

O/C

ADITYA BIRLA



Ref. I - HIL/ISBM/1067 / 2018

19.11.2018.

To,

The Addl. Principal Chief Conservator of Forest (Central),
MoEF Regional Office (Western Zone)
Kendriya Paryavaran Bhawan, Link Road-3, Ravisankar Nagar
Bhopal-462016 (M.P.)

Sub:- Status of compliance of EC condition (Half yearly status of compliance report) of Tatijharia Bauxite Mine (Lease area- 1218.762 Ha.) of Hindalco Industries Limited of Chhattisgarh state from April-2018 to September-2018

Ref No - Environment Clearance Letter No-J-11015/337/2007-IA II(M)dated August 9,2007

Dear Sir,

We do hereby submit half yearly status of compliance report of EC condition of Tatijharia Bauxite Mine, Lease area -1218.762 Ha. of Hindalco Industries Limited, P.O- Kusmi, Dist- Balrampur- Ramanujganj, Chhattisgarh state, PIN-497224 from April-2018 to September-2018. The lease details is as below:-

Lease area	Production Capacity	Lease Period
1218.762 Ha.	400000 Tonnes	25.06.1998 to 24.06.2048 (50years)

We assure that we comply all the conditions laid down in the consent letter and also abide to follow all the Rules and Regulations.

Thanking you,

Yours' faithfully

For, Hindalco Industries Limited

(R.R.P. Ambastha) ^, Agent of Mines
Agent of Mines Samri Mines Division
Hindalco Industries Ltd

Encl:-

1. Half Yearly Status of compliance of Environment condition as annexure-I.
2. Copy of Diversion and extension of Revenue Forest Land enclosed as annexure-II.
3. Environment Status Report from April-2018 to September-2018, enclosed as annexure-III.
4. Renewal copy of Consent to Operate from CECB enclosed as annexure -IV
5. Production report from April-2018 to September-2018 enclosed as annexure-V.
6. Status report of mined out, reclaimed and afforested land as annexure-VI.
7. Actual expenditure incurred in protection of environment from April-2018 to September-2018 as annexure-VII.

CC : The Regional officer, CECB, Ambikapur.

HINDALCO INDUSTRIES LIMITED
Samri Mines Division, Baba Chowk,
Al & Post - Kusmi, PIN - 497 224,
Distt - Balrampur-Ramanujganj (CG), INDIA.
Telephone +91-7778 274326-27
Fax : +91 7778 274325

REGISTERED OFFICE
Ahura Centre, 1st Floor, B-Wing
Mahakal Caves Road, Andheri (East),
Mumbai 400 093, INDIA.
Telephone + 91 22 6662 6666
Tel: +91 226691 7000 / Fax: +91 22 6691 7001

Website: www.hindalco.com
E-mail: hindalco@adityabirla.com
Corporate Identity No: L27020MH1958PLC011238



19.11.2018.

Status of Compliance from April-2018 to September-2018 of Environmental Condition laid down by MOEF

Tatijharia Bauxite Mine

The status of compliance of the conditions (as per point no.3) with reference to the environment clearance letter no.J-11015/337/2007-IA, II(M) dated 9.8.2012 of Ministry of Environment & Forests, New Delhi, to maintain the production capacity of Tatijharia Bauxite Mine as under.

A Specific condition:-

- (i) The wild life management plan has been approved.- Annexure-A.
- (ii) We accept the condition.
- (iii) The conservation plan for schedule I fauna have been prepared. The authenticated list of flora and fauna for core and buffer zone is enclosed for perusal please. (Annexure- B).
- (iv) The mining operation is restricted to well above ground water table during currency of mining operation. The ultimate depth of working will be about 15 meters below whereas the water table in the core zone is about 50-52 meters.
- (v) Top soil and solid waste is being utilized for simultaneous back filling of mined out area for reclamation purpose and practice is followed.
- (vi) OB is stacked at earmark location and slope of dump is maintained less than 28 degree. All protective measure such as retaining walls, bunds and also plantation on available land are being taken to prevent erosion of soil.
- (vii) Garland drains have been made around the active mining pits coupled with arrester to arrest silt from soil and dumps are maintained. The garland drains are regularly desilted before the monsoon.
- (viii) We undertake that no natural water course is obstructed during mining operation.
- (ix) Controlled blasting is in practiced in the mine. Dust extractors are being used during drilling operations. Cord relay & effective blast design are

Rajendra Singh

**Agent of Mines
Samri Mines Division
Hindalco Industries Ltd**

- used to control blast vibration and fly rocks. Blasting is carried out only in day hours.
- (x) The plantation in reclaimed area is being carried out as per plan and is carried out as suggested. The density is being maintained about 2500 plant per hectare with the species like Amla, Accasia, Kasia-Samla, mango, babul, pears, & guava etc. Social forestry is also being encouraged among the local villagers. Year wise plantation is enclosed as annexure-C.
- (xi) The ground water table does not intersect during our mining operation because of shallow depth of mining
- (xii) Regular water spraying with 12 KL water tanker in the mine lease hold area is being carried out regularly to control air pollution. The ambient air quality is within the stipulated norms.
- (xiii) Regular monitoring of ground water quality is being carried out. The analysis reports are being submitted to Regional Office, CECB, Ambikapur and other regulating authority.
- (xiv) Till date three rain water harvesting ponds has been made at lease area.
- (xv) We are not drawing ground water for industrial use, if required; the permission will be taken from competent authority.
- (xvi) No endanger fauna is present in mines area however all possible measures is taken to prevent ecological status of project area.
- (xvii) Regular and periodic maintenance of HEMM is being carried out for control of vehicular emission in mines area. The bauxite ore are transported in trucks with tarpaulin cover.
- (xviii) Company has provided with provided personal protective equipment to all workers and training are also being imparted to them for safety & health, sanitation. Health awareness camps including HIV are being organized for all workmen. One doctor having MBBS qualification has been appointed for facilitation of OHS. We have undergone through initial & periodical test of all workers employed in the mines by the certified team. The records related to initial and periodical medical examination of all workmen is being maintained.
- (xix) We accept the condition.

Rajeshwari
Agent of Mines
Samri Mines Division
Hindalco Industries Ltd.

(B) General Condition.

- (i) No change in mining technology and scope of working will be made without approval of MOEF New Delhi.
- (ii) Calendar plan is being followed and there is not be any change in calendar plan.
- (iii) The suggestion of local forest department is being implemented for conservation of flora and fauna in and around lease hold area.
- (iv) Ambient Air quality monitoring is being carried out as per guideline and is being followed.
- (v) Data of ambient air quality (RPM, SPM, SO₂, NO_x) are being submitted to CECB and are being submitted to other regulatory authorities as per guidelines.
- (vi) Fugitive dust emission from generating sources is being controlled. The dust extractor, wet drilling, regular water spraying with 12 KL water tanker in the mine lease hold area is being carried out regularly.
- (vii) The noise level in working is being maintained below the limit prescribed. The operators of HEMM are being provided earplug/muffs. The proper maintenance of HEMM is being carried out to control noise emission.
- (viii) No waste water is generated from the mine however as suggested measures will be taken if required.
- (ix) Company has provided to all workers with personal protective equipment and training is also being imparted to them for safety & health and is being continued as per guidelines.
- (x) Periodical and Initial medical examination of all workers are being carried out as per provision of Mines Act.
- (xi) Separate Environment cell is already in place at Samri Mines Division headed by Head (Mines) and comprises of suitable qualified persons.
- (xii) In case of final closure of mine the information will be submitted to Regional Office, Ministry of Environment & Forests, Bhopal.
- (xiii) Adequate fund provision is already earmarked for environmental protection measures and will not be diverted to other purpose. The year wise expenditure is being submitted to concern authorities as per guidelines.
- (xiv) The same will be intimated to Regional Office, Ministry of Environment & Forests, Bhopal.

Rajendra Singh
(R.S.)

