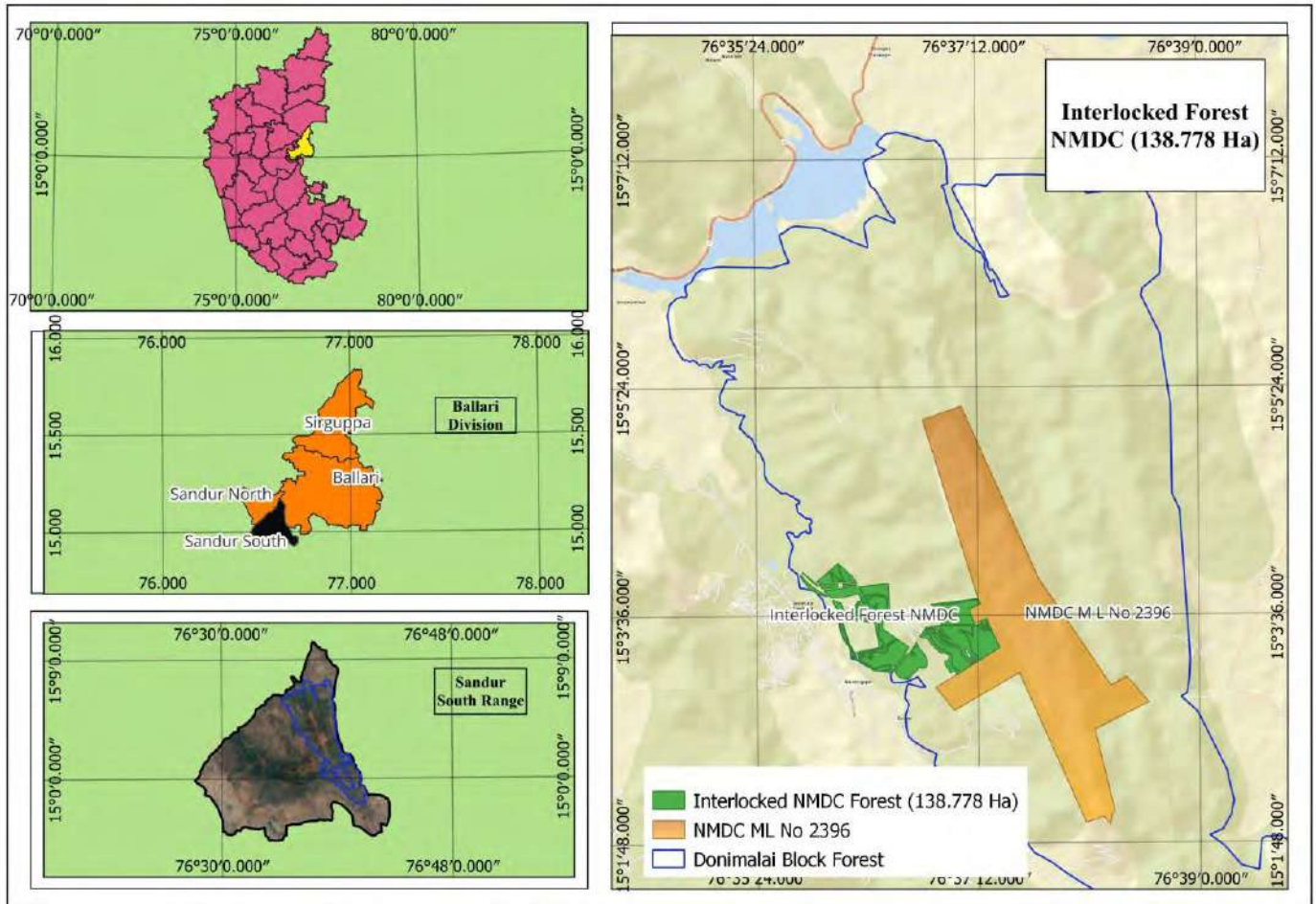


Fig.1: Map of the Donimalai Block of Area - 138.778 Ha area

Donimalai derives its name from words Doni and Malai in Kannada. Doni is multi-purpose sailboat with a motor or lateen sails and malai means Hills. The shape of the township resembles the shape of boat(doni) and is fully surrounded by green Forest hills. And hence derived its name Donimalai meaning boat shaped forest hills.

Donimalai Township has a population of 6555. Males constitute 52% of the population and females 48%. Donimalai Township has an average literacy rate of 80%, higher than the national average of 74.0%: male literacy is 86% and, female literacy is 74%. In Donimalai Township, 10% of the population is under 6 years of age.

The Donimalai Iron Ore Project was commissioned in the year 1977. The Donimalai Iron Ore Project was primarily planned to enhance the export of lump ore from Bellary Hospet region through the new MOLP at Madras Outer Harbour. This Iron Ore Deposit is located at the south-eastern part of the Bellary-Hospet range.

NMDC has developed a Township at Donimalai. This Township is equipped with all necessary facilities like Schools, Hospital, Community Center, Library, Recreation Clubs, Shopping Centers, Gymnasiums and Stadium.

Donimalai mechanized iron ore mines of National Mineral Development Corporation (Now M/s.NMDC Limited) are located here. Donimalai township is at a distance of approximately 19 km from the Toranagallu Railway station by road. Exploration of iron ore activity was started by the National Mineral Development Corporation of India in Donimalai and was commissioned in 1977. The ore available here contains 65% of Iron. According to the N.M.D.C. Website the mines have the capacity of 27.92 million tons. About 4 million tons of the ore is extracted per year. The ore is exported through Chennai and Mormugao (Goa) ports. About 1286 employees work here as on 30 April 2012. At present, the ban by Karnataka Govt., on exports has been lifted.

3. Project site

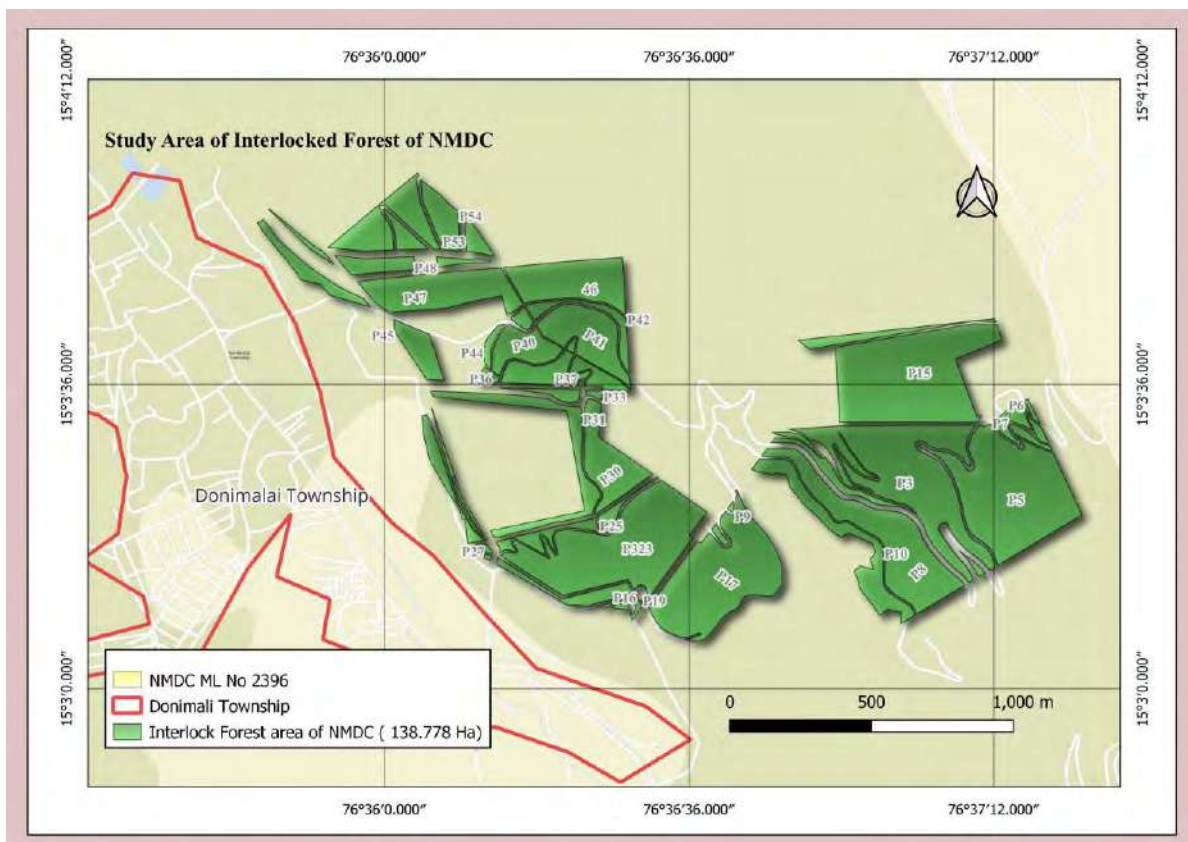


Fig 2.: Map of Projected Area

The NMDC (National Mineral Development Corporation) mining area at Donimalai is strategically positioned at approximately 15°03'30.12"N and 76°34'45.08"E, situated about 19 km from the Toranagallu Railway station by road. This location is a crucial part of the iron ore production landscape, and the coordinates place it within the Bellary-Hospet range. The proximity of the project site to key transportation networks ensures efficient connectivity, facilitating the transportation of extracted iron ore to various destinations.

Within a 10 km radius of the Donimalai NMDC mining area, the landscape encompasses diverse features. The surrounding region predominantly consists of mining complexes, including the mechanized iron ore mines, making up a significant portion of the area. The population centers include the Donimalai Township, which

hosts essential facilities such as schools, hospitals, community centers, and recreational amenities. Additionally, there are commercial establishments catering to the needs of the local community and workforce.

The land use within the 10 km radius features agricultural areas supporting local farming communities, contributing to the regional economy. Furthermore, the landscape includes reserved state forests, with approximately 20% of the area covered in isolated pockets of forested land. These forested areas are vital for biodiversity and ecological balance.

The coordinates place the Donimalai NMDC mining area within an intricate tapestry of natural and human-made elements. While the focus is on mining activities, the landscape comprises a mix of industrial zones, residential clusters, and natural reserves. contributing to the sustainable utilization of natural resources in the region.

4. Objectives of the Integrated wildlife Management Plan.

The objectives of the Integrated Wildlife Management Plan (IWMP) with a primary focus on connecting fragmented habitats and the conservation plan for scheduled species are as follows:

1. Fragmented Habitat Connectivity:

- **Assessment of Fragmentation:** Conduct a thorough assessment of existing fragmented habitats within the project area, identifying areas of disconnection and isolation.
- **Wildlife Corridor Design:** Develop and implement strategies to create wildlife corridors that interlink fragmented habitats, facilitating the natural movement of fauna and maintaining ecological connectivity.
- **Habitat Restoration:** Undertake habitat restoration initiatives to enhance connectivity, including reforestation, afforestation, and the establishment of green corridors.

2. Scheduled Species Conservation:

- **Species Inventory:** Conduct a comprehensive inventory of scheduled species within the project area, identifying key species and their distribution.
- **Critical Habitat Protection:** Designate and protect critical habitats for scheduled species, ensuring they receive targeted conservation efforts.
- **Monitoring and Research:** Implement monitoring programs and research studies to gather data on the behavior, population dynamics, and ecological requirements of scheduled species.
- **Protection Measures:** Develop and implement specific protection measures, including anti-poaching initiatives, habitat preservation, and community-based conservation programs.

3. Biodiversity Assessment:

- **Ecological Surveys:** Conduct ecological surveys to assess the biodiversity of the project area, identifying both flora and fauna species.

- **Baseline Data:** Establish baseline data on the existing biodiversity, serving as a reference point for measuring the effectiveness of conservation interventions.

4. Stakeholder Engagement and Awareness:

- **Community Involvement:** Involve local communities in wildlife conservation efforts, ensuring their participation in habitat restoration, monitoring, and protection initiatives.
- **Educational Programs:** Conduct educational programs to raise awareness about the importance of scheduled species, the significance of habitat connectivity, and the role of the community in conservation.

5. Adaptive Management:

- **Regular Monitoring:** Implement a systematic and regular monitoring system to assess the effectiveness of habitat connectivity measures and conservation efforts.
- **Adaptive Strategies:** Develop adaptive management strategies based on monitoring outcomes, adjusting conservation plans as needed to address emerging challenges or changing ecological conditions.

6. Collaboration with Authorities:

- **Government Agencies:** Collaborate with relevant government agencies, wildlife authorities, and environmental organizations to align the IWMP with regional conservation goals and legal frameworks.
- **Coordination with Research Institutions:** Foster partnerships with research institutions to leverage scientific expertise for the effective implementation of the conservation plan.

7. Mitigation of Human-Wildlife Conflict:

- **Conflict Resolution Measures:** Implement measures to mitigate human-wildlife conflicts, especially in areas where habitat connectivity brings wildlife into close proximity to human settlements.
- **Community-Based Solutions:** Develop community-based solutions for coexistence, such as the establishment of buffer zones and the implementation of sustainable livelihood programs.

8. Legal Compliance:

- **Adherence to Regulations:** Ensure full compliance with national and regional regulations governing the conservation of scheduled species and habitat connectivity.
- **Permitting and Approvals:** Obtain necessary permits and approvals for conservation activities, maintaining transparency in all processes.

5. Donimalai NMDC Mining Area: General Characteristic Features

a) Topography: The Donimalai NMDC mining area primarily features undulating topography with some plains. It is situated in the Bellary-Hospet region, characterized by a mix of hilly terrain and relatively flat expanses.

b) Slope: The mining area is located at varying elevations, ranging from approximately 500 to 900 meters above sea level. The landscape exhibits undulating slopes and hillocks, contributing to the unique topographical features of the Bellary-Hospet range.

c) Configuration: The Bellary-Hospet range, within which the Donimalai mining area is situated, encompasses diverse geological formations. The region is marked by hills and valleys, with some areas exhibiting rocky landscapes, especially in proximity to the mining sites.

d) Rainfall: The average annual rainfall in the Donimalai mining area is approximately 800-850 mm. The precipitation supports the region's ecosystems, including the diverse flora and fauna dependent on seasonal variations in water availability.

e) Climate: The area experiences a tropical climate, characterized by hot and dry conditions for a significant part of the year. The monsoon season contributes to a brief period of increased humidity and rainfall.

f) Temperature: The temperature in the mining area ranges from a minimum of around 15°C to a maximum of approximately 40°C. The region encounters variations in temperature based on seasonal changes.

g) Geology, Rock, and Soil: The geological composition of the Donimalai mining area includes rocks from the Archean era, predominantly comprising Gneisses, Schists, and Granite. The soil structure varies, with some areas exhibiting soil degradation, particularly in the vicinity of mining operations.

h) Forest Profile: The forest profile in the Donimalai region is characterized by dry deciduous forests. The dominant tree species may include species like *Hardwickia binata*, *Albizia amara*, *Acacia species*, and Eucalyptus. Afforestation efforts may have introduced additional species such as Eucalyptus hybrids.

i) Water Sources: Key water sources in the project area include natural water bodies like rivers and seasonal streams. The Donimalai mining area is likely to be influenced by nearby water sources, impacting the local ecology.

j) Flora: The original vegetation may have included dry deciduous forest species. Afforestation efforts and mining activities may have influenced the current composition, with a mix of native and introduced plant species. Surrounding agricultural fields contribute to the overall landscape.

k) Fauna: Fauna in the Donimalai mining area may include indigenous species adapted to the dry deciduous forest environment. Potential species could include Sloth bear, Indian Wolf, Jungle Cat, Jackal, Indian Hare, Leopard, Porcupine, and others.

l) Avifauna: Bird species in the area may encompass Peafowl, Kingfishers, Lapwings, Pigeons, Crows, Egrets,

Partridges, Robins, Swifts, Hoopoes, Bee-eaters, Owlets, Kites, and Doves.

m) Reptiles: Reptile diversity may consist of Garden Lizards, Rat Snakes, Green Snakes, Indian Cobras, Russell's Vipers, Skinks, Chameleons, and others.

n) Amphibians: Amphibian species such as Bull Frogs and Common Indian Toads may inhabit the region, adapting to seasonal variations in water availability.

o) Insects & Arthropods: The mining area supports a variety of insects, butterflies, moths, and arachnids, contributing to the overall biodiversity of the ecosystem.

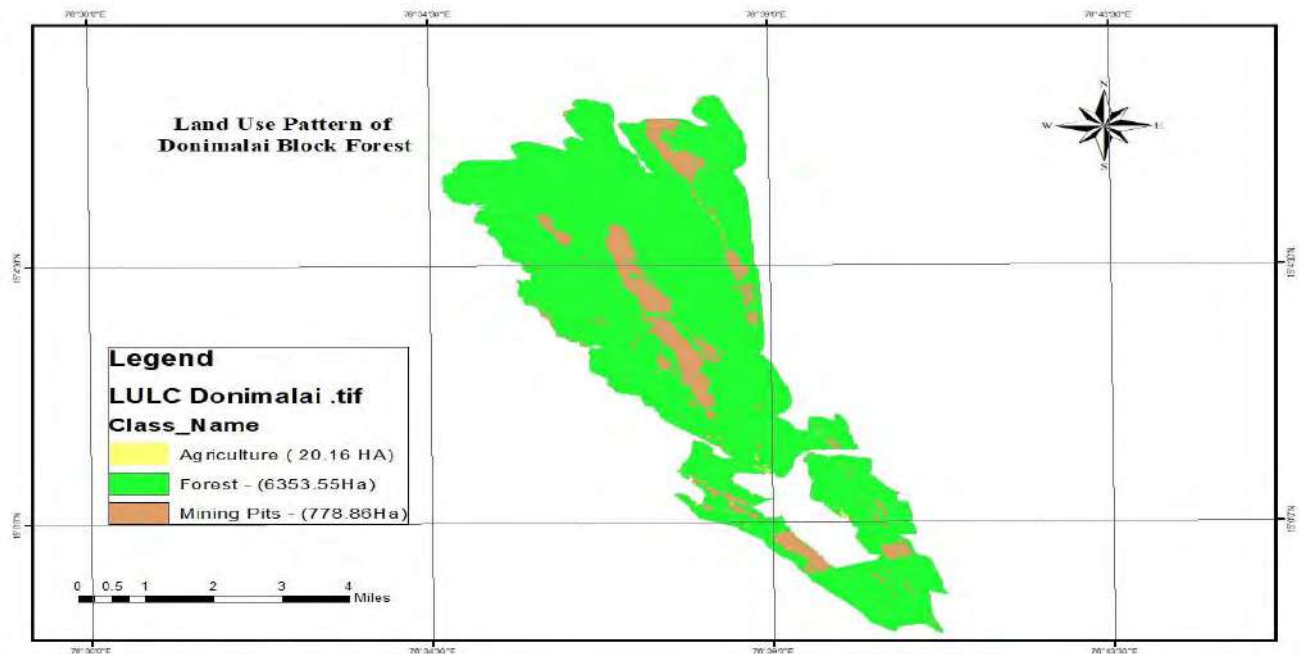


Fig. 3.: Map of LULC (Land Use Land Cover) of the study area

Study Period

The field study for the rapid biodiversity assessment was conducted during the period December - January 2024.

6. Materials and Methodology

Materials used for the field study:

- Nikon P1000 digital camera
- Binoculars: Olympus 8-16 * 40 Zoom
- GPS device: Garmin Oregon 650
- Measuring tape
- Compass
- Field guides

Faunal Diversity Estimation

A qualitative assessment of faunal communities, encompassing vertebrate classes such as Mammalia, Aves, Reptilia, and Amphibians, as well as the non-vertebrate class of Insecta (Butterflies and Odonates), was conducted using scientific sampling methods. The species identified were cross-referenced with the IUCN Red List to gain insights into their conservation status and associated conservation strategies. This comprehensive evaluation provides valuable information for understanding the biodiversity and conservation needs of the studied ecosystem.

Continuous Sampling

For the qualitative assessment of faunal communities in the study area, the transect method was employed. This method involves setting up a sampling line across areas exhibiting clear environmental gradients. Locations for laying down transects were selected based on observed changes in land use/land cover and elevations within the study area. This approach allows for systematic sampling along gradients, enabling the collection of data representative of the varied environmental conditions present in the study area.

Belt Transect Method

In the present study, the belt transect method was employed to assess faunal communities. This method involved laying down a transect line marked and numbered at 1-meter intervals along its entire length. A 100-meter rope was utilized for this purpose. The placement of the transect line was determined based on the direction of the environmental gradient observed within the study area. Special care was taken to avoid mixing various habitats along the transect line, ensuring that each habitat type was represented accurately. This approach facilitates systematic sampling and data collection, allowing for the assessment of faunal diversity across different environmental gradients within the study area.

The species touching the line may be recorded along the whole length of the line (continuous sampling) and also a width of 10 m was also observed in both sides of the transect line set in the field. Hence an area of 100 x 10 m was observed at each habitat and elevation gradient in the study area

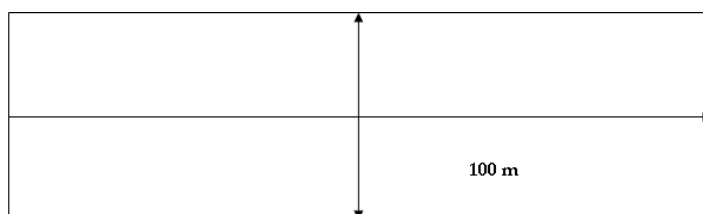


Fig.4: Schematic representation transects layout in the field

Marking of Transects

Each transect location was precisely located using Google Earth Imagery. The path of each transect was then recorded using the tracking option available in the GPS device.

7. Sampling Strategy for Various Classes

Mammalia

The assessment of mammals involved a combination of direct and indirect sighting methods. Preference was given to indirect observations, such as footprints, burrows, skeletons, fecal materials, hairs, and horn remains, as well as the presence of dens and caves. Given that many mammals are secretive or nocturnal, direct sightings were rare and indirect evidence played a crucial role in their detection. Indicators such as tracks, burrows, nests, feeding signs, footprints, tail markings, and faecal material were carefully documented. Additionally, discussions were conducted with local residents to gather further insights into mammal presence and behaviour. Photographs of indirect sightings were taken, and identification was performed using field guides (e.g., Nameer, 2015) and consultation with experts. This comprehensive approach allowed for a thorough assessment of mammalian diversity within the study area.

Aves (Birds)

Birds were systematically recorded along all transects within the NMDC Area study site in Karnataka. Both direct sightings and vocalizations were used for species identification, regardless of their distance from the transects. Observations were made using binoculars, and bird species were identified with the assistance of a field guide (e.g., Sashikumar et al., 2011). This comprehensive approach facilitated the documentation of avian diversity within the study area.

Herpetofauna (Reptiles and Amphibians)

Surveys of herpetofauna were conducted across various microhabitats within the NMDC Area study site in Karnataka, both during daytime and evening hours. GPS records were utilized to outline the area covered during the field survey and to mark specific points where reptiles and amphibians were encountered. Photographs were taken using a digital camera to document encountered species.

Insects (Butterflies and Odonates)

Insects, especially butterflies and odonates, were recorded using transect methods across various habitats within the NMDC Area study site in Karnataka. Species of butterflies were identified using field guides, and odonates were identified using available resources. Species sightings were recorded in the field, and photographs were taken using a digital camera whenever possible for further documentation.

Results and Discussion:

The NMDC Donimalai region, nestled within the rich tapestry of the Western Ghats biodiversity hotspot, exhibits an extraordinary wealth of wildlife diversity across its varied habitats. Our rigorous study, meticulously conducted over an extended period, has unveiled a plethora of fascinating insights into the intricate web of life thriving within this landscape. Through meticulous fieldwork, exhaustive surveys, and robust data analysis, we have elucidated the intricate nuances of mammalian, reptilian, avian, amphibian, and arthropod communities, shedding light on their ecological roles, distribution patterns, and conservation imperatives.

Mammalian Diversity

The mammalian assemblage within the NMDC Donimalai region epitomizes the resilience and adaptability of life in the face of dynamic environmental pressures. From the majestic Sloth Bears (*Melursus ursinus*) ambling through the dense undergrowth to the stealthy Leopards (*Panthera pardus*) prowling the twilight realms, each species encapsulates a unique evolutionary narrative intertwined with the intricate fabric of its habitat. Noteworthy sightings of charismatic arboreal denizens like the Bonnet Macaque (*Macaca radiata*) and Hanuman Langur (*Semnopithecus entellus*) underscore the pivotal role of contiguous forested corridors in facilitating their arboreal lifestyles. Additionally, the enigmatic presence of elusive carnivores such as Rusty Spotted Cats (*Prionailurus rubiginosus*) underscores the imperativeness of maintaining undisturbed habitat connectivity to bolster the resilience of apex predators.

Reptilian Diversity:

The reptilian diversity within the NMDC Donimalai region stands as a testament to the intricate interplay between geological formations, microclimatic gradients, and vegetative cover. From the cryptic Indian Black Turtle (*Melanochelys trijuga*) navigating the tranquil waters to the vibrant Oriental Garden Lizard (*Calotes versicolor*) basking in the sun-drenched environs, each species embodies a finely tuned adaptation to its respective niche. Noteworthy encounters with serpentine denizens such as the Spectacled Cobra (*Naja naja*) and Russel's Viper (*Daboia russelii*) underscore their pivotal roles as keystone predators in regulating prey populations and maintaining ecological equilibrium.

Amphibian Abundance:

The amphibian abundance witnessed within the NMDC Donimalai region heralds a resurgence of life in the verdant realms of freshwater ecosystems. Amidst the chorus of croaks and chirps, an eclectic array of amphibian species, from the diminutive Indian Bullfrog (*Hoplobatrachus tigerinus*) to the agile Common Tree Frog (*Polypedates maculatus*), adorns the terrestrial and aquatic landscapes alike. These amphibians, categorized under the least concern category by the International Union for Conservation of Nature (IUCN), nonetheless play pivotal roles as indicators of ecosystem health and serve as linchpins in intricate food webs and nutrient cycles.

Avian Abundance:

The avian abundance observed within the NMDC Donimalai region transcends mere numbers, embodying the vibrant hues and melodious symphonies of avian life. Against the backdrop of verdant forests, placid wetlands, and bustling agricultural fields, a diverse avifaunal assemblage, comprising 125 species, graces the skies and canopy alike. From the regal Bonelli's Eagle (*Aquila fasciata*) soaring on thermals to the unassuming Indian Grey Hornbill (*Ocyrceros birostris*) flitting amidst the foliage, each avian species epitomizes a unique adaptation to its chosen habitat and dietary preferences.

Arthropod Community:

The arthropod community thrives within the NMDC Donimalai region, constituting a cornucopia of life forms spanning diverse orders, families, and ecological niches. In the intricate dance of life, insects emerge as the undisputed protagonists, from the industrious honeybee (*Apis* spp.) diligently pollinating floral blooms to the voracious praying mantis (Mantodea) lying in wait for unsuspecting prey. Meanwhile, arachnids, including spiders (Araneae) and scorpions (Scorpiones), weave intricate webs of silk and venom, embodying the delicate balance between predator and prey in the ephemeral realm of arthropod ecology.



Diversity of Mammals

In Preparing an integrated wildlife management plan for the NMDC Donimalai region, our comprehensive study has provided crucial insights into the diverse mammalian community inhabiting this area. Through meticulous observation and analysis, we have compiled a detailed description of the mammalian diversity present, which serves as a foundational resource for effective conservation and management strategies.

Our observations reveal a rich tapestry of mammalian life, encompassing species from various taxonomic orders and ecological niches. From the canopy-dwelling primates to the elusive carnivores, herbivores, rodents, and bats, each species contributes uniquely to the ecosystem's structure and function.

The presence of species such as the Bonnet Macaque and Hanuman Langur highlights the importance of conserving the forested habitats surrounding NMDC Donimalai, which serve as vital corridors for these

arboreal primates. Similarly, the existence of carnivores like Leopards and Rusty Spotted Cats underscores the need for maintaining intact habitat connectivity to support healthy predator populations.

Despite the presence of industrial activities, our study demonstrates the resilience of mammalian populations in adapting to anthropogenic landscapes. This resilience is exemplified by species such as the Sloth Bear, Four Horned Antelope, and Indian Wild Pig, which demonstrate the ability to coexist with human activities while utilizing both natural and disturbed habitats.

Furthermore, our findings emphasize the importance of considering the nocturnal realm in wildlife management planning. The presence of diverse bat species highlights the ecological significance of preserving nighttime habitats and maintaining suitable foraging areas for these flying mammals.

Incorporating the insights gleaned from our study, the integrated wildlife management plan for the NMDC Donimalai region should prioritize habitat conservation, restoration, and connectivity. This includes efforts to preserve critical forested areas, establish wildlife corridors, and mitigate the impacts of industrial activities on sensitive habitats. Additionally, the plan should incorporate strategies for monitoring and mitigating human-wildlife conflicts, promoting sustainable land use practices, and fostering community engagement in conservation efforts. By adopting a holistic approach that integrates scientific research with stakeholder collaboration, we can ensure the long-term conservation of the diverse mammalian fauna inhabiting the NMDC Donimalai region while promoting harmonious coexistence between wildlife and human activities.

