

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA

O.A. NO. 90 OF 2023/ EZ

Rural Organization for
 Social empowerment (ROSE) ----- Applicant

-VERSUS-

State of Odisha & Others ----- Respondents

INDEX

Sl. No.	Description of Documents	Pages
1.	ADDITIONAL AFFIDAVIT ON BEHALF OF THE RESPONDENT NOS. 1,5,6 & 7	1-4
2.	<u>Annexure- 7/E</u> The copy of the Comprehensive Wildlife Management Plan and the approval order	5-43
3.	<u>Annexure- 7/F</u> The copy of the proceeding of 40 th meeting of Standing Committee of NBWL.	44-45

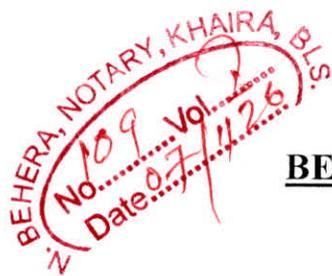
Cuttack

Date 7/1/2026



Addl. Govt. Advocate
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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

O.A. NO. 90 OF 2023/ EZ

Rural Organization for
Social empowerment (ROSE) ----- Applicant
-VERSUS-
State of Odisha & Others ----- Respondents

**ADDITIONAL AFFIDAVIT ON BEHALF OF THE RESPONDENT
NOS. 1,5,6 & 7**

I, Sri Amit Ranjan Hota, S/o- Jyotirmaya Hota, aged about 31 years, at present working as Tahasildar, Khaira at Bishnupur, PO/P.S.- Khaira, Dist- Balasore, do hereby solemnly affirm and state as under.

1. That, I have been arrayed as the Respondent No.7 in the present Original Application and have been duly authorized to file this affidavit on behalf of the Respondent Nos.1,5 & 6.
2. That, I have gone through the present Original Application as well as the Annexures annexed thereto and understood the contents thereof. I am also well acquainted with the facts and circumstances of the case and competent to swear this affidavit in my official capacity.

Amit Ranjan Hota



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3. That, in compliance to the order dated 30.01.2025 of the Hon'ble Tribunal, it is humbly submitted that the copy of the Comprehensive Wildlife Management Plan has been obtained from the Divisional Forest Officer, Balasore.

The copy of the Comprehensive Wildlife Management Plan and the approval order is annexed herewith and marked as

Annexure- 17/E

4. That, in compliance to the order of the Hon'ble Tribunal, it is humbly submitted that the proposal for mining in 97 quarries under Khaira Tahasil, the proposed distance of 2.0 km away from the Kuldiha Wildlife Sanctuary was submitted before the 40th meeting of Standing Committee of NBWL. The committee has released its proceeding vide on dated 07.02.2017 where the committee agreed to recommend the proposal subject to implementation of a Comprehensive Wildlife Management Plan. Thereafter, the Comprehensive Wildlife Management Plan was prepared by the DFO, Balasore along with its approval has also been obtained from the Forest, Environment & Climate Change Department. **The existence of quarries from the prohibited zone of the boundary of the Kuldiha Wildlife Sanctuary with coordinates which are**

Handwritten signature/initials

Handwritten signature: Anil Ranjan Jata



X

mentioned in the Page-16 of the Comprehensive Wildlife Management Plan.

The copy of the proceeding of 40th meeting of Standing Committee of NBWL is annexed herewith and marked as

Annexure- 17/F

5. That, in the Counter Affidavit filed on 10.01.2024 by the Respondent No.7 in Paragraph-5, it was humbly submitted that Minor Mineral has already been transferred to the Department of Steel and Mines. The Department of Revenue & Disaster Management, Respondent No.1 is no longer with the charge of dealing Minor Minerals in the State. Since, the present application deals with mining operation of Stone Quarries, which is a minor mineral, the Department of Steel and Mines is a necessary party to the present application and for better appreciation of the case the department of Steel and Mines needs to be arrayed as a necessary party for proper and effective adjudication of the lis.
6. That the deponent craves leave of this Hon'ble Tribunal to file further affidavit, if required, for proper adjudication of this case.

Anil Ranjan Hota





7. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.



Identified by

Amil Ranjan Hota

Advocate

DEPONENT

**TAHASILDAR
KHAIRA**

CERTIFICATE

Certified that white cartridge papers are not available

(Signature)

(SATYABRATA MOHANTY)

PLACE: CUTTACK

ADDL. GOVERNMENT ADVOCATE

DATE:

Sri / Smt. *A.R. Hota*
I/We deponent being identified by
Mr / Mrs *S. B. Mohanty*
Advocate *H. S. Mohanty* Solemnly
affirm and state that the facts
stated above are true to his / her
knowledge and belief and put
his / her signature / L.T.I. on this
07/11/26 day of *Nov*
20*26* at *Cuttack* A.M./P.M.

(Signature)
(N. BEHERA)
Notary Public, Khaifa, BLS.
Odisha

X

(MA) 3F

GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT

No. FE-WL-WLF-0038-2017/ 7840 / FE&CC, Date. 18.04.23

From:

Shri Deben Kumar Pradhan, IAS
Additional Secretary to Government.

To

The PCCF (Wildlife) & Chief Wildlife Warden, Odisha,



The Collector, Balasore.

Sub: Approval of Comprehensive Wildlife Management Plan for the period from 2023-24 to 2031-32.

Sir,

In inviting a reference to the subject cited above, I am directed to say that after careful consideration of your proposal, Government have been pleased to approve the Comprehensive Wildlife Management Plan for the period from 2023-24 to 2031-32 with revised financial implication of Rs.1214.46 lakh.

Entire cost of bald hill plantation over 200 hac amounting to Rs 670.85 lakh (part of the aforesaid Plan), and any further amount required consequent to subsequent wage revision etc be met either from CAMPA or State Plan Scheme like "Wildlife Protection and Conservation Measure"/ "Management of Elephant and Corridor". Rest of the amount viz Rs 543.61 lakh and any further amount required consequent to subsequent wage revision etc be met from the Environment cost already realized/ to be realized from all quarries rationally in proportion to the quantity of production.

Since major intervention under the plan is Bald hill plantation over 200 hac @40 hac per year, the Collector, Balasore may take immediate steps for identification of suitable patches for the purpose and hand over to the DFO, Balasore (Wildlife) Division.

You are, therefore, requested to take necessary follow up action at your end under intimation to this Department.

Yours faithfully,

[Signature]
18.4.2023
Additional Secretary to Government.

Memo No. 7841 / FE & CC, Date 18.04.23

Copy forwarded to the PCCF & HoFF, Odisha / Director, Environment, FE & CC Department / FA-cum-Addl. Secretary to Government FE & CC Department/ RCCF Baripada Circle / DFO, Balasore (Wildlife) Division for information and necessary action.