**Agent of Mines
Samri Mines Division
Hindalco Industries Ltd.**

- (xv) All cooperation is being extended to regulatory authorities.
- (xvi) Although no suggestion/representation has been received by any Panchayat/Local NGO while processing the proposal. However we have forwarded the copy of clearance letter to Panchayat in our area. The copy of same has been already submitted to your good office.
- (xvii) The copy has been displayed by CECB in Balrampur Collectorate.
- (xviii) The information regarding environment clearance has been published in two local new papers namely Hari Bhumi & Ambika Vani. The copy of same has been already submitted to your good office.

Hope the above compliance will be found in order,

Yours truly,
For Hindalco Industries Limited


(R R P Ambastha) / Agent of Mines
Agent of Mines. Samri Mines Division
Hindalco Industries Ltd

Encl. : As Above

1970-71 मध्ये एक संसदीय दल संसदीय (वर्णनाप्राणी) पुढ़धार एवं जैव विविधता
मंडळामध्ये गुरुनाथ वर्णनाप्राणी अधिकारी (पाय), छत्तीसगढ

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—सायरन्सेट बलीधरे श. केश

भारत द्वारा इन एवं पर्याप्त विकल्प.

पर्याप्त रूप से भी जी जो, काम्प्लेक्स,

त्रिपुरी रोड, नई दिल्ली-111003

305

प्रस्तावितमहार के इतरामयोर विले (लेखानीन समग्रजा विला) ये विश्वास दामनी बोधवाली
मार्गीन्द्र, बुद्धान्त-विश्वासार्थ वाईन्च परं लालौडीया दीक्षार्थ चाईन्स एवं बुद्धान्त-विश्वासी
क्षेत्रावस्थी वलीन्दैज्ञा।

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प्रतीकारण न-संख्या-विवरण, न्यायिक अधिकारी को एज क्रमांक 1-1015/253/2007-प्राप्ति दिनांक

27 जून 2007

एम्प्रियोज़िन व दल संग्रहालय, निर्माण उत्तराखण्ड का पञ्च संसार्क J-12015/527/2007-KA-(M)। दिनांक

77-05301 26072

महाराष्ट्र विधान सभा विभाग, मार्ग-पत्रकार नं. नव-०३०४०५-१२०५/३३७/२०११/८५, पुणे

प्राचीन २००७

दिपसमिति चरित्येकना हेतु अदान के स्पैट के अनुबंध दिल्लीवा 1996-एवं चूना 1998 ने इनकारण

संवेदन | लापत्ति कोर्ट में भारत विदेश सचिवालय एवं उन अधिकारियों को बड़देहा पासक 111015/353/2007-

IAJUM दिनांक 27 अक्टूबर, 2002 द्वारा 2146745 रु. म. बजायम सेवा में भारत वरदान समाजसेवा एवं

पंथपद्धति दार्शनिक फॉर्मफ़ १-११०३५/३५४/२००७-एस/म दिनांक २९ जुलाई २००७ फॉर्म ३/३५४

ट्रांसपोर्टियन ने नवरेत्रि पर्वकारी पर्यावरणीय व जल भवत्तात्मक कृषि विकास अधिकारी ने 11015/33/2014-2015

हिन्दूका का योगदान 2007 द्वारा 1216.762 रु. में लागतपूर्ति खर्च का व्यवहार किया गया।

एक राय लिखा गया है:

Karpala
1990

~~Agent claims
Bonne Mine Division
Properties Industries~~

Ramamurthy
Agent of Mines
Samru Mines Division
Hindalco Industries Ltd.

संवाद के अन्त में विनोद शुक्रानी ने शोधका अनुदान के लिए 10 हजार रुपयों का गठनालै 10 हजार
रुपयों का अनुदान के लिए 10 हजार रुपयों से बहुत ज्यादा इन लाइन विवाह के लिए आवश्यक रूप
का अनुदान है। उन्होंने 10000 रुपये जाने परामर्शित है। मात्रा नियमानुसार परामर्श इन लाइन
विवाह के लिए उपलब्ध नहीं है। प्रधान वास्तव यह रवैशुलि कहता है। आरेषा अवस्था
111015/354/2007-10-17/00 दिनांक 27 अगस्त 2007 111015/354/2007-10-17/00 1/1 दिनांक 27 अगस्त
2007 एवं 111015/357/2007-10-17/00 दिनांक 9 अगस्त 2007 द्वारा सुनू घरों के लाये ही गई है।
विवाह में एक यहूदी व्यक्ति वाले विवाह के लिए शोधका अनुदान 5 रुपये प्राप्ती (अपेक्षाकृत) आवश्यक रूप
द्वारा पूरा 1 के खाये जाने वाले वन्य प्राणियों के रोपण हेतु प्रधान भी अनुदान लेखाएँ रखी चाहक रास्ते के नीचे
वन्य प्राणी लाइनलेटा वाले अनिवार्य चिह्नित प्रस्तुत किया जायें। विवाह के पास्त ऐसे संलग्न द्वारा एक वन्य प्राप्ति
द्वारा पूरा द्वारा जानने वाली है।

प्रत्येक वर्षीय वित्तीय संस्थान के लिए एक अलग राशि दर्शायी जाती है। इसका उद्देश्य यह है कि वित्तीय संस्थान के लिए एक अलग राशि दर्शायी जाए। इसका उद्देश्य यह है कि वित्तीय संस्थान के लिए एक अलग राशि दर्शायी जाए। इसका उद्देश्य यह है कि वित्तीय संस्थान के लिए एक अलग राशि दर्शायी जाए।

— अस्याद्योऽस्ता नु तारे ।

Chhatrapati
(राजपत्रिका) 01/7/13

प्रधान मुख्य वन संरक्षक (वन्यजागी)

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ग्रन्थालय/वृक्षावलीक्रम-17/13/ 2960

संस्कृत विद्यालय ०७/०८/२०१३

- प्रमुख नियन्त्रक सरकारी विभागों द्वारा जिलाय, नगरानी वैज्ञानिक नेटवर्क, जिला शासन की ओर भव्य संस्थानों की प्रति परिहित सूचनाएँ प्रेषित।
 - जी सभा के नायकों जी, सभा ने विज्ञानों ईश्वरीय विविधत, समर्पण और प्राइवेट नाइट्स, वीरेन्ट-कृतियों, विकास-विकास की ओर भव्य संज्ञानों की प्रति परिहित सूचनाएँ प्रेषित।

Gandharva ॥ ४ ॥
प्रदीप्ति युज्य च इत्येवं [विषयान्वित] ।
कृतीसंग्रह रायपुर ।

निम्नलिखित रूप से वर्णित कार्यक्रमों का विवरण एवं उनकी लागत एवं प्रयोगशाला की जांच के लिए अधिकारी नियमानुसार
प्रयोगशाला का विवरण एवं उनकी लागत एवं प्रयोगशाला की जांच के लिए अधिकारी नियमानुसार

वर्ष—१९८५-८६-८७-८८

कर्तव्य वर्ष (पाँच वर्षों की लागत)

दर्शक

क्रमांक	कार्यक्रम	कर्तव्य वर्ष (पाँच वर्षों की लागत)					दर्शक
		१ ^व वर्ष	२ ^व वर्ष	३ ^व वर्ष	४ ^व वर्ष	Total	
१	Conservation including soil and moisture Conservation work as per norms of forest department surrounding the lease hold.	5.00	5.00	5.00	5.00	25.00	
२	Agroforestry operation on degradant forest land and cut back in rooted waste	2.00	2.00	2.00	2.00	10.00	
३	Habitat Management Eradication of unwanted species in buffer Zone area, Fire Protection work including wages for fire watchmen, Creation of Fire line etc. surrounding lease hold and in buffer area.	2.50	2.50	2.50	2.50	10.00	
४	Monitoring—One Staff of forest department to monitor movement of wild life encroachment, illicit cutting, poaching, fire etc. including stay of 1 staff	3.00	3.00	3.00	3.00	12.00	
५	Construction of water holes, their maintenance and patrolling (One per annum)	10.00	10.00	10.00	10.00	40.00	
६	Eco-development activities like pottery, pisciculture, bee keeping etc.	5.00	5.00	5.00	5.00	20.00	
७	Vocational training to weaker section females, old persons and minors of the surrounding villages in three centre in the buffer Zone of the mining lease @ 5000/- per centre.	3.00	3.00	3.00	3.00	12.00	
८	Veterinary camp for immunization of Cattle with the help of block veterinary staff.	2.00	2.00	2.00	2.00	8.00	
९	Awareness Programme including Signages distribution of Pamphlets related to wild life conservation etc.	2.50	2.50	2.50	2.50	10.00	
१०	Provision for conservation of biodiversity among flora and fauna of the area & Preparation of Biodiversity register.	20.00	0.00	0.00	0.00	20.00	The amount is to be deposited in the account of Biodiversity Board as this work is to be done by Bio-Diversity Management Committee (BDMC).
	(Total)	55.00	35.00	35.00	35.00	160.00	