Table 1: Checklist of mammalian diversity present in a study area

Species	Order	IUCN Status	IWLPA Schedule	Habitat				Source of Detection						
				TSF	OS	AL	BU	DR	CT	ST	AM	SM4	EMT	EM3
Bonnet Macaque (<i>Macaca radiata</i>)	Primates	LC	Schedule II	✓		✓		✓						
Hanuman Langur (<i>Semnopithecus hypoleucos</i>)	Primates	VU	Schedule II	✓		✓		✓	✓					
Leopard (<i>Panthera pardus</i>)	Carnivora	NT	Schedule I	✓	✓				✓					
Jungle cat (<i>Felis chaus</i>)	Carnivora	LC	Schedule II	✓		✓			✓					
Rusty Spotted Cat (<i>Prionailurus rubiginosus</i>)	Carnivora	VU	Schedule I	✓	✓			✓	✓					
Golden Jackal (<i>Canis aureus</i>)	Carnivora	LC	Schedule II		✓			✓	✓					
Bengal Fox (<i>Vulpes bengalensis</i>)	Carnivora	LC	Schedule II			✓		✓	✓					
Small Indian Civet (<i>Viverricula indica</i>)	Carnivora	LC	Schedule II	✓	✓				✓					
Asian Palm Civet (<i>Paradoxurus hermaphroditus</i>)	Carnivora	LC	Schedule II	✓					✓					
Common Mongoose (<i>Herpestes edwardsi</i>)	Carnivora	LC	Schedule II	✓	✓	✓		✓	✓					
Ruddy Mongoose (<i>Herpestes smithii</i>)	Carnivora	LC	Schedule II	✓	✓			✓	✓					
Sloth Bear (<i>Melursus ursinus</i>)	Carnivora	VU	Schedule I	✓	✓			✓	✓					
Four Horned Antelope (<i>Tetracerus quadricornis</i>)	Artiodactyla	VU	Schedule I	✓	✓				✓					
Indian Wild pig (<i>Sus scrofa</i>)	Artiodactyla	LC	Schedule III	✓	✓			✓	✓					
Indian Crested Porcupine (<i>Hystrix indica</i>)	Rodentia	LC	Schedule IV	✓					✓					
Black Naped Hare (<i>Lepus nigricollis</i>)	Lagomorpha	LC	Schedule IV	✓	✓	✓		✓	✓					
Black Rat or House Rat (<i>Rattus rattus</i>)	Rodentia	-	Schedule IV			✓				✓				
Indian Gerbil (<i>Tatera indica</i>)	Rodentia	-	Schedule IV			✓				✓				
Little Indian Field Mouse (<i>Mus booduga</i>)	Rodentia	-	-			✓				✓				
Palm Squirrel (<i>Funambulus palmarum</i>)	Rodentia	-	Schedule IV			✓				✓				
Least Pipistrelle Bat (<i>Pipistrellus tenuis</i>)	Chiroptera	LC	-	✓		✓							✓	✓
Indian Pipistrelle	Chiroptera	LC	-	✓	✓	✓	✓				✓	✓	✓	✓

(<i>Pipistrellus coromandra</i>)														
Kelaart's Pipistrelle (<i>Pipistrellus ceylonicus</i>)	Chiroptera	LC	-	✓	✓	✓	✓				✓	✓	✓	✓
Greater Asiatic house bat (<i>Scotophilus heathii</i>)	Chiroptera	LC	-	✓	✓	✓	✓				✓	✓	✓	✓
Lesser Asiatic house bat (<i>Scotophilus kuhlii</i>)	Chiroptera	LC	-	✓										✓
Bent-wing bat (<i>Miniopterus fuliginosus</i>)	Chiroptera	LC	-	✓										✓
Blyth's Horseshoe bat (<i>Rhinolophus lepidus</i>)	Chiroptera	LC	-	✓	✓	✓					✓	✓		✓
Schneiders Leaf-nosed bat (<i>Hipposideros speoris</i>)	Chiroptera	LC	-	✓	✓	✓					✓	✓	✓	✓
Indian roundleaf bat (<i>Hipposideros lankadiva</i>)	Chiroptera	LC	-	✓		✓					✓		✓	✓
Cantor's roundleaf bat (<i>Hipposideros galeritus</i>)	Chiroptera	LC	-	✓										✓
Egyptian Free-tailed bat (<i>Tadarida aegyptiaca</i>)	Chiroptera	LC	-	✓	✓	✓	✓				✓	✓	✓	✓
Wrinkle-lipped Free-tailed Bat (<i>Chaerephon plicatus</i>)	Chiroptera	LC	-		✓	✓	✓				✓	✓	✓	✓
Indian Flying Fox (<i>Pteropus medius</i>)	Chiroptera	LC	Schedule IV	✓		✓					Visual Detection			
Short Nosed Fruit Bat (<i>Cynopterus sphinx</i>)	Chiroptera	LC	Schedule IV		✓	✓					Visual Detection			

Habitat	Thorn Scrub Forest (TSF), Open Scrub (OS), Agricultural Land (AL), Built Up (BU)
Source of Detection	Direct, (DR), Camera Trap (CT), Sherman Trap (ST), Audiomoth (AM), Song Meter 4 Mini Bat (SM4), Echo Meter Touch 2 Pro (EMT), Echo Meter 3+(EM3)
IUCN Status	Data Deficient (DD), Least Concern (LC), Near Threatened (NT), Vulnerable (VU), Endangered (EN), Critically Endangered (CR), Extinct in The Wild (EW), Extinct (EX)



B. Diversity of Reptiles In the study Area

During our extensive fieldwork conducted for the preparation of an integrated wildlife management plan for NMDC Donimalai, we embarked on a comprehensive study to assess the reptilian diversity within the region. Through rigorous surveys and meticulous data collection, we aimed to gain a holistic understanding of the reptile community and its ecological significance in the context of wildlife conservation and habitat management.

Our findings revealed a diverse assemblage of reptiles inhabiting the study area, ranging from turtles and lizards to snakes and geckos. Among the notable sightings were species such as the Indian Black Turtle, Oriental Garden Lizard, Peninsular Rock Agama, and a variety of gecko species including Brook's House Gecko, Bark Gecko, and Spotted House Gecko. These reptiles inhabit a range of habitats within the NMDC Donimalai region, from rocky outcrops and scrublands to forested areas and human-altered landscapes.

Furthermore, our study documented the presence of several snake species, including the Russel's Viper, Spectacled Cobra, Common Trinket Snake, Common Wolf Snake, and Banded Kukri Snake, among others. These snakes play crucial roles in regulating prey populations and maintaining ecological balance within their respective habitats. Additionally, we observed the presence of various water snakes, including the Checkered Keelback Water Snake, which indicates the importance of aquatic ecosystems in the study area.

Our fieldwork also uncovered several reptile species that are listed under different conservation statuses, such as Near Threatened (NT) or Not Evaluated (NE) by the International Union for Conservation of Nature (IUCN). These findings underscore the need for proactive conservation measures to safeguard the habitats and populations of these vulnerable species.

Overall, our study provides valuable insights into the reptilian diversity of the NMDC Donimalai region, laying the groundwork for informed decision-making in wildlife management and conservation planning. By

integrating these findings into the broader framework of the integrated wildlife management plan, we can effectively address the conservation needs of reptiles and their habitats, ensuring the long-term sustainability of biodiversity within the NMDC Donimalai landscape.

Reptiles Sighted During the Study

A total of 38 species of reptile were recorded during the studying which six species are listed under CITES and eighteen under WPA. Table 8.1 and 8.2 gives the list of species observed during the study.

Table 2: A Checklist of Reptiles diversity in the Study

Sl. No	Common Name	Scientific Name	IUCN*	WPA#	CITES
1	Indian Black Turtle	<i>Melanochelys trijuga</i>	NT		App. II
2	Geoemydinae sp.	-			
3	Oriental Garden Lizard	<i>Calotes versicolor</i>	NE		
4	Peninsular Rock Agama	<i>Psammophilus dorsalis</i>	LC		
5		<i>Sitana cf. lanticeps</i>			
6	Brook's House Gecko	<i>Hemidactylus brookii</i>	NE		
7		<i>Hemidactylus cf. brookii</i>			
8		<i>Hemidactylus cf. murray</i>			
9		<i>Hemidactylus cf. parvimaculatus</i>			
10	Asian House Gecko	<i>Hemidactylus frenatus</i>	NE		
11	Giant Leaf-Toed Gecko	<i>Hemidactylus giganteus</i>	NE		
12	Bark gecko	<i>Hemidactylus leschenaultii</i>	LC		
13	Spotted House Gecko	<i>Hemidactylus parvimaculatus</i>	LC		
14	Reticulate Gecko	<i>Hemidactylus reticulatus</i>	LC		
15	Southern Termite Hill Gecko	<i>Hemidactylus triedrus</i>	NE		
16	Beddomie's Snake-eyed Lizard	<i>Ophisops beddomi</i>	LC		
17	Common Keeled Skink	<i>Eutropis carinata</i>	LC		
18		<i>Lygosoma cf. albopunctata</i>			
19	Russel's Viper	<i>Daboia russelii</i>	NE	Sch. II	App. III
20	Spectacled Cobra	<i>Naja naja</i>		Sch. IV	
21	Common Trinket Snake	<i>Coelognathus helena helena</i>	NE	Sch. IV	
22	Common Wolf Snake	<i>Lycodon aulicus</i>	NE	Sch. IV	
23	Barred Wolf Snake	<i>Lycodon striatus</i>	NE	Sch. IV	
24	Banded Kukri Snake	<i>Oligodon arnensis</i>	NE	Sch. IV	
25		<i>Boiga f. trigonata</i>			
26	Checkered Keelback Water Snake	<i>Xenochrophis piscator</i>	NE	Sch. II	App. III
27	Russel's Kukri	<i>Oligodon taeniolatus</i>		Sch. IV	
28	Brahminy Blind Snake	<i>Indotyphlops braminus</i>	NE	Sch. IV	
29	Colubridae sp.	-			

C. Amphibian Diversity in the Study area

During our study conducted in the NMDC Donimalai region, we documented a diverse array of amphibian species, totaling 12 different species. This represents an increase in species diversity compared to our previous phase of research. Notably, all recorded species were categorized under the least concern category according to the International Union for Conservation of Nature (IUCN), indicating their relatively stable population statuses.



Our analysis of amphibian diversity revealed interesting patterns across different land-use types within the study area. Agriculture land exhibited the highest species richness and abundance, with 12 species recorded and a total of 212 individuals observed. Forested areas also supported a significant abundance of amphibians, with 126 individuals recorded, while built-up areas showed higher species richness with 9 species documented.

Furthermore, our Shannon Index analysis indicated that control areas, presumably less disturbed by human activities, exhibited the highest diversity ($H=1.857$), consistent with our findings from the previous phase of research. Interestingly, no amphibians were recorded from scrubland habitats, suggesting potential habitat preferences or limitations for certain species.

These findings underscore the importance of considering land-use patterns and habitat heterogeneity in amphibian conservation efforts. By identifying areas of high species richness and abundance, conservation strategies can be tailored to prioritize the protection and restoration of critical habitats, ensuring the long-term survival of amphibian populations in the NMDC Donimalai region.

Amphibian diversity in Phase II

A total of 12 species of amphibians were sighted. An additional species compared to Phase I was sighted during this period. The species recorded were the least concerned category according to IUCN.



Table 3: Checklist of Amphibian species diversity present in a study area

Common Name	Scientific_Name	IUCN*	#WPA
Common Indian Toad	<i>Duttaphrynus melanostictus</i>	LC	
Marbled Toad	<i>Duttaphrynus stomaticus</i>	LC	
Ferguson's Toad	<i>Duttaphrynus scaber</i>	LC	
Indian Burrowing Frog	<i>Sphaerotheca breviceps</i>	LC	
Ornate Narrow Mouthed Frog	<i>Microhyla ornata</i>	LC	
Red Narrow Mouthed Frog	<i>Microhyla rubra</i>	LC	
Common Skittering Frog	<i>Euphlyctis cyanophlyctis</i>	LC	
Common Cricket Frog	<i>Minervarya agricola</i>	LC	
Indian Tree Frog	<i>Polypedates maculatus</i>	LC	
Indian Bull Frog	<i>Hoplobatrachus tigerinus</i>	LC	Sch IV
Marbled Balloon Frog	<i>Uperodon systoma</i>	LC	
Srilankan Painted Frog	<i>Uperodon taprobanicus</i>	LC	

*IUCN: International Union for Conservation of Nature, NE: Not Evaluated, LC: Least Concern, NT: Near Threatened #WPA: Wildlife Protection Act, [†]CITES: Convention on International Trade in Endangered Species of Wild Flora and Fauna

Amphibian Diversity Analysis (Phase II)

Shannon Index was again highest in Control ($H=1.857$) similar to that of Phase I. No amphibians were recorded from scrubland. Agriculture land had higher species richness as well as abundance compared to all the other land-uses (12 species and 212 individuals) followed by forest with higher abundance (126 individuals).

D. Avian Diversity in the study area

Our comprehensive fieldwork conducted for the preparation of an integrated wildlife management plan for NMDC revealed a rich avian diversity across various habitats within the study area. A total of 125 bird species were recorded, spanning multiple orders, families, and feeding guilds. The birds were observed in different habitats, including agriculture fields, built-up areas, forests, open scrublands, and wetlands.

Among the recorded species, several notable and charismatic birds were observed, including raptors such as the Bonelli's Eagle, Black Eagle, and Indian Spotted Eagle from the Accipitriformes order. Other significant sightings included the Indian Grey Hornbill, Common Hoopoe, and Indian Nightjar from the Bucerotiformes and Caprimulgiformes orders, respectively.

The study also documented the presence of waterbirds such as the Red-wattled Lapwing, Black-winged Stilt, and Greater Painted-snipe, indicating the importance of wetland habitats within the study area for supporting avian biodiversity.

Notably, several species recorded during the study are listed under various conservation categories, highlighting the ecological significance of the study area. These include species categorized as Least Concern, Vulnerable, and Near Threatened according to the International Union for Conservation of Nature (IUCN) classification.

Our findings also revealed habitat preferences and associations of bird species within the study area. Certain species were predominantly associated with specific habitats, such as forest-dwelling species like the Indian Golden Oriole and Indian Pitta, while others were more adaptable and observed across various habitats, such as the Common Myna and House Sparrow.

Overall, the study provides valuable insights into the avian diversity and habitat utilization patterns within the NMDC study area. These findings serve as a crucial foundation for formulating effective conservation and management strategies aimed at preserving and enhancing the avifaunal diversity and habitats in the region.

Table 3A: Checklist of bird species recorded from the study area, their habitat of occurrence and conservation status

Sl. No	Order:	Scientific Name	Common Name	Habitat of Occurrence						FG	Status			GH
	Family			AG	B	F	OS	W	C		IUCN	IWPA	Occ	
I.	Accipitriformes:													
1	Accipitridae	<i>Accipiter badius</i>	Shikra	*	*	*	*			C	L C	Sch-I	R	W S
2	Accipitridae	<i>Aquila fasciata</i>	Bonelli's Eagle	*						C	L C	Sch-I	R	F
3	Accipitridae	<i>Circaetus gallicus</i>	Short-toed Snake Eagle	*		*	*			C	L C	Sch-I	R	G and S
4	Accipitridae	<i>Clanga hastata</i>	Indian Spotted Eagle			*				C	V	Sch-I	R	F
5	Accipitridae	<i>Elanus caeruleus</i>	Black-winged Kite	*	*	*	*			C	L C	Sch-I	R	G and S
6	Accipitridae	<i>Haliastur indus</i>	Brahminy Kite			*				C	L C	Sch-I	R	W S
7	Accipitridae	<i>Ictinaetus malaiensis</i>	Black Eagle			*	*			C	L C	Sch-I	R	F
8	Accipitridae	<i>Lophotriorchis kienerii</i>	Rufous-bellied Eagle				*			C	N T	Sch-I	R	G and S
9	Accipitridae	<i>Milvus migrans</i>	Black Kite		*					C	L C	Sch-I	R	W S
10	Accipitridae	<i>Nisaetus cirrhatus</i>	Changeable Hawk Eagle			*				C	L C	Sch-I	R	F
11	Accipitridae	<i>Pernis ptilorhynchus</i>	Oriental Honey Buzzard			*				C	L C	Sch-I	R	W S
II.	Anseriformes:													
12	Anatidae	<i>Anas poecilorhyncha</i>	Indian Spot-billed Duck			*		*		P-S	L C	Sch-IV	R	W L
13	Anatidae	<i>Dendrocygna javanica</i>	Lesser Whistling Duck					*		P-S	L C	Sch-IV	R	W L
III.	Bucerotiformes:													
14	Bucerotidae	<i>Ocyrceros birostris</i>	Indian Grey Hornbill	*		*	*		*	F	L C	Sch-IV	R	W S
15	Upupidae	<i>Upupa epops</i>	Common Hoopoe				*			I	L C	Sch-IV	R	G and S
IV.	Caprimulgiformes:													
16	Apodidae	<i>Apus affinis</i>	Indian House Swift	*	*	*	*	*	*	I	L C	Sch-IV	R	W S
17	Apodidae	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	*	*		*			I	L C	Sch-IV	R	W S

18	Caprimulgidae	<i>Caprimulgus asiaticus</i>	Indian Nightjar	*		*	*			I	L C	Sch-IV	R	W S
V.	Charadriiformes:													
19	Charadriidae	<i>Vanellus indicus</i>	Red-wattled Lapwing	*		*	*			O	L C	Sch-IV	R	W L
20	Charadriidae	<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing				*			O	L C	Sch-IV	R	G and S
21	Laridae	<i>Sterna aurantia</i>	River Tern					*		O	V	Sch-IV	R	W L
22	Recurvirostridae	<i>Himantopus himantopus</i>	Black-winged Stilt	*				*		I	L C	Sch-IV	R	W L
23	Rostratulidae	<i>Rostratula benghalensis</i>	Greater Painted-snipe	*						P and I	L C	Sch-IV	R	W L
24	Turnicidae	<i>Turnix suscitator</i>	Barred Buttonquail	*						G and I	L C	Sch-IV	R	G and S
VI.	Ciconiiformes:													
25	Ciconiidae	<i>Anastomus oscitans</i>	Asian Openbill					*		P	L C	Sch-IV	R	W L
26	Ciconiidae	<i>Mycteria leucocephala</i>	Painted Stork					*		P	N T	Sch-IV	R	W L
VII.	Columbiformes:													
27	Columbidae	<i>Columba livia</i>	Rock Pigeon	*	*	*	*		*	G	L C	Sch-IV	R	W S
28	Columbidae	<i>Streptopelia chinensis</i>	Spotted Dove	*	*	*	*		*	G	L C	Sch-IV	R	W S
29	Columbidae	<i>Streptopelia decaocto</i>	Eurasian Collared Dove	*	*	*	*		*	G	L C	Sch-IV	R	W S
30	Columbidae	<i>Streptopelia senegalensis</i>	Laughing Dove	*	*	*	*	*	*	G	L C	Sch-IV	R	W S
VIII.	Coraciiformes:													
31	Alcedinidae	<i>Alcedo atthis</i>	Common Kingfisher			*		*		P	L C	Sch-IV	R	W L
32	Alcedinidae	<i>Ceryle rudis</i>	Pied Kingfisher					*		P and I	L C	Sch-IV	R	W L
33	Alcedinidae	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	*	*	*	*	*	*	P and I	L C	Sch-IV	R	W L
34	Coraciidae	<i>Coracias benghalensis</i>	Indian Roller	*	*		*			I	L C	Sch-IV	R	G and S
35	Meropidae	<i>Merops orientalis</i>	Green Bee-eater	*	*	*	*	*	*	I	L C	Sch-IV	R	W S
IX.	Cuculiformes:													
36	Cuculidae	<i>Centropus sinensis</i>	Greater Coucal	*	*	*	*	*	*	I and F	L C	Sch-IV	R	W S
37	Cuculidae	<i>Clamator jacobinus</i>	Pied Cuckoo				*			I and F	L C	Sch-IV	R	W S
38	Cuculidae	<i>Eudynamys scolopaceus</i>	Asian Koel	*	*	*	*			I and F	L C	Sch-IV	R	W S
39	Cuculidae	<i>Hierococcyx varius</i>	Common Hawk Cuckoo				*		*	I and F	L C	Sch-IV	R	W S
40	Cuculidae	<i>Phaenicophaeus viridirostris</i>	Blue-faced Malkoha		*	*		*		I	L C	Sch-IV	R	W S
41	Cuculidae	<i>Taccocua leschenaultii</i>	Sirkeer Malkoha						*	I	L C	Sch-IV	R	W S
X.	Falconiformes:													
42	Falconidae	<i>Falco peregrinus</i>	Shaheen Falcon				*			C	L C	Sch-I	R	F
43	Falconidae	<i>Falco tinnunculus</i>	Common Kestrel		*					C	LC	Sch-IV	R	W S
XI.	Galliformes:													
44	Phasianidae	<i>Francolinus pondicerianus</i>	Grey Francolin	*	*		*		*	G and I	L C	Sch-IV	R	G and S
45	Phasianidae	<i>Galloperdix spadicea</i>	Red Spurfowl			*			*	O	L C	Sch-IV	R	F
46	Phasianidae	<i>Gallus sonneratii</i>	Grey Jungle Fowl			*								
47	Phasianidae	<i>Pavo cristatus</i>	Indian Peafowl	*	*	*	*	*	*	O	L C	Sch-I	R	W S

48	Phasianidae	<i>Perdiculaar goondah</i>	Rock Bush Quail				*			G and I	L C	Sch-IV	R	G and S
49	Phasianidae	<i>Perdicula asiatica</i>	Jungle Bush Quail		*	*	*			G and I	L C	Sch-IV	R	G and S
XII.	Gruiformes:													
50	Rallidae	<i>Amaurorni sphenicurus</i>	White-breasted Waterhen		*					O	L C	Sch-IV	R	W L
51	Rallidae	<i>Fulica atra</i>	Common Coot		*					O	L C	Sch-IV	R	W L
52	Rallidae	<i>Gallinula chloropus</i>	Common Moorhen		*					O	L C	Sch-IV	R	W L
53	Rallidae	<i>Porphyrio porphyrio</i>	Purple Swampheh		*					O	L C	Sch-IV	R	W L
XIII.	Passeriformes:													
54	Aegithinidae	<i>Aegithina tiphia</i>	Common Iora	*	*	*	*		*	I and F	L C	Sch-IV	R	W S
55	Alaudidae	<i>Alauda gulgula</i>	Oriental Skylark				*		*	I	L C	Sch-IV	R	W S
56	Alaudidae	<i>Ammomanes phoenicura</i>	Rufous-tailed Lark				*			I	L C	Sch-IV	R	G and S
57	Alaudidae	<i>Eremopterix griseus</i>	Ashy-crowned Sparrow Lark		*	*	*			I	L C	Sch-IV	R	G and S
58	Campephagidae	<i>Pericrocotus cinnamomeus</i>	Small Minivet			*			*	G	L C	Sch-IV	R	F
59	Chloropseidae	<i>Chloropsis jerdoni</i>	Jerdon's Leafbird			*				I and F	L C	Sch-IV	R	W S
60	Cisticolidae	<i>Cisticola juncidis</i>	Zitting Cisticola		*					I	L C	Sch-IV	R	G and S
61	Cisticolidae	<i>Orthotomus sutorius</i>	Common Tailorbird	*	*	*	*	*	*	I	L C	Sch-IV	R	W S
62	Cisticolidae	<i>Prinia buehanani</i>	Rufous-fronted Prinia				*			I	L C	Sch-IV	R	G and S
63	Cisticolidae	<i>Prinia hodgsonii</i>	Grey-breasted Prinia			*	*	*	*	I	L C	Sch-IV	R	W S
64	Cisticolidae	<i>Prinia inornata</i>	Plain Prinia	*	*	*	*	*	*	I	L C	Sch-IV	R	W S
65	Cisticolidae	<i>Prinia socialis</i>	Ashy Prinia	*	*	*	*	*	*	I	L C	Sch-IV	R	W S
66	Corvidae	<i>Corvus macrorhynchos</i>	Indian Jungle Crow		*		*			O	L C	Sch-IV	R	W S
67	Corvidae	<i>Corvus splendens</i>	House Crow	*	*	*	*			O	L C	Sch-V	R	W S
68	Corvidae	<i>Dendrocitta vagabunda</i>	Rufous Treepie			*	*		*	O	L C	Sch-IV	R	W S
69	Dicruridae	<i>Dicaeumerythro rhynchos</i>	Pale-billedv Flowerpecker	*	*	*			*	F	L C	Sch-IV	R	W S
70	Dicruridae	<i>Dicrurus caerulescens</i>	White-bellied Drongo			*			*	I	L C	Sch-IV	R	W S
71	Dicruridae	<i>Dicrurus macrocercus</i>	Black Drongo	*	*	*		*		I	L C	Sch-IV	R	G and S
72	Estrildidae	<i>Euodice malabarica</i>	Indian Silverbill	*	*	*	*	*		G	L C	Sch-IV	R	G and S
73	Estrildidae	<i>Lonchura malacca</i>	Tricoloured Munia	*			*			G	L C	Sch-IV	R	W S
74	Estrildidae	<i>Lonchura punctulata</i>	Scaly-breasted Munia	*	*	*	*	*	*	G	L C	Sch-IV	R	W S
75	Hirundinidae	<i>Cecropis daurica</i>	Red-rumped Swallow	*	*	*	*	*		I	L C	Sch-IV	R	W S
76	Hirundinidae	<i>Hirundo rustica</i>	Barn Swallow	*		*				I	L C	Sch-IV	M L	W S
77	Hirundinidae	<i>Ptyonoprogne concolor</i>	Dusky Crag Martin		*	*				I	L C	Sch-IV	R	W S
78	Laniidae	<i>Laniuss chach</i>	Long-tailed Shrike			*	*			I	L C	Sch-IV	R	G and S
79	Laniidae	<i>Lanius vittatus</i>	Bay-backed Shrike		*	*	*			I	L C	Sch-IV	R	G and S
80	Leiothrichidae	<i>Argyama lcolmi</i>	Large Grey Babbler	*	*	*	*		*	I	L C	Sch-IV	R	W S
81	Leiothrichidae	<i>Chrysomma sinense</i>	Yellow-eyed Babbler		*		*			I	L C	Sch-IV	R	G and S
82	Leiothrichidae	<i>Turdoides affinis</i>	Yellow-billed Babbler	*		*	*	*	*	I	L C	Sch-IV	R	W S

83	Leiothrichidae	<i>Turdoides striata</i>	Jungle Babbler			*		*	*	I	L C	Sch-IV	R	W S
84	Motacillidae	<i>Motacilla maderaspatensis</i>	White-browed Wagtail	*	*	*		*		I	L C	Sch-IV	R	W L
85	Muscicapidae	<i>Copsychu ssauularis</i>	Oriental Magpie Robin	*		*			*	I	L C	Sch-IV	R	W S
86	Muscicapidae	<i>Cyornis tickelliae</i>	Tickell's Blue Flycatcher	*		*		*	*	I	L C	Sch-IV	R	W S
87	Muscicapidae	<i>Muscica padaaurica</i>	Asian Brown Flycatcher			*			*	I	L C	Sch-IV	R	W S
88	Muscicapidae	<i>Saxicola caprata</i>	Pied Bushchat	*	*	*	*			I	L C	Sch-IV	R	W S
89	Muscicapidae	<i>Saxicoloides fulicatus</i>	Indian Robin	*	*	*	*	*	*	I	L C	Sch-IV	R	W S
90	Nectariniidae	<i>Cinnyris asiaticus</i>	Purple Sunbird	*	*	*	*	*	*	N	L C	Sch-IV	R	W S
91	Nectariniidae	<i>Leptocoma zeylonica</i>	Purple-rumped Sunbird	*	*	*	*		*	N	L C	Sch-IV	R	W S
92	Oriolidae	<i>Oriolus kundoo</i>	Indian Golden Oriole			*				F	LC	Sch-IV	R	
93	Paridae	<i>Parus cinereus</i>	Cinereous Tit			*				I	L C	Sch-IV	R	W S
94	Passeridae	<i>Passer domesticus</i>	House Sparrow		*					G	L C	Sch-IV	R	W S
95	Ploceidae	<i>Ploceus philippinus</i>	Baya Weaver	*		*	*			G	L C	Sch-IV	R	W S
96	Pycnonotidae	<i>Pycnonotus cafer</i>	Red-vented Bulbul	*	*	*	*	*	*	O	L C	Sch-IV	R	W S
97	Pycnonotidae	<i>Pycnonotus luteolus</i>	White-browed Bulbul	*		*	*	*	*	O	L C	Sch-IV	R	W S
98	Rhipiduridae	<i>Rhipidura albogularis</i>	White-spotted Fantail			*			*	I	L C	Sch-IV	R	W S
99	Sturnidae	<i>Acridotheres fuscus</i>	Jungle Myna	*		*	*			O	L C	Sch-IV	R	W S
100	Sturnidae	<i>Acridotheres tristis</i>	Common Myna	*	*	*	*	*		O	L C	Sch-IV	R	W S
101	Sturnidae	<i>Sturnia pagodarum</i>	Brahminy Starling	*	*		*			O	L C	Sch-IV	R	W S
102	Timaliidae	<i>Dumetia hyperythra</i>	Tawny-bellied Babbler			*				I	L C	Sch-IV	R	W S
103	Zosteropidae	<i>Zosterops palpebrosus</i>	Oriental White-eye			*				I	L C	Sch-IV	R	W S
XIV.	Pelecaniformes:													
104	Ardeidae	<i>Ardea cinerea</i>	Grey Heron					*		P and I	L C	Sch-IV	R	W L
105	Ardeidae	<i>Ardea purpurea</i>	Purple Heron					*		P and I	L C	Sch-IV	R	W L
106	Ardeidae	<i>Ardeola grayii</i>	Indian Pond Heron	*				*		P and I	L C	Sch-IV	R	W L
107	Ardeidae	<i>Bubulcus ibis</i>	Cattle Egret					*		P and I	L C	Sch-IV	R	W L
108	Ardeidae	<i>Egretta garzetta</i>	Little Egret					*		P and I	L C	Sch-IV	R	W L
109	Threskiornithidae	<i>Threskiornis melanocephalus</i>	Black-headed Ibis					*		O	N T	Sch-IV	R	W L
XV.	Piciformes:													
110	Megalaimidae	<i>Psilopogon haemacephalus</i>	Coppersmith Barbet		*	*			*	F	L C	Sch-IV	R	W S
111	Megalaimidae	<i>Psilopogon viridis</i>	White-cheeked Barbet	*					*	F	L C	Sch-IV	R	W S
112	Picidae	<i>Dinopium benghalense</i>	Lesser Golden-backed Woodpecker						*	I	L C	Sch-IV	R	W S
XVI.	Podicipediformes:													
113	Podicipedidae	<i>Tachybaptus ruficollis</i>	Little Grebe					*		O	L C	Sch-IV	R	W L
XVII.	Psittaciformes:													
114	Psittaculidae	<i>Psittacula cyanocephala</i>	Plum-headed Parakeet			*			*	F	L C	Sch-IV	R	F

115	Psittaculidae	<i>Psittacula krameri</i>	Rose-ringed Parakeet	*	*	*		*	*	F	L C	Sch-IV	R	W S
XVIII.	Pterocliiformes:													
116	Pteroclididae	<i>Pterocles indicus</i>	Painted Sandgrouse		*		*			G and I	L C	Sch-IV	R	G and S
XIX.	Strigiformes:													
117	Strigidae	<i>Athene brama</i>	Spotted Owlet	*			*			C	L C	Sch-IV	R	W S
118	Strigidae	<i>Bubo bengalensis</i>	Indian Eagle Owl			*	*			C	L C	Sch-IV	R	F
119	Strigidae	<i>Ketupa zeylonensis</i>	Brown Fish Owl			*				C	L C	Sch-IV	R	F
120	Strigidae	<i>Otus bakkamoena</i>	Indian Scops Owl			*				C	L C	Sch-IV	R	F
121	Tytonidae	<i>Tyto alba</i>	Common Barn Owl		*					C	L C	Sch-IV	R	W S
XX.	Suliformes:													
122	Anhingidae	<i>Anhinga melanogaster</i>	Oriental Darter					*		C	N T	Sch-IV	R	W L
123	Phalacrocoracidae	<i>Microcarbo niger</i>	Little Cormorant	*		*		*		P	L C	Sch-IV	R	W L
124	Phalacrocoracidae	<i>Phalacrocorax carbo</i>	Great Cormorant					*		P	L C	Sch-IV	R	W L
125	Phalacrocoracidae	<i>Phalacrocorax fuscicollis</i>	Indian Cormorant					*		P	L C	Sch-IV	R	W L

*Species occurrence in Habitat; A, Agriculture; B, Built-up; F, Forest; OS, Open Scrub; W, Wetland; C, Control; FG, Feeding guild; Occ, Occurrence; GH, General Habitat; LC, Least Concerned; V, Vulnerable; NT, Near Threatened; F, Frugivore; N, Nectarivore; P, Piscivore; C, Carnivore/ Flesh eating; I, Insectivore; G, Granivore; O, Omnivore; Sch, Schedule; R, Resident; M-L, Local Migratory; WL, Wet-lands; WS, Wide spread F, Forest; G, Grassland; S, Scrub land.