[Signature]
18.4.2023
Additional Secretary to Government.



FE-WL-WLF-0038-2017/3/2023

TC. Attested

[Signature]
**TAHASILDAR
KHAIRA**

Comprehensive Wildlife Management Plan

for

Mitigation of impact which would be caused by
operation of Stone Quarries in Khaira Tahasil near
Kuldiha Wildlife Sanctuary, Balasore.



PREPARED BY
DIVISIONAL FOREST OFFICER
BALASORE WILDLIFE DIVISION, BALASORE,
(ODISHA)

TC Attested

**TAHASILDAR
KHAIRA**

Introduction:

In this Balasore Wildlife Division, there are 97 stone quarries spreading over Ac.173.50 area with "Pahada" KISSAM land are located in revenue village Sarisua Kapliajhari Bandhanta under Khaira Tahasil. These quarries used to operate officially after auction by the Tahasildar, Khaira. With respect to the judgment of the Hon'ble Supreme Court of India on dt.04.12.2006 in WP (C) No. 460/2004, these stone quarries were closed as they were located within 10Km distance from the boundary of Kuldiha Wildlife Sanctuary and Hadgarh Wildlife Sanctuary. As per the guideline of the Govt. of India, MoEF & CC dt.15.03.2011, the Tahasildar, Khaira submitted a proposal for seeking clearance from the National Board of Wildlife; which has been recommended by the State Board of Wildlife in the 1st meeting held on dt.04.04.2015 with following conditions.

1. No quarry operation after sunset.
2. Trucks loaded with quarry materials not to operate after sunset within 2Km from boundaries of Hadgarh & Kuldiha Wildlife Sanctuaries.
3. No stone crusher to be established within 2Km from the boundaries of Hadgarh & Kuldiha Wildlife Sanctuaries.

The standing committee for National Board for Wildlife in their 40th meeting held on 03.01.2017 has considered the proposal keeping in view the requirement of building construction materials for ongoing infrastructure developments in the area and socio-economic benefits (which would follow by the way of employment generation). The Standing Committee, NBWL agreed to recommend the proposal subject to implementation of a "**Comprehensive Wildlife Management Plan**" in the region for mitigation of impact, which would be caused by operation of all quarries and transportation of quarry materials".

All the 97 stone quarries are located immediately south to the Hadgarh-Kuldiha Elephant Corridor, a part of the traditional Similipal-Hadgarh-Kuldiha Elephant Corridor. All the 03 Protected Areas namely Similipal, Hadgarh & Kuldiha Wildlife Sanctuaries and their connecting corridors are part of Mayurbhanj Elephant Reserve and being used by the elephants to move from one habitat to another.

The Comprehensive Wildlife Management Plan is to be prepared by the State Chief Wildlife Warden. The funds for implementation of the management plan may be allocated from the environmental cost realized from the all quarries rationally in proportion to the quantity of production. A monitoring committee comprising of Mines & Environment Department would be constituted for implementation of the plan.

TC Attested

TAHASILDAR
KHAIRA

Kuldiha Sanctuary:

Kuldiha Wildlife Sanctuary, a part of mega-habitat located at tri-junction of Balasore, Mayurbhanj and Keonjhar Districts, is a densely forested hill range spreading over 272.75 km². It is located in the South-western part of Balasore District under Nilgiri Revenue Sub-Division in the State of Odisha, which comes under Mahanadian biogeographical region. Kuldiha is not only a compact mass of hills, valleys and streams but a bounty of natural beauties of trees, climbers, orchids, ferns, mosses, fungi, animals, birds and micro-organisms with bio-diversity.

The entire area of Kuldiha Wildlife Sanctuary is located in South-western part of the Balasore district bordering Mayurbhanj District of Odisha State. It lies between 21° 20' to 21° 30' North latitude & 86° 26' to 86° 45' East longitude. The Inter-District boundary of Balasore & Mayurbhanj Districts is located on the Western boundary of Kuldiha Wildlife Sanctuary

According to biogeographic classification by Rodgers and Panwar (1988) the three hierarchical levels of planning units under which Kuldiha has been classified are as follows:

Biogeographic zone	:	6-Deccan Peninsula
Biogeographic Province	:	Chhotnagpur Plateau biotic province
Biogeographic Regions	:	Mahanadian

However, Kuldiha represents features of all the four Biotic Provinces for which Odisha is the junction. These provinces are Eastern Plateau, Chhotanagpur, Lower gangetic Plain and Coastline.

The Kuldiha Wildlife Sanctuary has been declared U/S -18 of the Wildlife Protection Act, 1972 by the State Govt. vide their Notification No. 243-FFAH dt. 04.01.1984, Published in the Orissa Gazette No.5 dt. 03.02.1984. The area of the Sanctuary is 272.75 sqkm. which includes Kuldiha, Devgiri and Tenda Reserved Forests and Other Protected Forests. Break up of area is as mentioned below:

i) Area of the Reserved Forests:

Kuldiha R.F :	:	114.68 sq.kms
Tenda R.F	:	19.85 sq.kms
Devgiri R.F	:	8.57 sq.kms.
Total	:	143.10 sq.kms.

ii) Area of protected forests & enclaved villages	:	<u>129.65 sq.kms</u>
G. Total	:	272.75 sq.kms

TC Attested



**TAHASILDAR
KHAIRA**



The External boundary of the sanctuary has been defined in the Gazette Notification and accordingly survey and demarcation by the Forest & Revenue officials was completed during 2010. The periphery of the Sanctuary is 150.5 kms. The ecological boundary of the elephants extends from Kuldiha to Hadgarh then to Similipal. Hence the ecological boundary spreads over forest areas of Balasore Wildlife Division, Kendujhar Wildlife Division, Karanjia and Baripada Forest Divisions.

The sanctuary comes under two Wildlife Ranges i.e. Kuldiha Wildlife Range and Soro Wildlife Range under Balasore Wildlife Division created w.e.f. 2003 after reorganization of Forest Department. There are 8 Sections and 18 Beats within the Sanctuary.

The area has a subtropical climate with three distinct seasons i.e. summer, monsoon and winter. A not so hot summer, well-distributed rainfall during Southwest monsoon and a normal winter characterize the climate. November to February comes under winter where as March-April-May form the summer months. The monsoon is quite conspicuous during June-July- August-September and October constitutes the post monsoon period.