प्रति वर्ष का बिल का अंक 10000/- 10000/- नए दर्तनाम द्वारा यह है। परियोजना में दर्तनाम के एक वर्षाना
07% का दर्तना है। 10000/- का दर्तना है। इसका उल्लंघन किसी वर्षाना में दर्तनाम की जगह आवधि
17.00% का दर्तना है। इसका उल्लंघन किसी वर्षाना में दर्तनाम की जगह आवधि
14.00% का दर्तना है। इसका उल्लंघन किसी वर्षाना में दर्तनाम की जगह आवधि

14.00% का दर्तना है। इसका उल्लंघन किसी वर्षाना में दर्तनाम की जगह आवधि
12.00% का दर्तना है। इसका उल्लंघन किसी वर्षाना में दर्तनाम की जगह आवधि
10.00% का दर्तना है। इसका उल्लंघन किसी वर्षाना में दर्तनाम की जगह आवधि

दर्तनाम—उपरोक्तानुसार।

अमृत
(रामप्रसाद) ०१/४/१३

प्रधान मुख्य वन संशोध (वन्यप्राणी)
एटीसीट, रामपुर

सम्पर्क दिनांक: ०७/१०/२०१३

पुस्तक/बिल/पुस्तक १२/१३/२९६०

परिवर्ती:

- प्रमुख वन्यवाहक, छत्तीसगढ़ शासन, वन विभाग, भठानी वन्यालय भठन, नाम चायपुर की ओर नव योजना
की प्रावेक कानून नूच मार्फत प्रवित।
- श्री एन व नायक, द्वी एन नाड़न्ह हिन्दूलको इंडस्ट्रीज लिमिटेड, सातरी बैंगुलाइट भाइन्स,
कुल्लू, तिटा-मारगुआ, छत्तीसगढ़ की ओर नव योजना की विविधताएँ सूचीभूत प्रवित।

अमृत
प्रधान मुख्य वन संशोध (वन्यप्राणी) ०१/४/१३
एटीसीट, रामपुर

Year	Kudag Bauxite Mines			Samri Bauxite Mines			Tatijharia Bauxite Mines			Total
	No. of Sapling	Area in hect.	No. of Sapling	Area in hect.	No. of Sapling	Area in hect.	No. of Sapling	Area in hect.	No. of Sapling	
1998-99	900	0.1	0	0	0	0	0	0	900	0.1
1999-00	7000	2.58	0	0	0	0	0	0	7000	2.58
2000-01	7500	3.21	0	0	0	0	0	0	7500	3.21
2001-02	10000	5.01	0	0	0	0	0	0	10000	5.01
2002-03	4000	1.56	3800	2.44	0	0	0	0	7800	4.
2003-04	4200	2.57	5000	2.81	0	0	0	0	9700	5.38
2004-05	6750	2.9	8222	2.8	2000	1	16972	6.7		
2005-06	800	0.5	11100	3.0	8700	3.4	20600	7.7		
2006-07	4940	2	16510	6.884	8190	3.3	29840	12.184		
2007-08	2950	1.3	18890	7.75	6390	2.5	28220	11.55		
2008-09	32200	12.72	5000	2.47	3000	1.5	40200	16.69		
2009-10	15700	6.20	15100	6.00	7050	3.20	38650	16.40		
2010-11	1500	0.600	18325	7.200	8750	3.400	28575	11.200		
2011-12	3015	1.200	11175	4.600	3370	1.360	17950	7.160		
2012-13	1200	0.500	12400	5.000	4600	1.900	18200	7.400		
2013-14	950	0.440	8700	3.500	4875	2.000	14525	5.900		
2014-15	5575	2.230	12050	5.150	7750	3.100	28175	10.480		
2015-16	4000	1.600	10139	4.050	7500	3.000	21639	8.650		
2016-17	4390	2.800	9110	3.700	5950	2.400	19450	6.900		
2017-18	2960	1.220	11661	4.970	8868	3.540	23509	9.730		
Total	120530	51.2	178392	71.124	87793	35.600	387215	168.924		

Annexure B
(19)

417
Telegram: PARYAVARAN,
NEW DELHI

पर्यावरण
Telephone:
हेल्पर (फोनिंग):
Telex: (Bi-Lingual) W-56185 DOE IN
FAX: 4360578

TATISHWARA

No. 5-2/95-FC

मार्च १९९६
पर्यावरण मंत्र राजसभा
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
भूत्तम नगर, दिल्ली २०८०२४
PARYAVARAN BHAWAN, C.G.O. COMPLEX
क्रीड़ा टीज, ५६ फैसले - ११०००३
LODHI ROAD, NEW DELHI - 110003
Dated: 13th March, 1996.

To

The Secretary (Forests),
Government of Madhya Pradesh
Bhopal.

S. Gupta
Suraj Gupta
R.O.P.

RQPN/G/P/1996/106/4

Sub: Diversion of 514.019ha. of revenue forest land in
favour of M/s HINDALCO Industries Ltd. for Bauxite
mining in District Sarguja.

Sir,

I am directed to refer to your letter no. F.5/19/95/c/3
dated 9.3.95 on the above mentioned subject seeking prior
approval of the Central Government in accordance with Section-2
of the Forest (Conservation) Act, 1980 and to say that the
proposal has been examined by the Advisory Committee constituted
by the Central Government under Section-3 of the aforesaid
Act.

2. After careful consideration of the proposal of the State
Government and on the basis of the recommendation of the above
mentioned Advisory Committee, the Central Government hereby
conveys its approval under Section-2 of the Forest (Conservation)
Act, 1980 for diversion of 514.019ha. of revenue forest land
in favour of M/s HINDALCO Industries Ltd. for Bauxite mining
in District Sarguja subject to the following conditions:

- i) Legal status of forest land shall remain unchanged.
- ii) Compensatory afforestation shall be carried out over
double the degraded forest land at the project cost.

Ramachandran

Agent of Mines
Samri Mines Division
Hindalco Industries Ltd.

APPROVED

- 1) Reclamation of the mining area will be done in consultation with the State Forest Deptt. at the project cost as per plan prepared in this regard.
- 2) Demarcation of the mining area will be done on the ground at the project cost.
- 3) Forest land will not be used for construction of buildings etc. and any purpose other than those mentioned in the proposal.
- 4) Lease period shall remain coterminous with lease under MMID Act subject to maximum of 20 years.
- 5) Free fuelwood will be provided to the labourers and staff working at the project site at the project cost.
- 6) Any other condition the State Govt. may impose.
- (i) This clearance is subject to the environmental clearance of the project under the Environment Protection Act.

Yours faithfully,

(R.K. CHAUDHRY)
Asstt. Inspector General of Forests.

Copy to:

1. The Principal Chief Conservator of Forests
Government of Madhya Pradesh, Bhopal.
2. Nodal Officer, Office of the Principal Chief Conservator
of Forests, Govt. of Madhya Pradesh, Bhopal.
3. The CCF (Central), Regional Office, Bhopal.
4. RO(HQ), New Delhi.
5. Guard file.

(R.K. CHAUDHRY)
AIGF.