E. Diversity of Arthropods in the study area



1. Insects: Insects were the most abundant group of arthropods observed, comprising species from orders such as Odonata (dragonflies and damselflies), Dictyoptera (mantids and cockroaches), Orthoptera (grasshoppers and crickets), Hemiptera (true bugs and leafhoppers), Neuroptera (antlions), Lepidoptera (butterflies and moths), Coleoptera (beetles), Diptera (flies), and Hymenoptera (bees, wasps, and ants). These insects exhibited a wide range of behaviors, feeding habits, and ecological roles.

2. Arachnids: Arachnids, including spiders, were also prominent in the study area. Spiders from families such as Araneidae, Lycosidae, and Salticidae were observed, showcasing diverse hunting strategies and web-building behaviors. Additionally, scorpions were encountered, adding to the diversity of arachnid species.

3. Other Arthropods: Apart from insects and arachnids, other arthropods were recorded in the study area, including millipedes, centipedes, and crustaceans. These organisms contributed to the overall arthropod diversity and ecosystem dynamics.

4. Habitat Preferences: Arthropods were found in various habitats within the study area, including agricultural fields, forests, built environments, and scrublands. Different species exhibited preferences for specific habitats based on factors such as food availability, moisture levels, and temperature.

5. Functional Roles: The observed arthropods played crucial roles in ecosystem functioning. For example, pollinating insects like bees and butterflies contributed to plant reproduction, while predatory insects and spiders helped control populations of pests. Decomposers such as beetles and flies facilitated nutrient cycling by breaking down organic matter.

Overall, the study highlighted the remarkable diversity and ecological significance of arthropods in the local ecosystem. Understanding the composition and dynamics of arthropod communities is essential for biodiversity conservation and ecosystem management efforts.

Table 4: Arthropods recorded in the study area

Sl. No	Order	Family	Common Name	Scientific Name
1	Odonata	Coenagrionidae	Senegal Golden Dartlet	<i>Ischnururubilio</i>
2		Libellulidae	Crimson Marsh Glider	<i>Trithemis aurora</i>
3			Long legged Marsh Glider	<i>Trithemis pallidinervis</i>
4			Ditch Jewel	<i>Brachythemis contaminate</i>
5			Picture Wing	<i>Rhyothemis variegata</i>
6		Platycnemididae	Black winged Bambootail	<i>Disparoneura quadrimaculata</i>
7	Dictyoptera	Mantidae	Grass Mantis	<i>Archimantis latistyla</i>
8		Blattidae	American Cockroach	<i>Periplaneta Americana</i>
9		Corydiidae	Seven spotted cockroach	<i>Thereapetiveriana</i>
10	Orthoptera	Acridinae	Brown Grasshopper	<i>Gomphocerippus sp.</i>
11			Short Horned Grasshopper	<i>Neortha crissimulans</i>
12			Spur throated grass hopper	<i>Melanoplus sp.</i>
13			Green Grass hopper	<i>Omocestus simulans</i>
14		Gryllidae	Cricket	<i>Gryllus sp.</i>
15	Phasmida	Phyllidae	Stick Insect	<i>Phasmatodea sp.</i>
16	Dermoptera	Forficulidae	Earwig	<i>Forficula auricularia</i>
17	Isoptera	Rhinotermitidae	Formosa termite	<i>Coptotermes formosanus</i>
18	Hemiptera	Chrysomelidae	Parthenium Bug	<i>Zygogramma bicolorata</i>
19		Coreidae	Leaf footed bug	<i>Acanthocephalinites minalis</i>
20		Eurybrachidae	Plant Hopper	<i>Eurybrachys tomentosa</i>
21		Lygaeidae	Seed bug	<i>Spilostethus pandurus</i>
22		Reduviidae	Assassin Bug	<i>Platymeris biguttatus</i>
23		Scutelleridae	Jewel bug	<i>Chrysocoris stollis</i>
24	Neuroptera	Myrmeleontidae	Ant lion	<i>Myrmeleonitade sp.</i>
25	Lepidoptera	Nymphalidae	Angled Castor	<i>Ariadne ariadne</i>
26			Blue Pansy	<i>Junonia orithiya</i>
27			Blue tiger	<i>Tirumala limniace</i>
28			Common Crow	<i>Euploea core</i>
29			Common four ring	<i>Ypthima huebneri</i>
30			Lemon pansy	<i>Junonia lemonias</i>
31			Plain tiger	<i>Danaus chrysippus</i>
32			Striped tiger	<i>Danaus genutia</i>
33			Twany Castor	<i>Acraea terpsicore</i>
34		Pieridae	Common emigrant	<i>Catposila pomona</i>
35			Grass yellow	<i>Eurema hecabe</i>
36			Indian Crimson tip	<i>Calotis danae</i>
37			Jezebel	<i>Delias eucharis</i>
38			Salmon Arab	<i>Colotis fausta</i>
39			Pioneer White	<i>Belenois aurota</i>
40			Orange Tip	<i>Colotis aurora</i>
41			Yellow orange tip	<i>Ixias pyrene</i>
42			White orange tip	<i>Ixias marianne</i>
43			Bright bubul blue	<i>Azonus ubaldus</i>
44			Common silverline	<i>Ciggaratis vulcanus</i>
45			Gram Blue	<i>Euchrysops cnejus</i>
46			Orange spotted grass jewel	<i>Freyeri atrochylus</i>

47			Pierrot	<i>Tarucus sp.</i>
48		Lycaenidae	Stiped Pierrot	<i>Tarucus nara</i>
49			Tiny Grass Blue	<i>Zizula hylax</i>
50			Zebra blue	<i>Leptotes plinus</i>
51			Common Mormon	<i>Papilio polytes</i>
52			Crimson Rose	<i>Pachliopta hector</i>
52		Papilionidae	Common Lime	<i>Papilio demoleus</i>
54		Hesperiidae	Grizzled Skipper	<i>Pyrgus malvae</i>
55			Marbled Skipper	<i>Gomalia elma</i>
56		Erebidae	Indian Wasp moth	<i>Amta passalis</i>
57			Passenger moth	<i>Dysgonia algira</i>
58		Noctuidae	Owlet Moth	<i>Spirama retorta</i>
59			Silver Moth	<i>Micromia aculeate</i>
60		Asilidae	Robber fly	<i>Cyrtopogon sp.</i>
61		Syrphidae	Hover fly	<i>Ischiodons cutellaris</i>
62	Diptera	Culicidae	Mosquito	<i>Anopheles sp.</i>
63		Muscidae	House fly	<i>Musca domestica</i>
64		Sarcophagidae	Flesh Fly	<i>Sacrophaga carnaria</i>
65			Honey Bee	<i>Apis cerana</i>
66		Apidae	Wood Bee	<i>Xylocopa latreille</i>
67			Blue banded bee	<i>Amegilla cingulata</i>
68			Honey bee	<i>Apis dorsata</i>
69		Formicidae	Red Ant	<i>Solenopsis sp.</i>
70	Hymenoptera		Black Ant	<i>Lasius niger</i>
71		Pompilidae	Black orange Wasp	<i>Cryptocheilus bicolor</i>
72			Hornet	<i>Vaspa orientails</i>
73		Vaspidae	Red paper wasp	<i>Polistes Carolina</i>
74			Yellow paper wasp	<i>Polistes versicolor</i>
75		Carabidae	Six spot ground beetle	<i>Anthiasex guttata</i>
76			Yellow spotted ground beetle	<i>Eudema angulatus</i>
77	Coleoptera	Chrysomelidae	Leaf Beetle	<i>Calligrapha philadelphica</i>
78			Pumpkin Beetle	<i>Raphidopalpa foveicollis</i>
79			Tortise shell beetle	<i>Charidotella sp.</i>
80		Lycidae	Net winged beetle	<i>Lycostomus sp.</i>
81		Meloidae	Blister Beetle	<i>Hycleus plymorphismus</i>
82			Striped beetle	<i>Hycleus sp.</i>
83		Scarabaeida	Dung beetle	<i>Scarabaeida sp.</i>
84		Tenebrionidae	Black Darkling beetle	<i>Tenebrionidae sp.</i>
85	Julida	Julidae	Julus	<i>Julus scandinavius</i>
86	Polydesmida	Polydesmidae	Yellow spotted millipede	<i>Harpaphe haydeniana</i>
87		Araneidae	Signature spider	<i>Argiope sp.</i>
88			Garden Spider	<i>Araneus sp.</i>
89		Lycosidae	Wolf spider	<i>Lycosidae sp.</i>
90			Ornge Lynx spider	<i>Oxyopes salticus</i>
91		Oxyopidae	Green Lynx spider	<i>Peucetia viridans</i>

92	Araneae	Tetragnatidae	Decorative silver orb spider	<i>Leucauge decorate</i>
93		Thomisidae	Crab spider	<i>Ozyptila practcola</i>
94		Salticidae	Jumping Spider	<i>Hasarius sp.</i>
95		Sparcidae	Huntsman spider	<i>Sparassidae sp.</i>
Opportunistic sighting				
96	Odonata	Aeshnidae	Blue Darner	<i>Anaximma culifrons</i>
97	Dictyoptera	Gonypetidae	Indian Bark Mantis	<i>Humbertiella sp.</i>
98	Orthoptera	Acridinae	Grass hopper	<i>Acridaexa latata</i>
99			Grass hopper	<i>Aulacobothrus sp.</i>
100	Phasmida	Phasmatidae	Stick Insect	<i>Ctenomorpha sp.</i>
101	Hemiptera	Cicadellidae	Leaf Hopper	<i>Cicadellidae sp.</i>
102		Pyrrhocoridae	Red Cotton Bug	<i>Dysdercu scingulatus</i>
103		Pentatomidae	Brown Stink Bug	<i>Halyomorpha halys</i>
104	Lepidoptera	Nymphalidae	Joker	<i>Byblia ilithyia</i>
105		Pieridae	Mottled Emigrant	<i>Catopsilia pyranthe</i>
106			Psyche	<i>Leptosianina</i>
107			Albatross	<i>Appias albina</i>
108			Small Salmon Arab	<i>Colotis fausta</i>
109		Lycaenidae	Dark Cerulean	<i>Jamides bochus</i>
110			Pale Grass Blue	<i>Pseudozizeeria maha</i>
111	Diptera	Dolichopodiae	Long legged fly	<i>Dolichopodidae sp.</i>
112		Tephritidae	Fruit fly	<i>Drosophila melanogaster</i>
113			Uzi fly	<i>Exorista sorbillans</i>
114	Hymenoptera	Sphecidae	Thread waisted wasp	<i>Sphecidae sp.</i>
115		Vespidae	Red potter wasp	<i>Delta dimidiatipenne</i>
116		Apidae	Apisfloreia	<i>Apis florea</i>
117	Coleoptera	Carabidae	Ground beetle	<i>Carabidae sp.</i>
118		Curculionidae	Weevil	<i>Tanymecus indicus</i>
119	Araneae	Araneidae	Cyclosa	Cyclosa sp.
120		Tetragnathidae	Silver orb spider	<i>Leucaugede corata</i>
121			Green Crab Spider	Thomisidae sp.
122	Scorpiones	Buthidae	Indian Red Scorpion	<i>Hottentotta tamulus</i>
123		Scorpionidae	Gaint forest scorpion	<i>Heterometrus sp.</i>
124	Spirobolida	Trigoninulidae	Common millipede	<i>Trigoniulus sp.</i>

125	Trombidiformes	Trombidiidae	Red velvet mites	<i>Trombidiidae sp.</i>
Sticky Trap Arthropods				
126	Hemiptera	Aphidoidea	Aphids	<i>Aphidoidea sp.</i>
127	Diptera		Flies	Dipterasp
Soil Arthropods				
128			Pseudoscorpiones	Pseudoscorpion Sp.
129	Opisthopora		Earthworm	Lumbricina sp.
130			Snails	Gastropod sp.
131			Cutworms	-
132	Aranea		Spiders	-
133			Nematodes	<i>Nematoda sp.</i>
134			Soil mites	-
135			Coccinellids	<i>Coccinellidae sp.</i>
136			Spring tail	<i>Collembola sp.</i>
137	Aranea		Spider Mites	<i>Tetranychidae sp.</i>
138	Isoptera		Termites	<i>Isoptera sp.</i>
139			Millipede	<i>Diplopoda sp.</i>
140	Diptera		Diptera flies	<i>Diptera sp.</i>
141	Hymenoptera		Ants	<i>Formicidae.</i>
142	Orthoptera		Cricket	<i>Grylloidea sp.</i>
143	Orthoptera		Grass hopper	<i>Caelifera sp.</i>
144	Coleoptera		Ground beetle	<i>Carabidae sp.</i>
145			Protura	<i>Protura sp.</i>
Solar trap Arthropods				
146	Coleoptera		Dung rollers	-
147	Lepidoptera	Noctuidae	Silver Moth	<i>Autographa gamma</i>
148	Hymenoptera		Ants	<i>Formicidae sp.</i>

149	Isoptera		Termites	<i>Isoptera sp.</i>
150	Diptera		Flies	<i>Diptera sp.</i>
151	Hymenoptera		Wasp	<i>Vespula germanica</i>
152	Lepidoptera	Geomitridae	Moth	<i>Geomitridae sp.</i>
153	Coleoptera		Horned Beetle	-
154	Lepidoptera	Pyraloidea	Snout Moth	<i>Pyalidae sp.</i>
155	Coleoptra	Carabidae	Ground Beetle	<i>Carabidae sp.</i>
156	Hemiptera	Cicadellidae	Leaf hoppers	<i>Cicadellidae sp.</i>
157	Dermoptera		Earwig	<i>Dermaptera sp.</i>
158	Diptera	Tenthredinoidea	sawflies	<i>Symphyta sp.</i>
159	Hemiptera	Eurybrachidae	Plant hopper	<i>Fulgoromorpha sp.</i>
160	Coleoptera		Weevils	<i>Curculionoidea sp.</i>
161	Hemiptera		Water Bug	<i>Lethocerus americanus</i>
162	Lepidoptera	Geometridae	Chaismia moth	<i>Chiasmia sp.</i>
163		Erebidae	Aemene moth	<i>Aemeneta probanis</i>
164			Euprocits moth	<i>Erebidae sp.</i>
165		Erebidae	Moth	<i>Spirama sp.</i>
166		Noctuidae	Scopariae	<i>Scopariae sp.</i>
167			Aphids	<i>Aphidoidea sp.</i>
168			Crockroach	<i>Blattodea sp.</i>
opportunistic sightings				
169	Odonata	Coenagrionidae	Coromandel Marsh Dart	<i>Ceriagrion coromandelianum</i>
170		Libellulidae	Chalky Percher	<i>Diplacodes trivialis</i>
171			Granite Ghost	<i>Bradino pygageminata</i>
172	Dictyoptera	Ectobiidae	Wood Cockroach	<i>Parco blatta</i>
173	Orthoptera	Tettigoniidae	Green Bush Cricket	<i>Tettigonia viridissima</i>

NE- Not evaluated. LC-Least concerned. IWPA- Indian wildlife Protection act. IUCN- International Union for ConservationNature. A-Agriculture. F- Forest B- Built S-Scrub.

8. Conservation Action Plan for Wildlife Management Recommendations for NMDC Mining area

1. Habitat Restoration and Enhancement:

Mining activities often result in habitat fragmentation and degradation, leading to the loss of crucial ecosystems and biodiversity. To address this challenge, NMDC should prioritize habitat restoration and enhancement efforts within and around its mining sites. This can be achieved through:

- ❖ **Reforestation Programs:** Implementing large-scale reforestation initiatives to restore degraded landscapes and create habitat corridors for wildlife. Native plant species should be prioritized to ensure ecosystem resilience and support local biodiversity.
- ❖ **Community Involvement:** Engaging local communities in tree planting and habitat restoration activities can foster a sense of ownership and stewardship over restored ecosystems. This approach not only enhances the success of restoration efforts but also promotes socio-economic benefits for nearby communities.
- ❖ **Ecological Monitoring:** Establishing long-term monitoring programs to assess the effectiveness of habitat restoration activities and track changes in biodiversity over time. This data can inform adaptive management strategies and help refine restoration techniques to maximize ecological outcomes.

2. Water Resource Management and Development:

Water is a critical resource for both wildlife and human communities, and mining operations can have significant impacts on local water systems. To ensure sustainable water management, NMDC should consider:

- ❖ **Water Conservation Measures:** Implementing measures to minimize water consumption and reduce pollution from mining activities. This includes adopting water recycling and reuse technologies, implementing erosion and sediment control measures, and promoting responsible water use practices among employees.
- ❖ **Ecosystem Restoration:** Rehabilitating degraded aquatic habitats, such as streams, rivers, and wetlands, impacted by mining activities. Restoring natural hydrological processes and enhancing riparian vegetation can improve water quality, provide habitat for aquatic species, and support overall ecosystem health.
- ❖ **Stakeholder Engagement:** Collaborating with local communities, government agencies, and conservation organizations to develop sustainable water management plans that balance the needs

of wildlife, communities, and industry. Engaging stakeholders in decision-making processes can build trust, promote transparency, and foster collective action towards water conservation goals.

3. Community Awareness and Engagement:

Effective conservation requires the active participation and support of local communities. NMDC should invest in:

- ❖ **Education and Outreach Programs:** Conducting educational workshops, awareness campaigns, and community events to raise awareness about the importance of biodiversity conservation and sustainable resource management. These initiatives can empower local residents to become stewards of their natural environment and advocate for conservation policies.
- ❖ **Capacity Building:** Providing training and capacity-building opportunities for community members, particularly youth and women, in conservation-related skills, such as ecotourism, sustainable agriculture, and natural resource management. Building local capacity strengthens community resilience and promotes socio-economic development while conserving biodiversity.
- ❖ **Partnerships and Collaboration:** Establishing partnerships with community-based organizations, non-profits, and government agencies to co-design and implement conservation projects that address local needs and priorities. Collaborative approaches that incorporate traditional ecological knowledge and cultural values can enhance the effectiveness and sustainability of conservation efforts.

4. Wildlife Monitoring and Management:

Mining activities can disrupt wildlife habitats and lead to human-wildlife conflicts. To mitigate these impacts, NMDC should:

- ❖ **Baseline Surveys:** Conducting comprehensive wildlife surveys to assess species diversity, population dynamics, and habitat use patterns in and around mining areas. Baseline data are essential for evaluating the ecological impacts of mining activities and developing targeted conservation strategies.
- ❖ **Habitat Protection:** Implementing measures to protect critical wildlife habitats, including buffer zones, wildlife corridors, and key breeding or foraging areas. Designating protected areas within mining concessions and implementing land-use zoning plans can minimize habitat disturbance and safeguard vulnerable species.
- ❖ **Conflict Resolution:** Developing protocols and response strategies for managing human-wildlife conflicts, such as crop depredation, livestock predation, or human safety concerns. Employing

non-lethal deterrents, wildlife monitoring technologies, and community-based conflict resolution methods can mitigate conflicts and promote coexistence between humans and wildlife.

5. Habitat Connectivity and Corridor Restoration:

Maintaining connectivity between fragmented habitats is essential for wildlife dispersal, genetic exchange, and long-term population viability. NMDC can:

- ❖ **Corridor Restoration:** Restoring and maintaining wildlife corridors to facilitate movement and dispersal of wildlife between isolated habitat patches. This may involve habitat restoration, land reclamation, and revegetation efforts to create contiguous habitat networks across the landscape.
- ❖ **Barrier Mitigation:** Identifying and mitigating barriers to wildlife movement, such as roads, fences, or infrastructure that impede natural dispersal patterns. Implementing wildlife-friendly infrastructure designs and incorporating wildlife crossings or underpasses can reduce wildlife-vehicle collisions and improve habitat connectivity.
- ❖ **Collaborative Conservation:** Collaborating with neighboring landowners, government agencies, and conservation organizations to establish transboundary conservation initiatives and coordinated land management strategies. Landscape-scale conservation efforts that transcend property boundaries can enhance habitat connectivity and promote ecological resilience across broader geographic scales.

6. Research and Innovation:

Investing in scientific research and innovation is essential for advancing conservation knowledge and developing effective management strategies. NMDC should:

- ❖ **Applied Research:** Supporting interdisciplinary research projects focused on understanding the ecological impacts of mining activities, evaluating conservation interventions, and identifying novel solutions to conservation challenges. Applied research findings can inform evidence-based decision-making and guide adaptive management practices.
- ❖ **Technological Innovation:** Harnessing cutting-edge technologies, such as remote sensing, GIS mapping, and ecological modeling, to improve monitoring, assessment, and management of biodiversity and ecosystems. Integrating technology into conservation efforts can enhance data collection efficiency, spatial planning accuracy, and predictive modeling capabilities.
- ❖ **Knowledge Exchange:** Facilitating knowledge exchange and collaboration between researchers, practitioners, and industry stakeholders to bridge the gap between science and practice.

Establishing research partnerships, hosting workshops, and disseminating research findings through scientific publications and outreach materials can facilitate information sharing and promote innovation in conservation practice.

7. Regulatory Compliance and Corporate Responsibility:

Compliance with environmental regulations and ethical business practices is essential for sustainable resource management. NMDC should:

- ❖ **Regulatory Compliance:** Adhering to national and international environmental laws, regulations, and industry standards to minimize environmental impacts and ensure responsible resource extraction practices. Conducting regular environmental audits, impact assessments, and compliance monitoring can help identify and address potential environmental risks and liabilities.
- ❖ **Environmental Management Systems:** Implementing robust environmental management systems (EMS) and sustainability frameworks to integrate environmental considerations into business operations and decision-making processes. Establishing clear environmental policies, setting measurable targets, and promoting employee training and awareness can foster a culture of environmental stewardship within the organization.
- ❖ **Corporate Social Responsibility (CSR):** Investing in CSR initiatives that prioritize environmental conservation, community development, and stakeholder engagement. Supporting local conservation projects, sponsoring environmental education programs, and contributing to community-based conservation efforts can demonstrate corporate commitment to sustainable development and social responsibility.

8. Long-Term Planning and Adaptation:

Planning for long-term sustainability and resilience is essential for navigating complex environmental challenges and uncertainties. NMDC should:

- ❖ **Strategic Planning:** Developing long-term conservation plans and management strategies that integrate environmental, social, and economic considerations. Setting clear conservation objectives, defining measurable indicators, and establishing adaptive management frameworks can guide decision-making and prioritize resource allocation.
- ❖ **Scenario Planning:** Anticipating and preparing for potential future scenarios, including climate change impacts, socio-economic trends, and regulatory changes, that may affect biodiversity conservation and ecosystem health. Conducting scenario analyses, risk assessments, and

contingency planning exercises can help identify adaptive responses and build adaptive capacity.

- ❖ **Learning and Adaptation:** Embracing a culture of learning, innovation, and continuous improvement to adaptively manage changing environmental conditions and emerging conservation challenges. Monitoring, evaluating, and reflecting on conservation outcomes, and incorporating lessons learned into future planning and decision-making processes can enhance organizational resilience and effectiveness.

In conclusion, implementing a comprehensive conservation action plan for the NMDC mining area requires a multifaceted approach that addresses ecological, social, and economic dimensions of sustainability. By integrating habitat restoration, water resource management, community engagement, wildlife monitoring, habitat connectivity, research and innovation, regulatory compliance, corporate responsibility, and long-term planning into conservation strategies, NMDC can effectively mitigate environmental impacts, promote biodiversity conservation, and support sustainable development in the mining area. Through collaborative partnerships, adaptive management practices, and a commitment to stewardship, NMDC can demonstrate environmental leadership and contribute to the conservation of natural resources for present and future generations.

9. Conservation strategies tailored specifically for the protection of leopards and sloth bears in the Donimalai forest block

1. Habitat Protection and Management:



- ❖ Identify and designate critical habitat areas within the Donimalai forest block that are essential for leopard and sloth bear populations, including core habitats, movement corridors, and breeding grounds.
- ❖ Implement habitat protection measures, such as establishing wildlife reserves, buffer zones, and

conservation easements, to safeguard key habitats from anthropogenic disturbances, including mining activities.

- ❖ Conduct habitat assessments to identify and address habitat degradation, fragmentation, and loss caused by deforestation, habitat conversion, and infrastructure development, employing habitat restoration techniques as needed to enhance habitat quality and connectivity.

2. Anti-Poaching and Law Enforcement:

- ❖ Strengthen anti-poaching patrols, surveillance, and law enforcement efforts to combat poaching, illegal hunting, and wildlife trade targeting leopards and sloth bears in the Donimalai forest block.
- ❖ Deploy trained wildlife rangers, forest guards, and law enforcement personnel to monitor high-risk areas, conduct regular patrols, and investigate wildlife crime incidents, collaborating with local communities and law enforcement agencies to gather intelligence and apprehend poachers.
- ❖ Establish wildlife crime hotlines, informer networks, and community-based surveillance systems to facilitate reporting of wildlife crimes and prompt response by law enforcement authorities.

3. Human-Wildlife Conflict Mitigation:

- ❖ Conduct comprehensive assessments to identify areas of potential human-wildlife conflict within the Donimalai forest block, particularly where leopards and sloth bears interact with human settlements, agricultural areas, and infrastructure.
- ❖ Implement measures to mitigate conflict incidents, such as installing predator-proof fencing, livestock enclosures, and deterrents to prevent livestock depredation by leopards, and deploying bear-proof containers and crop protection measures to reduce crop raiding by sloth bears.
- ❖ Develop and implement community-based conservation initiatives, including compensation schemes, livestock insurance programs, and alternative livelihood options, to promote coexistence between local communities and wildlife.

4. Research and Monitoring:

- ❖ Conduct scientific research and monitoring programs to assess the population status, distribution, and behavior of leopards and sloth bears in the Donimalai forest block, employing camera trapping, radio telemetry, and genetic analysis techniques to gather data on individual animals and population dynamics.
- ❖ Monitor habitat use, prey availability, and human-wildlife interactions to identify conservation priorities and inform management decisions, collaborating with research institutions, conservation

organizations, and academic partners to support applied research projects focused on leopards and sloth bears.

- ❖ Implement long-term monitoring protocols and standardized data collection methodologies to track changes in leopard and sloth bear populations, habitat conditions, and ecosystem health over time, using scientific evidence to guide adaptive management strategies.

5. Community Engagement and Awareness:

- ❖ Engage local communities in conservation initiatives through education, awareness campaigns, and capacity-building programs focused on leopard and sloth bear conservation, wildlife ecology, and coexistence strategies.
- ❖ Foster positive attitudes towards leopards and sloth bears by highlighting their ecological importance, cultural significance, and economic value to local communities, promoting ecotourism, nature-based tourism, and wildlife viewing opportunities that generate revenue and support conservation efforts.
- ❖ Establish community-based conservation committees, participatory decision-making processes, and collaborative partnerships with indigenous communities and stakeholders to empower local communities as stewards of their natural heritage and active participants in conservation planning and implementation.

6. Policy and Advocacy:

- ❖ Advocate for the integration of leopard and sloth bear conservation considerations into regional development plans, land-use policies and environmental impact assessments, advocating for the protection of critical habitats, wildlife corridors & biodiversity hotspots in the Donimalai forest block.
- ❖ Engage with government agencies, industry stakeholders, and policymakers to promote the adoption of best management practices, conservation incentives, and regulatory frameworks that prioritize leopard and sloth bear conservation and mitigate the negative impacts of mining activities on wildlife and ecosystems.
- ❖ Mobilize public support for leopard and sloth bear conservation through outreach, advocacy, and media campaigns that raise awareness about the importance of preserving these iconic species and their habitats in the Donimalai forest block.

By implementing these targeted conservation strategies, stakeholders can effectively protect and conserve leopard and sloth bear populations in the Donimalai forest block, ensuring the long-term

survival and ecological integrity of these flagship species and their habitats amidst the challenges posed by industrial activities in the NMDC mining area.

10. Recommended Wildlife habitat improvement and conservation actions for the NMDC mining area:

1. Reforestation and Afforestation:

- ❖ **Activity:** Reforesting and afforesting degraded areas with native tree species.
- ❖ **Description:** Select suitable native tree species adapted to the local climate, soil conditions, and ecosystem requirements. Prioritize species like Indian Sandalwood (*Santalum album*), Indian Rosewood (*Dalbergia latifolia*), Teak (*Tectona grandis*), Bamboo (*Bambusa* spp.), and Terminalia species. Implement a systematic planting approach, considering factors such as soil preparation, spacing, and site suitability. Monitor tree growth and survival rates over time to assess reforestation success and adjust management strategies accordingly.

2. Grassland Restoration and Management:

- ❖ **Activity:** Rehabilitating degraded grasslands through targeted management practices.
- ❖ **Description:** Conduct a thorough assessment of degraded grassland areas to identify the underlying causes of degradation, such as overgrazing or invasive species encroachment. Develop a restoration plan that includes controlled burning, selective grazing management, and native grass seeding. Implement prescribed burning to remove thatch buildup, control invasive species, and promote the growth of native grasses. Establish grazing management protocols to prevent overgrazing and allow for natural regeneration of grassland vegetation. Seed native grass species like Indian Bluegrass (*Bothriochloa pertusa*), Indian Goosegrass (*Eleusine indica*), Bermuda Grass (*Cynodon dactylon*), and Sorghum species in degraded areas to restore vegetation cover and enhance habitat quality for wildlife.