Kuldiha Sanctuary acts as Overhead Water Tank for the southern part of district of Balasore, northern part of district of Bhadrak and for a narrow strip of southern part of district of Mayurbhanj bordering Balasore. Kuldiha stands in the inner land parallel to Bay of Bengal. Its eastern side faces Bay of Bengal. Thus, this hill range gets comparatively more precipitation due to the coastal effect and monsoonal flow of wind from Bay of Bengal. The mean annual rain fall is about 1630 mm.

Because of its proximity to Bay of Bengal, climatically this tract is comparatively hot & humid. The Southern part of Kuldiha is comparatively drier than the rest area. The mean maximum temperature is 38° C during April - May and minimum 8° C during November - January. The maximum temperature at times touches beyond 42°C.

The air is quite humid with relative humidity always exceeding 70%. The difference between relative humidity measured during early morning, midday and evening hours is quite tenuous. The atmosphere in the central and Northern part of the Sanctuary is relatively more humid in comparison to rest parts of the P.A., as vegetation present in the area helps in formation of micro-climate which helps in giving more of precipitation with less run off. The maximum humidity is 88% and minimum 62 %.

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The sanctuary lies in the arid zone. The streams, revaluates during rain and winter season form main water sources but during peak summer they dry up. Artificial water sources like reservoirs, water harvesting structure and water bodies are there in and around the sanctuary which cater the need of wild animals during pinch period.

Forests of Kuldiha are broadly divided into following forest types:

- i) Northern tropical semi evergreen forests.
- ii) Peninsular (Coastal) Sal Forests
- iii) Moist mixed deciduous forests.
- iv) Mixed Dry deciduous forests.

The PA represents high forest ecosystem with sparse grass land and riparian vegetation along the perennial nalas. The major species found in the area are *Shorea robusta*, *Terminalia tomentosa*, *Syzizium cumuni*, *Michelia champaca*, *Careya arborea*, *Lagerstromea parviflora*, *Diospyros melanoxylon*, *Madhuca indica*, *Scleichera oleosa*, *Anogeisus latifolia*, *Mangifera indica*, *Emblica officinalis*, *Xylia xylocarpa*, *Dalbergia latifolia*, *Tectona grandis*, *Holorrhena antidysentrica*, *Combretum decandrum*, etc.

Animals :

Vertebrates, their status, distribution and habitats, Habitat quality, quantity and key areas:

Kuldiha belongs to the bio-geographical zone of Deccan peninsula, bio-geographic province of Chhotanagpur and Mahanadian bio-geographic region. It can very well be conceived that such diverse topography and edaphic conditions together with climatic variation and rich floral diversity is likely to support a diverse faunal composition. Kuldiha harbours 25 species of mammals, 133 species of birds, 39 species of reptiles, 5 species of amphibians, with many species of insects and microfauna. The mammals are represented by Elephant (*Elephas maximus*), Gaur or Indian bison (*Bos gaurus*), Cheetal (*Axis axis*), Sambar (*Cervus unicolor*), Common langur (*Presbytis entellus*), Rhesus macaque (*Macaca mulata*), Porcupine (*Hystrix indica*), Malabar giant squirrel (*Ratufa indica*), Indian pangolin (*Manis crassicaudata*) etc. The carnivores are represented by Leopard (*Panthera pardus*), Leopard cat (*Felis bengalensis*) etc. Some common birds are Peafowl (*Pavo cristatus*), Shahin Falcon (*Falco perigrinus perigrinator*), Malabar pied

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J. AHASILDAR
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hornbill (*Anthracoceros coronatus*), Owls, Hill myna (*Gracula religiosa*), Oriole black headed (*Oriolus xanthomus*), Red jungle fowl (*Gallus gallus*). Besides them, water birds like White Ibis (*Threskiornis melanocephalus*), Red wattled lapwing (*Vanellus indicus*), Teal (*Nettapus coromandelianus*), Herons, Egrets and King fishers e.g. (Indian small blue king fisher (*Alcedo atthis*), Indian pied kingfisher (*Ceryle rudis*), White breasted kingfisher (*Halcyon smyrnensis*) are seen in artificial and natural water bodies in and around Kuldiha. Python (*Python molurus*), Cobra (*Naja naja*), King cobra (*Ophiophagus hannah*), Land tortoise (*Testudo elongata*) and Monitor lizard (*Varanus bengalensis*) are among the common reptiles found in the forest. Besides, large varieties of fishes, aquatic fauna and insects are found in the forest. Among the amphibians, four species found in Kuldiha are *Bufo melanostictus*, *Rana limmocharis*, *Rana cynophyctis* and *Rana tigrina*.

Status of Wildlife

Many wild animals including some endangered ones like leopard, elephant, gaur etc. are found in different levels of abundance. Ratel, pangolin, giant squirrel, sambar and cheetal are among the other few worth mentioning. The status of avi-fauna, herpeto-fauna is not precisely known. The major census figures are given in appendices.

Distribution of animals and habitats

There is always an internal migration of elephants throughout the year inside the sanctuary. During paddy harvesting season in the winter, elephants move out of the sanctuary limit mostly along the boundary on Balianal-Jharanaghathi patch and Hatikholia-Gadsahi patch. So also the wild pigs move out of sanctuary limit to raid nearby crop fields and the Pangolins occasionally move out during heavy rains when their hide outs get flooded. Sloth bears stray out of the sanctuary and nearby forest area for search of berries, mango, jack fruit and mahua flower.

Through field observation it is seen that in Kuldiha Sanctuary, Leopards are seen mainly in the less disturbed areas with better prey base mainly comprising of wild pigs, deer and other smaller herbivores in Kuldiha and Devgiri Reserved Forests. Bisons are confined to Khundudi valley having good forage ground with nearby perennial water sources in Kuldiha beat. The total population of Bison available in the sanctuary as assessed through field observation is around 150. Elephants roam all over the sanctuary area round the year but during summer they congregate in bigger herds in areas like

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Panchalingeswar beat (Tenda RF), Khemkote of Tenda beat (Tenda RF), Hatikholia beat (Devgiri RF), Kuldiha-I beat (Kuldiha RF). The normal herd size found in Kuldiha varies from 5 to 8. However at times bigger herds comprising of animals more than 20 are seen. Giant squirrels are seen in thick forested areas of Kuldiha with close canopy mainly in Kuldiha -I & Kuldiha II beat, Tenda and Panchalingeswar beat area having sky rising tree of Sal & Terminalia species in the crop. Pangolins are seen in Devgiri and Garsahi hills. Wild boar, Chital, Barking deer, Mouse deer are evenly and dispersedly distributed all over the P.A.

Out of numerous limiting factors of Kuldiha, the following prominent ones scale on a priority basis.