TATISHARIA BAUXITE MINE

Annexure B

Annexure-6
Details of Flora and Fauna

Ramamurthy
Agent of Mines
Samri Mines Division
Hindalco Industries Ltd

ANNEXURE-6
DETAILS OF FLORA & FAUNA

TABLE-1
DETAILS OF DOMINANT PLANT SPECIES IN MINE LEASE AREA (CORE ZONE)

Name of the plant Species	Local Name	Family
<i>Butea monosperma</i>	Pelas	Fabaceae
<i>Acacia Arabica</i>	Babul	Mimosaceae
<i>Leucaena leucocephala</i>	Sebubal	Mimosaceae
<i>Mangifera indica</i>	Aam	Anacardiaceae
<i>Citrus lemon</i>	Nimbu	Rutaceae
<i>Emblica officinalis</i>	Amla	Euphorbiaceae
<i>Ficus hispida</i>	Jungli anjir	Moraceae
<i>Spondias cyathaea</i>	Kathlamun	Myrtaceae
<i>Terminalia catappa</i>	Bedam	Combretaceae
<i>Aapluda multica</i>	Grass	Poaceae
<i>Chloris dolichostachya</i>	Grass	Poaceae
<i>Dichanthium annulatum</i>	Grass	Poaceae
<i>Liquetia cylindrica</i>	Grass	Poaceae
<i>Themeda quadrivalvis</i>	Grass	Poaceae
<i>Arundo donax canescens</i>	Grass	Poaceae
<i>Eragrostis latifolia</i>	Grass	Poaceae
<i>Eragrostis tenella</i>	Grass	Poaceae
<i>Scleria glauca</i>	Grass	Poaceae
<i>Hyparrhenia maxima</i>	Grass	Cyperaceae
<i>Parthenium hysterophorus</i>	Congress grass	Gramineae
<i>Cyperus tetragonus</i>	-	Compositae
<i>Delonix regia</i>	Kachhar	Caesalpinoceae
<i>Dalbergia sissoo</i>	Sisoo	Caesalpinoceae

TABLE-2
FLORA/VEGETATION IN STUDY AREA (BUFFER ZONE)

Sr. No.	Technical Name	Family	Life Form
I. Agricultural Crops			
1	<i>Hordeum vulgare</i>	Poaceae	Hemicryptophyte
2	<i>Sorghum vulgare</i>	Poaceae	Hemicryptophyte
3	<i>Triticum vulgare</i>	Poaceae	Hemicryptophyte
4	<i>Zea mays</i>	Poaceae	Hemicryptophyte
5	<i>Oryza sativa</i>	Poaceae	Hemicryptophyte
6	<i>Pennisetum typhoideum</i>	Poaceae	Hemicryptophyte
II. Commercial Crops (including Vegetables)			
7	<i>Abelmoschus indicus</i>	Malvaceae	Therophyte
8	<i>Allium cepa</i>	Liliaceae	Geophyte
9	<i>Allium sativum</i>	Liliaceae	Geophyte
10	<i>Annona squamosa</i>	Annonaceae	Phanerophyte
11	<i>Psachia hypogaea</i>	Fabaceae	Geophyte
12	<i>anthrathes pusillus</i>	Compositae	Geophyte
13	<i>Cicer arietinum</i>	Fabaceae	Therophyte
14	<i>Citrus lemon</i>	Rutaceae	Hemicryptophyte
15	<i>Colocasia esculenta</i>	Aroidaceae	Therophyte
16	<i>Coreantherum sativum</i>	Umbelliferae	Geophyte
17	<i>Daucus carota</i>	Umbelliferae	Hemicryptophyte
18	<i>Lycopersicum esculentum</i>	Solanaceae	Geophyte
19	<i>Mangifera indica</i>	Anacardiaceae	Therophyte
20	<i>Memordia charantia</i>	Cucurbitaceae	Phanerophyte
21	<i>Pisum sativum</i>	Fabaceae	Therophyte
22	<i>Psidium guava</i>	Myrtaceae	Phanerophyte
23	<i>Solanum tuberosum</i>	Solanaceae	Geophyte
24	<i>Litchi chinensis</i>	Sapindaceae	Phanerophyte
III. Plantations			
25	<i>Bauhinia coriacea</i>	Caesalpinoceae	Phanerophyte
26	<i>Acacia nilotica</i>	Mimosaceae	Phanerophyte
27	<i>Albizia lebbeck</i>	Mimosaceae	Phanerophyte
28	<i>Albizia odoratissima</i>	Mimosaceae	Phanerophyte
29	<i>Albizia procera</i>	Mimosaceae	Phanerophyte

Sr. No.	Technical Name	Family	Life Form
30	<i>Azadirachta Indica</i>	Meliaceae	Phanerophyte
31	<i>Bauhinia variegata</i>	Caesalpiniaceae	Phanerophyte
32	<i>Bauhinia purpurea</i>	Caesalpiniaceae	Phanerophyte
33	<i>Rambusa arundinacea</i>	Poaceae	Phanerophyte
34	<i>Butea monosperma</i>	Caesalpiniaceae	Phanerophyte
35	<i>Butea frondosa</i>	Caesalpiniaceae	Phanerophyte
36	<i>Eucalyptus sp</i>	Myrtaceae	Phanerophyte
37	<i>Delonix regia</i>	Caesalpiniaceae	Phanerophyte
38	<i>Leuconia leucophloea</i>	Caesalpiniaceae	Phanerophyte
IV. Natural Vegetation/Forest Type			
39	<i>Alnus precatorius</i>	Fabaceae	Therophyte
40	<i>Abutilon indicum</i>	Malvaceae	Phanerophyte
41	<i>Acacia Arabica</i>	Mimosaceae	Phanerophyte
42	<i>Acacia auriculiformis</i>	Mimosaceae	Phanerophyte
43	<i>Acacia catechu</i>	Mimosaceae	Phanerophyte
44	<i>Acacia intansia</i>	Mimosaceae	Phanerophyte
45	<i>Acacia farnacea</i>	Mimosaceae	Phanerophyte
46	<i>Acacia leucophloea</i>	Mimosaceae	Phanerophyte
47	<i>Acalypha lanceolata</i>	Mimosaceae	Phanerophyte
48	<i>Acanthospermum hispidum</i>	Euphorbiaceae	Therophyte
49	<i>Achyranthes aspera</i>	Compositae	Therophyte
50	<i>Adathoda versicolor</i>	Amaranthaceae	Therophyte
51	<i>Adonis cordifolia</i>	Acanthaceae	Therophyte
52	<i>Aegle marmelos</i>	Rubiaceae	Phanerophyte
53	<i>Aerva lanata</i>	Rutaceae	Phanerophyte
54	<i>Ageratum conyzoides</i>	Compositae	Phanerophyte
55	<i>Alantnes excelsa</i>	Compositae	Therophyte
56	<i>Alamium salivae</i>	Simarubaceae	Phanerophyte
57	<i>Albizia odoratissima</i>	Alangiaceae	Phanerophyte
58	<i>Albizia procera</i>	Caesalpiniaceae	Phanerophyte
59	<i>Alstonia scholaris</i>	Apocynaceae	Phanerophyte
60	<i>Alternanthera sessilis</i>	Amaranthaceae	Phanerophyte
61	<i>Alviscarpus hamatus</i>	Fitaceae	Therophyte
62	<i>Anogeissus latifolia</i>	Lombretaceae	Phanerophyte
63	<i>Anogeissus senegalensis</i>	Combretaceae	Phanerophyte
64	<i>Argemone mexicana</i>	Papaveraceae	Therophyte
65	<i>Azadirachta indica</i>	Meliaceae	Phanerophyte
66	<i>Baileya primuloides</i>	Acanthaceae	Therophyte
67	<i>Bidens biternata</i>	Compositae	Therophyte
68	<i>Blepharis asperina</i>	Acanthaceae	Therophyte
69	<i>Blepharis madagascariensis</i>	Acanthaceae	Phanerophyte
70	<i>Blumea lacera</i>	Compositae	Therophyte
71	<i>Boerhaavia chinensis</i>	Nyctaginaceae	Therophyte
72	<i>Boerhaavia diffusa</i>	Nyctaginaceae	Therophyte
73	<i>Bombax ceiba</i>	Bombacaceae	Therophyte
74	<i>Borreria hispida</i>	Rubiaceae	Phanerophyte
75	<i>Borreria stricta</i>	Rubiaceae	Therophyte
76	<i>Boswellia serrata</i>	Rubiaceae	Therophyte
77	<i>Brassica campestris</i>	Brassicaceae	Phanerophyte
78	<i>Bridelia retusa</i>	Cupriflorae	Therophyte
79	<i>Bridelia superba</i>	Euphorbiaceae	Phanerophyte
80	<i>Caesalpinia pulcherrima</i>	Caesalpiniaceae	Phanerophyte
81	<i>Calotropis procera</i>	Asclepiadaceae	Phanerophyte
82	<i>Canthium didymum</i>	Rubiaceae	Phanerophyte
83	<i>Capparis aphylla</i>	Capparidaceae	Phanerophyte
84	<i>Capparis decidua</i>	Capparidaceae	Therophyte
85	<i>Carissa carandas</i>	Axonychaceae	Phanerophyte
86	<i>Carissa spinarum</i>	Axonychaceae	Phanerophyte
87	<i>Cesearia graveolens</i>	Sapindaceae	Phanerophyte
88	<i>Cissia absus</i>	Cannabaceae	Phanerophyte
89	<i>Cissia absus</i>	Cannabaceae	Phanerophyte
90	<i>Cissia auriculata</i>	Cannabaceae	Therophyte
91	<i>Cissia occidentalis</i>	Cannabaceae	Therophyte
92	<i>Cissia tora</i>	Cannabaceae	Therophyte
93	<i>Cestrum diurnum</i>	Rubiaceae	Phanerophyte
94	<i>Cestrum nocturnum</i>	Rubiaceae	Therophyte