3. Wetland Conservation and Restoration:

- ❖ **Activity:** Protecting and restoring natural wetland habitats within the NMDC mining area.
- ❖ **Description:** Identify and map existing wetland areas within the mining landscape, including rivers, streams, ponds, and marshes. Assess the ecological health and conservation status of these wetlands, taking into account factors such as water quality, hydrological connectivity, and habitat integrity. Implement measures to prevent contamination and siltation of wetlands from mining activities, including sedimentation control measures and buffer zone establishment. Restore

degraded wetlands by planting native aquatic vegetation such as Indian Lotus (*Nelumbo nucifera*), Water Hyacinth (*Eichhornia crassipes*), Common Reed (*Phragmites australis*), and Water Lilies (*Nymphaea* spp.). Monitor wetland health and biodiversity over time to track restoration progress and inform adaptive management strategies.

4. Riparian Zone Enhancement:

- ❖ **Activity:** Strengthening riparian habitats along water bodies within the mining area.
- ❖ **Description:** Conduct a comprehensive assessment of riparian habitats along rivers, streams, and watercourses to identify areas in need of enhancement or restoration. Develop riparian management plans that prioritize habitat conservation, erosion control, and water quality improvement. Implement riparian buffer zone establishment to protect sensitive aquatic ecosystems from sedimentation, pollution, and habitat degradation. Plant native tree and shrub species along riparian corridors, such as Indian Beech (*Pongamia pinnata*), River Tamarind (*Tamarindus indica*), Indian Elm (*Holoptelea integrifolia*), and Indian Coral Tree (*Erythrina variegata*), to stabilize soils, provide shade, and create habitat for wildlife. Monitor riparian vegetation and aquatic biodiversity regularly to assess habitat quality and detect any signs of degradation or ecological stress.

5. Rocky Outcrop Conservation:

- ❖ **Activity:** Preserving and managing rocky outcrops and cliffs within the mining landscape.
- ❖ **Description:** Identify and map existing rocky outcrop habitats within the NMDC mining area using GIS and remote sensing techniques. Conduct field surveys to assess the ecological value, species richness, and conservation status of these habitats. Develop conservation plans that prioritize the protection and management of rocky outcrop ecosystems, including measures to prevent habitat destruction, fragmentation, and disturbance from mining operations. Establish protected areas or conservation reserves around key rocky outcrop sites to safeguard sensitive habitats and species. Implement habitat restoration and enhancement measures where necessary, including invasive species control, erosion mitigation, and revegetation efforts. Monitor rocky outcrop habitats and associated species populations over time to evaluate conservation effectiveness and inform adaptive management strategies.

6. Urban Greening and Urban Wildlife Habitats:

- ❖ **Activity:** Creating green spaces and wildlife habitats within urban areas of the NMDC township.
- ❖ **Description:** Identify suitable locations within the NMDC township and surrounding urban areas

for the establishment of green spaces, parks, and wildlife corridors. Develop landscape designs that incorporate native vegetation, water features, and habitat elements to attract and support urban wildlife populations. Plant native trees and shrubs like Neem (*Azadirachta indica*), Indian Banyan (*Ficus benghalensis*), Indian Laburnum (*Cassia fistula*), and Indian Silver Oak (*Grevillea robusta*) to provide food, shelter, and nesting sites for birds, insects, and small mammals. Install bird feeders, nesting boxes, and water sources to enhance habitat availability and encourage wildlife habitat utilization. Engage local communities and stakeholders in urban greening initiatives through education, outreach, and participatory planning processes. Monitor urban green spaces and wildlife habitats regularly to assess habitat quality, species diversity, and community engagement levels.

7. Invasive Species Management:

- ❖ **Activity:** Controlling and eradicating invasive plant species within the NMDC mining area.
- ❖ **Description:** Conduct surveys and mapping exercises to identify invasive plant species present within the mining landscape. Prioritize invasive species for control based on their ecological impact, distribution, and spread potential. Develop and implement invasive species management plans that incorporate a combination of mechanical, chemical, and biological control methods. Conduct targeted removal and eradication efforts to eliminate invasive species from priority areas, including sensitive habitats, riparian zones, and high conservation value areas. Monitor treated areas regularly to prevent reinfestation and assess the effectiveness of control measures. Implement biosecurity measures to prevent the introduction and spread of new invasive species into the mining area.

8. Agroforestry and Farm Hedgerows:

- ❖ **Activity:** Promoting agroforestry practices and establishing farm hedgerows in agricultural landscapes.
- ❖ **Description:** Work with local farmers and landowners within the NMDC mining area to promote agroforestry as a sustainable land use practice. Provide training, technical assistance, and financial incentives to encourage farmers to integrate trees and shrubs into their agricultural operations. Establish agroforestry systems that incorporate fruit trees, nitrogen-fixing species, and multipurpose trees within crop fields and pasturelands. Plant native tree and shrub species like Indian Gooseberry (*Phyllanthus emblica*), Drumstick Tree (*Moringa oleifera*), Curry Leaf Tree (*Murraya koenigii*), and Rain Tree (*Samanea saman*) to enhance soil fertility, provide shade, and diversify farm income. Establish farm hedgerows using native vegetation to create habitat

corridors, windbreaks, and soil erosion barriers around agricultural fields. Monitor agroforestry systems and farm hedgerows regularly to assess their ecological and socioeconomic benefits, including improvements in soil health, crop productivity, and biodiversity conservation.

11. The Budget Expenditure

The total budget allocated for implementation of Wildlife conservation and management plan for NMDC Forest area is Rs 67.18 Lakh in 5 years. The said budget is divided into the following:

All the below mentioned activities suggested activities will be carried out with prior consultation and necessary permissions from the Forest Department.



1. Habitat Restoration and Enhancement (Rs 6.86 Lakhs):

Procurement of native plant species, seeds, and saplings

- ❖ Procurement of native plant species, seeds, and saplings (Rs 4.22 Lakhs): This activity involves sourcing indigenous plant species, seeds, and saplings from local nurseries or seed banks. Native plants are essential for restoring degraded habitats as they are better adapted to local environmental conditions, provide food and shelter for wildlife, and support overall ecosystem health.
- ❖ Hiring skilled labor and engaging local communities (Rs 4.22 Lakhs): Local communities will be employed to assist in habitat restoration efforts, including planting trees, removing invasive species, and conducting maintenance activities such as watering and weeding. Engaging local labor not only provides employment opportunities but also fosters a sense of ownership and stewardship towards the restored habitats.
- ❖ Monitoring and maintenance of restored habitat (Rs 1.66 Lakhs): Regular monitoring is crucial for assessing the success of habitat restoration efforts and identifying any issues that may arise, such as invasive species encroachment or habitat degradation. Maintenance activities include ongoing care, such as watering, pruning, and replanting, to ensure the long-term viability of restored habitats.

2. Water Resource Management and Development (Rs 20.04 Lakhs):

- ❖ Rainwater harvesting systems and groundwater recharge (Rs 3.31 Lakhs): Installing rainwater harvesting systems, such as rooftop collection systems and check dams, helps capture and store rainwater, replenishing groundwater reserves and increasing water availability for wildlife during dry periods. Groundwater recharge techniques, such as percolation pits and recharge wells, help restore depleted aquifers, sustaining water sources for both wildlife and local communities.
- ❖ Creation of waterholes (Rs 0.18 Lakhs): Constructing artificial waterholes in strategic locations within the forest area provides essential drinking water sources for wildlife, especially during droughts or dry seasons when natural water sources may be scarce. Waterholes also serve as important gathering points for wildlife observation and research activities.
- ❖ Installation of water quality monitoring stations (Rs 16.55 Lakhs): Monitoring water quality parameters, such as pH, turbidity, and nutrient levels, helps assess the health of aquatic ecosystems and detect any pollution or contamination issues. Installing monitoring stations at key water bodies enables regular data collection and analysis, facilitating timely interventions to address water quality concerns and safeguarding aquatic habitats.

3. Community Awareness Program (Rs 14.88 Lakhs):



- ❖ Integration of wildlife conservation activities (Rs 8.28 Lakhs): Integrating wildlife conservation messages into existing community outreach programs, such as educational workshops, village meetings, and cultural events, helps raise awareness about the importance of preserving biodiversity and protecting wildlife habitats.
- ❖ Installation of Informative signage and boards (Rs 5.0 Lakhs): Installing informative signage and boards at key locations within the forest area, such as entry points, trails, and visitor centers, helps educate visitors and local communities about the region's flora, fauna, and conservation initiatives. These visual aids provide valuable information on wildlife species, habitat features, and responsible behavior guidelines, promoting environmental stewardship and wildlife-friendly practices.
- ❖ Establishment of community-based conservation committees (Rs1.60 Lakhs): Forming community-based conservation committees comprising local residents, forest department officials, and conservation experts fosters collaboration and partnership in wildlife management efforts. These committees serve as platforms for collective decision-making, problem-solving, and implementation of conservation projects tailored to the needs and priorities of the local communities.

4. Wildlife Rescue and Rehabilitation (Rs 4.72 Lakhs):

- ❖ Development of protocols and SOPs (Rs 0.83 Lakhs): Developing standardized protocols and standard operating procedures (SOPs) for wildlife rescue and rehabilitation operations ensures uniformity, efficiency, and safety in handling injured, orphaned, or distressed animals. SOPs outline step-by-step guidelines for assessing, capturing, transporting, and treating wildlife,

minimizing stress and maximizing the chances of successful rehabilitation and release.

- ❖ **Collaboration with wildlife Researchers and Veterinarians (Rs 1.57Lakhs):** Collaborating with wildlife researchers, veterinarians, and rehabilitation experts provides access to specialized knowledge, skills, and resources for assessing wildlife health, diagnosing injuries or illnesses, and providing appropriate medical care and treatment. These partnerships enhance the capacity for wildlife rescue and rehabilitation, improving outcomes for individual animals and contributing to broader conservation efforts.
- ❖ **Public awareness campaign (Rs 2.33 Lakhs):** Launching a public awareness campaign on wildlife rescue and rehabilitation raises awareness among local communities, tourists, and stakeholders about the importance of reporting wildlife emergencies and supporting conservation efforts. The campaign utilizes various communication channels, including social media, posters, leaflets, and community events, to disseminate information, educate the public, and inspire proactive engagement in wildlife conservation and welfare.



5. Boundary consolidation work (Rs.4.63 Lakhs):

- ❖ Constructing a trench along the boundary of the forest area acts as a physical barrier to prevent domestic livestock, such as cattle and goats, from encroaching into wildlife habitats. The trench helps reduce habitat degradation, trampling of vegetation, soil erosion, and competition for resources between wildlife and livestock, promoting ecosystem integrity and wildlife persistence.



7. Ecological Surveys and Biodiversity Assessment (Rs.15.00 Lakhs):

- ❖ Conducting ecological surveys and biodiversity assessments provides valuable baseline data on wildlife populations, habitat types, species diversity, and ecosystem health. These surveys employ various techniques, including camera trapping, transect surveys, and habitat mapping, to assess the status and distribution of key wildlife species and identify priority conservation areas and management needs.

8. Capacity Building for Staff and Stakeholders (Rs.0.93 Lakhs):

- ❖ Providing training and capacity-building opportunities for forest department staff, local communities, and other stakeholders enhances their knowledge, skills, and capacity to participate effectively in wildlife conservation and management initiatives. Capacity-building activities may include workshops, seminars, field training programs, and skill development courses tailored to the specific needs and roles of different stakeholders.



9. Procurement of Wildlife Capturing Equipment: (Rs 2.08 Lakhs)

The procurement of wildlife capturing equipment is a crucial aspect of conservation efforts aimed at managing and monitoring wildlife populations, particularly in areas where human-wildlife conflicts are prevalent or where species of conservation concern, such as leopards and sloth bears, inhabit. This equipment includes a range of tools and devices designed to safely capture, handle, and relocate wildlife individuals for various purposes, including research, translocation, and conflict mitigation.

1. Tranquilizer Guns and Darts: Tranquilizer guns are pneumatic devices used to deliver tranquilizing drugs via specialized darts to immobilize wildlife individuals safely. These guns are essential for immobilizing large mammals like leopards and sloth bears to facilitate their safe capture and handling by trained personnel.



2. Capture Nets and Baited Traps: Capture nets and baited traps are non-lethal devices used to capture and contain wildlife individuals, allowing for their safe relocation or release. These devices are particularly useful for capturing elusive or nocturnal species such as leopards and sloth bears.



3. Handling Equipment: Handling equipment such as catch poles, gloves, and protective gear are essential for safely restraining and handling captured wildlife individuals during translocation or veterinary procedures. Proper handling equipment minimizes stress and injury to both animals and personnel.



4. Transportation Crates and Vehicles: Transportation crates and vehicles are necessary for securely transporting captured wildlife individuals to their destination, whether it be a rehabilitation center, release site, or veterinary facility. These crates should be designed to provide adequate ventilation, protection, and comfort for the animals during transit.



5. Radio Collars and GPS Tracking Devices: Radio collars and GPS tracking devices are used for monitoring the movements and behaviour of released or translocated wildlife individuals over time. These devices provide valuable data on habitat use, home range size, and dispersal patterns, aiding in conservation planning and management decisions.



Artificial Bird Nest Installation:



10. Artificial bird nest installation. (Rs. 2.00 Lakhs)

Artificial bird nest installation is a conservation strategy aimed at mitigating the loss of natural nesting sites for avian species, particularly in areas where habitat degradation, urbanization, or other anthropogenic activities have reduced the availability of suitable nesting habitat. These artificial nests provide alternative nesting opportunities for birds, helping to maintain or enhance local bird populations and promote biodiversity conservation.

1. Nest Box Construction: Artificial bird nests, also known as nest boxes or birdhouses, are typically constructed from durable materials such as wood, metal, or plastic. These nest boxes are designed to mimic the natural nesting cavities used by a variety of bird species, with appropriate dimensions, entrance holes, and interior features to accommodate different bird species' nesting preferences.

2. Strategic Placement: Artificial bird nests should be strategically placed in suitable habitat areas where birds are likely to establish nesting territories and raise their young. These habitat areas may include woodlands, forests, parks, gardens, and wetlands, depending on the target bird species' habitat requirements and ecological preferences.

3. Monitoring and Maintenance: Regular monitoring and maintenance of artificial bird nests are essential for their effectiveness in supporting avian populations. Monitoring efforts may involve periodic inspections of nest boxes to assess occupancy, breeding success, and nestling survival rates. Maintenance activities may include cleaning, repairing, or replacing nest boxes as needed to ensure their structural integrity and usability by birds.

4. Species-Specific Considerations: Artificial bird nests should be tailored to the specific nesting requirements and behaviours of target bird species, taking into account factors such as nest box design, placement height, orientation, and spacing. Different bird species may have different

preferences for nesting substrates, cavity dimensions, and nesting site characteristics, which should be considered when installing artificial nests.

By procuring wildlife capturing equipment and installing artificial bird nests in the NMDC mining area, conservationists can enhance their capacity to manage and monitor wildlife populations effectively while mitigating human-wildlife conflicts and promoting the conservation of avian biodiversity in the region. These conservation interventions, when implemented in conjunction with other management strategies, contribute to the sustainable coexistence of wildlife and human activities in the landscape.

12. Conclusion:

In the cradle of the Deccan plains, the NMDC Donimalai region emerges as a microcosm of biodiversity, revealing a complex interplay of ecological processes and species interactions. Our scientific exploration of this landscape has unveiled a remarkable array of flora and fauna, each intricately woven into the tapestry of its habitats. From the sprawling woodlands to the meandering waterways, this region teems with life, bearing witness to the evolutionary marvels that have shaped its ecological fabric over millennia.

Our meticulous observations and rigorous analyses have illuminated the intricate dynamics of this ecosystem, shedding light on the myriad adaptations and coevolutionary relationships that underpin its resilience. From the cryptic camouflage of the Indian Nightjar to the elaborate courtship displays of the Indian Grey Hornbill, each species embodies a unique evolutionary strategy honed by millennia of natural selection.

Yet, amidst this ecological splendor, lurks the shadow of human-induced change. The burgeoning footprint of industrialization, coupled with expanding agricultural frontiers, threatens to unravel the delicate balance of this ecosystem. Habitat fragmentation, pollution, and overexploitation loom large as ominous threats, jeopardizing the integrity of these vital ecosystems and the myriad services they provide.

As custodians of this invaluable natural heritage, we are compelled by both scientific imperative and moral duty to safeguard the integrity of these ecosystems for future generations. Our scientific inquiry provides not only a window into the ecological intricacies of this landscape but also a roadmap for informed conservation action. By integrating scientific research with evidence-based management practices, we can develop targeted conservation strategies aimed at mitigating anthropogenic impacts and restoring ecological resilience.

Moreover, community engagement and stakeholder participation are essential pillars of successful conservation efforts. By fostering a sense of stewardship and empowerment among local communities, we can harness collective action towards the preservation of these invaluable ecosystems. Through education, capacity-building, and sustainable livelihood initiatives, we can forge partnerships that transcend traditional boundaries, uniting disparate stakeholders in a common cause.

In conclusion, the NMDC Donimalai region stands as a testament to the extraordinary biodiversity harbored within the Deccan plains of Karnataka. Yet, it also stands as a poignant reminder of the fragility of our natural world and the urgent need for concerted conservation action. As stewards of this precious legacy, we must heed the call to action, marshaling our collective resources and expertise in defense of biodiversity and ecological integrity. In doing so, we honor not only the intrinsic value of life but also our shared responsibility to safeguard the irreplaceable wonders of the natural world.

ANNEXURES





Location: Donimalai Block of Ballari Taluk

Wildlife Management Plan for Interlocked Forests of NMDC

Sl No.	Particulars of the work	2024-25				2025-26				2026-27				Total Amount
		Extent (In Ha/Km) /Qty. (In Nos/Cum/ Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km) /Qty. (In Nos/Cum/Km)	Unit Cost (In lakhs)	Per	Amount	Extent (In Ha/Km) /Qty. (In Nos/Cum /Km)	Unit Cost (In lakhs)	Per	Amount	
A	Habitat Restoration and Enhance													
a	Procurement of native plant species, seeds, and saplings	2.00	0.15	1.00	0.30	2.00	0.17	1.00	0.33	2.00	0.18	1.00	0.36	0.99
b	Hiring skilled labour and engaging local communities	5.00	0.15	1.00	0.75	10.00	0.17	1.00	1.65	10.00	0.18	1.00	1.82	4.22
c	Monitoring and maintenance of restored habitat	-	Ls	-	0.50	-	Ls	-	0.55	-	Ls	-	0.61	1.66
Total of A					1.55				2.53				2.78	6.86
B	Water Resource Management and Development													
a	Rainwater harvesting systems and groundwater recharge	2.00	0.50	1.00	1.00	2.00	0.55	1.00	1.10	2.00	0.61	1.00	1.21	3.31
b	Creation of waterholes	2.00	0.05	1.00	0.10	2.00	0.02	1.00	0.04	2.00	0.02	1.00	0.04	0.18
c	Installation of water quality monitoring stations	-	Ls	-	5.00	-	Ls	-	5.50	-	Ls	-	6.05	16.55

Total of B					6.10				6.64				7.30	20.04
C	Community Awareness Program													
a	Integration of wildlife conserv activities	-	Ls	-	2.50	-	Ls	-	2.75	-	Ls	-	3.03	8.28
b	Installation of Informative signage & boards	10.00	0.15	1.00	2.00	10.00	0.15	1.00	1.50	10.00	0.15	1.00	1.50	5.00
c	Establishment of community-based conservation committees	5.00	0.15	1.00	0.10	5.00	0.15	1.00	0.75	5.00	0.15	1.00	0.75	1.60
	Total of C				4.60				5.00				5.28	14.88
D	Wildlife Rescue and Rehabilitation													
a	Development of protocols and SOPs	-	-	-	0.25	-	-	-	0.28	-	-		0.30	0.83
b	Collaboration with wildlife Researchers and Veterinarians	5.00	0.25	1.00	0.15	5.00	0.25	1.00	0.17	5.00	0.25	1.00	1.25	1.57
c	Public awareness campaign	3.00	0.25	1.00	0.75	3.00	0.25	1.00	0.75	3.00	0.25	1.00	0.83	2.33
	Total of D				1.15				1.19				2.38	4.72
a	Boundary consolidation works	2.00	2.00	1.00	4.00	2.00	0.15	1.00	0.30	2.00	0.15	1.00	0.33	4.63
b	Ecological Surveys and Biodiversity Assessment	-	-		5.00		-	-	5.00				5.00	15.00

c	Capacity Building for Staff and Stakeholders	2.00	0.15	1.00	0.30	2.00	0.15	1.00	0.30	2.00	0.15	1.00	0.33	0.93
d	Procurement of Wildlife Capturing Equipment:	5.00	0.35	1.00	1.75	0.00	0.00	0.00	0.00	0.00	0.35	1.00	0.00	2.08
e	Artificial bird nest installation	10.00	0.10	1.00	1.00	10.00	0.10	1.00	1.00	10.00	0.10	1.00	1.00	2.00
Total of E					8.05				6.30				6.33	20.68
GRAND TOTAL					21.45				21.66				24.07	67.18



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 / 274654


Annexure-9

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that an integrated wildlife management plan has been prepared with the help of State Govt. Forest department in the surrounding of the forest area and shall implement the same at the cost of user agency in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(vi) of Stage-I/ in-principle approval under FC Act, 1980 accorded vide F.No: 8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

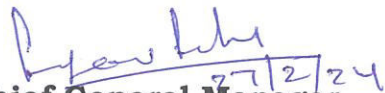
Annexure-10

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that the cost of felling of trees shall be deposited to the State Forest Department in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(vii) of Stage-I/in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

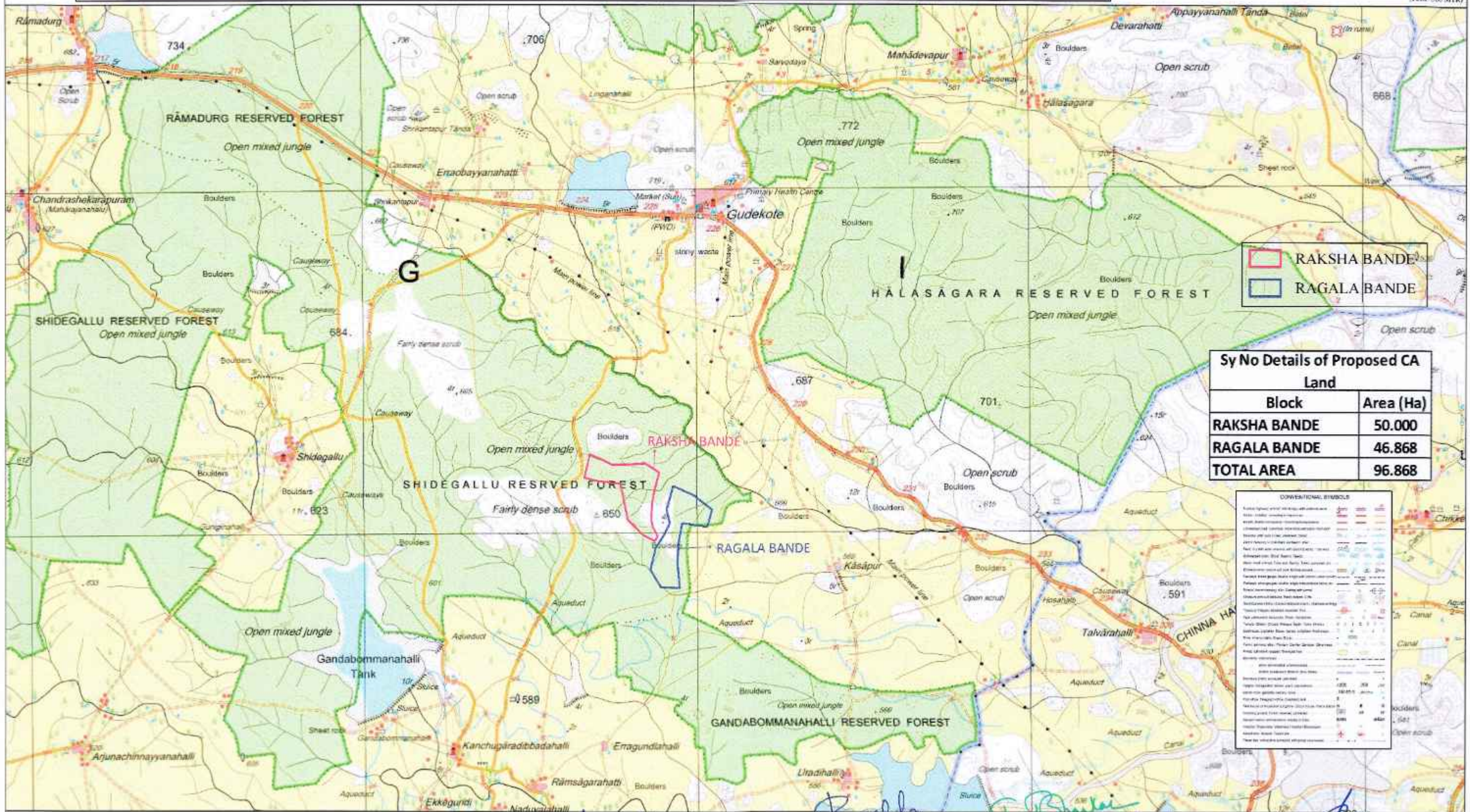
Date: 27.02.2024


Chief General Manager
NMDC Ltd., Donimalai Complex

TopoSheet showing the Proposed degraded forest land for Plantation against CA area at Kasapura village, Shidegallu "C" RF Gudekote Hobli, Kudligi Taluk, Vijayanagara Dist w.r.t regularization of 96.868 Ha out side Mine lease area of Donimalai Iron Ore Mine .



Scale - 1:50,000
(1CM=500 METR)



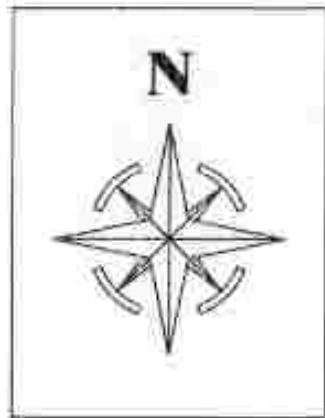
Deputy Range Forest Officer
Ramadurga Wild Life Section

RANGE FOREST OFFICER,
GUDEKOTE RANGE, GUDEKOTE

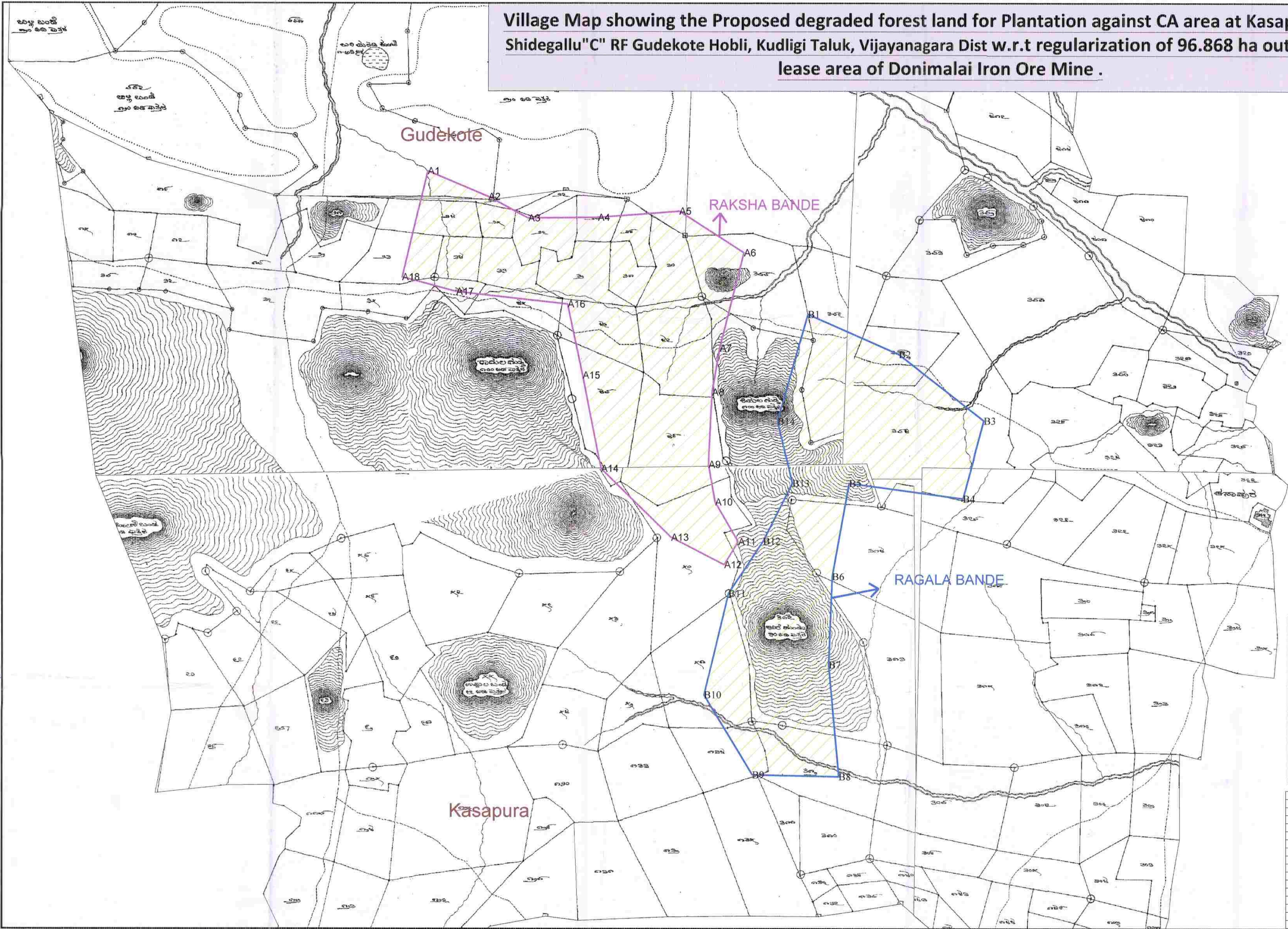
Assistant Conservator of Forest
Kudligi Sub Division KUDLIGI.

Deputy Conservator of Forests
Vijayanagara Division, Manganete.

Village Map showing the Proposed degraded forest land for Plantation against CA area at Kasapura village, Shidegallu "C" RF Gudekote Hobli, Kudligi Taluk, Vijayanagara Dist w.r.t regularization of 96.868 ha out side Mine lease area of Donimalai Iron Ore Mine .