- (1) Incidence of grazing
- (2) Fire.
- (3) Scarcity of water during summer months
- (4) Fragmentation of Kuldiha-Hadgarh-Similipal Corridor linkage restricting movement of elephants.
- (5) Quarry operation.
- (6) Man- animal conflict (elephant, sloth bear, wild boar)
- (7) Absence of bamboo and invasion of Eupatorium & ipomea.
- (8) Biotic pressure from the fringe villages for collection of fire wood, Sal leaf and other non wood forest produce (NWFP).

Hadgarh Wildlife Sanctuary

Dense Sal forests with patches of vast grasslands in between, Hadahgarh Wildlife Sanctuary offers a picture perfect setting with its breathtaking beauty. It is located barely 20 kilometres from Bhadrak, in the Kendujhar district and is home to several species of avifauna in addition to other animals that include tigers, leopards, fishing cats, jungle cats, pangolin, hyena, wolf, porcupine, and langur. Founded in 1978, the Hadagarh Wildlife Sanctuary spans across an area of 191.6 square kilometres. The Salandi River, passing through the forest is its lifeline. There is a dam on the river named Salandi Dam. The Salandi River is home to the Muggar Crocodiles. Hadagarh Wildlife Sanctuary is a popular tourist spot attracting substantial number of tourists round the year. While winters are the best time to visit the sanctuary, it is also advisable to avoid the summer months altogether.

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Legend

- Proposed Corridor
- Forest
- Forest Division Boundary
- Sanctuary Boundary

0 2 4 6 8 10 12 14 Kilometers

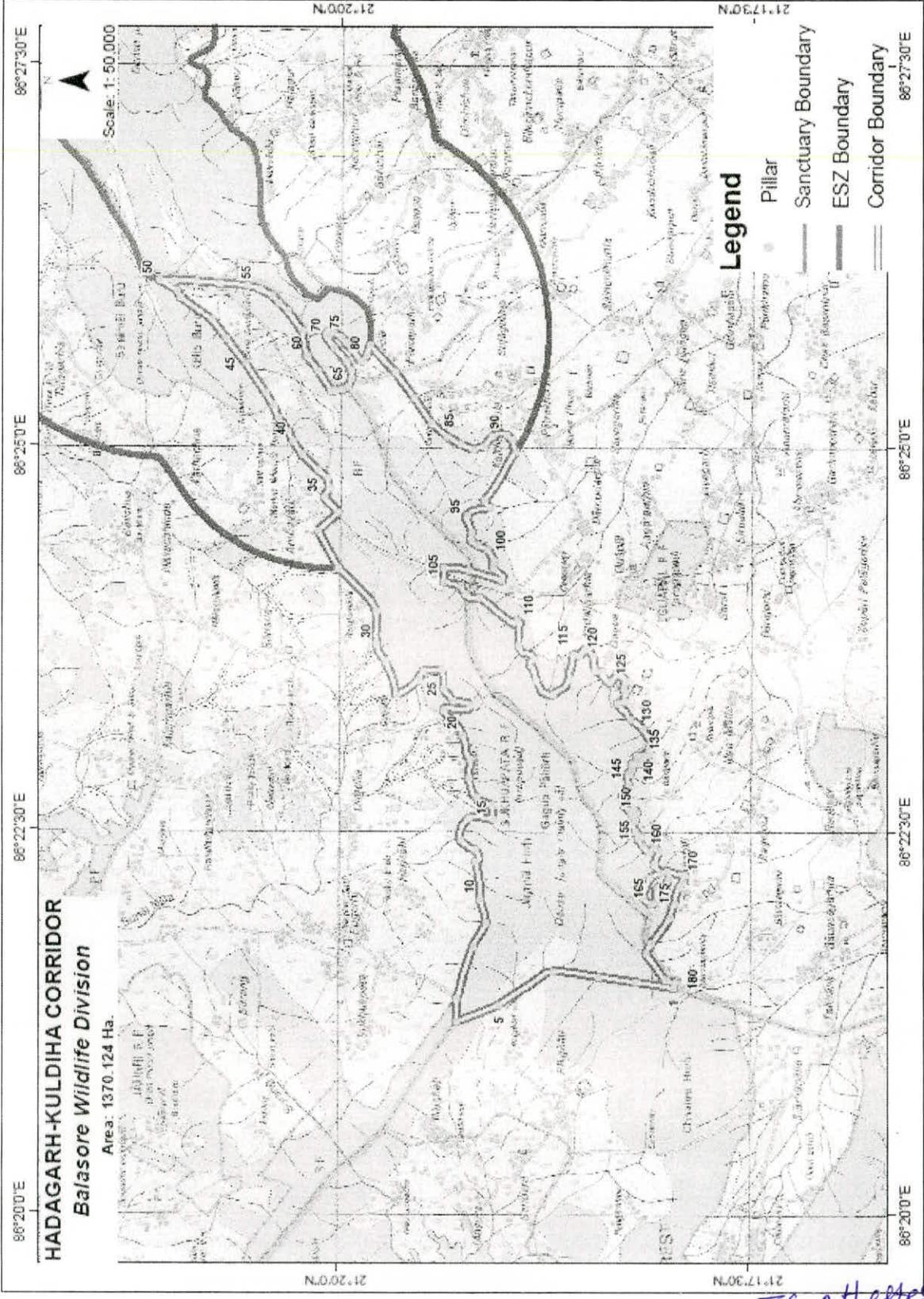


SIMILIPAL - HADGARH CORRIDOR
 Area of the Proposed Corridor: 65.19 Sqkm
 Length: 25.2 Km

KULDHIA - HADGARH CORRIDOR
 Area of the Proposed Corridor: 26.2 Sqkm
 Length: 16.5 Km

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GPS Co-ordinates of along the boundary of Hadgrah - Kuldiha Elephant Corridor.