Sr. No.	Technical Name	Family	Life Form
95	<i>Chloris varigata</i>	Poaceae	Therophyte
96	<i>Cissus quadrangularis</i>	Vitaceae	Therophyte
97	<i>Citrus limon</i>	Rutaceae	Phanerophyte
98	<i>Cleome gynandra</i>	Capparidaceae	Therophyte
99	<i>Combretum ovalifolium</i>	Rubiaceae	Phanerophyte
100	<i>Cordia myxa</i>	Rubiaceae	Phanerophyte
101	<i>Crotalaria medicaginea</i>	Fabaceae	Therophyte
102	<i>Croton bonplandinum</i>	Amaryllidaceae	Therophyte
103	<i>Cuscuta reflexa</i>	Cuscutaceae	Epiphyte
104	<i>Datura fastuosa</i>	Solanaceae	Therophyte
105	<i>Datura metel</i>	Solanaceae	Therophyte
106	<i>Desmodium triflorum</i>	Asclepiadaceae	Therophyte
107	<i>Diospyros melanoxylon</i>	Lythraceae	Phanerophyte
108	<i>Diospyros Montana</i>	Lythraceae	Phanerophyte
109	<i>Echinops echinatus</i>	Compositae	Therophyte
110	<i>Eclipta prostrata</i>	Compositae	Hemicryptophyte
111	<i>Emblica officinalis</i>	Euphorbiaceae	Phanerophyte
112	<i>Emilia laijerium</i>	Compositae	Hemicryptophyte
113	<i>Erythrina indica</i>	Leguminosae	Phanerophyte
114	<i>Euphorbia geniculata</i>	Euphorbiaceae	Therophyte
115	<i>Euphorbia hirta</i>	Euphorbiaceae	Therophyte
116	<i>Euphorbia hyperocofolia</i>	Euphorbiaceae	Therophyte
117	<i>Euphorbia nigrin</i>	Euphorbiaceae	Therophyte
118	<i>Euphorbia nivula</i>	Euphorbiaceae	Therophyte
119	<i>Euphorbia pulcherrima</i>	Euphorbiaceae	Hemicryptophyte
120	<i>Euphorbia tricauli</i>	Euphorbiaceae	Hemicryptophyte
121	<i>Evolvulus alsinoides</i>	Convolvulaceae	Therophyte
122	<i>Evolvulus numularius</i>	Convolvulaceae	Therophyte
123	<i>Feronia elephantum</i>	Rutaceae	Phanerophyte
124	<i>Ficus benghalensis</i>	Moraceae	Phanerophyte
125	<i>Ficus carica</i>	Moraceae	Phanerophyte
126	<i>Ficus glomerata</i>	Moraceae	Phanerophyte
127	<i>Ficus hispida</i>	Moraceae	Phanerophyte
128	<i>Ficus racemosa</i>	Moraceae	Phanerophyte
129	<i>Ficus religiosa</i>	Moraceae	Phanerophyte
130	<i>Ficus gibbosa</i>	Moraceae	Phanerophyte
131	<i>Gardenia latifolia</i>	Rubiaceae	Phanerophyte
132	<i>Gardenia lucida</i>	Rubiaceae	Phanerophyte
133	<i>Garuga pinnata</i>	Burseraceae	Phanerophyte
134	<i>Glossocardia boswellia</i>	Compositae	Hemicryptophyte
135	<i>Gmelina arborea</i>	Rubiaceae	Phanerophyte
136	<i>Gomphrena globosa</i>	Amaranthaceae	Therophyte
137	<i>Gossypium herbaceum</i>	Malvaceae	Therophyte
138	<i>Grewia abutiloides</i>	Tiliaceae	Phanerophyte
139	<i>Grewia salicifolia</i>	Tiliaceae	Phanerophyte
140	<i>Grewia subinaqualis</i>	Tiliaceae	Phanerophyte
141	<i>Gymnandropsis gynandra</i>	Capparidaceae	Hemicryptophyte
142	<i>Heliotropis isora</i>	Rubiaceae	Phanerophyte
143	<i>Heliotropium indicum</i>	Rubiaceae	Hemicryptophyte
144	<i>Heliotropium ovalifolium</i>	Rubiaceae	Hemicryptophyte
145	<i>Hemidesmus indicus</i>	Asclepiadaceae	Phanerophyte
146	<i>Hibiscus caesius</i>	Malvaceae	Hemicryptophyte
147	<i>Holarhena antidycenterica</i>	Asclepiadaceae	Phanerophyte
148	<i>Holostemma annularia</i>	Asclepiadaceae	Phanerophyte
149	<i>Hygrophila aunculata</i>	Acanthaceae	Hemicryptophyte
150	<i>Hyptis suavolens</i>	Labiatae	Therophyte
151	<i>Ichnocarpus frutens</i>	Poaceae	Hemicryptophyte
152	<i>Impatiens balsamina</i>	Balsaminaceae	Therophyte
153	<i>Indigofera hirsute</i>	Caesalpiniaceae	Therophyte
154	<i>Indigofera limnacea</i>	Caesalpiniaceae	Therophyte
155	<i>Indigofera tinctoria</i>	Caesalpiniaceae	Therophyte
156	<i>Ipomoea aquatica</i>	Convolvulaceae	Hydrophyte
157	<i>Ipomoea coccinea</i>	Convolvulaceae	Therophyte
158	<i>Ipomoea tuba</i>	Convolvulaceae	Hemicryptophyte
159	<i>Ixora arborea</i>	Rubiaceae	Phanerophyte
160	<i>Ixora parviflora</i>	Rubiaceae	Phanerophyte