Scale 1:3960



- RAKSHA BANDE
- RAGALA BANDE

Sy No Details of Proposed CA Land		
Block	Sy No	Area (Ha)
RAKSHA BANDE	23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 44, 45, 46, 47, 48, 49, 50, 387, 388, 389, 880, 881	50.000
	384, 385, 386, 312, 313, 314, 387, 134, 51, 388	46.868
TOTAL AREA		96.868

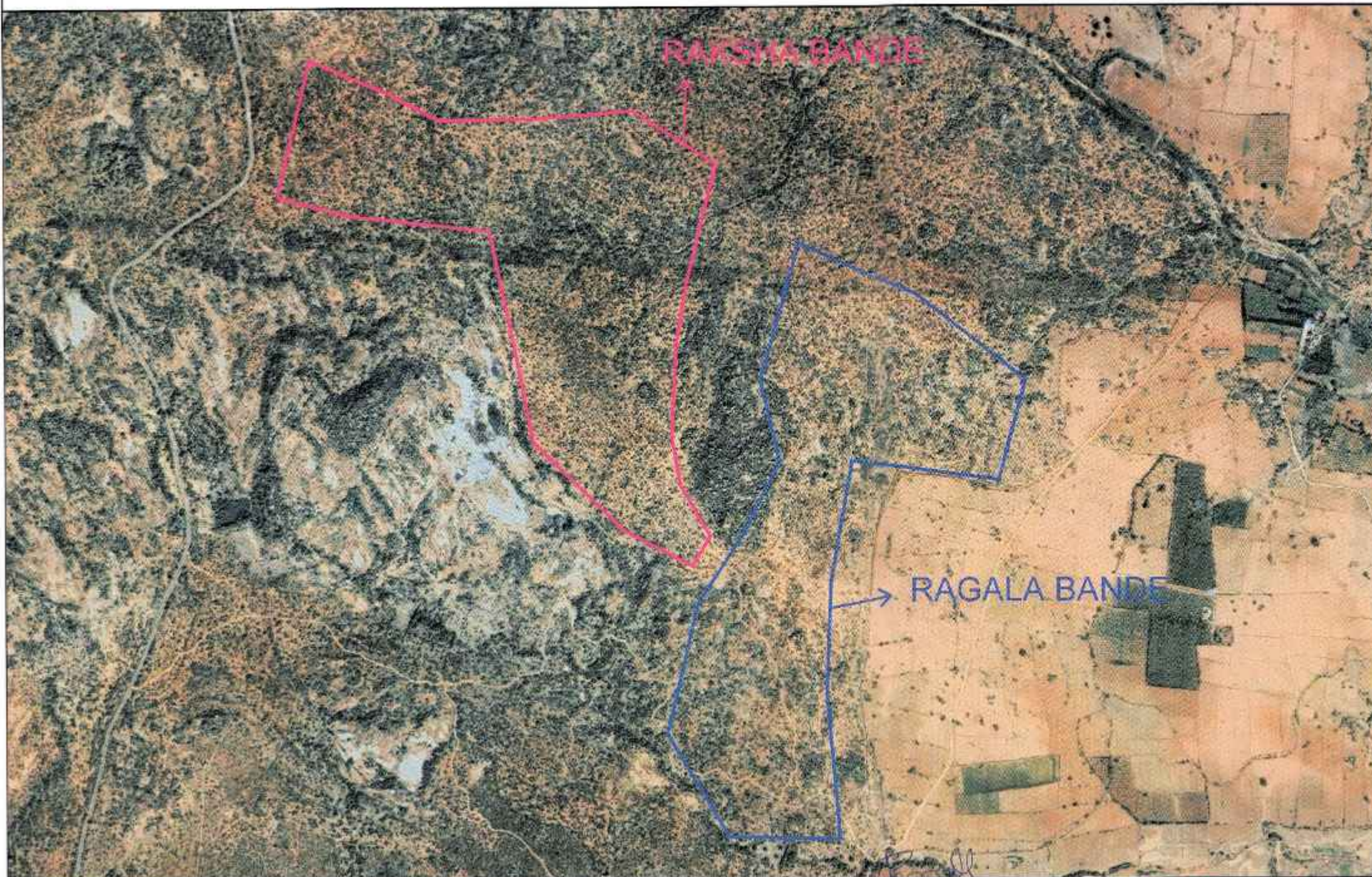
DGPS Co-ordinates with Distance and Bearings (Datum WGS84) of RAKSHA BANDE						DGPS Co-ordinates (Datum WGS84) of RAGALA BANDE					
Station No.	From Station	To Station	Distance in Mts	Bearing	Longitude	Latitude	Station No.	From Station	To Station	Distance in Mts	Bearing
A1	A1	A2	184.01	112° 59' 21.51"	77° 01' 15.97"	14° 48' 02.22"	A1	A1	A2	184.01	112° 59' 21.51"
A2	A2	A3	133.93	118° 02' 22.88"	77° 01' 12.52"	14° 48' 02.26"	A2	A2	A3	133.93	118° 02' 22.88"
A3	A3	A4	258.41	330° 21' 51.54"	77° 01' 03.45"	14° 47' 59.44"	A3	A3	A4	258.41	330° 21' 51.54"
A4	A4	A5	240.44	330° 21' 51.54"	77° 01' 03.45"	14° 47' 59.44"	A4	A4	A5	240.44	330° 21' 51.54"
A5	A5	A6	220.44	112° 59' 21.51"	77° 01' 03.45"	14° 47' 59.44"	A5	A5	A6	220.44	112° 59' 21.51"
A6	A6	A7	281.2	144° 02' 47.84"	77° 01' 03.45"	14° 47' 59.44"	A6	A6	A7	281.2	144° 02' 47.84"
A7	A7	A8	182.15	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	A7	A7	A8	182.15	180° 02' 28.80"
A8	A8	A9	213.3	102° 01' 08.76"	77° 01' 03.45"	14° 47' 59.44"	A8	A8	A9	213.3	102° 01' 08.76"
A9	A9	A10	112.56	180° 02' 21.27"	77° 01' 03.45"	14° 47' 59.44"	A9	A9	A10	112.56	180° 02' 21.27"
A10	A10	A11	135.41	144° 02' 47.84"	77° 01' 03.45"	14° 47' 59.44"	A10	A10	A11	135.41	144° 02' 47.84"
A11	A11	A12	78.28	21° 02' 39.88"	77° 01' 03.45"	14° 47' 59.44"	A11	A11	A12	78.28	21° 02' 39.88"
A12	A12	A13	176.39	102° 01' 08.76"	77° 01' 03.45"	14° 47' 59.44"	A12	A12	A13	176.39	102° 01' 08.76"
A13	A13	A14	380.59	144° 02' 47.84"	77° 01' 03.45"	14° 47' 59.44"	A13	A13	A14	380.59	144° 02' 47.84"
A14	A14	A15	282.3	340° 02' 40.72"	77° 01' 03.45"	14° 47' 59.44"	A14	A14	A15	282.3	340° 02' 40.72"
A15	A15	A16	215.14	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	A15	A15	A16	215.14	180° 02' 28.80"
A16	A16	A17	220.51	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	A16	A16	A17	220.51	180° 02' 28.80"
A17	A17	A18	185.54	102° 01' 08.76"	77° 01' 03.45"	14° 47' 59.44"	A17	A17	A18	185.54	102° 01' 08.76"
A18	A18	A1	321.91	132° 22' 31.17"	77° 01' 03.45"	14° 47' 59.44"	A18	A18	A1	321.91	132° 22' 31.17"
B1	B1	B2	280.85	112° 59' 21.51"	77° 01' 15.97"	14° 48' 02.22"	B1	B1	B2	280.85	112° 59' 21.51"
B2	B2	B3	318.38	112° 59' 21.51"	77° 01' 15.97"	14° 48' 02.22"	B2	B2	B3	318.38	112° 59' 21.51"
B3	B3	B4	228.70	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	B3	B3	B4	228.70	180° 02' 28.80"
B4	B4	B5	340.12	277° 47' 13.57"	77° 01' 03.45"	14° 47' 59.44"	B4	B4	B5	340.12	277° 47' 13.57"
B5	B5	B6	280.28	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	B5	B5	B6	280.28	180° 02' 28.80"
B6	B6	B7	280.28	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	B6	B6	B7	280.28	180° 02' 28.80"
B7	B7	B8	320.77	112° 59' 21.51"	77° 01' 15.97"	14° 48' 02.22"	B7	B7	B8	320.77	112° 59' 21.51"
B8	B8	B9	320.52	277° 47' 13.57"	77° 01' 03.45"	14° 47' 59.44"	B8	B8	B9	320.52	277° 47' 13.57"
B9	B9	B10	275.71	320° 31' 54.48"	77° 01' 03.45"	14° 47' 59.44"	B9	B9	B10	275.71	320° 31' 54.48"
B10	B10	B11	308.34	112° 59' 21.51"	77° 01' 15.97"	14° 48' 02.22"	B10	B10	B11	308.34	112° 59' 21.51"
B11	B11	B12	185.36	327° 27' 07.18"	77° 01' 03.45"	14° 47' 59.44"	B11	B11	B12	185.36	327° 27' 07.18"
B12	B12	B13	191.22	267° 30' 46.98"	77° 01' 03.45"	14° 47' 59.44"	B12	B12	B13	191.22	267° 30' 46.98"
B13	B13	B14	188.55	340° 02' 40.72"	77° 01' 03.45"	14° 47' 59.44"	B13	B13	B14	188.55	340° 02' 40.72"
B14	B14	B1	305.4	180° 02' 28.80"	77° 01' 03.45"	14° 47' 59.44"	B14	B14	B1	305.4	180° 02' 28.80"

Deputy Range Forest Officer, Kudligi Sub Division, Kudligi Taluk, Vijayanagara District, Hosanagara Division, Hosanagara.

Google Map Showing The Proposed degraded forest land for Plantation against CA area at Kasapura village, Shidegallu "C" RF Gudekote Hobli, Kudligi Taluk, Vijayanagara Dist w.r.t regularization of 96.868 ha out side Mine lease area of Donimalai Iron Ore Mine .



Scale - 1:15,000
(1CM=150 MTR)



	RAKSHA BANDE
	RAGALA BANDE

Sy No Details of Proposed CA Land	
Block	Area (Ha)
RAKSHA BANDE	50.000
RAGALA BANDE	46.868
TOTAL AREA	96.868

[Signature]
Deputy Range Forest Officer
Ramadurga Wild Life Section

[Signature]
RANGE FOREST OFFICER,
GUDEKOTE RANGE, GUDEKOTE

[Signature]
Assistant Conservator of Forest
Kudligi Sub Division KUDLIGI.

[Signature]
Deputy Conservator of Forests
Vijayanagara Division, Hosanote



ಜಿಲ್ಲಾಧಿಕಾರಿಗಳ ಕಾರ್ಯಾಲಯ, ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆ, ಬಳ್ಳಾರಿ-583101

OFFICE OF THE DEPUTY COMMISSIONER, BELLARY DISTRICT, BELLARY-583101

Telephone : 38391-177100.

Fax: 08391-172530

Email: ocbellary@gmail.com

No:Rev/Mining/F.R.A./93/2015-16

Dated: 19-09-2019

ತಪ್ಪಿಗೆ

1. ಪ್ರಧಾನ ಮಂತ್ರಿ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, (Head of Forest Force), ಅರಣ್ಯ ಭವನ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು.
2. ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, (ಬೆಂಚೋರಿಯಲ್), ಬಳ್ಳಾರಿ.

ಮಾನ್ಯರೇ,

ವಿಷಯ: ಮು|| ಎನ್ ಎಂ ಡಿ ಸಿ ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ, ಎಂ.ಎಲ್.ಸಂಖ್ಯೆ : 2396 ವಿಸ್ತೀರ್ಣ 235.64 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಸಂಚೂರು ತಾಲೂಕಿನ ದೋಣಿಮಲ್ಕೆ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿನ ಪೂರಕ ಚಟುವಟಿಕೆಗಳಿಗಾಗಿ ಸಮೂಹ- 2 ನೀಡುತ್ತಿರುವ ಬಗ್ಗೆ.

- ಉಲ್ಲೇಖ:**
1. ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ (ಅರಣ್ಯ ಹಕ್ಕು ಮಾನ್ಯ ಮಾಡುವ) ಅಧಿನಿಯಮ -2006 ಹಾಗೂ ನಿಯಮ ತಿದ್ದುಪಡಿ-2012ರ ಪ್ರಕಾರ
 2. ಗ್ರಾಮ ಪಂಚಾಯತ್, ನರಸಿಂಗಪುರ ಗ್ರಾಮ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಸಭೆಯ ನಡವಳಿಕೆ ದಿನಾಂಕ:30.05.2018
 3. ಸಹಾಯಕ ಅಯುಕ್ತರು ಬಳ್ಳಾರಿ ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ನಡೆದ ಉಪ ವಿಭಾಗೀಯ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಸಭೆ ನಡವಳಿಕೆ ದಿನಾಂಕ:
 4. ಮಾನ್ಯ ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅರಣ್ಯ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕುಗಳನ್ನು ಮಾನ್ಯ ಮಾಡುವ ಸಮಿತಿ ಬಳ್ಳಾರಿ ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ದಿನಾಂಕ : 30.08.2019 ರಂದು ನಡೆದ ಸಭೆಯ ನಡವಳಿಕೆ

ಉಲ್ಲೇಖಿತ ವಿಷಯದಲ್ಲಿ ಮು|| ಎನ್ ಎಂ ಡಿ ಸಿ ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ, ಎಂ.ಎಲ್.ಸಂಖ್ಯೆ: 2396 ವಿಸ್ತೀರ್ಣ 235.64 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಸಂಚೂರು ತಾಲೂಕಿನ ದೋಣಿಮಲ್ಕೆ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿನ ಪೂರಕ ಚಟುವಟಿಕೆಗಳಿಗಾಗಿ ಎಫ್.ಆರ್.ಎ ಅಧಿನಿಯಮ 2006 ಅಡಿಯಲ್ಲಿ ಅಧ್ಯಾಯ 04 ರಲ್ಲಿನ (1),(2),(3),(4), ಹಾಗೂ (5) ರಲ್ಲಿ ತಿಳಿಸಿದಂತೆ ಸೂಕ್ತ ಕ್ರಮ ಜರುಗಿಸಿ ಈ ಪತ್ರದೊಂದಿಗೆ ಲಗತ್ತಿಸುತ್ತಾ ಹಾಗೂ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ (ಅರಣ್ಯ ಹಕ್ಕುಗಳನ್ನು ಮಾನ್ಯ ಮಾಡುವ) ಸಮಿತಿಗಳಾದ ಗ್ರಾಮ ಮಟ್ಟದ ಸಮಿತಿ ಸಭೆ, ಉಪ ವಿಭಾಗ ಮಟ್ಟದ ಸಮಿತಿ ಸಭೆ, ಹಾಗೂ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಸಮಿತಿ ಸಭೆಗಳ ನಡವಳಿಕೆಗಳನ್ನು ಲಗತ್ತಿಸಿ ತಮ್ಮ ಮುಂದಿನ ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ಸಲ್ಲಿಸಲಾಗಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ

ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು
ಬಳ್ಳಾರಿ

ಪ್ರತಿಯನ್ನು: ಮು|| ಎನ್ ಎಂ ಡಿ ಸಿ ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಇವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಸಲ್ಲಿಸಿದೆ.



ಜಿಲ್ಲಾಧಿಕಾರಿಗಳ ಕಾರ್ಯಾಲಯ, ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆ, ಬಳ್ಳಾರಿ-583101

OFFICE OF THE DEPUTY COMMISSIONER, BELLARY DISTRICT, BELLARY-583101

Telephone : 08392-277100.

Fax : 08392-272538 Email: dcbellary@gmail.com

No:Rev/Mining/F.R.A/93/2017-2018

Dated: 13-04-2019

FORM -II

(for projects other than linear projects)

Government of Karnataka

Office of the Deputy Commissioner, Bellary District, Bellary.

TO WHOMSOEVER IT MAY CONCERN

In compliance of the Ministry of Environment and Forests (MOEF), Government of India's letter No.12-/2018-19-FC (pt) dated 18th January 2019 where in the MoEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 ('FRA', for short) on the forest land proposed to be diverted for non-forest purposes it is certified that **235.648** Hectares of forest land proposed to be diverted in favour of **M/S: N.M.D.C Limited (M.L.No:2396)** (name of user agency), for mining Purpose (purpose for diversion of Forest land) in **Bellary** district fall within jurisdiction of **Donimaili Range** in **Sandur** tahsils.

This certificate is issued on the basis of recommendation in the proceedings drawn by Forest Rights Act Committee Ward Sabha, Subdivisional Level Committee & District Level Committee and also certificate issued by Grama Panchayat authority. It is further certified that:

- a) The complete process for identification and settlement of rights under the FRA has been carried out for the entire **235.648** Hectares (M.L.No:2396) hectares of forest area proposed village. A copy of records of all consultations and meetings of the Forest Rights Committee(s), Grama Sabha, Sub-Division Level Committee and the District Level Committee are enclosed as annexure 01 to Annexure 03
- b) The proposal for such diversion (with full details of the project and its implications, in vernacular/local language) have been placed before each concerned Grama Sabha of forest-dwellers, who are eligible under the FRA;

- c) The each of concerned Grama Sabha, has certified that all formalities/ processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and details of proposed diversion. A copy of certificate issued by the gram sabha is enclosed as annexure 01
- d) The discussions and decisions on such proposals had taken place only when there was a quorum of minimum 50% of the members of Grama Sabha present;
- e) The diversion of forest land for facilities managed by the Government as required under section 3 (2) of the FRA have been completed and the Grama Sabhas have given their consent to it;
- f) the rights of Primitive Tribal Groups and Pre- Agricultural Communities, where applicable have been specifically as per section 3(1)(e) of the FRA.

Encl: As above


13/9
Deputy Commissioner
Bellary

333

ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು, ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ (ಅರಣ್ಯ ಹಕ್ಕುಗಳನ್ನು ಮಾನ್ಯ ಮಾಡುವ) ಸಮಿತಿ, ಬಳ್ಳಾರಿ ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ದಿನಾಂಕ :30-08-2019ರಂದು ನಡೆದ ಸಭೆಯ ನಡವಳಿಕೆಗಳು

ಸಭೆಯಲ್ಲಿ ಹಾಜರಿದ್ದವರು :

- | | | |
|--|---|------------------|
| 1) ಶ್ರೀ ಎಸ್.ಎಸ್. ನಕುಲ್ I.A.S
ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿ. | - | ಅಧ್ಯಕ್ಷರು |
| 2) ಶ್ರೀ ಪಿ. ರಮೇಶ್ ಕುಮಾರ್
ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು
ಬಳ್ಳಾರಿ. | - | ಸದಸ್ಯರು |
| 3) ಶ್ರೀಮತಿ ರತ್ನಮ್ಮ ಎಸ್.ಪಿ. ಪ್ರಕಾಶ್
ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಸದಸ್ಯರು
ಗುಂಡಮುಣಗು ಕ್ಷೇತ್ರ, ಕೊಡ್ಲಿಗಿ ತಾಲೂಕು | - | ಸದಸ್ಯರು |
| 4) ಶ್ರೀ ಬಿ.ಅನಂದ
ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಸದಸ್ಯರು
ಕೋಗಲಿ ಕ್ಷೇತ್ರ, ಹಬೊಹಳ್ಳಿ ತಾಲೂಕು | - | ಸದಸ್ಯರು |
| 5) ಶ್ರೀ ಕೊಟ್ಟಪ್ಪ
ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಸದಸ್ಯರು
ಹೊಳಲು ಕ್ಷೇತ್ರ, ಹಡಗಲಿ ತಾಲೂಕು | - | ಸದಸ್ಯರು |
| 6) ಶ್ರೀಮತಿ ಪಿ.ಕುಧ
ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿ | - | ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿ |

ವಿಷಯ : ಉಪ ವಿಭಾಗಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು, ಉಪವಿಭಾಗ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ, ಉಪವಿಭಾಗ ಬಳ್ಳಾರಿ/ಹೊಸಪೇಟೆ ಇವರ ಪ್ರಸ್ತಾವನೆಗಳಿಗೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮ 2006ರಡಿ ನಮೂನೆ-1/ನಮೂನೆ-2 ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ : (1) ಉಪ ವಿಭಾಗಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು, ಉಪವಿಭಾಗ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ, ಉಪವಿಭಾಗ ಬಳ್ಳಾರಿ ಇವರ ಪ್ರಸ್ತಾವನೆ ಅನ್ವಯ.

-----*

ದಿನಾಂಕ :30-08-2019 ರಂದು ನಡೆದ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳು ಮತ್ತು ಪಾರಂಪರಿಕ ಅರಣ್ಯವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕುಗಳನ್ನು ಮಾನ್ಯ ಮಾಡುವ ಸಮಿತಿ ಸಭೆಯಲ್ಲಿ ಪ್ರಾರಂಭದಲ್ಲಿ ಸ್ವಾಗತವನ್ನು ಕೋರುತ್ತಾ ಸಭೆಯನ್ನು ಪ್ರಾರಂಭಿಸಲಾಯಿತು, ಹಾಗೂ ಸಭೆಯಲ್ಲಿ ಚರ್ಚಿಸಿದ ವಿಷಯಗಳು ಈ ಕೆಳಗಿನಂತಿವೆ.

- ಮೆ. ಎಂ.ಎಸ್.ಪಿ.ಎಲ್.ಲಿಮಿಟೆಡ್ ಹೊಸಪೇಟೆ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ: 2487 ವಿಸ್ತೀರ್ಣ 86.12ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶ, ಸದರಿ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಮತ್ತು ಈ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆ ವಿಸ್ತೀರ್ಣ 04.85 ಹೆಕ್ಟೇರ್ ಸಂಬಂಧಿಸಿದಂತೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ರನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ಸುಕೀಲನಗರ ಗ್ರಾಮ ಪಂಚಾಯತಿಯ ವ್ಯಾಪ್ತಿಯ ಸಿದ್ಧಾಪುರ ಗ್ರಾಮ)
- ಮೆ. ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 2559, ವಿಸ್ತೀರ್ಣ : 26.71 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶ, ಸದರಿ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಅದಿರು ಸಾಗಿಸಲು ಮತ್ತು ರಸ್ತೆ ಸಂಪರ್ಕಕ್ಕಾಗಿ 01.60 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ರನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ದೇವಗಿರಿ ಗ್ರಾಮ ಪಂಚಾಯತಿಯ ವ್ಯಾಪ್ತಿಯ ಸುಬ್ಬರಾಯನಹಳ್ಳಿ ಗ್ರಾಮ)
- ಮೆ. ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯು. ಲಿಮಿಟೆಡ್, ಕೋರಗಲಟ್ಟು ಇವರು ಇ-ಪರಾಜಿನಲ್ಲಿ ಮೆ. ರಾಮಾ ಐರನ್ ಓರ್ (ಮೆ. ರಾಮರಾವ್ ಪೋಲ್)ನ್ನು ಬಿಡ್ ಮಾಡಿ ಪಡೆದುಕೊಂಡಿದ್ದು (ಎಂಎಲ್ ಸಂಖ್ಯೆ 2621) ಸದರಿ ಗಣಿ ಗುತ್ತಿಗೆ ರಾಮಘಡ ಗ್ರಾಮದ ವಿಸ್ತೀರ್ಣ 6.3464 ಹೆಕ್ಟೇರ್ ಮತ್ತು ಸುಕೀಲನಗರ ಗ್ರಾಮದ ವಿಸ್ತೀರ್ಣ: 2.943 ಹೆಕ್ಟೇರ್‌ನಲ್ಲಿ ಕನ್ಸೇಯರ್ ಲೈನ್ ಮತ್ತು ಸಂಪರ್ಕರಸ್ತೆ ಹಾಗೂ ಟ್ರಾನ್ಸಮಿಷನ್ ಲೈನ್‌ಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ರನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ಸುಕೀಲನಗರ ಗ್ರಾಮ ಮತ್ತು ರಾಮಘಡ ಗ್ರಾಮ)

PK

4. ಮೆ|| ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಓರ್ ಮೈನ್ಸ್ ದೋಣಿಮಲ್ಕೆ ಟೌನ್‌ಶಿಪ್ ಸಂಡೂರು ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : 2396ರ ಹತ್ತಿರ ಪೂರಕ ಚಟುವಟಿಕೆಗಳಿಗಾಗಿ ವಿಸ್ತೀರ್ಣ: 235.648 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶ ಹಾಗೂ ವಿಸ್ತೀರ್ಣ: 75.92 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಚಟುವಟಿಕೆಗಳಿಗೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-2ರನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ನರಸಿಂಗಪುರ ಗ್ರಾಮ ಪಂಚಾಯತಿ)
5. ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಐರನ್ ಓರ್ ಮೈನ್ಸ್ ಗಣಿ ಲೀಸ್ ಸಂಖ್ಯೆ : IIII, ವಿಸ್ತೀರ್ಣ: 05.71 ಹೆಕ್ಟೇರ್ ಗಣಿಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ರನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ನರಸಿಂಗಪುರ ಗ್ರಾಮ ಪಂಚಾಯತಿ)
6. ಮೆ|| ಡಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರು ಉಬ್ಬಲಗುಂಡಿ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 995ರಲ್ಲಿ ಒಟ್ಟು 32.89 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ಯು.ರಾಜಾಪುರ ಗ್ರಾಮ ಪಂಚಾಯತಿ ವ್ಯಾಪ್ತಿಯ ಉಬ್ಬಲಗುಂಡಿ ಗ್ರಾಮ)
7. ಮೆ|| ಮಿನೆರಾ ಸ್ಟೀಲ್ ಇವರಿಗೆ ಉಬ್ಬಲಗುಂಡಿ ವ್ಯಾಪ್ತಿಯ ಎಂ.ಎಲ್. ಸಂ. 2433ರಲ್ಲಿ ಒಟ್ಟು ವಿಸ್ತೀರ್ಣ: 31.49 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣದಲ್ಲಿ 2 ಹೆಕ್ಟೇರ್ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಮತ್ತು 29.49 ಹೆಕ್ಟೇರ್ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ಯು.ರಾಜಾಪುರ ಗ್ರಾಮ ಪಂಚಾಯತಿ ವ್ಯಾಪ್ತಿಯ ಉಬ್ಬಲಗುಂಡಿ ಗ್ರಾಮ)
8. ಮೆ|| ಶ್ರೀ ವೀರಭದ್ರಪ್ಪ ಸಂಗಪ್ಪ & ಕಂ. ಇವರ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 2296, ವಿಸ್ತೀರ್ಣ: 28.2477 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಡೌನ್‌ಹಿಲ್ ಪೈಪ್‌ಲೈನ್ ಹಾಗೂ ಸರ್ವಿಸ್ ರೋಡ್ ಮತ್ತು ರೈಲ್ವೆ ಸ್ಟೇಷನ್ ಯೋಜನೆಗೆ ಮತ್ತು 30.612 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣಕ್ಕೆ ರೈಲ್ವೆ ಸ್ಟೇಷನ್, ಡೌನ್‌ಹಿಲ್ ಪೈಪ್‌ಲೈನ್ ಹಾಗೂ ಸರ್ವಿಸ್ ರೋಡ್‌ಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ರನ್ನು ನೀಡುವ ಬಗ್ಗೆ. (ಸುಶೀಲನಗರ ಗ್ರಾಮ ಪಂಚಾಯತಿ ವ್ಯಾಪ್ತಿಯ ಸುಶೀಲನಗರ ಗ್ರಾಮ)
9. ಕರೇಕಲ್ಲು ಗ್ರಾಮ ಪಂಚಾಯತಿ ವ್ಯಾಪ್ತಿಯ ಡಿ.ಎನ್.ಹಳ್ಳಿ ಗ್ರಾಮದಿಂದ ಮೂರು ಅರ್ಜಿಗಳು ಅರಣ್ಯಕ್ಕೆ ಪತ್ರ ಕೋರಿ ಅರ್ಜಿಗಳು ಸಲ್ಲಿಕೆಯಾಗಿರುವ ಕುರಿತು ಗ್ರಾಮಸಭೆಯಲ್ಲಿ ಅಂಗೀಕೃತವಾಗಿ ಉಪವಿಭಾಗಮಟ್ಟದ ಸಮಿತಿಯಲ್ಲಿ ಅಂಗೀಕೃತವಾಗಿ ಜಿಲ್ಲಾಮಟ್ಟದ ಸಮಿತಿಗೆ ಸಲ್ಲಿಕೆಯಾಗಿರುವ ಕುರಿತು.

ಕ್ರ. ಸಂ	ವಿಷಯ	ನಿರ್ಣಯ
1	ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಇವರು ಸಿದ್ಧಾಪುರ ಗ್ರಾಮ ವ್ಯಾಪ್ತಿಯ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿನ ಕರಡಿಕೊಳ್ಳೆ ಐರನ್ ಓರ್ ಮೈನ್ಸ್ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ: 2487 (ಮೆ ಲಕ್ಷ್ಮೀ ನಾರಾಯಣ ಮೈವಿಂಗ್ ಕಂಪನಿ)ಯನ್ನು ಇ-ಆಕ್ಟ್‌ನಲ್ಲಿ ವಿಸ್ತೀರ್ಣ: 86.12 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶವನ್ನು ಬಿಡ್‌ನಲ್ಲಿ ಭಾಗವಹಿಸಿ ಯಶಸ್ವಿ ಬಿಡ್‌ದಾರರಾಗಿರುತ್ತದೆ. ಸದರಿ ಗಣಿ ಪ್ರದೇಶವು ಮತ್ತು ಈ ಗಣಿ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆ ವಿಸ್ತೀರ್ಣ: 4.85 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದರಿಂದ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ. ಸದರಿ ಪ್ರದೇಶವು ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದರಿಂದ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಉಪವಿಭಾಗ ಸಮಿತಿಗೆ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆಗಳು ಬಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1 & ನಮೂನೆ-2ಗಳನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.	ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಇವರು ಸಿದ್ಧಾಪುರ ಗ್ರಾಮ ವ್ಯಾಪ್ತಿಯ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿನ ಕರಡಿಕೊಳ್ಳೆ ಐರನ್ ಓರ್ ಮೈನ್ಸ್ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ: 2487 (ಮೆ ಲಕ್ಷ್ಮೀ ನಾರಾಯಣ ಮೈವಿಂಗ್ ಕಂಪನಿ)ಯನ್ನು ಇ-ಆಕ್ಟ್‌ನಲ್ಲಿ ವಿಸ್ತೀರ್ಣ: 86.12 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶವನ್ನು ಬಿಡ್‌ನಲ್ಲಿ ಭಾಗವಹಿಸಿ ಯಶಸ್ವಿ ಬಿಡ್‌ದಾರರಾಗಿರುತ್ತದೆ. ಸದರಿ ಗಣಿ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆ ವಿಸ್ತೀರ್ಣ: 4.85 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದರಿಂದ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ. ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧೀಕಾರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತರಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಸಿದ್ಧಾಪುರ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಆರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ online ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು. ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಮನವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು. ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿಶ್ಲೇಷಣೆಗೆ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಷೇಮಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದರಿಂದ ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-1 & 2 ನೀಡುವ ಸಂಬಂಧ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆ ಇಲ್ಲವೆಂದು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿರುತ್ತಾರೆ. ಮೇಲೆ ತಿಳಿಸಿದ ಅಂಶಗಳನ್ನು ಪರಿಗಣಿಸಿ ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಇವರ ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : 2487, ವಿಸ್ತೀರ್ಣ: 86.12 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಹಾಗೂ ಸದರಿ ಗಣಿ ಪ್ರದೇಶವು ಮತ್ತು ಗಣಿ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆ ವಿಸ್ತೀರ್ಣ : 4.85 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶಕ್ಕೆ ರಸ್ತೆ ಸಂಪರ್ಕ ರಸ್ತೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 & ನಮೂನೆ-2 ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ. ಅದರಂತೆ ನಮೂನೆ-1& ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.