Pillar No.	Longitude	Latitude
1	2	3
1	86°21' 28.35" E	21°17' 57.39" N
2	86°21' 30.72" E	21°18' 11.65" N
3	86°21' 32.88" E	21°18' 24.59" N
4	86°21' 34.73" E	21°18' 41.34" N
5	86°21' 21.57" E	21°19' 1.63" N
6	86°21' 15.16" E	21°19' 16.68" N
7	86°21' 24.02" E	21°19' 16.86" N
8	86°21' 44.27" E	21°19' 10.85" N
9	86°21' 53.52" E	21°19' 5.90" N
10	86°22' 2.89" E	21°19' 8.29" N
11	86°22' 17.94" E	21°19' 10.07" N
12	86°22' 22.52" E	21°19' 10.09" N
13	86°22' 26.34" E	21°19' 15.50" N
14	86°22' 34.91" E	21°19' 12.63" N
15	86°22' 34.14" E	21°19' 3.63" N
16	86°22' 40.04" E	21°19' 4.00" N
17	86°22' 42.97" E	21°19' 9.89" N
18	86°22' 50.71" E	21°19' 12.34" N
19	86°22' 58.10" E	21°19' 12.16" N
20	86°23' 7.54" E	21°19' 14.68" N
21	86°23' 17.30" E	21°19' 21.98" N
22	86°23' 19.37" E	21°19' 12.31" N
23	86°23' 20.78" E	21°19' 18.30" N
24	86°23' 25.54" E	21°19' 21.95" N
25	86°23' 33.32" E	21°19' 22.84" N
26	86°23' 32.56" E	21°19' 29.36" N
27	86°23' 28.98" E	21°19' 31.17" N
28	86°23' 23.31" E	21°19' 39.30" N
29	86°23' 36.58" E	21°19' 43.29" N
30	86°23' 43.07" E	21°19' 46.43" N
31	86°23' 55.91" E	21°19' 46.68" N
32	86°24' 12.47" E	21°20' 0.33" N
33	86°24' 27.15" E	21°20' 7.80" N
34	86°24' 34.54" E	21°20' 0.37" N
35	86°24' 40.28" E	21°20' 5.98" N
36	86°24' 43.67" E	21°20' 3.76" N
37	86°24' 48.04" E	21°20' 4.89" N
38	86°24' 51.01" E	21°20' 8.07" N
39	86°24' 57.15" E	21°20' 13.87" N
40	86°25' 2.11" E	21°20' 17.24" N

Pillar No.	Longitude	Latitude
1	2	3
41	86°25' 6.08" E	21°20' 18.93" N
42	86°25' 11.44" E	21°20' 22.67" N
43	86°25' 16.40" E	21°20' 24.37" N
44	86°25' 20.97" E	21°20' 27.36" N
45	86°25' 32.67" E	21°20' 34.67" N
46	86°25' 42.19" E	21°20' 41.41" N
47	86°25' 49.73" E	21°20' 47.03" N
48	86°25' 58.44" E	21°20' 58.24" N
49	86°26' 1.22" E	21°20' 59.36" N
50	86°26' 5.18" E	21°21' 6.03" N
51	86°26' 4.70" E	21°21' 0.60" N
52	86°26' 4.65" E	21°20' 52.64" N
53	86°26' 4.02" E	21°20' 43.53" N
54	86°26' 3.39" E	21°20' 34.22" N
55	86°26' 1.87" E	21°20' 29.66" N
56	86°25' 59.18" E	21°20' 24.92" N
57	86°25' 56.43" E	21°20' 22.44" N
58	86°25' 53.30" E	21°20' 19.49" N
59	86°25' 45.30" E	21°20' 14.06" N
60	86°25' 35.65" E	21°20' 12.38" N
61	86°25' 29.64" E	21°20' 8.01" N
62	86°25' 21.79" E	21°20' 3.35" N
63	86°25' 22.08" E	21°20' 1.60" N
64	86°25' 22.28" E	21°19' 59.42" N
65	86°25' 23.59" E	21°19' 57.16" N
66	86°25' 26.76" E	21°19' 55.95" N
67	86°25' 29.93" E	21°19' 56.22" N
68	86°25' 33.55" E	21°19' 57.98" N
69	86°25' 38.75" E	21°20' 2.18" N
70	86°25' 42.75" E	21°20' 5.08" N
71	86°25' 43.96" E	21°20' 5.26" N
72	86°25' 45.36" E	21°20' 4.82" N
73	86°25' 45.17" E	21°20' 3.60" N
74	86°25' 44.81" E	21°20' 2.20" N
75	86°25' 42.95" E	21°19' 59.84" N
76	86°25' 40.82" E	21°19' 58.26" N
77	86°25' 38.31" E	21°19' 56.07" N
78	86°25' 33.67" E	21°19' 52.91" N
79	86°25' 33.48" E	21°19' 51.87" N
80	86°25' 35.91" E	21°19' 50.39" N

TC Attested


TAHASILDAR
KHAIRA

X6

1	2	3
81	86°25' 39.73" E	21°19' 49.27" N
82	86°25' 29.53" E	21°19' 40.11" N
83	86°25' 19.21" E	21°19' 33.12" N
84	86°25' 9.69" E	21°19' 26.87" N
85	86°25' 3.88" E	21°19' 20.89" N
86	86°25' 0.98" E	21°19' 16.16" N
87	86°24' 59.15" E	21°19' 11.43" N
88	86°25' 0.22" E	21°19' 7.46" N
89	86°25' 4.48" E	21°19' 4.25" N
90	86°25' 5.03" E	21°18' 59.53" N
91	86°25' 2.91" E	21°18' 57.29" N
92	86°24' 58.13" E	21°18' 55.81" N
93	86°24' 39.06" E	21°19' 7.28" N
94	86°24' 36.50" E	21°19' 5.17" N
95	86°24' 33.61" E	21°19' 13.65" N
96	86°24' 26.75" E	21°19' 11.61" N
97	86°24' 23.51" E	21°19' 11.93" N
98	86°24' 21.66" E	21°19' 9.77" N
99	86°24' 20.35" E	21°19' 6.15" N
100	86°24' 15.48" E	21°19' 3.19" N
101	86°24' 13.05" E	21°19' 4.02" N
102	86°24' 8.10" E	21°19' 0.49" N
103	86°24' 11.86" E	21°19' 13.03" N
104	86°24' 12.98" E	21°19' 22.13" N
105	86°24' 7.42" E	21°19' 21.75" N
106	86°24' 5.85" E	21°19' 15.64" N
107	86°24' 2.56" E	21°19' 14.14" N
108	86°24' 1.21" E	21°19' 8.41" N
109	86°23' 52.46" E	21°18' 54.94" N
110	86°23' 42.35" E	21°18' 54.35" N
111	86°23' 37.53" E	21°18' 48.98" N
112	86°23' 28.98" E	21°18' 47.87" N
113	86°23' 23.42" E	21°18' 41.79" N
114	86°23' 29.48" E	21°18' 35.66" N
115	86°23' 39.07" E	21°18' 34.19" N
116	86°23' 38.78" E	21°18' 31.79" N
117	86°23' 41.33" E	21°18' 29.99" N
118	86°23' 38.53" E	21°18' 26.88" N
119	86°23' 32.98" E	21°18' 26.01" N
120	86°23' 32.64" E	21°18' 23.53" N
121	86°23' 28.40" E	21°18' 21.10" N
122	86°23' 31.86" E	21°18' 18.02" N