Sr. No.	Technical Name	Family	Life Form
161	<i>Ixora singapurens</i>	Rubiaceae	Phanerophyte
162	<i>Jasminum arborescens</i>	Oleaceae	Phanerophyte
163	<i>Jatropha gossypiifolia</i>	Euphorbiaceae	Therophyte
164	<i>Jussiaea suffruticosa</i>	Oenotheraceae	Hydrophyte
165	<i>Justicia diffusa</i>	Acanthaceae	Therophyte
166	<i>Justicia diffusa</i>	Acanthaceae	Therophyte
167	<i>Lactuca punctata</i>	Compositae	Therophyte
168	<i>Lannea coramandalica</i>	Anacardiaceae	Phanerophyte
169	<i>Lannea grandis</i>	Anacardiaceae	Phanerophyte
170	<i>Lannea procumbens</i>	Anacardiaceae	Therophyte
171	<i>Lantana camara</i>	Vermilionaceae	Phanerophyte
172	<i>Lawsonia incans</i>	Lythraceae	Phanerophyte
173	<i>Lepidagathis cristata</i>	Acanthaceae	Therophyte
174	<i>Leptoderris reticulata</i>	Asclepiadaceae	Phanerophyte
175	<i>Leucas aspera</i>	Labiatae	Therophyte
176	<i>Leucas longifolia</i>	Labiatae	Therophyte
177	<i>Leucas longifolia</i>	Labiatae	Therophyte
178	<i>Leucena leucocephala</i>	Caesalpiniaceae	Phanerophyte
179	<i>Lindernbergia indica</i>	Schrophulariaceae	Therophyte
180	<i>Lindernbergia ciliata</i>	Schrophulariaceae	Therophyte
181	<i>Lophophera trichinatus</i>	Schrophulariaceae	Geophyte
182	<i>Luffa acutangula</i>	Cucurbitaceae	Therophyte
183	<i>Lycopersicum esculentum</i>	Solanaceae	Therophyte
184	<i>Madrhuca latifolia</i>	Sapotaceae	Phanerophyte
185	<i>Mallotus philippinus</i>	Euphorbiaceae	Phanerophyte
186	<i>Malvastrum coramandalicum</i>	Malvaceae	Therophyte
187	<i>Mangifera indica</i>	Anacardiaceae	Phanerophyte
188	<i>Marsella quadrifolia</i>	Marselliaceae	Phanerophyte
189	<i>Melia azedarachta</i>	Meliaceae	Phanerophyte
190	<i>Memordica dioica</i>	Cucurbitaceae	Therophyte
191	<i>Merremia emarginata</i>	Convolvulaceae	Therophyte
192	<i>Michaelia champaca</i>	Annonaceae	Phanerophyte
193	<i>Millettia harense</i>	Bignoniaceae	Phanerophyte
194	<i>Mimosa hamata</i>	Mimosaceae	Therophyte
195	<i>Mitragyna parviflora</i>	Rubiaceae	Phanerophyte
196	<i>Mollugo cerviana</i>	Aizoaceae	Therophyte
197	<i>Mollugo hirta</i>	Aizoaceae	Therophyte
198	<i>Moringa oleifera</i>	Moringaceae	Phanerophyte
199	<i>Morus alba</i>	Moraceae	Phanerophyte
200	<i>Mucuna pruriens</i>	Papilionaceae	Hemicryptophyte
201	<i>Murraya exotica</i>	Rutaceae	Phanerophyte
202	<i>Murraya koenigii</i>	Rutaceae	Phanerophyte
203	<i>Musa paradisiaca</i>	Musaceae	Therophyte
204	<i>Nymphaea sp</i>	Magnoliaceae	Hydrophyte
205	<i>Ocimum americanum</i>	Labiatae	Therophyte
206	<i>Ocimum basilicum</i>	Labiatae	Therophyte
207	<i>Ocimum canum</i>	Labiatae	Therophyte
208	<i>Ocimum sanctum</i>	Labiatae	Therophyte
209	<i>Oldenlandia umbellata</i>	Convolvulaceae	Therophyte
210	<i>Oldenlandia cordata</i>	Rubiaceae	Therophyte
211	<i>Ocotea obovata</i>	Piperaceae	Phanerophyte
212	<i>Opuntia dillenii</i>	Opuntiaceae	Therophyte
213	<i>Opuntia elatior</i>	Cactaceae	Therophyte
214	<i>Oxalis corniculata</i>	Oxalidaceae	Therophyte
215	<i>Panicum miliaceum</i>	Poaceae	Hemicryptophyte
216	<i>Panicum notatum</i>	Poaceae	Hemicryptophyte
217	<i>Papaver somniferum</i>	Papaveraceae	Hemicryptophyte
218	<i>Parkinsonia aculeata</i>	Mimosaceae	Phanerophyte
219	<i>Parthenium hysterophorus</i>	Compositae	Therophyte
220	<i>Paspalum stramineum</i>	Poaceae	Hemicryptophyte
221	<i>Paspalum foetidum</i>	Poaceae	Phanerophyte
222	<i>Pavonia zeylanica</i>	Melvaceae	Phanerophyte
223	<i>Peltogyne ferruginea</i>	Caesalpiniaceae	Phanerophyte
224	<i>Phoenix aculeata</i>	Palmae	Phanerophyte
225	<i>Phyllanthus asperolatus</i>	Euphorbiaceae	Phanerophyte
226	<i>Phyllanthus emblica</i>	Euphorbiaceae	Phanerophyte

Sr. No.	Technical Name	Family	Life Form
227	<i>Phyllanthus niruri</i>	Euphorbiaceae	Therophyte
228	<i>Phyllanthus reticulates</i>	Euphorbiaceae	Therophyte
229	<i>Physalis minima</i>	Solanaceae	Therophyte
230	<i>Pithecellobium dulce</i>	Mimosaceae	Phanerophyte
231	<i>Polyalthia longifolia</i>	Annonaceae	Phanerophyte
232	<i>Polygonatum erectum</i>	Polygonaceae	Therophyte
233	<i>Pongamia pinnata</i>	Fabaceae	Phanerophyte
234	<i>Portulaca oleracea</i>	Portulacaceae	Therophyte
235	<i>Psidium guava</i>	Myrtaceae	Phanerophyte
236	<i>Punica granatum</i>	Lythraceae	Therophyte
237	<i>Randia dumatorum</i>	Rubiaceae	Phanerophyte
238	<i>Rosa indica</i>	Rosaceae	Therophyte
239	<i>Rosa machala</i>	Rosaceae	Therophyte
240	<i>Saccharum munja</i>	Poaceae	Hemicryptophyte
241	<i>Saccharum officinarum</i>	Poaceae	Therophyte
242	<i>Salmalia malabarica</i>	Salmaliaceae	Phanerophyte
243	<i>Sapindus emarginatus</i>	Sapindaceae	Phanerophyte
244	<i>Schleichera trijuga</i>	Combretaceae	Phanerophyte
245	<i>Scherebera swettenoides</i>	Sapindaceae	Phanerophyte
246	<i>Schleichera oleosa</i>	Sapindaceae	Phanerophyte
247	<i>Sesamum indicum</i>	Pedaliaceae	Phanerophyte
248	<i>Shorea robusta</i>	Dipterocarpaceae	Hemicryptophyte
249	<i>Sida orientalis</i>	Malvaceae	Phanerophyte
250	<i>Sida glomeruliflora</i>	Malvaceae	Hemicryptophyte
251	<i>Solanum nigrum</i>	Solanaceae	Therophyte
252	<i>Solanum xanthocarpum</i>	Solanaceae	Therophyte
253	<i>Sterculia villosa</i>	Tiliaceae	Therophyte
254	<i>Stereospermum chelonoides</i>	Bignoniaceae	Phanerophyte
255	<i>Syzygium cumini</i>	Myrtaceae	Phanerophyte
256	<i>Tamarindus indica</i>	Caesalpiniaceae	Phanerophyte
257	<i>Tecoma undulata</i>	Bignoniaceae	Therophyte
258	<i>Tectona grandis</i>	Verbenaceae	Phanerophyte
259	<i>Tephrosia purpurea</i>	Fabaceae	Therophyte
260	<i>Terminalia bellirica</i>	Combretaceae	Phanerophyte
261	<i>Terminalia chebula</i>	Combretaceae	Phanerophyte
262	<i>Terminalia tomentosa</i>	Combretaceae	Phanerophyte
263	<i>Timospora cordifolia</i>	Rhamnaceae	Therophyte
264	<i>Tragus biflorus</i>	Poaceae	Hemicryptophyte
265	<i>Tribulus terrestris</i>	Zygophyllaceae	Therophyte
266	<i>Tridax procumbens</i>	Compositae	Therophyte
267	<i>Triangularia pilosa</i>	Tiliaceae	
268	<i>Vernonia cinerea</i>	Compositae	Therophyte
269	<i>Vicia indica</i>	Compositae	Phanerophyte
270	<i>Vitex Negundo</i>	Verbenaceae	Phanerophyte
271	<i>Vitex negundo</i>	Verbenaceae	Therophyte
272	<i>Vitis vermentina</i>	Vitaceae	Therophyte
273	<i>Vivipara zizanoides</i>	Poaceae	Therophyte
274	<i>Wrightia tomentosa</i>	Apocynaceae	Phanerophyte
275	<i>Xanthium strumarium</i>	Compositae	Therophyte
276	<i>Yucca gloriosa</i>	Arecaceae	Therophyte
277	<i>Ziziphus jujube</i>	Rhamnaceae	Phanerophyte
278	<i>Ziziphus mauritiana</i>	Rhamnaceae	Phanerophyte
V. Grasslands			
279	<i>Apluda mutica</i>	Poaceae	Hemicryptophyte
280	<i>Chloris dolichostachya</i>	Poaceae	Hemicryptophyte
281	<i>Cyanodactylon sp.</i>	Poaceae	Geophyte
282	<i>Dichanthium annulatum</i>	Poaceae	Hemicryptophyte
283	<i>Imperata cylindrica</i>	Poaceae	Hemicryptophyte
284	<i>Sachharum spontaneum</i>	Poaceae	Hemicryptophyte
285	<i>Themeda quadrivalvis</i>	Poaceae	Hemicryptophyte
286	<i>Aristida adscensionis</i>	Poaceae	Hemicryptophyte
287	<i>Cenchrus ciliaris</i>	Poaceae	Therophyte
288	<i>Cenchrus setigerus</i>	Poaceae	Therophyte
289	<i>Cymbopogon jwarancusa</i>	Cyperaceae	Hemicryptophyte
290	<i>Cyperus aristatus</i>	Cyperaceae	Therophyte
291	<i>Cyperus triceps</i>	Cyperaceae	Therophyte