2

ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ 2559, ವಿಸ್ತೀರ್ಣ: 26.71 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶ, ಸದರಿ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಅದರು ಸಾಗಿಸಲು ಮತ್ತು ರಸ್ತೆ ಸಂಪರ್ಕಕ್ಕಾಗಿ 01.60 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ ದೇವಗಿರಿ ಗ್ರಾಮ ಪಂಚಾಯತಿ ಸುಬ್ಬರಾಯನಹಳ್ಳಿ ಗ್ರಾಮದ ಸದರಿ ಪ್ರಸ್ತಾವನೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಗ್ರಾಮ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯು ಸದರಿ ಪ್ರದೇಶವು ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದರಿಂದ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಮನಗಂಡಿದ್ದು, ಪ್ರಾಕೃತಿಕ ಒಡವ್ಯವ್ಯಯದ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡದಿರಲು ತಿರಸ್ಕರಿಸುತ್ತದೆ. ಹಾಗೂ ಉಪವಿಭಾಗ ಸಮಿತಿಗೆ ಯಾವುದೇ ಅಕ್ಷೇಪಣೆಗಳು ದಾರದೇ ಇರುವುದರಿಂದ ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಇಂದೇ ಇದ್ದು, ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1 & ನಮೂನೆ-2ನ್ನು ನೀಡದಿರಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿದ್ದು ಮುಂದಿನ ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ಮಾನ್ಯ ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಸಮಿತಿ, ಬಳ್ಳಾರಿ ಇವರಿಗೆ ಸಲ್ಲಿಸಿರುವ ಬಗ್ಗೆ.

3

ಮೆ. ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರು ಇ-ಹರಾಜಿನಲ್ಲಿ ಮೆ. ರಾಮಾ ಐರನ್ ಓರ್ (ಮೆ. ರಾಮರಾವ್ ಪೋಲ್)ನ್ನು ಬಡ್ ಮಾಡಿ ಪಡೆದುಕೊಂಡಿದ್ದು (ಎಂಎಲ್ ಸಂಖ್ಯೆ 2621) ಸದರಿ ಗಣಿ ಗುತ್ತಿಗೆ ರಾಮರಾವ್ ಗ್ರಾಮದ ವಿಸ್ತೀರ್ಣ 6.3464 ಹೆಕ್ಟೇರ್ ಮತ್ತು ಸುತೀಲನಗರ ಗ್ರಾಮದ ವಿಸ್ತೀರ್ಣ: 2.943 ಹೆಕ್ಟೇರ್‌ನಲ್ಲಿ ಕನ್ವೇಯರ್ ಬೆಲ್ಟ್ ಮತ್ತು ಸಂಪರ್ಕರಸ್ತೆ ಹಾಗೂ ಟ್ರಾನ್ಸ್‌ಮಿಷನ್ ಲೈನ್‌ಗಾಗಿ ಸಂಬಂಧಿಸಿದಂತೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01ನ್ನು ನೀಡುವ ಬಗ್ಗೆ ಸದರಿ ಪ್ರದೇಶವು ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದರಿಂದ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿದ್ದು, ಲಾರಿ ಮಾರ್ಗರಿಗೆ ಹಾಗೂ ಚಾಲಕರಿಗೆ ತೊಂದರೆಯಾಗುವ ಕಾರಣ ನಮೂನೆ-1ನ್ನು ನೀಡಲು ತಿರಸ್ಕರಿಸುತ್ತದೆ. ಹಾಗೂ ಉಪವಿಭಾಗ ಸಮಿತಿಗೆ

ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ 2559, ವಿಸ್ತೀರ್ಣ: 26.71 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶ, ಸದರಿ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಅದರು ಸಾಗಿಸಲು ಮತ್ತು ರಸ್ತೆ ಸಂಪರ್ಕಕ್ಕಾಗಿ 01.60 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.

ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧೀಶಾಂಗು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತರಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಸುಬ್ಬರಾಯನಹಳ್ಳಿ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು.

ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಮನವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು.

ಎಂ.ಎಸ್.ಪಿ.ಎಲ್. ಲಿಮಿಟೆಡ್, ಹೊಸಪೇಟೆ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ 2559, ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿಷಯವಾಗಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಲೇಮಿಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದಿಲ್ಲ, ಆದರೂ ಸಹ ಸದರಿ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಪರಿಸರ ಸಂರಕ್ಷಣೆ ಮತ್ತು ಇತರೆ ಕಾರಣಗಳನ್ನು ನೀಡಿ ಯೋಜನೆಗೆ ವಿದೋಧ ವ್ಯಕ್ತಪಡಿಸಿ, ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-1 & 2 ನೀಡಬಾರದೆಂದು ತಿರಸ್ಕರಿಸುತ್ತಾರೆ.

The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ಅಧಿನಿಯಮದಡಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ಬಾಕಿ ಇಲ್ಲದೇ ಇದ್ದಲ್ಲಿ ತಿರಸ್ಕರಿಸಲು ಅವಕಾಶವಿರುವುದಿಲ್ಲ, ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂಬ ಕಾರಣದಿಂದ ನಮೂನೆ-1 & 2 ರಲ್ಲಿನ (b) ಕಂಡಿಕೆಯಲ್ಲಿ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅಕ್ಷೇಪಣೆ ವ್ಯಕ್ತಪಡಿಸಿರುವ ಬಗ್ಗೆ ತಿಳಿಸಿ, ಗ್ರಾಮ ಸಭೆಯ ನಡವಳಿಯೊಂದಿಗೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 & ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿ, ಅದರಂತೆ ನಮೂನೆ-1 & ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.

ಮೆ. ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರು ಇ-ಹರಾಜಿನಲ್ಲಿ ಮೆ. ರಾಮಾ ಐರನ್ ಓರ್ (ಮೆ. ರಾಮರಾವ್ ಪೋಲ್)ನ್ನು ಬಡ್ ಮಾಡಿ ಪಡೆದುಕೊಂಡಿದ್ದು (ಎಂಎಲ್ ಸಂಖ್ಯೆ 2621) ಸದರಿ ಗಣಿ ಗುತ್ತಿಗೆ ರಾಮರಾವ್ ಗ್ರಾಮದ ವಿಸ್ತೀರ್ಣ 6.3464 ಹೆಕ್ಟೇರ್ ಮತ್ತು ಸುತೀಲನಗರ ಗ್ರಾಮದ ವಿಸ್ತೀರ್ಣ: 2.943 ಹೆಕ್ಟೇರ್‌ನಲ್ಲಿ ಕನ್ವೇಯರ್ ಬೆಲ್ಟ್ ಮತ್ತು ಸಂಪರ್ಕರಸ್ತೆ ಹಾಗೂ ಟ್ರಾನ್ಸ್‌ಮಿಷನ್ ಲೈನ್‌ಗಾಗಿ ಸಂಬಂಧಿಸಿದಂತೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.

ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧೀಶಾಂಗು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತರಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಸುತೀಲನಗರ ಗ್ರಾಮ & ರಾಮರಾವ್ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು.

ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಮನವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು.

ಮೆ. ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿಷಯವಾಗಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಲೇಮಿಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದಿಲ್ಲ, ಆದರೂ ಸಹ ಸದರಿ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಲಾರಿ ಮಾರ್ಗರಿಗೆ ಹಾಗೂ ಚಾಲಕರಿಗೆ ತೊಂದರೆಯಾಗುವ ಮತ್ತು ಇತರೆ

	<p>ಯಾವುದೇ ಆಕ್ಷೇಪಣೆಗಳು ಬಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1ನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.</p>	<p>ಕಾರಣಗಳನ್ನು ನೀಡಿ ಯೋಜನೆಗೆ ವಿರೋಧ ವ್ಯಕ್ತಪಡಿಸಿ, ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-1 ನೀಡಬಾರದೆಂದು ತಿರಸ್ಕರಿಸಿರುತ್ತಾರೆ.</p> <p>The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ಅಧಿನಿಯಮದಡಿ ಯಾವುದೇ ಆರ್ಜಿಗಳು ದಾಖಲಾದಲ್ಲಿ ತಿರಸ್ಕರಿಸಲು ಅವಕಾಶವಿರುವುದಿಲ್ಲ. ಕಾರಣದಿಂದ ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂಬ ಕಾರಣದಿಂದ ನಮೂನೆ-1 ರಲ್ಲಿನ (b) ಕಂಡಿಕೆಯಲ್ಲಿ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಆಕ್ಷೇಪಣೆ ವ್ಯಕ್ತಪಡಿಸಿರುವ ಬಗ್ಗೆ ತಿಳಿಸಿ, ಗ್ರಾಮ ಸಭೆಯ ನಡವಳಿಯೊಂದಿಗೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿ, ಅದರಂತೆ ನಮೂನೆ-1 ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.</p>
4	<p>ಮೆ: ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಓರ್ ಮೈನ್ಸ್ ದೋಣಿಮಲ್ಕೆ ಟೌನ್‌ಶಿಪ್ ಸಂಚೂರು ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : 2396 (ದೋಣಿಮಲ್ಕೆ ರಿನ್ವರ್ವ್ ಫಾರಸ್) ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ 75.92 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಜಟಿವಟಿಕೆಗಳಾಗಿ ಹಾಗೂ 235.648 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಜಟಿವಟಿಕೆಗಳಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ನ್ನು ನೀಡುವ ಬಗ್ಗೆ. ಸದರಿ ಪ್ರದೇಶವು ಗಣಿ ಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆಗಾಗಿ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಉಪವಿಭಾಗ ಸಮಿತಿಗೆ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆಗಳು ಬಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1ನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.</p>	<p>ಮೆ: ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಓರ್ ಮೈನ್ಸ್ ದೋಣಿಮಲ್ಕೆ ಟೌನ್‌ಶಿಪ್ ಸಂಚೂರು ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : 2396 (ದೋಣಿಮಲ್ಕೆ ರಿನ್ವರ್ವ್ ಫಾರಸ್) ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ 75.92 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಜಟಿವಟಿಕೆಗಳಾಗಿ ಹಾಗೂ 235.648 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಜಟಿವಟಿಕೆಗಳಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.</p> <p>ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ಎಚ್ಚರಿಕೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧೀಕಾರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತರಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ನಡೆಸಿಂಗಾಪುರ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಆರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ online ಮಾಹಿತಿಯನ್ನು ನೀಡಿರುತ್ತದೆ.</p> <p>ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಮನವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿರುತ್ತದೆ.</p> <p>ಮೆ: ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಓರ್ ಮೈನ್ಸ್ ದೋಣಿಮಲ್ಕೆ ಟೌನ್‌ಶಿಪ್ ಸಂಚೂರು ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : 2396 ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01ನ್ನು ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಷೇಮಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದರಿಂದ ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-1 ನೀಡುವ ಸಂಬಂಧ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆ ಇಲ್ಲವೆಂದು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ.</p> <p>ಮೇಲೆ ತಿಳಿಸಿದ ಅಂಶಗಳನ್ನು ಪರಿಗಣಿಸಿ ಮೆ: ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಓರ್ ಮೈನ್ಸ್ ದೋಣಿಮಲ್ಕೆ ಟೌನ್‌ಶಿಪ್ ಸಂಚೂರು ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : 2396 (ದೋಣಿಮಲ್ಕೆ ರಿನ್ವರ್ವ್ ಫಾರಸ್) ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ 75.92 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಜಟಿವಟಿಕೆಗಳಾಗಿ ಹಾಗೂ 235.648 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣ ಪ್ರದೇಶದಲ್ಲಿ ಪೂರಕ ಜಟಿವಟಿಕೆಗಳಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ. ಅದರಂತೆ ನಮೂನೆ-1ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.</p>
5	<p>ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಐರಸ್ ಓರ್ ಮೈನ್ಸ್ ಗಣಿ ಲೀಸ್ ಸಂಖ್ಯೆ : 1111, ವಿಸ್ತೀರ್ಣ: 05.71 ಹೆಕ್ಟೇರ್ ಗಣಿಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಎಫ್.ಆರ್.ಎ.</p>	<p>ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಕೆ ಐರಸ್ ಓರ್ ಮೈನ್ಸ್ ಗಣಿ ಲೀಸ್ ಸಂಖ್ಯೆ : 1111, ವಿಸ್ತೀರ್ಣ: 05.71 ಹೆಕ್ಟೇರ್ ಗಣಿಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.</p> <p>ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ಎಚ್ಚರಿಕೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧೀಕಾರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System</p>

	<p>ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01ನ್ನು ನೀಡುವ ಬಗ್ಗೆ, ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಅರಣ್ಯೇತರ ಜಟುವಟಿಕೆಗಾಗಿ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಉಪವಿಭಾಗ ಸಮಿತಿಗೆ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆಗಳು ದಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1ನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.</p>	<p>ಅಂತ್ಯಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಸರಿಸಂಖ್ಯಾಪುರ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ online ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು.</p> <p>ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಕುಶಲವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು.</p> <p>ಮೆ: ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಟಿ ಓರ್ ಮೈನ್ಸ್ ದೋಣಿಮಲ್ಟಿ ಟೌನ್ಶಿಪ್ ಸಂಚಾರು ಗಣಿ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ : IIII ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01ನ್ನು ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಷೇಮಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದರಿಂದ ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-1 ನೀಡುವ ಸಂಬಂಧ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆ ಇಲ್ಲವೆಂದು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿರುತ್ತಾರೆ.</p> <p>ಮೇಲೆ ತಿಳಿಸಿದ ಅಂಶಗಳನ್ನು ಪರಿಗಣಿಸಿ ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್, ದೋಣಿಮಲ್ಟಿ ವರನ್ ಓರ್ ಮೈನ್ಸ್ ಗಣಿ ಲೀಸ್ ಸಂಖ್ಯೆ : IIII, ವಿಸ್ತೀರ್ಣ: 05.71 ಹೆಕ್ಟೇರ್ ಗಣಿಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ. ಅದರಂತೆ ನಮೂನೆ-1ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.</p>
6	<p>ಮೆ: ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರು ಉಬ್ಬಲಗುಂಡಿ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 995ರಲ್ಲಿ ಒಟ್ಟು 32.89 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-02ನ್ನು ನೀಡುವ ಬಗ್ಗೆ, ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಅರಣ್ಯೇತರ ಜಟುವಟಿಕೆಗಾಗಿ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಉಪವಿಭಾಗ ಸಮಿತಿಗೆ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆಗಳು ದಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-2ನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.</p>	<p>ಮೆ: ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರು ಉಬ್ಬಲಗುಂಡಿ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 995ರಲ್ಲಿ ಒಟ್ಟು 32.89 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.</p> <p>ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ಮರ್ಗಳ ಕಲ್ಯಾಣಾಧೀಶರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತ್ಯಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಉಬ್ಬಲಗುಂಡಿ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ online ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು.</p> <p>ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಕುಶಲವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು.</p> <p>ಮೆ: ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿಶ್ವತವಾಗಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಷೇಮಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದರಿಂದ ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-2 ನೀಡುವ ಸಂಬಂಧ ಯಾವುದೇ ಆಕ್ಷೇಪಣೆ ಇಲ್ಲವೆಂದು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿರುತ್ತಾರೆ.</p> <p>ಮೇಲೆ ತಿಳಿಸಿದ ಅಂಶಗಳನ್ನು ಪರಿಗಣಿಸಿ ಮೆ: ಜಿ.ಎಸ್.ಡಬ್ಲ್ಯೂ. ಲಿಮಿಟೆಡ್, ತೋರಣಗಲ್ಲು ಇವರು ಉಬ್ಬಲಗುಂಡಿ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 995ರಲ್ಲಿ ಒಟ್ಟು 32.89 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ. ಅದರಂತೆ ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.</p>
7	<p>ಮೆ: ಮಿನೆರಾ ಸ್ಟೀಲ್ ಇವರಿಗೆ ಉಬ್ಬಲಗುಂಡಿ ವ್ಯಾಪ್ತಿಯ ಎಂ.ಎಲ್. ನಂ. 2433ರಲ್ಲಿ ಒಟ್ಟು ವಿಸ್ತೀರ್ಣ: 31.49 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣದಲ್ಲಿ 2 ಹೆಕ್ಟೇರ್ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಮತ್ತು 29.49 ಹೆಕ್ಟೇರ್ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ, ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಅರಣ್ಯೇತರ ಜಟುವಟಿಕೆಗಾಗಿ The Scheduled Tribes & Other Traditional</p>	<p>ಮೆ: ಮಿನೆರಾ ಸ್ಟೀಲ್ ಇವರಿಗೆ ಉಬ್ಬಲಗುಂಡಿ ವ್ಯಾಪ್ತಿಯ ಎಂ.ಎಲ್. ನಂ. 2433ರಲ್ಲಿ ಒಟ್ಟು ವಿಸ್ತೀರ್ಣ: 31.49 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣದಲ್ಲಿ 2 ಹೆಕ್ಟೇರ್ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಮತ್ತು 29.49 ಹೆಕ್ಟೇರ್ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.</p> <p>ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ಮರ್ಗಳ ಕಲ್ಯಾಣಾಧೀಶರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತ್ಯಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಉಬ್ಬಲಗುಂಡಿ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ</p>

<p>Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಉಪವಿಧಾನ ಸಮಿತಿಗೆ ಯಾವುದೇ ಅಕ್ಷೇಪಣೆಗಳು ಬಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.</p>	<p>ಅರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ online ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು.</p> <p>ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಮನವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು.</p> <p>ಮೆ: ಮಿನರಾ ಸ್ವಲ್ಪ ಇವರಿಗೆ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-2ನ್ನು ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿಸ್ತೃತವಾಗಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಷೇಮಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದರಿಂದ ಸಭೆಯಲ್ಲಿ ನಮೂನೆ-2 ನೀಡುವ ಸಂಬಂಧ ಯಾವುದೇ ಅಕ್ಷೇಪಣೆ ಇಲ್ಲವೆಂದು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿರುತ್ತಾರೆ.</p> <p>ಮೇಲೆ ತಿಳಿಸಿದ ಅಂಶಗಳನ್ನು ಪರಿಗಣಿಸಿ ಮೆ: ಮಿನರಾ ಸ್ವಲ್ಪ ಇವರಿಗೆ ಉಲ್ಲಭಗುಂಡಿ ವ್ಯಾಪ್ತಿಯ ಎಂ.ಎಲ್. ನಂ. 2433ರಲ್ಲಿ ಒಟ್ಟು ವಿಸ್ತೀರ್ಣ: 31.49 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣದಲ್ಲಿ 2 ಹೆಕ್ಟೇರ್ ಸಂಪರ್ಕರಸ್ತೆಗಾಗಿ ಮತ್ತು 29.49 ಹೆಕ್ಟೇರ್ ಗಣಿ ಪ್ರದೇಶದಲ್ಲಿ ಗಣಿಗಾರಿಕೆಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ. ಅದರಂತೆ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.</p>
---	--

<p>8. ಮೆ: ಶ್ರೀ ವೀರಭದ್ರಪ್ಪ ಸಂಗಪ್ಪ & ಕಂ. ಇವರ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 2296, ವಿಸ್ತೀರ್ಣ: 28.2477 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಡೌನ್‌ಹಿಲ್ ಪೈಪ್‌ಲೈನ್ ಹಾಗೂ ಸರ್ವಿಸ್ ರೋಡ್ ಮತ್ತು ರೈಲ್ವೆ ಸ್ಟೇಷನ್ ಯೋಜನೆಗೆ ಮತ್ತು 30.612 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣಕ್ಕೆ ರೈಲ್ವೆ ಸ್ಟೇಷನ್, ಡೌನ್‌ಹಿಲ್ ಪೈಪ್‌ಲೈನ್ ಹಾಗೂ ಸರ್ವಿಸ್ ರೋಡ್‌ಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01ನ್ನು ನೀಡುವ ಬಗ್ಗೆ. ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಅರಣ್ಯೇತರ ಚಟುವಟಿಕೆಗಾಗಿ The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ರನ್ವಯ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಉಪವಿಧಾನ ಸಮಿತಿಗೆ ಯಾವುದೇ ಅಕ್ಷೇಪಣೆಗಳು ಬಾರದೇ ಇರುವುದರಿಂದ ಸದರಿಯವರಿಗೆ ನಮೂನೆ-1ನ್ನು ನೀಡಲು ಸಭೆಯಲ್ಲಿ ತೀರ್ಮಾನಿಸಿರುವ ಬಗ್ಗೆ.</p>	<p>ಮೆ: ಶ್ರೀ ವೀರಭದ್ರಪ್ಪ ಸಂಗಪ್ಪ & ಕಂ. ಇವರ ಎಂ.ಎಲ್. ಸಂಖ್ಯೆ : 2296, ವಿಸ್ತೀರ್ಣ: 28.2477 ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಡೌನ್‌ಹಿಲ್ ಪೈಪ್‌ಲೈನ್ ಹಾಗೂ ಸರ್ವಿಸ್ ರೋಡ್ ಮತ್ತು ರೈಲ್ವೆ ಸ್ಟೇಷನ್ ಯೋಜನೆಗೆ ಮತ್ತು 30.612 ಹೆಕ್ಟೇರ್ ವಿಸ್ತೀರ್ಣಕ್ಕೆ ರೈಲ್ವೆ ಸ್ಟೇಷನ್, ಡೌನ್‌ಹಿಲ್ ಪೈಪ್‌ಲೈನ್ ಹಾಗೂ ಸರ್ವಿಸ್ ರೋಡ್‌ಗಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-1ನ್ನು ನೀಡುವ ಬಗ್ಗೆ.</p> <p>ಮೊದಲಿಗೆ, The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧೀಕಾರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರು ಜಿಲ್ಲಾಮಟ್ಟದ Forest Rights Monitoring System ಅಂತರಜಾಲದಲ್ಲಿ ಪರಿಶೀಲಿಸಲಾಗಿ ಸುಶೀಲಾಬೆಗರ ಗ್ರಾಮದಲ್ಲಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ಸ್ವೀಕೃತವಾಗದೇ ಇರುವ ಬಗ್ಗೆ online ಮಾಹಿತಿಯನ್ನು ನೀಡಿದರು.</p> <p>ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ RoFR ಅಧಿನಿಯಮದಡಿ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ಯಾವುದೇ ಮೇಲ್ಮನವಿ ಸ್ವೀಕೃತವಾಗಿರುವುದಿಲ್ಲವೆಂದು ಸಭೆಗೆ ಮಂಡಿಸಿದರು.</p> <p>ಮೆ: ಶ್ರೀ ವೀರಭದ್ರಪ್ಪ ಸಂಗಪ್ಪ & ಕಂ. ಇವರ ಯೋಜನೆಗೆ RoFR ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ನೀಡುವ ಸಂಬಂಧ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿಸ್ತೃತವಾಗಿ ಚರ್ಚಿಸಲಾಗಿ, ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಕ್ಷೇಮಗಳು ಸಲ್ಲಿಕೆಯಾಗದಿರುವುದಿಲ್ಲ, ಆದರೂ ಸಹ ಸದರಿ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ವಿವಿಧ ಕಾರಣಗಳನ್ನು ಪರಿಗಣಿಸಿ ರೈಲ್ವೆ ಸ್ಟೇಷನ್ ಹೊರತುಪಡಿಸಿ ಉಳಿದ ಪ್ರಸ್ತಾವನೆಗಳಿಗೆ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತಾರೆ.</p> <p>The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest rights Act 2006) ಅಧಿನಿಯಮದಡಿ ಯಾವುದೇ ಅರ್ಜಿಗಳು ದಾಖಲೆ ಇಲ್ಲದೇ ಇದ್ದಲ್ಲಿ ತಿರಸ್ಕರಿಸಲು ಅವಕಾಶವಿರುವುದಿಲ್ಲ, ಕಾರಣದಿಂದ ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ, ಸಾಗುವಳಿ ಮಾಡುತ್ತಿರುವುದಾಗಲೀ ಮತ್ತು ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾಗಲೀ ಇರುವುದಿಲ್ಲವೆಂಬ ಕಾರಣದಿಂದ ನಮೂನೆ-1 ರಲ್ಲಿನ (b) ಕಂಡಿಕೆಯಲ್ಲಿ ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಅಕ್ಷೇಪಣೆ ವ್ಯಕ್ತಪಡಿಸಿರುವ ಬಗ್ಗೆ ತಿಳಿಸಿ, ಗ್ರಾಮ ಸಭೆಯ ನಡವಳಿಯೊಂದಿಗೆ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮದಡಿ ನಮೂನೆ-01 ನ್ನು ದೃಢೀಕರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ಸರ್ವಾನುಮತದಿಂದ ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ತೀರ್ಮಾನಿಸಿ, ಅದರಂತೆ ನಮೂನೆ-1</p>
--	--

		ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ.
9	ಕರೇಕಲ್ಲು ಗ್ರಾಮ ಪಂಚಾಯತಿ ವ್ಯಾಪ್ತಿಯ ಡಿ.ಎಸ್.ಹಳ್ಳಿ ಗ್ರಾಮದಿಂದ ಮೂರು ಅರ್ಜಿಗಳು ಅರಣ್ಯಹಕ್ಕು ಪತ್ರ ಕೋರಿ ಅರ್ಜಿಗಳು ಸಲ್ಲಿಕೆಯಾಗಿದ್ದು, ಗ್ರಾಮ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಲ್ಲಿ ಅಂಗೀಕೃತಗೊಂಡು, ಉಪವಿಭಾಗಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಲ್ಲಿ ಅಂಗೀಕೃತವಾಗಿ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಸಮಿತಿಗೆ ಅರಣ್ಯಹಕ್ಕು ಪತ್ರ ವಿತರಿಸಲು ಸಲ್ಲಿಕೆಯಾಗಿರುವ ಬಗ್ಗೆ.	ಕರೇಕಲ್ಲು ಗ್ರಾಮ ಪಂಚಾಯತಿ ವ್ಯಾಪ್ತಿಯ ಡಿ.ಎಸ್.ಹಳ್ಳಿ ಗ್ರಾಮದಿಂದ ಮೂರು ಅರ್ಜಿಗಳು ಅರಣ್ಯಹಕ್ಕು ಪತ್ರ ಕೋರಿ ಅರ್ಜಿಗಳು ಸಲ್ಲಿಕೆಯಾಗಿರುತ್ತವೆ, ಗ್ರಾಮ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಲ್ಲಿ ಅಂಗೀಕೃತಗೊಂಡು, ಉಪವಿಭಾಗಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಲ್ಲಿ ಅಂಗೀಕೃತವಾಗಿ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಸಮಿತಿಯಲ್ಲಿ ಚರ್ಚಿಸಲಾಗಿ ಸದರಿ ಅರ್ಜಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿವರು ಸದರಿ ಅರ್ಜಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಸ್ಥಳ ಪರಿಶೀಲನೆ ಮಾಡಿ ಜಿ.ಪಿ.ಎಸ್. ರೀಡಿಂಗ್‌ನೊಂದಿಗೆ ನಕ್ಷೆ ತಯಾರಿಸಿ ಸದರಿಯವರ ವರದಿಯೊಂದಿಗೆ ಮುಂದಿನ ಸಭೆಯಲ್ಲಿ ಸದರಿ ವಿಷಯವನ್ನು ಚರ್ಚಿಸಲು ತೀರ್ಮಾನಿಸಲಾಯಿತು.

ಮೇಲಿನ ಕ್ರಮ ಸಂಖ್ಯೆ : 1 ರಿಂದ 8ರವರೆಗಿನ ವಿಷಯಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಲ್ಲಿ ಅನುಮೋದಿಸಿ ನಮೂನೆ-1 ಮತ್ತು ನಮೂನೆ-2ನ್ನು ದೃಢೀಕರಿಸಿ ನೀಡಲು ಜಿಲ್ಲಾ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ಅನುಮೋದನೆ ನೀಡಿರುತ್ತದೆ. ಮತ್ತು ಕ್ರಮ ಸಂಖ್ಯೆ : 9ಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿವರು ಸದರಿ ಅರ್ಜಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಸ್ಥಳ ಪರಿಶೀಲನೆ ಮಾಡಿ ಜಿ.ಪಿ.ಎಸ್. ರೀಡಿಂಗ್‌ನೊಂದಿಗೆ ನಕ್ಷೆ ತಯಾರಿಸಿ ಸದರಿಯವರ ವರದಿಯನ್ನು ಪಡೆದು ಮುಂದಿನ ಸಭೆಯಲ್ಲಿ ಸದರಿ ವಿಷಯವನ್ನು ಮಂಡಿಸಲು ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಲ್ಲಿ ಸೂಚಿಸಲಾಯಿತು.

ವಂದನಾರ್ಪಣೆಯೊಂದಿಗೆ ಸಭೆಯನ್ನು ಮುಕ್ತಾಯಗೊಳಿಸಲಾಯಿತು.