1	2	3
123	86°23' 28.73" E	21°18' 14.76" N
124	86°23' 26.31" E	21°18' 16.21" N
125	86°23' 24.49" E	21°18' 15.16" N
126	86°23' 20.84" E	21°18' 15.57" N
127	86°23' 20.31" E	21°18' 18.00" N
128	86°23' 13.93" E	21°18' 13.28" N
129	86°23' 10.34" E	21°18' 8.90" N
130	86°23' 5.45" E	21°18' 6.02" N
131	86°23' 3.18" E	21°18' 6.48" N
132	86°23' 1.31" E	21°18' 6.99" N
133	86°22' 59.99" E	21°18' 6.68" N
134	86°23' 0.39" E	21°18' 7.44" N
135	86°22' 59.44" E	21°18' 8.98" N
136	86°22' 59.65" E	21°18' 10.97" N
137	86°22' 57.53" E	21°18' 9.57" N
138	86°22' 56.62" E	21°18' 9.98" N
139	86°22' 56.46" E	21°18' 10.91" N
140	86°22' 56.87" E	21°18' 11.94" N
141	86°22' 56.50" E	21°18' 13.00" N
142	86°22' 54.48" E	21°18' 12.82" N
143	86°22' 52.51" E	21°18' 13.22" N
144	86°22' 52.50" E	21°18' 14.40" N
145	86°22' 47.97" E	21°18' 14.07" N
146	86°22' 44.51" E	21°18' 15.98" N
147	86°22' 40.24" E	21°18' 15.54" N
148	86°22' 37.72" E	21°18' 13.70" N
149	86°22' 38.61" E	21°18' 11.98" N
150	86°22' 37.02" E	21°18' 11.01" N
151	86°22' 36.01" E	21°18' 12.63" N
152	86°22' 34.10" E	21°18' 11.56" N
153	86°22' 33.43" E	21°18' 12.78" N
154	86°22' 29.69" E	21°18' 11.57" N
155	86°22' 27.65" E	21°18' 9.56" N
156	86°22' 27.16" E	21°18' 10.77" N
157	86°22' 24.13" E	21°18' 8.94" N
158	86°22' 21.56" E	21°18' 6.61" N
159	86°22' 23.70" E	21°18' 4.68" N
160	86°22' 22.24" E	21°18' 3.25" N
161	86°22' 16.77" E	21°18' 4.60" N
162	86°22' 13.71" E	21°18' 2.74" N
163	86°22' 11.68" E	21°18' 6.19" N
164	86°22' 3.96" E	21°18' 8.95" N

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1	2	3
165	86°22' 1.23" E	21°18' 5.89" N
166	86°22' 1.94" E	21°18' 4.28" N
167	86°22' 7.90" E	21°18' 3.67" N
168	86°22' 8.32" E	21°18' 2.46" N
169	86°22' 7.32" E	21°18' 1.11" N
170	86°22' 11.11" E	21°17' 59.49" N
171	86°22' 14.40" E	21°18' 0.03" N
172	86°22' 12.47" E	21°17' 54.09" N

1	2	3
173	86°22' 9.57" E	21°17' 54.46" N
174	86°22' 7.83" E	21°17' 55.86" N
175	86°22' 1.36" E	21°17' 57.30" N
176	86°21' 55.86" E	21°17' 58.93" N
177	86°21' 45.88" E	21°18' 5.67" N
178	86°21' 41.91" E	21°18' 7.70" N
179	86°21' 31.80" E	21°18' 0.86" N
180	86°21' 30.57" E	21°17' 57.19" N

HADGARH-KULDIHA ELEPHANT CORRIDOR

The distribution of South-Eastern Population of Asiatic elephant in Odisha is confined mainly to Similipal-Hadgarh-Kuldiha Landscapes. These three sanctuaries are joined by a narrow strip of land covered with highly fragmented degraded forests. The Forest coverage constitutes Reserved Forest like Notto RF, Satkosia RF and also Revenue Forests. As migration of elephants is an inherent characteristic, they have been using this narrow strip of Forests for their migration from one sanctuary to another. Generally the elephants of Similipal sanctuary are coming to Notto RF and return back to same area regularly. But occasionally they move to Hadgarh via Satkosia RF. The elephants of Hadgarh sanctuary usually come to Satkosia RF, Kupari area of Balasore district and return back to the same area. The elephants of Kuldiha sanctuary come to Hadgarh sanctuary through Sarisua-Sukhuapata Hill Block, which is covered with degraded forest growth in revenue land. The chunk of Forest land has been affected adversely due to lack of proper protective measures, multifarious use of Forests and anthropogenic pressure over 3409 Ha coming within the limitations of corridor. The corridor has been affected by encroachment of land operation of stone quarries and other developmental work causing havoc for the survival of the mega herbivore. Consequently it has led to frequent man-animal-conflict, frequent Wildlife Depredation resulting in loss of life and properties. The total areas of the corridor connecting these three sanctuaries constitute Reserve Forest area over 78.89 sq.km (65.19 sq.km + 13.70sq.km).

In the interest of better management it is highly essential to maintain the habitat contiguity through this narrow strip of land with forest cover, taking all efforts for legal protection and viable migration path of elephant in nature.

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Elephant Habitats linked with the corridor:

Similipal Sanctuary, Hadagarh Sanctuary, Kuldiha Sanctuary are linked with the Corridor.

Toposheet References on 1:50,000 scale:

73 K/6, 73 K/7 and 73 K/3.

Name of Elephant Reserve / Region within which the Corridor comes: Mayurbhanj Elephant Reserve

Description of the boundary:

The corridor connecting Similipal Sanctuary to Hadagarh Sanctuary covering area R.F. = 91.39 sq.km

North - Similipal Sanctuary
 East - Village of Kaptipada Block of Mayurbhanj District
 South - Hadagarh Sanctuary
 West - Village of Thakurmunda Block.

The corridor connecting Kuldiha sanctuary to Hadagarh Sanctuary covering area 1370.124 Ha. or 13.70 sq.km. having 180 boundary pillars.

North - Villages of Kaptipada Block under Mayurbhanj District.
 East - Kuldiha Sanctuary
 South - Khaira & Oupada Block of Balasore district
 West - Hadagarh Sanctuary.

HADGARH-KULDIHA CORRIDOR :**Land use within the Corridor. (In hectares)**

Dense Forest	:	511.30 Ha.
Open Forest	:	164.00 Ha.
Scrub	:	694.82 Ha.
Mining	:	Nil.
Total :	:	1370.12 Ha.