Sr. No.	Technical Name	Family	Life Form
292	<i>Dactyloctenium aegyptium</i>	Poaceae	Therophyte
293	<i>Digetaria bicornis</i>	Poaceae	Hemicryptophyte
294	<i>Digetaria Sepetaria</i>	Poaceae	Hemicryptophyte
295	<i>Eragrostis bifaria</i>	Poaceae	Therophyte
296	<i>Eragrostis tenella</i>	Poaceae	Therophyte
297	<i>Ischaemum rupestre</i>	Poaceae	Hemicryptophyte
298	<i>Setaria glauca</i>	Cyperaceae	Hemicryptophyte
299	<i>Fuligoensis binata</i>	Gramineae	Hemicryptophyte
300	<i>Thysanotus maxima</i>	Gramineae	Hemicryptophyte
	Endangered plants		No endangered plant species observed during study period and also from records of Botanical Survey of India (Red data of Books of Indian Plants)

TABLE-3
FAUNA AND THEIR CONSERVATION STATUS FROM MINE LEASE AREA (CORE ZONE)

Technical Name	English Name/ Local Name	Wild Life Protection Act (1972) Status
Aves		
<i>Phalacrocorax niger</i>	Little cormorant	Sch-IV
<i>Nycticorax nycticorax</i>	Night heron	Sch-IV
<i>Ardeola grayii grayii</i>	Paddy bird	Sch-IV
<i>Bubulcus ibis coromandus</i>	Cattle egret	Sch-IV
<i>Eudynamys scolopacea</i>	Tucan koel	Sch-IV
<i>Meops philippinus philippinus</i>	Bluetailed bee-eater	Sch-IV
<i>Dinopium benghalense tectum</i>	Malabar golden backed Woodpecker	Sch-IV
<i>Acridotheres tristis tristis</i>	Common myna	Sch-IV
<i>Nectarinia minima</i>	Small sunbird	Sch-IV
<i>Passer domesticus indicus</i>	Tricolored house sparrow	Sch-IV
Butterflies		
<i>Hypolimnas bolina Lin.</i>	Greasemantle	-
<i>Euploea core Cramer</i>	Common Crow	-
<i>Neptis hylas Moore</i>	Cornflower Sailor	-
<i>Eurema hecabe Lin.</i>	Common grass yellow	-
<i>Parantica aglea Stoll.</i>	Glossy tiger	-
Mammals		
<i>Funambulus palmarum</i>	Squirrel	Sch-IV
<i>Sus scrofa</i>	Wild pig	Sch-III
<i>Herpestes edwardsii</i>	Common Mongoose	Sch-IV
<i>Vulpes benghalensis</i>	Wild fox	Sch-II
<i>Hystrix indica</i>	Porcupine	Sch-IV

TABLE-4
FAUNA AND THEIR CONSERVATION STATUS IN STUDY AREA (BUFFER ZONE)

Technical Name	English Name/Local Name	Wild Life Protection Act (1972)
Aves		
<i>Phalacrocorax niger</i>	Little cormorant	Sch-IV
<i>Ardea purpurea melanoptera</i>	Eastern purple heron	Sch-IV
<i>Nycticorax nycticorax</i>	Night heron	Sch-IV
<i>Ardeola grayii grayii</i>	Paddy bird	Sch-IV
<i>Dupetor flavicollis</i>	Black bittern	Sch-IV
<i>Ardea alba modesta</i>	Large egret	Sch-IV
<i>Bubulcus ibis coromandus</i>	Cattle egret	Sch-IV
<i>Milvus migrans govinda</i>	Common pariah kite	Sch-IV
<i>Haliastur indus indus</i>	Brahminy kite	Sch-IV
<i>Vanellus indicus indicus</i>	Redwattled lapwing	Sch-IV
<i>Tringa hypoleuca</i>	Common sandpiper	Sch-IV
<i>Geositta nigriceps nigriceps</i>	Gullbilled tern	Sch-IV
<i>Eudynamys scolopacea</i>	Indian koel	Sch-IV
<i>Halcyon straminea fusca</i>	Indian white breasted kingfisher	Sch-IV
<i>Meops philippinus philippinus</i>	Bluetailed bee-eater	Sch-IV