ಜಿಲ್ಲಾ ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧಿಕಾರಿಗಳು
ಹಾಗೂ ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು
ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರ
ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ (ಅರಣ್ಯ ಹಕ್ಕುಗಳನ್ನು
ಮಾನ್ಯ ಮಾಡುವ) ಸಮಿತಿ, ಬಳ್ಳಾರಿ

ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು
ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರ
ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ (ಅರಣ್ಯ ಹಕ್ಕುಗಳನ್ನು ಮಾನ್ಯ
ಮಾಡುವ) ಸಮಿತಿ, ಬಳ್ಳಾರಿ

ಪ್ರತಿಯನ್ನು ಮಾಹಿತಿಗಾಗಿ :

- 1) ಉಪವಿಭಾಗಾಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು, ಉಪವಿಭಾಗ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಸಮಿತಿ ಹೊಸಪೇಟೆ/ಬಳ್ಳಾರಿ ಇವರಿಗೆ.
- 2) ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರಿಗೆ.
- 3) ಶ್ರೀಮತಿ ರತ್ನಮ್ಮ ಎಸ್.ಪಿ. ಪ್ರಕಾಶ್, ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಸದಸ್ಯರು, ಗುಂಡಮುಣಗು, ಕೊಡ್ಲಿಗಿ ತಾಲೂಕು ಇವರಿಗೆ.
- 4) ಶ್ರೀ ಬಿ. ಆನಂದ, ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಸದಸ್ಯರು, ಹೊಸ ಮಲಪನಗುಡಿ, ಹೊಸಪೇಟೆ ತಾಲೂಕು ಇವರಿಗೆ.
- 5) ಶ್ರೀ ಕೊಟ್ಟಪ್ಪ, ಸದಸ್ಯರು, ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಸದಸ್ಯರು, ಹೊಳಲು, ಹಡಗಲಿ ತಾ|| ಇವರಿಗೆ.

ತಾರೀಖು: 24.06.2017 ರಂದು ಬೆಳಿಗ್ಗೆ 11.00 ಗಂಟೆಗೆ ಮಾನ್ಯ ಸಹಾಯಕ ಆಯುಕ್ತರು, ಬಳ್ಳಾರಿ ರವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ನಡೆದ ಉಪ ವಿಭಾಗೀಯ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಸಮಿತಿಯ ಸಭೆಯ ನಡವಳಿಕೆಗಳು

ಸಭೆಯಲ್ಲಿ ಹಾಜರಿದ್ದ ಅಧಿಕಾರಿಗಳು/ಸದಸ್ಯರುಗಳು:-

1. ಮಾನ್ಯ ಸಹಾಯಕ ಆಯುಕ್ತರು, ಬಳ್ಳಾರಿ
2. ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿ
3. ತಾಲೂಕು ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧಿಕಾರಿಗಳು, ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣ ಇಲಾಖೆ, ಬಳ್ಳಾರಿ
4. ತಾಲೂಕು ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧಿಕಾರಿಗಳು, ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣ ಇಲಾಖೆ, ಸಂರಕ್ಷಣೆ
5. ತಾಲೂಕು ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣಾಧಿಕಾರಿಗಳು, ಪರಿಶಿಷ್ಟ ವರ್ಗಗಳ ಕಲ್ಯಾಣ ಇಲಾಖೆ, ನಿರುಗುಪ್ಪ
6. ಶ್ರೀ ಡಿ ಹನುಮಂತಪ್ಪ, ತಾಲೂಕು ಪಂಚಾಯತ್ ಸದಸ್ಯರು, ಸಂರಕ್ಷಣೆ
7. ಶ್ರೀಮತಿ ಪುಷ್ಪಾವತಿ, ತಾಲೂಕು ಪಂಚಾಯತ್ ಸದಸ್ಯರು, ಬಳ್ಳಾರಿ

---ಓಓಓ---

ನಬೆಗೆ ಹಾಜರಾದ ಎಲ್ಲಾ ಅಧಿಕಾರಿಗಳಿಗೆ ಹಾಗೂ ಸದಸ್ಯರಿಗೆ ಮಾನ್ಯ ಸಹಾಯಕ ಆಯುಕ್ತರು ಸ್ವಾಗತಿಸುವ ಮೂಲಕ ಬಣ್ಣದ ಉಪ ವಿಭಾಗದ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವ ಕಲ್ಲುಗಳ ಗುತ್ತಿಗೆ ಹಾಗೂ ಇತರೆ ಅರಣ್ಯೇತರ ಪಟುವಣಿಕೆಗಳನ್ನು ಕೈಗೊಳ್ಳುವ ಕುರಿತು The Scheduled Tribes and other Forest Dwellers (Recognition of forest Rights) Act, 2006 ರಡಿಯಲ್ಲಿ ನಮೂನೆ-2 ನ್ನು ನೀಡುವ ಸಂಬಂಧವಾಗಿ ಈ ಕೆಳಕಂಡ ಗ್ರಾಮ ಮಧ್ಯದ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ನಮೂನೆಗಳಿಂದ ಉಪ ವಿಭಾಗೀಯ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ಸಮಿತಿಯ ಸ್ಥಾಪನೆಯಾದ ಗ್ರಾಮ ಸಭೆಯ ನಡವಳಿಕೆಗಳನ್ನು ಸಭೆಯಲ್ಲಿ ಪರಿಶೀಲಿಸಿ ಚರ್ಚಿಸಲು ನಬೆಗೆ ಜಾಲನೆ ನೀಡಿದರು.

[illegible]

<p>ನಂದೂರು ತಾಲ್ಲೂಕು, ನರಸೀಂಗಾಪುರ ಗ್ರಾಮ ಪಂಚಾಯತ.</p>	<p>ಗ್ರಾಮ ಪಂಚಾಯತಿ, ನರಸೀಂಗಾಪುರ ಅರಣ್ಯ ಸಕ್ಕು ಸಮಿತಿ ಸಭೆಯ ನಡವಳಿಕೆ ದಿನಾಂಕ: 30.05.2018.</p>	<p>ವಿವರವಾಗಿ ಪರ್ಜೆ ನಡೆಸಿ ಮುಖ್ಯಸ್ಥ ಎಂ.ಡಿ.ಸಿ ಅಮೀಡ್, ದೋಣಿಮಟ್ಟಿ ಇವರ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ 2388 ರ ಹತ್ತಿರ ಪೂರಕ ಪಟ್ಟಿಪತ್ರಗಳಿಗಾಗಿ (SP-II) ವಿಸ್ತೀರ್ಣ: 75.92 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿಲ್ಲವೆಂದು ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿ ಸಭೆಯ ನಡವಳಿಕೆಗಳನ್ನು ಸಲ್ಲಿಸಿದ್ದು ಇರುತ್ತದೆ.</p>	<p>ಮುಖ್ಯಸ್ಥ ಎಂ.ಡಿ.ಸಿ ಅಮೀಡ್, ದೋಣಿಮಟ್ಟಿ ಇವರ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ 2388 ರ ಹತ್ತಿರ ಪೂರಕ ಪಟ್ಟಿಪತ್ರಗಳಿಗಾಗಿ (SP-II) ವಿಸ್ತೀರ್ಣ: 75.92 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿಲ್ಲವೆಂದು ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿ ಸಭೆಯ ನಡವಳಿಕೆಗಳನ್ನು ಸಲ್ಲಿಸಿದ್ದು ಇರುತ್ತದೆ.</p> <p>ಮುಖ್ಯಸ್ಥ ಎಂ.ಡಿ.ಸಿ ಅಮೀಡ್, ದೋಣಿಮಟ್ಟಿ ಇವರ ಗುತ್ತಿಗೆ ಸಂಖ್ಯೆ 2388 ರ ಹತ್ತಿರ ಪೂರಕ ಪಟ್ಟಿಪತ್ರಗಳಿಗಾಗಿ (SP-II) ವಿಸ್ತೀರ್ಣ: 75.92 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿಲ್ಲವೆಂದು ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ತೀರ್ಮಾನಿಸಿ ಸಭೆಯ ನಡವಳಿಕೆಗಳನ್ನು ಸಲ್ಲಿಸಿದ್ದು ಇರುತ್ತದೆ.</p>
--	---	--	---

ಮೇಲ್ಕಂಡ ಒಟ್ಟು 03 ಪ್ರಕರಣಗಳ ಗ್ರಾಮ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕುಗಳ ನಮಿತಿಯ ನಡವಳಿಕೆಗಳನ್ನು ಪರಿಶೀಲಿಸಲಾಗಿ ಮತ್ತು ಈ ಸಭೆಯಲ್ಲಿ ಹಾಜರಿಗೊಂಡಿದ್ದ ಎಲ್ಲಾ ನಡವಳಿಕೆಗಳಿಗೆ ಪರ್ಜೆ ಸಲಾಹಿ, ಗ್ರಾಮ ಸಭೆಯ ನಡವಳಿಕೆ ವಿರುದ್ಧವಾಗಿ ಉಪ ವಿಭಾಗ ಮಟ್ಟದ ಸಮಿತಿಗೆ ಯಾವುದೇ ಮೇಲ್ಮನವಿಗಳು ಅಥವಾ ಆಕ್ಷೇಪಣೆಗಳು ಬಂದಿರುವುದಿಲ್ಲ. ಈ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಮೇಲ್ಕಂಡಿನಿಂದ ಒಟ್ಟು 03 ಪ್ರಕರಣಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳು ವಾಸಿಸುತ್ತಿರುವುದಿಲ್ಲವೆಂದು ಹಾಗೂ ಸದರಿ ಅರಣ್ಯ ಪ್ರದೇಶದ ಅವಲಂಬಿತರಾದ ಇರುವುದಿಲ್ಲವೆಂದು ಸಭೆಯು ಸರ್ವಾನುಮತದಿಂದ ನಿರ್ಣಯಿಸಲಾಯಿತು. ಹಾಗೂ ಈ ಸಭೆಯ ನಡವಳಿಕೆಗಳನ್ನು ಮುಂದಿನ ನಡವಳಿಕೆಗಳನ್ನು ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ಮಾನ್ಯ ಜಿಲ್ಲಾಧಿಕಾರಿಗಳ ಹಾಗೂ ಆಧ್ಯಕ್ಷರು, ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ, ಬಳ್ಳಾರಿ ರವರಿಗೆ ಸಲ್ಲಿಸಲು ತೀರ್ಮಾನಿಸಲಾಯಿತು.

ಮುಂದುವರೆದು ಸಂಯೋಜಿತ ಕಾರ್ಯಕ್ರಮ, ಯಶಸ್ವಿವಿಧಾನ, ಬೆಂಚ್‌ಮಾರ್ಕ್ ಹಾಗೂ ಸಂಯೋಜಿತ ಗ್ರಾಮ ಪಂಚಾಯತ್‌ಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟು ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳಿಗೆ ಅರಣ್ಯ ಭೂಮಿಯ ಹಕ್ಕು ವಶಗೊಂಡು ೦೦ ಅರ್ಜಿಗಳು ಉಪ ವಿಭಾಗ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಗೆ ಸ್ವೀಕೃತವಾಗಿರುವುದಾಗಿ ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು ಸಭೆಗೆ ಮಂಡಿಸಿದರು. ಇದರ ನಡರಿ ಅರ್ಜಿಗಳು ಗ್ರಾಮ ಮಟ್ಟದ ಅರಣ್ಯ ಸಮಿತಿಯಲ್ಲಿ ಸಂಬಂಧಪಟ್ಟ ಗ್ರಾಮ ಪಂಚಾಯತ್ ಅಥವಾ ಅಧಿಕಾರಿಗಳಿಂದ ಅಂಗೀಕೃತ/ ತಿರಸ್ಕೃತವಾಗದೇ ಹಾಗೂ ಅರಣ್ಯ ದಾಖಲೆಗಳು ಇಲ್ಲದೇ ನೇರವಾಗಿ ಉಪ ವಿಭಾಗ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಗೆ ಸ್ವೀಕೃತವಾಗಿರುತ್ತದೆ ಎಂದು ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು ಸಭೆಗೆ ತಿಳಿಸಿದರು.

ಸಭೆಯ ಅಧ್ಯಕ್ಷರು ಮಾತನಾಡಿ ಅರಣ್ಯ ವಾಸಿಗಳು ಅರಣ್ಯ ಭೂಮಿಯ ಹಕ್ಕು ವಶಗೊಂಡು ಬೇರಿ ಉಪ ವಿಭಾಗ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಗೆ ನಲ್ಲಿಸುವ ಬುಡಕಟ್ಟುಗಳು ಸಂಬಂಧ ಗ್ರಾಮ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯಿಂದ ಪಡೆಯುವಾಗ ಅಂಗೀಕೃತ/ ತಿರಸ್ಕೃತವಾಗಬೇಕು ಎಂದು ತಿಳಿಸುತ್ತಾ, ಸದರಿ ೦೦ ಅರ್ಜಿಗಳನ್ನು ಸಂಬಂಧಪಟ್ಟ ಗ್ರಾಮ ಮಟ್ಟದ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿಯ ಮರು ವಲಕೊಲನೆಗೆ ಕಳುಹಿಸಿಕೊಡಲು ಸೂಚಿಸಿದರು. (ಪ್ರಮು: ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು)

ಕೊನೆಯದಾಗಿ ವಂದನಾರ್ಪಣೆಯನ್ನು ಹೇಳುವ ಮೂಲಕ ಸಭೆಯನ್ನು ಮುಕ್ತಾಯಗೊಳಿಸಲಾಯಿತು.

ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು, ಏಕ್ಯಾರಿ ಉಪ-ವಿಭಾಗ
ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ
ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ
ಹಾಗೂ ತಾಲ್ಲೂಕು ವಲಕೊಲನೆ ವಲಕೊಲನೆ ಕಲಾಪದಾರಿಗಳು,
ವಲಕೊಲನೆ ವಲಕೊಲನೆ ಕಲಾಪದಾರಿಗಳು, ಏಕ್ಯಾರಿ

ಅಧ್ಯಕ್ಷರು, ಏಕ್ಯಾರಿ ಉಪ-ವಿಭಾಗ ಮಟ್ಟದ
ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ
ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ
ಹಾಗೂ ಸಂಯೋಜಿತ ಅಧಿಕಾರಿಗಳು,
ಏಕ್ಯಾರಿ

ಪ್ರತಿಯನ್ನು:-

1. ಮಾನ್ಯ ಅಧಿಕಾರಿಗಳು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು, ಅಲ್ಲಿ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ, ಏಕ್ಯಾರಿ ರವರಿಗೆ ದಯವರಿತು ಅನುಸೂಚಿತವಾಗಿ ಸ್ವೀಕೃತ.
2. ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು, ಅಲ್ಲಿ ಮಟ್ಟದ ಅನುಸೂಚಿತ ಬುಡಕಟ್ಟುಗಳ ಮತ್ತು ಇತರೆ ಪಾರಂಪರಿಕ ಅರಣ್ಯ ವಾಸಿಗಳ ಅರಣ್ಯ ಹಕ್ಕು ಸಮಿತಿ, ಏಕ್ಯಾರಿ ಹಾಗೂ ಅಲ್ಲಿ ವಲಕೊಲನೆ ವಲಕೊಲನೆ ಕಲಾಪದಾರಿಗಳು, ಏಕ್ಯಾರಿ ರವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಸ್ವೀಕೃತ.
3. ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳು, ಕಾರ್ಯಕ್ರಮ ಪಂಚಾಯತ್, ಸಂಯೋಜಿತ ಇವರಿಗೆ ಕಳುಹಿಸುತ್ತಾ; ಈ ಸದಕಾರಗಳನ್ನು ಸಂಬಂಧಪಟ್ಟ ಗ್ರಾಮ ಪಂಚಾಯತ್‌ಗಳಲ್ಲಿ ಪ್ರಕಟ ಮಾಡಲು ಸೂಚಿಸಿದೆ.

ಗ್ರಾಮ ಪಂಚಾಯಿತಿ ಕಾರ್ಯಾಲಯ ನರಸಿಂಗಪುರ

ಇವರಿಗೆ,

ದಿನಾಂಕ: 15.05.2017

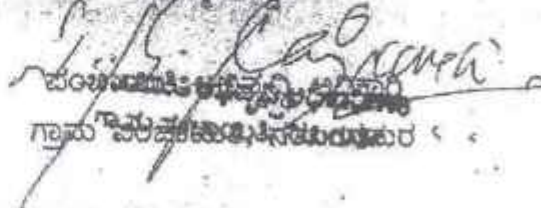
ಮಾನ್ಯ ಸಹಾಯಕ ಆಯುಕ್ತರು,
ಸಹಾಯಕ ಆಯುಕ್ತರ ಕಛೇರಿ,
ಬಳ್ಳಾರಿ

ಮಾನ್ಯರೇ,

ವಿಷಯ:- ಮೆ||ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್ ದೋಣಿಮಲ್ಯ ಐರನ್ ಓರ್ ಮೈನ್ಸ್ ಗಣಿ ಲೀಸ್ ಸಂಖ್ಯೆ: 1111, ವಿಸ್ತೀರ್ಣ 05.71 ಹೆಕ್ಟೇರ್‌ನಲ್ಲಿ ಗಣಿಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮ 2006 ರಡಿಯಲ್ಲಿ ಈ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವ ಗಣಿಗುತ್ತಿಗೆ ಭಾಗದಲ್ಲಿ ಪರಿಶಿಷ್ಟ ಬುಡಕಟ್ಟು ಜನರು ವಾಸಿಸುವ / ವಾಸಿಸುತ್ತಿಲ್ಲವೆಂಬ ಬಗ್ಗೆ ಪ್ರಮಾಣ ಪತ್ರ ಸಲ್ಲಿಸುವ ಬಗ್ಗೆ.

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ದಿನಾಂಕ: 09.05.2017 ರಂದು ಶ್ರೀ ಹೆಚ್.ಪಿ.ಬಿ.ಆರ್. ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ನಡೆದ ಅರಣ್ಯ ಹಕ್ಕು ಗ್ರಾಮ ಸಭೆಯಲ್ಲಿ ಸೂಚಿಸಿದಂತೆ ಮೆ||ಎನ್.ಎಂ.ಡಿ.ಸಿ. ಲಿಮಿಟೆಡ್ ದೋಣಿಮಲ್ಯ ಐರನ್ ಓರ್ ಮೈನ್ಸ್ ಗಣಿ ಲೀಸ್ ಸಂಖ್ಯೆ: 1111, ವಿಸ್ತೀರ್ಣ 05.71 ಹೆಕ್ಟೇರ್‌ನಲ್ಲಿ ಗಣಿಗುತ್ತಿಗೆ ಪ್ರದೇಶಕ್ಕೆ ಸಂಪರ್ಕ ರಸ್ತೆ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವುದಾಗಿ ಎಫ್.ಆರ್.ಎ. ಅಧಿನಿಯಮ 2006 ರಡಿಯಲ್ಲಿ ಈ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿರುವ ಗಣಿಗುತ್ತಿಗೆ ಭಾಗದಲ್ಲಿ ಪರಿಶಿಷ್ಟ ಬುಡಕಟ್ಟು ಜನರು ವಾಸಿಸುತ್ತಿಲ್ಲವೆಂಬ ಈ ಬಗ್ಗೆ ಚರ್ಚಿಸಲಾಗಿ ಸಭೆಯು ಪರಿಶಿಷ್ಟ ಬುಡಕಟ್ಟು ಜನರು ವಾಸಿಸುತ್ತಿಲ್ಲವೆಂಬ ಬಗ್ಗೆ ಸಭೆಯು ತೀರ್ಮಾನಿಸಲಾಯಿತು. ಈ ಮೂಲಕ ತಮ್ಮಲ್ಲಿ ವಿನಂತಿಸಿಕೊಳ್ಳುತ್ತೇನೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ


ಪಂಚಾಯಿತಿ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿ
ಗ್ರಾಮ ಪಂಚಾಯಿತಿ ನರಸಿಂಗಪುರ

ಲಗತ್ತು:- ಗ್ರಾಮ ಸಭೆಯ ಕರಾವಳಿ ನಕಲು ಪ್ರತಿ
ಪ್ರತಿಯನ್ನು:-

1. ಮಾನ್ಯ ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು, ಬಳ್ಳಾರಿ ಇವರ ದಯಾಪರ ಮಾಹಿತಿಗಾಗಿ ಸಲ್ಲಿಸಲಾಗಿದೆ.
2. ಮಾನ್ಯ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳು, ಜಿಲ್ಲಾ ಪಂಚಾಯಿತಿ, ಬಳ್ಳಾರಿ ಇವರ ದಯಾಪರ ಮಾಹಿತಿಗಾಗಿ ಸಲ್ಲಿಸಲಾಗಿದೆ.
3. ಮಾನ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳು, ತಾಲೂಕು ಪಂಚಾಯಿತಿ, ಸಂಡೂರು ಇವರ ಮಾಹಿತಿಗಾಗಿ ಸಲ್ಲಿಸಲಾಗಿದೆ.
4. ಪ್ರಬಂಧಕರು, ಎನ್.ಎಂ.ಡಿ.ಸಿ., ದೋಣಿಮಲ್ಯ ಇವರ ಮಾಹಿತಿಗಾಗಿ
5. ಕಛೇರಿ ಕಡತಕ್ಕೆ

**Proceedings Chaired by Hon'ble Deputy Commissioner and President,
District Level Scheduled Tribes and other traditional forest residents
(validation of forest rights) Committee, Bellary dated 30-08-2019**

Officers / Members present at the meeting: -


- 1) Sri S.S.Nakul, I.A.S
Deputy Commissioner, Ballari - President
- 2) Sri P.Ramesh Kumar
Sub-Forest Conservator Officer, Ballari - Member
- 3) Smt Ratnamma S.P.Prakash
Member of Zilla Panchayat, Gundamanagu, Kudligi Taluk - Member
- 4) Sri B.Anand
Member of Zilla Panchayat, Kogali, H.B.Halli Taluk - Member
- 5) Sri Kotrappa
Member of Zilla Panchayat, Holalu, Hadagali Taluk - Member
- 6) Smt P.Shubha
District Scheduled Tribe Welfare Officer, Ballari - Member Secretary

Sub:- Issue of Sample-1 & Sample-2 under F.R.A Act, 2006 to the Proposal of Sub-Division Officer & President, Sub-Division Level Scheduled Tribe and other Traditional Forest Dwellers Forest Rights Committee, Sub-Division, Ballari/Hospet under 2006.

Ref:- (1) Regarding proposal of Sub-Division Officer & President, Sub-Division Level Scheduled Tribe and other Traditional Forest Dwellers Forest Right Committee, Sub-Division, Ballari

The meeting dated 30-08-2019 of District Level Scheduled Tribal and Traditional forest residents forest rights committee was initiated by welcoming and discuss the subjects are mentioned below:

1. Regarding issuing of Sample-1 & Sample-2 under F.R.A Act to M/s MSPL Ltd, Hosapete M.L. No.2487 Area 86.12 Hecter, for connecting road of 04.85 Hecter. (Siddhapura Village Under Shushila Nagar Gram Panchayat)
2. Regarding issuing of Sample-1 & Sample-2 under F.R.A Act to M/s MSPL Ltd, Hosapete M.L. No.2559 Area 26.71 Hecter, for connecting road of 01.60 Hecter. (Subbarayana Halli Under Devagiri Gram Panchayat)
3. Regarding issuing of Sample-1 under F.R.A Act to M/s JSW Ltd, Toranagallu, has bided successfully in e-action of M/s Rama Iron Ore (M/s Ramarao Poul) M.L. No.2621 Mine Lease Ramgarh village Area 6.3464 Hecter and


ಮುಖ್ಯ ಗುರುಗಳು
ಕಾರಿ ಪೌರಾಣಿ, ದೋಣಿ
ಕಾರಿ ಪೌರಾಣಿ ಕಾ. ಬಳ್ಳಾರಿ


Sushilnagar Village, Area 2.943 Hector for Conveyor Line and connecting road and Transmission line (Sushilnagar Village & Ramgarh Village)

4. Regarding issuing of Sample-2 under F.R.A Act to M/s NMDC Ltd, Donimalai Ore Mine Township Sandur M.L. No.2396 supplementary activities Area 235.648 Hector, forest area and area of 75.92 Hector for supplementary activities forest area. (Narasingapura Gram Panchayat)
5. Regarding issuing of Sample-1 under F.R.A Act to M/s NMDC Ltd, Donimalai M.L. No.1111 Area 05.71 Hector, connecting road to mining area (Narasingapura Gram Panchayat)
6. Regarding issuing of Sample-2 under F.R.A Act to M/s JSW Ltd, Toranagallu, Ubbalagundi M.L. No.995 Area 32.89 Hector, for mining area (Ubbalagundi village under U.Rajapur Gram Panchayat)
7. Regarding issuing of Sample-1 & Sample 2 under F.R.A Act to Minera Steels,Ubbalagundi , M.L. No.2433 Area 31.49 Hector, for connecting road and 2 hector for connection road and 29.49 hector for mining area (Ubbalagundi village under U.Rajapur Gram Panchayat)
8. Regarding issuing of Sample-1 under F.R.A Act to M/s Sri Veerabhadrapa Sangappa & Co., M.L. No.2296, Area 28.2499 Hector, for hown hill pipeline and service road and railway siding project and 30.612 hector area for railway sliding, down hill and service road. (Sushilnagar Village under Sushilnagar Gram Panchayat)
9. Regarding received 3 application for Forest Rights letter from D.N Halli Village under Karekallu Gram Panchayath, it is accepted in Gram Panchayath level and also accepted in Sub-Divisional level and submitted to District level.


Sl. No.	Subject	Decision
1	MSPL Ltd, Hosapete is has bided in e-action and succeeded for forest area under Siddapura Village of Karadikolla Iron Ore Mines M.L. 2487 (M/s Lakshmi Narayana Mining Co.) of area 86.12 hector. To this mining area and connecting road to this mining area of measurement 4.85 hector is in forest area, for that sake of issue Sample-1 & Sample-2 under F.R.A Act. The Scheduled Tribes & Other Traditional Forest Dwellers (re	MSPL Ltd, Hosapete is has bided in e-action and succeeded for forest area under Siddapura Village of Karadikolla Iron Ore Mines M.L. 2487 (M/s Lakshmi Narayana Mining Co.) of area 86.12 hector. To this mining area and connecting road to this mining area of measurement 4.85 hector is in forest area, for that sake of issue Sample-1 & Sample-2 under RoFR Act. First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste

ಕುಡುಕೂರು.
ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ
ಕಾರ್ಪೊರೇಷನ್, ದೋಣಿ
ಕುಡುಕೂರು ತಾ. ಬಳ್ಳಾರಿ


	<p>cognition of Forest right act 2006) In the above forestry area there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area and no objection were received at Sub-Divisional Committee, so it is unanimously decided in the meeting that to issue Sample-1 & Sample-2.</p>	<p>Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Siddhapura village and the information given by online. It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-1 & Sample-2 under RoFR Act to MSPL Ltd., Hosapete project, the detailed discussion held at the village level meeting about not received any forest rights claims and it was unanimously decided to issue Sample-1 & Sample-2.</p> <p>Considering the above points MSPL Ltd., Hosapete M.L.No. 2487 area 86.12 hector, mining in the forest area and connecting road to the mining area measures 4.85 hector, unanimously decided by the district forest rights committee that to issue the affirmative Sample-1 & Sample-2 under FRA Acted to the government. However, the District Forest Rights Committee unanimously agreed to give Sample-1 & Sample-2</p>
2	<p>MSPL Ltd, Hosapete M.L.No 2559, area 26.71 hector, in this mining area for transport of ore and connecting road, 01.60 hector, to issue the Sample-1 & Sample-2 under F.R.A Act related to this area. Related to the above proposal of Subbarayanahalli Village under Devagiri Gram Panchayath, the Village Forest Rights</p>	<p>MSPL Ltd, Hosapete M.L.No 2559, area 26.71 hector, in this mining area for transport of ore and connecting road, 01.60 hector, to issue the Sample-1 & Sample-2 under F.R.A Act related to this area.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in</p>


 ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ
 1ನೇ ಹಂತದ ಕಛೇರಿ, ದುರ್ಗೇಶ್ವರ
 ಬೆಂಗಳೂರು ತಾ. ಬೆಂಗಳೂರು

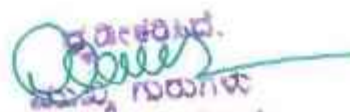
	<p>Committee assumed that this land belong to forest area, under The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest right act 2006) Act</p> <p>there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area. For the sake of environment the Sample-1 & Sample-2 was rejected to issue. And Sub-Division Committee did not received any objection, there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area, it was decided not to issue Sample-1 & Sample-2, about submission for the further necessary action by Deputy Commissioner and District Level Scheduled Tribes and other traditional forest residents committee, Bellary</p>	<p>the Forest Rights Monitoring System and found that there was no application received from Subbarayanahali Village and the information given by online. It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-1 & Sample-2 under RoFR Act to MSPL Ltd., Hosapete project, the detailed discussion held at the village level meeting about not received any forest rights claims, for the sake of environment and other reason the objection was raise and denied to issue Sample-1 & Sample-2.</p> <p>Under The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Right Act 2006). There is no provision to reject the proposal, if there is no pending application.</p> <p>There was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor dependent, for this reason in Sample-1 & Sample-2 part (b) objection was expressed and informed, unanimously decided by the District Forest Rights Committee to send the affirmative Sample-1 & Sample-2 along with the Village Level Proceedings to the government.</p>
3	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s JSW Ltd, Toranagallu, has bided successfully in e-action of M/s Rama Iron Ore (M/s Ramarao Poul) M.L. No.2621 Mine</p>	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s JSW Ltd, Toranagallu, has bided successfully in e-action of M/s Rama Iron Ore (M/s Ramarao Poul) M.L. No.2621 Mine Lease Ramgarh village Area 6.3464 Hecter and Sushilnagar</p>


 ಮುಖ್ಯ ಗುರುಗಲು
 1ನೇ ಹಂತದ ಪ್ರಾಧಿಕಾರ, ದೋಣಿಮೆ
 ಕಂದಾಯ ಶಾಖೆ ಬಳ್ಳಾರಿ


<p>Lease Ramgarh village Area 6.3464 Hecter and Sushilnagar Village, Area 2.943 Hecter for Conveyor Line and connecting road and Transmission line. Under The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) Act</p> <p>It was decided in the Village Level meeting that there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend but due to the problem being faced by the lorry owners and drivers they decided not to give Sample-1 and the Sub-Division Committee did not received any objection for that reason they decided in the meeting to give Sample-1</p>	<p>Village, Area 2.943 Hecter for Conveyor Line and connecting road and Transmission line.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Sushilanagara Village and Ramgarh Village and the information given by online.</p> <p>It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-1 under RoFR Act to JSW Ltd., Toranagallu project, the detailed discussion held at the village level meeting about not received any forest rights claims, but due to the problem being faced by the lorry owners and drivers they decided not to give Sample-1.</p> <p>Under The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Right Act 2006). There is no provision to reject the proposal, if there is no pending application.</p> <p>There was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor dependent, for this reason in Sample-1 part (b) objection was expressed and informed, unanimously</p>
---	--