Biodiversity status of the corridor:**Vegetation type and coverage:**

This forest type in Mayurbhanj district is confined to Good quality of Sal (Q = I/II). Main associate of Sal are Piasal, Sisoo, Bandhan, Asan, Dhaura, Kuruma, Kusum, Jamu, Patuli etc. The proportion of Rai, Mai & Sidha increases on sloppy area where moisture contains decreases. As per classification of Champion and seth the forest type is 5B/1C. The canopy density varies from 0.4 to 0.6. due to heavy biotic interference. The regeneration is adequate throughout the area and profuse in most valleys.

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The Medicinal shrubs like, Bana haldi, Patalagaruda, Asoka, Anla etc. are available sporadically. Some Sal indicators plants like, Flemiazia, Atundi, Karada etc. are found in these areas.

In Balasore district, the vegetation in the corridor is bushy in nature having sporadic distribution of mother trees like Sal, Kusum, Mahul, Dhaura, Asan, Char, Kaim etc. Forest type is dry mixed deciduous type in nature under classification of champion and Seth 3B-C.I.(Id). The forest which is found in a bushy form are in miscellaneous in nature having pre-ponderance of Chara, Asan, Dhaura, Karada, Mahula, Jamu, Atundi, Muturi, Siali and intrusion of weeds species like Eupatorium & Lanterna are found in patches and also some phoenix species are available.

Corridor used by the Elephants:

The corridor between Hadgarh & Kuldiha is used round the year for movement of elephant, herbivores and cats. The elephants movement in the corridor is frequent during the paddy harvest time i.e. from September to February. The largest no. of elephants using the corridor is 20 to 25.

Other animals known to inhabit / use the corridor:

Large Mammals like Leopard, Jackal, Bear, Haynea, Wild pig, Barking deer, Langur, R. Macaque, Bison, Sambar, Common Mongoose, Indian Giant squirrel, Indian percupine, Indian fox, Indian flying fox.

Reptiles - Python, King cobra, Rat snake, Common craits, Russels viper, Rana, Large Bengal monitor lizard, common skinck, Common wolf snake.

Birds - Hornbill, Peafowl

Availability of water in the corridor:

Existing sources:

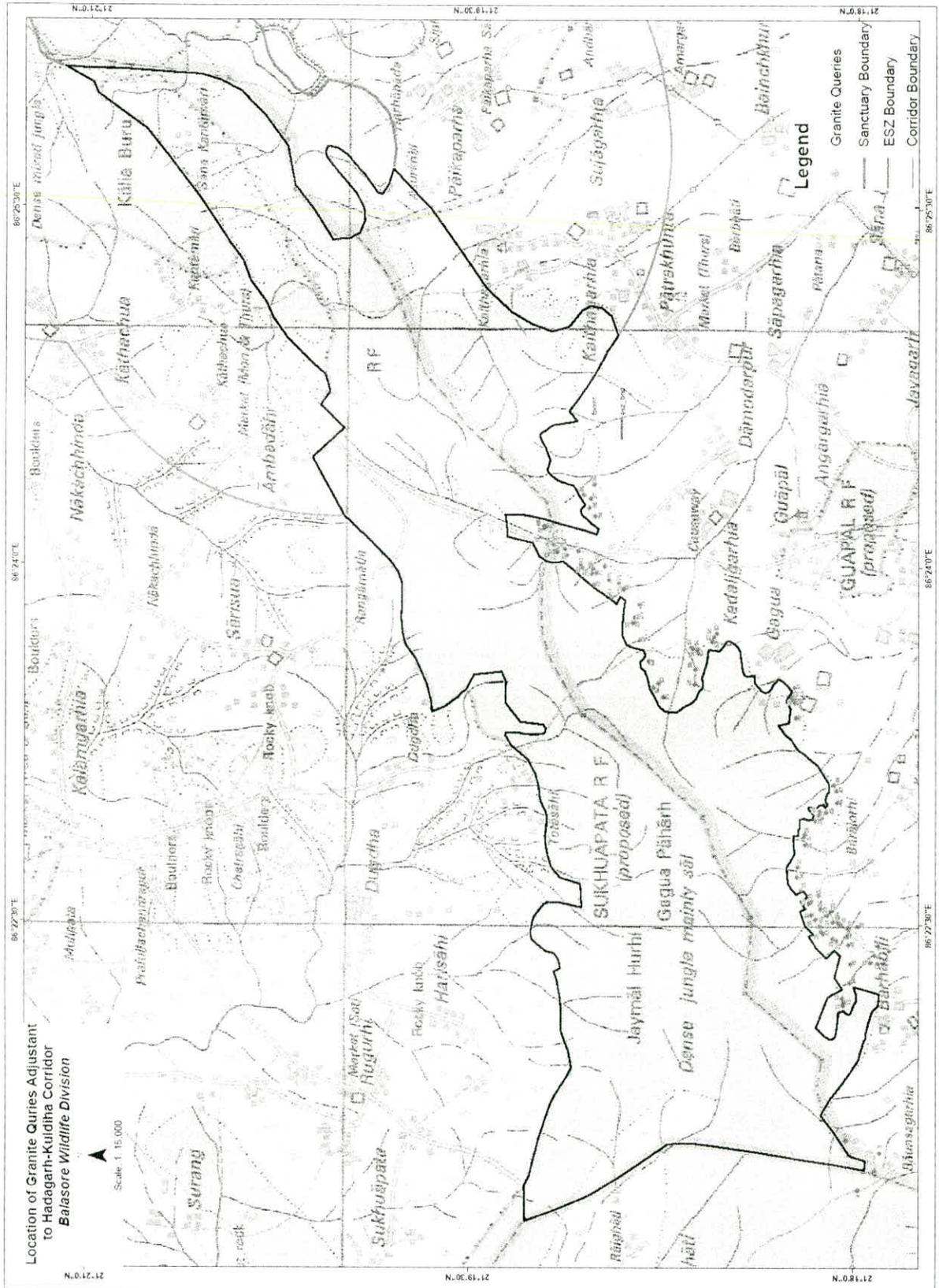
There is no perennial stream in forest and other revenue area coming under the corridor but only the nalas are rain fed in nature.

Name of Nallas flowing within corridor:

- a) Dhodei Nalla.
- b) Natapala Nalla.
- c) Chhanchunia Nalla.
- d) Kalasira Nalla.
- e) Sapa Khusuni Nalla (Kutripal).
- f) Kathagada Nalla.

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Location of Granite Quarries Adjacent to Hadagarh-Kuldihra Corridor
Balasore Wildlife Division

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GPS Co-ordinates, locations of 97 stone quarries adjacent to Hadgarh- Kuldiha Corridor.