Technical Name	English Name/Local Name	Wild Life Protection Act (1972)
<i>Coracias benghalensis indica</i>	Southern Indian Roller	Sch-IV
<i>Dinopium benghalense tehrmiae</i>	Malabar golden backed Woodpecker	Sch-IV
<i>Acridotheres tristis tristis</i>	Common myna	Sch-IV
<i>Corvus splendens protegatus</i>	Ceylon house crow	Sch-IV
<i>Nectarinia minima</i>	Small sunbird	Sch-IV
<i>Nectarinia zeylonica sola</i>	Indian purple rumped sunbird	Sch-IV
<i>Arachnothera longirostris longirostris</i>	Little spinder hunter	Sch-IV
<i>Passer domesticus indicus</i>	Indian house sparrow	Sch-IV
<i>Copsychus saularis ceyonensis</i>	Southern magpie-robin	Sch-IV
<i>Orthotomus sutorius</i>	Teller bird guzurata	Sch-IV
<i>Pavo cristatus</i>	Peacock	Part-III of Sch-I
Amphibians		
<i>Rana tigrina</i>	Common frog	Sch-IV
<i>Bufo melanostictus</i>	Toad	Sch-IV
Reptiles		
<i>Calotes versicolor</i>	Lizard	Sch-IV
<i>Calotes versicolor</i>	Common garden lizard	Sch-IV
<i>Chamaeleo zeylanicus</i>	Indian chameleon	Sch-II
<i>Lycodon spp.</i>	Wolf snake	Sch-III
<i>Bunya spp.</i>	Cat snake	Sch-III
<i>Boiga spp.</i>	Krait	Sch-III
<i>Raja naja</i>	Indian Cobre	Sch-II
<i>Vipera spp.</i>	Russel's viper	Sch-III
<i>Python sp</i>	Python sp	Sch-III
Butterflies		Sch-I
<i>Pachliopta hector Lin.</i>	Crimson rose	-
<i>Papilio demoleus Lin.</i>	Lime butterfly	-
<i>Graphium agamemnon Lin.</i>	Tailed Jay	-
<i>Iunonia almana Lin.</i>	Peacock pansy	-
<i>Hypolimnas bolina Lin.</i>	Great eggfly	-
<i>Luphaea core Gause</i>	Common crow	-
<i>Neptis hydas Moore</i>	Common sailor	-
<i>Eurema hecabe Lin.</i>	Common grass yellow	-
<i>Calopilia sp.</i>	Emigrant	-
Mammals		
<i>Rattus sp.</i>	Rat	Sch-IV
<i>Lepus nigricollis</i>	Hare	Sch-IV
<i>Canis aureus</i>	Jackal	Sch-III
<i>Presbytis entellus</i>	Langur	Sch-II
<i>Presbytis phayrei</i>	Monkey	Sch-II
<i>Funambulus spp.</i>	Squirrel	Sch-I
<i>Funambulus palmarum</i>	Squirrel	Sch-IV
<i>Sus scrofa</i>	Wild pig	Sch-IV
<i>Rattus norvegicus</i>	Field mouse	Sch-III
<i>Rattus rattus</i>	House rat	Sch-V
<i>Rhinolophus spp.</i>	Bat	Sch-V
<i>Hipposideros spp.</i>	Bat	Sch-V
<i>Herpestes edwardii</i>	Common mongoose	Sch-V
<i>Bandicota indica</i>	Bandicoot	Sch-IV
<i>Bandicota bengalensis</i>	Bandicoot	Sch-V
<i>Vulpes benghalensis</i>	Wild fox	Sch-V
<i>Melursus ursinus</i>	Bear	Sch-III
<i>Hystrix indica</i>	Porcupine	Sch-III
<i>Axis axis</i>	Spotted deer	Sch-IV
<i>Canis lupus pallipes</i>	Indian wolf	Sch-III
<i>Ullivora capensis</i>	Indian Ratel	Part-I of Sch-I
<i>Elephas maximus</i>	Indian Elephant	Part-I of Sch-I
<i>Felis chaus</i>	Jungle cat	Part-I of Sch-I
<i>Paradoxurus hermaphroditus</i>	Indian Small civet	Part-II of sch-II
<i>Muntiacus muntiacus</i>	Barking deer	Part-I of sch-I
<i>Macaca mulatta</i>	Monkey	Sch-III
		Part-I of Sch-I

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दन्तवाया-सम्मुखीकरण विलो के बास्तविकता दन्तवाया-अदानीत मेहरालू विलोग्डालू के उपचर्चटीज विमिटेक के लोटोवार्ला वापसलगा थाएन इन लोगो 514-010-११ उन भूमि-ये बापसलगा समिक्षा जारीना १० लीज अधिक के एथाय-टी आर अधिनियम 2015 का अनुकूल विस्तारीकरण शाद।

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(+) योग्य सामग्री का पत्र दर्शक / यो ५-१५ / २०१७ / ३०-३ दिसेंबर २०१७

(2) अपारं प्रदानं पूर्वतः दीक्षितवान् अपि-प्रस्तुतं वा स त्रा । भूमिः शो च च च ग्रन्थाकं वा-प्रस्तुतं

३१. मुख्य लक्षणात्मक विवरण देखता असंकेतुर का पत्र इमेल / मा.टि. / नं. २१ / २०१७ / २६१०
प्रतिक्रिया दिनांक २५-०८-२०१८

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प्रियांका गांधी को 2020 के दौरान बन चुकी हुआ शिक्षकों का समृद्धि जिसकी विवरण विवरण हुए रखका 514019 के बीच मूल्य में विवरण हुआ तब उत्तर बनसपाल अधिनियम 1980 अनुसार आवेदन कर्त्ता और विवरण भागिता जीव अधिकार दिनांक 24.06.2048 तक अधिरोपित सती के अधीन रही ही नहीं है। प्रियांका याज्ञ में आपके हुआ सदमिल पत्र अन्तर्गत 34 से पालन प्रतिवेदन एवं फैलेटर ग्रसरमध्ये 30 अनुसार इस प्रतिवेदन की विवरण दिया गया है।

१. नवल सरकार प्रधानमंत्री का एक अनियन्त्रित परिवहन-विज्ञापन द्वारा जारी पक्ष कमीश्वर /एप्रि- २०२३/ ८०५५

ਫਿਰੀ 19.03.1996 ਪੰਜਾਬ ਜਮਿਆ / ੧੮ ਨੰ । 11-51 / 2015-ਪ੍ਰਸ਼ੰਸਕ ਦਿਨੋਂ 01.04.2015 ਨੂੰ 01.05.2015
ਤਥਾ ਰਾਨੀਜ ਸਾਡਾ ਪਿਸਾਰ ਨੂੰ ਇਨੀਸ਼ੇਟ ਪ੍ਰਾਪਤ ਕੀ ਹੈ। ਪ੍ਰਸ਼ੰਸਕ / ਪੰਜ 7-9 / 2015 / 12 ਫਿਰੀ 19.05.2015 ਨੂੰ
ਅਗਲੀ ਸਾਡਾ ਪਿਸਾਰ ਨੂੰ ਦਿੱਤੀ ਜਾਵੇ।

¹ See *Salvadoran Peasant Struggle: The Agrarian Question in Central America* (London, 1982).

३. निम्नों विलीन के आवश्यक वातावरण में बारिश का असर विलीन के वातावरण में बारिश को संतुष्ट है। इस विलीन का असर विलीन के वातावरण में बारिश को संतुष्ट है। इस विलीन का असर विलीन के वातावरण में बारिश को संतुष्ट है।

4. अपने लोकों की विशेषताएँ जैसे उम्र, जीवनी, जीवन का रूप सहित बताया जाए।

5. अपने लोकों की विशेषताएँ जैसे उम्र, जीवनी, जीवन का रूप सहित बताया जाए।

6. 14 वर्षों की विशेषताएँ जैसे उम्र, जीवनी, जीवन का रूप सहित बताया जाए।

7. 10 वर्षों की विशेषताएँ जैसे उम्र, जीवनी, जीवन का रूप सहित बताया जाए।

8. अपने लोकों की विशेषताएँ जैसे उम्र, जीवनी, जीवन का रूप सहित बताया जाए।


B.N. Bhattacharya

बनरामपुर बनमण्डल बलरामपुर
बलरामपुर दिनांक ०५/१२/२०१७

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- प्रधान मंत्री वर्षांसह का (प्र-प्रधान / प्र-मंत्री) भौतिक राष्ट्रपति को अवलोकनात्मक राष्ट्रपति।
 - भौतिक वर्षांसह का सर्वानुसारी अधिकारीपत्र को अवलोकनात्मक राष्ट्रपति द्वारा राष्ट्रपति।
 - भौतिक वर्षांसह का द्वारा भौतिक राष्ट्रपति का विस्तृत अधिकारीपत्र को अवलोकनात्मक राष्ट्रपति।

विजयनाथ लालकर्णी

बलरामपुर बलमण्डल बलशामपुर

HIL/DBM/2012/11/2012

Date: 04-09-2012

Subject: Extension of validity of approval accorded under Forest (conservation) Act, 1980 for

Sub: Extension of validity of approval accorded under Forest (conservation) Act, 1980 for
the purpose of mining operations in the forest area of 1500 acres (Mining operation) purpose
of mining activities carried out by Hindalco Industries Limited.

Ref: Application No.: HIL/DBM/2012/11/2012 dated 24/02/2012

Dear Sir/Madam, We are writing to you in this regard that we have received your application dated 24/02/2012 for extension of validity of approval accorded under Forest (conservation) Act, 1980 for the purpose of mining operations in the forest area of 1500 acres (Mining operation) purpose of mining activities carried out by Hindalco Industries Limited. The application was filed on 24/02/2012 and reference number is 818132. Dated 04-09-2012 at your earliest convenience, we would like to inform you that the extension of validity of approval accorded under Forest (conservation) Act, 1980 for the purpose of mining operations in the forest area of 1500 acres (Mining operation) purpose of mining activities carried out by Hindalco Industries Limited.

Yours faithfully,

Sudarshan Singh
Hindalco Industries Limited


Agent of Mine
Senior Mine Division
Hindalco Industries Ltd

Introduction

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