 ಮುಖ್ಯ ಗುರುಗಳು
 10000 ಸಿಬ್ಬಂದಿ, ದೋಣಿಮ
 ಕಂದೂಚಿ ಶಾ. ಬಳ್ಳಾರಿ ಜಿ


		decided by the District Forest Rights Committee to send the affirmative Sample-1 along with the Village Level Proceedings to the government.
4	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s NMDC Ltd, Donimalai Ore Mine Township Sandur M.L. No.2396 supplementary activities Area 235.648 Hector, forest area and area of 75.92 Hector for supplementary activities forest area. To this mining area and connecting road to this mining area is in forest area, The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) In the above forestry area there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area and no objection were received at Sub-Divisional Committee, so it is unanimously decided in the meeting that to issue Sample-1.</p>	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s NMDC Ltd, Donimalai Ore Mine Township Sandur M.L. No.2396 supplementary activities Area 235.648 Hector, forest area and area of 75.92 Hector for supplementary activities forest area.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Siddhapura village and the information given by online.</p> <p>It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-1 under RoFR Act to M/s NMDC Ltd, Donimalai Ore Mine Township Sandur M.L. No.2396, the detailed discussion held at the village level meeting about not received any forest rights claims and it was unanimously decided to issue Sample-1.</p> <p>Considering the above points M/s NMDC Ltd, Donimalai Ore Mine Township Sandur M.L. No.2396 (Donimalai Reserve Forest) area 75.92 hector, for supplementary activities area measures 235.648 hector, unanimously decided by</p>


 ಸಹಾಯಕ ನಿರ್ದೇಶಕರು
 19340 ಪುರವಿಲ, ಬೀದರ್ ಜಿಲ್ಲೆ
 ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸರ್ಕಾರ


		the district forest rights committee that to issue the affirmative Sample-1 under FRA Acted to the government. However, the District Forest Rights Committee unanimously agreed to give Sample-1
5	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s NMDC Ltd, Donimalai M.L. No.1111 Area 05.71 Hector, connecting road to mining area. There was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area.</p> <p>The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest right act 2006) In this area non-forestry activity there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area and no objection were received at Sub-Divisional Committee, so it is unanimously decided in the meeting that to issue Sample-1</p>	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s NMDC Ltd, Donimalai M.L. No.1111 Area 05.71 Hector.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Siddhapura village and the information given by online.</p> <p>It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-1 under RoFR Act to M/s NMDC Ltd, Donimalai Ore Mine Township Sandur M.L. No.1111, the detailed discussion held at the village level meeting about not received any forest rights claims and it was unanimously decided to issue Sample-1.</p> <p>Considering the above points NMDC Ltd, Donimalai M.L. No.1111 Area 05.71 hector, mining in the forest area and connecting road to the mining area, unanimously decided by the district forest rights committee that to issue the affirmative Sample-1 under FRA Acted to the government. However, the District Forest Rights Committee unanimously</p>


 ಕುಡುಕುಡು.
 ಕುಡುಕುಡು
 ಕುಡುಕುಡು, ಕುಡುಕುಡು
 ಕುಡುಕುಡು ಕುಡುಕುಡು

		agreed to give Sample-1
6	<p>Regarding issuing of Sample-2 under F.R.A Act to M/s JSW Ltd, Toranagallu, Ubbalagundi M.L. No.995 Area 32.89 Hector, for mining area.</p> <p>The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest right act 2006) In this area non-forestry activity there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area and no objection were received at Sub-Divisional Committee, so it is unanimously decided in the meeting that to issue Sample-2</p>	<p>Regarding issuing of Sample-2 under F.R.A Act to M/s JSW Ltd, Toranagallu, Ubbalagundi M.L. No.995 Area 32.89 Hector, for mining area.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Siddhapura village and the information given by online.</p> <p>It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-2 under RoFR Act to M/s JSW Ltd, Toranagallu, Ubbalagundi M.L. No.995 Area 32.89 hector for mining area, the detailed discussion held at the village level meeting about not received any forest rights claims and it was unanimously decided to issue Sample-2.</p> <p>Considering the above points JSW Ltd, Toranagallu Ubbalgundi M.L. No.995 Area 32.89 hector, mining in the forest area and connecting road to the mining area, unanimously decided by the district forest rights committee that to issue the affirmative Sample-2 under FRA Acted to the government. However, the District Forest Rights Committee unanimously agreed to give Sample-2</p>


 ಮುಖ್ಯ ನುರುಗಲು
 ಗೌರವ ಪುರಸ್ಕಾರ, ದೂರದಿಂದ
 ಕಂಡುಬಂದಿತು. ೨೦೨೦

7	<p>Regarding issuing of Sample-1 & Sample 2 under F.R.A Act to M/s Minera Steels, Ubbalagundi , M.L. No.2433 Area 31.49 Hector, for connecting road and 2 hector for connection road and 29.49 hector for mining area.</p> <p>The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest right act 2006) In this area non-forestry activity there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area and no objection were received at Sub-Divisional Committee, so it is unanimously decided in the meeting that to issue Sample-1 & Sample-2</p>	<p>Regarding issuing of Sample-1 & Sample 2 under F.R.A Act to Minera Steels, Ubbalagundi , M.L. No.2433 Area 31.49 Hector, for connecting road and 2 hector for connection road and 29.49 hector for mining area.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Ubbalagandi village and the information given by online.</p> <p>It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>To issue the Sample-1 & Sample-2 under RoFR Act to M/s Minera Steels, Ubbalagundi , M.L. No.2433 Area 31.49 hector for mining area, the detailed discussion held at the village level meeting about not received any forest rights claims and it was unanimously decided to issue Sample-1 & Sample-2.</p> <p>Considering the above points M/s Minera Steels, Ubbalagundi , M.L. No.2433 Area 31.49 hector, mining in the forest area and connecting road to the mining area, unanimously decided by the district forest rights committee that to issue the affirmative Sample-1 & Sample-2 under FRA Acted to the government. However, the District Forest Rights Committee</p>
---	---	--


 ಮುಖ್ಯ ಗುರುತು
 1ನೇ ಹಂತದ ಪ್ರಾಧಿಕಾರ, ದೊಡ್ಡಬಳ್ಳಾಪುರ
 ಕಂಡೂರು ಶಾಲೆ ಬಳಿ

		unanimously agreed to give Sample-1 & Sample-2
8	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s Sri Veerabhadrappe Sangappa & Co., M.L. No.2296, Area 28.2499 Hecter, for hown hill pipeline and service road and railway siding project and 30.612 hector area for railway sliding, down hill and service road.</p> <p>The Scheduled Tribes & Other Traditional Forest Dwellers (recognition of Forest right act 2006) In this area non-forestry activity there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area and no objection were received at Sub-Divisional Committee, so it is unanimously decided in the meeting that to issue Sample-1.</p>	<p>Regarding issuing of Sample-1 under F.R.A Act to M/s Sri Veerabhadrappe Sangappa & Co., M.L. No.2296, Area 28.2499 Hecter, for hown hill pipeline and service road and railway siding project and 30.612 hector area for railway sliding, down hill and service road.</p> <p>First, for this subject The Scheduled Tribes & Other Traditional Forest Dwellers (re cognition of Forest right act 2006) The District Scheduled Caste Welfare Officer, Ballari has searched in the Forest Rights Monitoring System and found that there was no application received from Ubbalagandi village and the information given by online.</p> <p>It was presented in the meeting that there was no appeal received from the Scheduled Tribes and other Traditional Forest Resident under RoFR Act.</p> <p>A detailed discussion held and it was decided by the district forest rights committee that to issue the affirmative Sample-1 to M/s Veerabhadrappe Sangappa & Co., because there was no objection or claims are received. Even though various topics were discussed in the village level meeting, all the proposal were accepted, excluded the railway sliding proposal.</p> <p>There was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor dependent, for this reason in Sample-1 part (b) objection was</p>

ಪ್ರತಿಪಾಲಕರು
ಮುಖ್ಯ ನಿಯಂತ್ರಕರು
ಸರ್ಕಾರಿ ಪ್ರಾಧಿಕಾರಿ, ದೊಡ್ಡಬಳ್ಳಾಪುರ
ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸರ್ಕಾರ

- 3) Smt Ratnamma S.P.Prakash Member of Zilla Panchayat, Gundamanagu,
Kudligi Taluk
- 4) Sri B.Anand, Member of Zilla Panchayat, Kogali, H.B.Halli Taluk
- 5) Sri Kotrappa, Member of Zilla Panchayat, Holalu, Hadagali Taluk

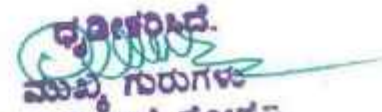
Proceedings of the Sub Divisional Forest Rights Committee meeting chaired by the Deputy Assistant Commissioner, Bellary at 11:00 am on 24-06-2017

Officers / Members present at the meeting: -


- 1) Hon'ble Assistant Commissioner, Bellary - President
- 2) Assistant Officers of Scheduled Tribes Welfare – Members
- 3) Taluk Scheduled Tribes Welfare Officers, Scheduled Tribes Welfare Department, Bellary - Member Secretaries
- 4) Taluk Scheduled Tribes Welfare Department, Scheduled Tribes Welfare Department, Sandur - Member
- 5) Taluk Scheduled Tribes Officers, Scheduled Tribes Welfare Department, Siruguppa - Members
- 6) Shri D. Hanumanthappa, Taluk Panchayat Member, Sandur - Members
- 7) Mrs. Pushtawati, Member of the Taluk Panchayat, Bellary

The following Divisional Forest Rights Committees have been constituted by the following Village Level Forest Rights Committees in respect of granting the Model 2 under the 2006 "Conduct of Coal Mines and other non-forestry activities in the forest area of Bellary Sub Division" by welcoming all Assistant Officers and Members to the meeting He drove to the meeting to review and discuss the meeting

Sl. No.	Taluk & Village Panchayath Name	Village Level Forest Rights Committee Detils	Village Level Forest Rights Committees Proceedings	Decision of the Sub-Divisional Forest Rights Committees
1	Sandur Taluk, Narasingapura Gram Panchayath	Gram Panchayath, Narasingapura Village Level Forest Rights Committee Meeting Proceedings	At the Gram Sabha held on 09-05-2017, M/s NMDC Limited Kumaraswamy Iron Or Mines (Mines Lease No. 1111) Area of 5.71 Hecter for connecting road widening. It is informed that in the forest area there was any Scheduled Tribes & Other Traditional Forest	M/s NMDC Limited Donimalai (Mines Lease No. 1111) Area of 5.71 Hecter for connecting road widening. (Recognition of Forests Rights Act, 2006) In the above forestry



 ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ
 ಸಬ್ ಡಿವಿಷನ್, ಬೆಳ್ಳಾರಿ
 24-06-2017

			<p>Dwellers (Recognition of Forests Rights Act, 2006)</p> <p>In the meeting it was discussed in detail that M/s N.M.D.C (Lease No. 2396, Area 75.92 Hectors) supplementary activities, the meeting proceeding was submitted with unanimous conclusion that there was no Scheduled Tribes & Other Traditional Forest Dwellers.</p>	<p>area there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area, it is unanimously decided in the meeting that to issue Sample-2, due to no objection received.</p>
2	Sandur Taluk, Narasingapura Gram Panchayath	Gram Panchayath, Narasingapura Village Level Forest Rights Committee Meeting Proceedings dated 30.05.2018	<p>At the Gram Sabha held on 30-05-2018, M/s NMDC Limited Donimalai (Mines Lease No. 2396) for supplementary activities having Area of 235.649 Hector, in the meeting it is discussed in detail that is there any Scheduled Tribes & Other Traditional Forest Dwellers in the above area (Recognition of Forests Rights Act, 2006) In the meeting it was discussed in detail that M/s N.M.D.C (Lease No. 2396, Area 75.92 Hectors) supplementary activities (SP-II), the meeting proceeding was</p>	<p>M/s NMDC Limited Donimalai (Mines Lease No. 2396) for supplementary activities having Area of 235.649 Hector (Recognition of Forests Rights Act, 2006) In the above forestry area there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area, it is unanimously decided in the</p>


 ಮುಖ್ಯ ಗುರುಗಳು
 ತಾಳೂರಿನ ಶ್ರೀಮತಿ. ದೋಣಿಮಾ
 ಸಂಪನ್ಮೂಲ ತಾ. ಬಳಸಿ

			submitted with unanimous conclusion that there was no Scheduled Tribes & Other Traditional Forest Dwellers.	meeting that to issue Sample-2, due to no objection received.
3	Sandur Taluk, Narasingapura Gram Panchayath	Gram Panchayath, Narasingapura Village Level Forest Rights Committee Meeting Proceedings dated 30.05.2018	At the Gram Sabha held on 09-05-2017, M/s NMDC Limited Donimalai (Mines Lease No. 2396) for supplementary activities (SP-II) having Area of 75.92 Hector, in the meeting it is discussed in detail that is there any Scheduled Tribes & Other Traditional Forest Dwellers in the above area (Recognition of Forests Rights Act, 2006) In the meeting it was discussed in detail that M/s N.M.D.C (Lease No. 2396, Area 75.92 Hectors) supplementary activities (SP-II), the meeting proceeding was submitted with unanimous conclusion that there was no Scheduled Tribes & Other Traditional Forest Dwellers.	M/s NMDC Limited Donimalai (Mines Lease No. 2396) for supplementary activities (SP-II) having Area of 235.649 Hector (Recognition of Forests Rights Act, 2006) In the above forestry area there was no Scheduled Tribes & Other Traditional Forest Dwellers do not live in or cultivating nor depend on that forest area, it is unanimously decided in the meeting that to issue Sample-2, due to no objection received.

For the above 3 cases, there are no appeals or objections to the sub - divisional committee against the gram sabha congregation, which has been reviewed by all the members who attended the meeting. Associated to this 3 cases,


 ಮುಖ್ಯ ಗುರುಗಳು
 ತಾಣದ ಪ್ರಾಧಿಕಾರಿ, ದೋಣಿಮಾ
 ಸಂಖ್ಯೆ: ೨೪೭೭

it was unanimously determined by all members of the meeting that the tribal and other heritage forest dwellers were not living in the area. It was decided to submit the proceedings of the meeting to the Hon'ble District Collector and the President Chairman, District Level Scheduled Tribes and other heritage forests forests, Bellary.

Member Secretary, presented to the meeting that 50 applications for the forest land rights of the tribal and other traditional forest residents of the Sandur Taluk, Kalingeri, Yarryahanihatti, Bommagatta and Sandur Gram Panchayats were accepted to the Sub -Division Forest Rights Committee. However, the petitions are accepted/rejected by the concerned Gram Panchayat Development Officers in the village level forest committee and are directly accepted by the Sub -Division Forest Rights Committee.

The President of the meeting said that the appeals submitted to the Sub Division Level Forest Rights Committee seeking forest land rights should be accepted/rejected by the concerned village level forest committee. Saying that 50 applications should be re-examined by the concerned village level forest area committee. [Action Member Secretaries)

Finally, the meeting was concluded by saying salutation.

**Member Secretaries, Forest Rights
Committee of Bellary Sub-Division
Level Tribes and other heritage
forest residents and welfare officials
of the Taluk Scheduled Tribes,
Department of Welfare of Scheduled
Tribes, Bellary**

**President, Bellary Sub-Divisional
Level Level Tribes and Other
Heritage Forest Residents Forest
Rights Committee and Assistant
Commissioner, Bellary**

Copy submitted to:

1. Hon'ble District Collector and President, District Level Scheduled Tribes and other traditional forest residents forest right committee, Bellary for kind information.
2. Member Secretary, District Level Scheduled Tribes and other traditional forest residents forest right committee, Bellary and District Scheduled Tribes Welfare Officer, Bellary for information.
3. Copy of the proceeding sent to Executive Officer, Taluk Panchayath, Sandur to promote in concerned gram panchayath.

[illegible]

Office of the Gram Panchayath, Narasingapura

To,
Hon'ble Asst. Commissioner
Office of Asst. Commissioner,
Ballari.


Date: 15.05.2017

Respected Sir/Madam,

Sub:- Issuing the certificate of Scheduled Tribal People Living/Non-Living in the mining area of M/s NMDC Limited Iron Or Mines (Mines Lease No. 1111) Area of 5.71 Hector mining area for Connecting Road in the Forestry Area under F.R.A Act 2006 – Reg.

To the above mentioned subject, on dated 09/05/2017 held in his presidency of Sri H.Oblesh, as instructed in the Forest Rights Village Meeting, M/s NMDC Limited Iron Or Mines (Mines Lease No. 1111) Area of 5.71 Hector mining area for Connecting Road in the Forestry Area under F.R.A Act 2006. This was discussed and concluded that in the mining area of the part of forest area there was no Scheduled Tribal People Living. This is for your kind information.

Yours faithfully



Panchayath Development Officer
Gram Panchayath, Narasingapur

Attachment:-

Copy of Proceedings of Village Meeting.

Copies:-

- 1) Hon'ble Deputy Commissioner, Ballari for their kind information.
- 2) Hon'ble Chief Executive Officer, Zilla Panchayath, Balalri for their kind information.
- 3) Hon'ble Executive Officer, Taluk Panchayath, Sandur for their information.
- 4) Manager, NMDC for their information.
- 5) Office File.


ಮುಖ್ಯ ಗುರುಗುರು
ಗ್ರಾಮ ಪಂಚಾಯತ್, ದೋಣಿಮ
ಕುಟುಂಬ ಶಾ. ಬೀದಿ

Meeting held on dated 09/05/2017 at 11.00 AM at the premises of Gram Panchayath with the presence of Sri H.Oblesh, President of Village Forest Right Committee

Sl. No.	Subject	Decision
1	M/s NMDC Limited Iron Or Mines (Mines Lease No. 1111) Area of 5.71 Hecter mining area for Connecting Road in the Forestry Area under F.R.A Act 2006. This was discussed and concluded that in the mining area of the part of forest area there was no Scheduled Tribal People Living.	M/s NMDC Limited Iron Or Mines (Mines Lease No. 1111) Area of 5.71 Hecter mining area for Connecting Road in the Forestry Area under F.R.A Act 2006. This was discussed and concluded that in the mining area of the part of forest area there was no Scheduled Tribal People Living the same was agreed to forward to the office of Assistant Commissioner & President of Sub-Division, Forest Right Committee, Ballari.

ಮುಖ್ಯ ಗುರುಗಳು
ಗ್ರಾಮ ಪಂಚಾಯತ್, ದೋಣಿಮ
ಕೂಡಲು ತಾ. ಬಳ್ಳಾರಿ ಜಿ



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

Annexure-13

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that, additional NPV, if applicable in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District will be paid to Forest Department in CAMPA AC in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(xvi) of Stage-I/ in-principle approval under FC Act, 1980 accorded vide F.No: 8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24

**Chief General Manager
NMDC Ltd., Donimalai Complex**



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

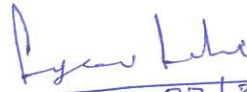
Annexure-14

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake to carryout tree felling in a phased manner as per the requirement in the approved Plan with prior permission of concerned DFO in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(xvii) of Stage-I/ in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 / 274654

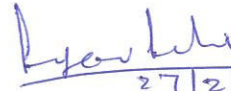
Annexure-15

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that Stage-1 FC approval has been accorded for infrastructure area outside Mining Lease of Donimalai iron ore mine. The area is not meant for Mining. The gap plantation shall be raised in between the infrastructure facilities extend over 96.868 Ha (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xviii) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



J-11015/151/2008- IA. II (M)
Government of India
Ministry of Environment & Forests

Telefax: 011-24367257
e-mail: w.bharat@nic.in
Paryavaran Bhavan,
C.G.O. Complex, Lodi Road,
New Delhi-110003.
Dated: August 7, 2009

To

M/s National Mineral Development Corpn. Ltd.
'Khanji Bhawan' 10-3-311/A, Castle Hills
Masab Tank
Hyderabad - 500 028

Sub: *Expansion of Donimalai Iron Ore Mine (ML area 608.0 ha) from production capacity 4.0 to 7.0 MTPA and Setting up of 1.80 MTPA BHJ/BHQ Beneficiation Plant and 1.2 MTPA Pellet Plant/Slime Beneficiation Plant at village Donimalai, in Sandur Taluk, in Bellary Distt., in Karnataka - reg. Environmental Clearance.*

Sir,

The undersigned is directed to refer to your letter received by the processing Division of the Ministry on 19.05.2009, on the above mentioned subject. The Ministry of Environment and Forests has examined the application.

2. It has been noted that the proposal is for expansion of Iron Ore mining from 4.0 MTPA to 7.0 MTPA and setting up of 1.8 MTPA BHJ/BHQ Beneficiation Plant and 1.2 MTPA Pellet Plant / Slime Beneficiation Plant. The lease area is 608.0 ha which is in Donimalai reserve forest. Forest clearance has been obtained on 06.02.2009. Out of total lease area of 608.0 ha, mining will be carried out in 180.0 ha at the conceptual period. An area of 44.90 ha will be kept for over waste dump; 18.60 ha for roads; 6.5 ha for infrastructure; green belt 310.40 ha; 10.0 ha for others; and 37.60 ha will be unutilised. The mineable reserve is 22.42 MT. Life of the mine at proposed rate of production will be 5 years. Method of mining will be open cast mechanised involving drilling and blasting. Ultimate depth of mining will be at 840 m above MSL. The elevation of the lease ranges from 909 m above MSL to 1029 M above MSL. Ultimate depth of mining will be at 909 M above MSL. Ground water level is at 800-820 m RL. Mining will not intersect ground water table. Water requirement will be about 15920 KLD, which will be met from Narihalla Dam which is located 6.0 km away from the lease boundary. Approval from the Competent Authority for drawing water from Narihalla Dam was accorded on 23.04.2007. Solid waste of about 22.42 MT will be generated. There are no wildlife sanctuaries, national parks, heritage sites, biosphere reserves etc. within 10 km of the lease boundary. BHJ / BHQ shall be beneficiated instead for dumping them. Existing tailing dam shall be upgraded to hold upto 13 MT of tailings. Slime from existing tailing pond will be beneficiated. The concentrate produced from slime beneficiation plant will be totally used in Pelletisation Plant for production of blast furnace grade pellets. Mining plan (including progressive mine closure plan) was approved by IBM on 18.08.2008. Public hearing was held on 27.12.2008. Cost of the project will be Rs 652.60 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) **Ultimate depth of mining shall be restricted strictly as per approved scheme of mining plan.**
- ii) Wildlife conservation plan shall be implemented **within six months** in consultation with the office of the Chief Wildlife Warden. The plan shall comprise of in-built monitoring mechanism with special emphasis for protection of Schedule-I species. The status of implementation shall be submitted to the Regional Office of the Ministry and the Competent Authority in the State Govt.
- iii) Silt load due to mining shall be assessed and silt management plan shall be prepared to prevent siltation of River/Streams flowing in the vicinity due to mining.
- iv) No new two pits shall be simultaneously worked i.e before the first pit is exhausted and reclamation work completed, no mineral bearing area shall be worked.
- v) 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 ore bearing area is worked.**
- vi) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- vii) A 50 m width barrier of no mining zone (inside the lease) all along the side(s) facing the nallahs/streams (if any) flowing through or adjacent the lease shall be demarcated and thick vegetation of native species raised. Status of implementation shall be submitted to the Regional Office of the Ministry on half yearly basis.
- 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. Status of implementation shall be reported to the Ministry.

- ix) 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 Regional Office of the Ministry from time to time.
- x) Adequate compensation for land acquired shall be suitably settled first before expansion activity is undertaken.
- xi) Sustainable livelihood programme for SC / ST and other poorer section of society affected by the project shall be undertaken and implemented within six months. The status of implementation shall be submitted to the Regional Office of the Ministry and the Competent Authority in the State Govt.
- xii) 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.
- xiii) 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.
- xiv) 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. It shall be ensured that no silt originating due to mining activity is transported to any surface water course flowing in and around the mine
- xv) 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. Desilting at regular intervals shall be carried out.
- xvi) 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.
- xvii) 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.

- xviii) 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 Regional office of the Ministry.
- xix) Shelter belt i.e Wind Break of 30 m width and consisting of at least 5 tiers around lease facing the schools / agricultural fields / human habitations **shall be raised** and the status of implementation shall be reported to the Ministry.
- xx) 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.
- xxi) 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.
- xxii) 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.
- xxiii) 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 or less) shall be conducted followed by follow up action wherever required.
- xxiv) 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.
- xxv) 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.
- xxvi) 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.
- xxvii) Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.

- xxviii) 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 density of the trees shall not be less than 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.
- xxix) Regular monitoring of ground water level and quality (**both in the mine lease area and the Beneficiation Plant area**) shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year – pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected shall be regularly sent to MoEF, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- xxx) Adequate air monitoring stations shall be installed in areas of human habitations (**both near the mine and the Beneficiation Plant**) and the results of ambient air quality shall be maintained and regularly submitted to the Regional Office of the Ministry. The monitored data for criteria pollutants shall be regularly uploaded on the company's website and also displayed at project site.
- xxxi) 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.
- xxxii) Details of management of wastewater from the beneficiation plant including disposal, re-use and re-cycling shall be submitted to the Regional Office of the Ministry and the Competent Authority in the State Govt. **within six months** of the operation.
- xxxiii) Tailing pond (if any) waste disposal management details shall be submitted to the Regional Office of the Ministry and the Competent Authority in the State Govt. along with closure, rehabilitation and reclamation of tailing pond **within six months** of the operation.
- xxxiv) Measures for leachate management at tailing pond (if any) shall be submitted to the Regional Office of the Ministry and the Competent Authority in the State Govt. regularly and records maintained.
- xxxv) Hydro geological study in and around the mine and the Beneficiation Plant area shall be annually reviewed, which shall include impact of ore processing plant on the ground and surface water regime and records maintained.

- xxxvi) 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.
- xxxvii) Prior permission from the Competent Authority shall be obtained for extraction of ground water (if applicable).
- xxxviii) 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.
- xxxix) 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 and waste shall be made.
- (iii) 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.
- (iv) 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.
- (v) Data on ambient air quality (RPM, SPM, SO₂, NO_x) should be regularly submitted to the Ministry including its Regional office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) 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.
- (vi) 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.

- (vii) 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.
- (viii) 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.
- (ix) 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.
- (x) The project authorities shall inform to the Regional Office of the Ministry located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xi) 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 Bangalore.
- (xii) The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xiii) 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.
- (xiv) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests, Bangalore.
- (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. **The clearance letter shall also be put on the website of the company.**
- (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 Bangalore.


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. Bharat Singh)
Deputy Director

Copy to:

1. Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government of Karnataka, Bangalore.
3. Secretary, Department of Mines and Geology, Government of Karnataka, Bangalore.
4. Secretary, Department of Forests, Government of Karnataka, Bangalore.
5. Chief Conservator of Forests, Regional Office (SZ), Kendriya Sadan, 4th Floor E&F, Wings 17th Main Road, 1 Block, Koranmangala, Bangalore-560 034.
6. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. Chairman, Karnataka State Pollution Control Board, Parisara Bhawan, 4th & 5th Floor, 49, Church Street, Bangalore - 560 001.
8. Member Secretary, Central Ground Water Authority, A2, W - 3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.

9. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
10. District Collector, Bellary, Government of Karnataka.
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



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

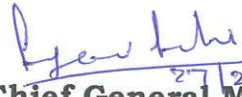
Annexure-17

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that No labour camp will be established on the forest land and the User Agency shall provide fuels preferably alternate fuels i.e LPG Gas through LPG Gas Dodown established at Donimalai Township to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas.

This undertaking is submitted for compliance of condition no: 2(xxi) of Stage-1 / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

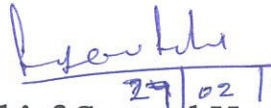
Annexure-18

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that the boundary of the diverted forest land shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(xxii) of Stage-I/ in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/02/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.

Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 / 274654

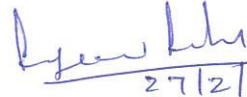
Annexure-19

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that the layout plan of infrastructure proposal will not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xxiii) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

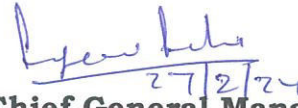
Annexure-20

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that the forest land proposed to be diverted will under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xxiv) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No: 8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

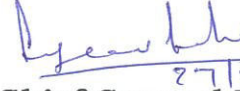
Annexure-21

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that no damage to the flora and fauna of the adjoining area will be caused. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xxv) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

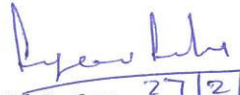
Annexure-22

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that any other condition that the concerned Regional Office of this Ministry may stipulate with the approval of competent authority in the interest of conservation, protection and development of forests & wildlife. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xxvii) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

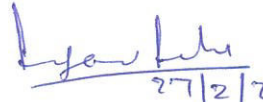
Annexure-23

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake that the User Agency will submit the annual self -compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xxviii) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date:27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

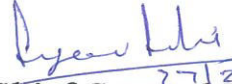
Annexure-24

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake to comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no:2(xxix) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं । हिन्दी में पत्र व्यवहार का स्वागत है ।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
SA 8000:2014

एन एम डी सी लिमिटेड N M D C Limited
(भारत सरकार का उद्यम / A Govt. of India Enterprise)
दोणिमलै लौह अयस्क खान / Donimalai Iron Ore Mine

Donimalai Township – 583 118, Dist: Ballari, Karnataka.
Phones: 08395 – 274654 / 274618, Fax : 08395 – 274687 /274654

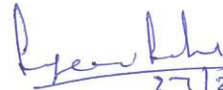
Annexure-25

UNDERTAKING

NMDC Ltd., Donimalai, Sandur Taluk, Ballari district the User agency hereby undertake to comply all the conditions as stipulated in Stage-I Forest Clearance and noted that violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action will be taken as prescribed in para 1.21 of Chapter-1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No.5-2/2017-FC dated 28.03.2019. This undertaking is submitted in connection with diversion of 96.868 ha. (Originally proposed 235.648 Ha. of forest land) for forest land outside mining lease area in favour of NMDC Limited Donimalai Township, Sandur Tq, Ballari District.

This undertaking is submitted for compliance of condition no: 2(xxx) of Stage-I / in-principle approval under FC Act, 1980 accorded vide F.No:8-30/2022-FC dated 21/11/2023.

Date: 27.02.2024


27/2/24
Chief General Manager
NMDC Ltd., Donimalai Complex

हिन्दी में पत्र व्यवहार को हम प्राथमिकता देते हैं। हिन्दी में पत्र व्यवहार का स्वागत है।
पंजीकृत कार्यालय :10-3-311/ए खनिज भवन, कैसल हिल्स मासाब टैंक, हैदराबाद 500 028
Regd.Office:10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad 500 028