Quires SI No.	Longitude	Latitude
1	2	3
1	86° 21' 28.20" E	21° 17' 55.10" N
2	86° 21' 32.60" E	21° 17' 53.90" N
3	86° 21' 35.67" E	21° 18' 1.86" N
4	86° 21' 23.30" E	21° 17' 59.00" N
5	86° 22' 23.60" E	21° 17' 51.80" N
6	86° 22' 20.30" E	21° 17' 54.70" N
7	86° 22' 20.30" E	21° 17' 53.10" N
8	86° 22' 24.80" E	21° 17' 54.50" N
9	86° 22' 22.40" E	21° 17' 55.40" N
10	86° 22' 20.60" E	21° 17' 56.30" N
11	86° 22' 9.80" E	21° 18' 2.60" N
12	86° 22' 10.50" E	21° 18' 2.50" N
13	86° 22' 11.50" E	21° 18' 2.80" N
14	86° 22' 15.40" E	21° 18' 1.10" N
15	86° 22' 20.20" E	21° 18' 1.00" N
16	86° 22' 27.10" E	21° 18' 1.90" N
17	86° 22' 29.30" E	21° 18' 1.70" N
18	86° 22' 29.70" E	21° 17' 59.40" N
19	86° 22' 30.10" E	21° 18' 3.30" N
20	86° 22' 30.60" E	21° 18' 4.00" N
21	86° 22' 30.80" E	21° 18' 5.20" N
22	86° 22' 33.50" E	21° 18' 5.50" N
23	86° 22' 32.50" E	21° 18' 6.60" N
24	86° 22' 34.10" E	21° 18' 8.10" N
25	86° 22' 36.00" E	21° 18' 10.10" N
26	86° 22' 26.60" E	21° 18' 5.20" N
27	86° 22' 26.10" E	21° 18' 4.20" N
28	86° 22' 28.40" E	21° 18' 8.00" N
29	86° 22' 35.50" E	21° 18' 10.90" N
30	86° 22' 31.40" E	21° 18' 9.20" N
31	86° 22' 32.60" E	21° 18' 10.10" N
32	86° 22' 37.60" E	21° 18' 8.60" N
33	86° 22' 38.80" E	21° 18' 12.70" N
34	86° 22' 42.20" E	21° 18' 13.60" N
35	86° 22' 44.70" E	21° 18' 13.40" N
36	86° 22' 50.30" E	21° 18' 11.70" N
37	86° 22' 52.10" E	21° 18' 12.10" N
38	86° 22' 52.90" E	21° 18' 11.80" N
39	86° 22' 56.30" E	21° 18' 9.30" N
40	86° 22' 29.70" E	21° 18' 8.20" N
41	86° 22' 25.10" E	21° 18' 1.50" N
42	86° 22' 27.90" E	21° 18' 7.40" N
43	86° 22' 57.60" E	21° 18' 8.80" N
44	86° 22' 58.60" E	21° 18' 8.30" N
45	86° 22' 58.50" E	21° 18' 6.70" N
46	86° 23' 0.90" E	21° 18' 4.20" N
47	86° 23' 3.90" E	21° 18' 4.40" N
48	86° 23' 5.40" E	21° 18' 4.90" N
49	86° 23' 22.20" E	21° 18' 14.00" N

Quires SI No.	Longitude	Latitude
1	2	3
50	86° 23' 26.00" E	21° 18' 14.40" N
51	86° 23' 29.71" E	21° 18' 14.36" N
52	86° 23' 43.30" E	21° 18' 32.50" N
53	86° 23' 41.10" E	21° 18' 33.50" N
54	86° 23' 39.70" E	21° 18' 38.50" N
55	86° 23' 39.50" E	21° 18' 37.90" N
56	86° 23' 39.40" E	21° 18' 36.90" N
57	86° 23' 41.40" E	21° 18' 33.40" N
58	86° 23' 42.30" E	21° 18' 33.10" N
59	86° 23' 34.20" E	21° 18' 37.40" N
60	86° 23' 30.40" E	21° 18' 37.50" N
61	86° 23' 27.20" E	21° 18' 44.80" N
62	86° 23' 29.50" E	21° 18' 47.10" N
63	86° 23' 30.60" E	21° 18' 46.00" N
64	86° 23' 36.20" E	21° 18' 48.20" N
65	86° 23' 38.40" E	21° 18' 36.80" N
66	86° 23' 26.60" E	21° 18' 14.70" N
67	86° 23' 27.10" E	21° 18' 15.10" N
68	86° 23' 41.60" E	21° 18' 50.40" N
69	86° 23' 45.80" E	21° 18' 51.40" N
70	86° 23' 47.30" E	21° 18' 51.60" N
71	86° 23' 50.60" E	21° 18' 50.60" N
72	86° 23' 54.50" E	21° 18' 54.00" N
73	86° 23' 54.40" E	21° 18' 54.10" N
74	86° 23' 52.80" E	21° 18' 57.20" N
75	86° 23' 55.90" E	21° 18' 55.30" N
76	86° 23' 56.70" E	21° 18' 57.70" N
77	86° 23' 58.40" E	21° 19' 0.60" N
78	86° 23' 55.50" E	21° 19' 1.20" N
79	86° 23' 58.20" E	21° 19' 1.70" N
80	86° 23' 59.50" E	21° 19' 1.50" N
81	86° 24' 0.40" E	21° 19' 4.30" N
82	86° 23' 59.70" E	21° 19' 3.90" N
83	86° 24' 2.80" E	21° 19' 7.60" N
84	86° 24' 4.40" E	21° 19' 8.10" N
85	86° 24' 3.70" E	21° 19' 9.90" N
86	86° 24' 18.20" E	21° 19' 3.60" N
87	86° 24' 9.60" E	21° 19' 13.00" N
88	86° 24' 10.20" E	21° 19' 13.20" N
89	86° 24' 10.20" E	21° 19' 12.20" N
90	86° 24' 5.70" E	21° 19' 10.70" N
91	86° 24' 3.90" E	21° 19' 4.90" N
92	86° 24' 0.10" E	21° 18' 58.60" N
93	86° 23' 45.80" E	21° 18' 52.10" N
94	86° 24' 12.70" E	21° 19' 0.90" N
95	86° 24' 14.80" E	21° 19' 2.30" N
96	86° 24' 20.70" E	21° 19' 1.10" N
97	86° 24' 17.20" E	21° 19' 2.00" N

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Known issues in the corridor for management:

Human habitation :

Although the main habitation of revenue villages are not coming within the corridor, encroachment for cultivation and habitation is noticed sporadically by tribal people. The revenue village boundary coming within the corridor are :

District	:	Rev. Village
Balasore	:	Kaithagadia, Ranipokhari & Sarisuakapilajharibandhanata
Mayurbhanj	:	Kathachua and Sukuapata Hill

Known issues in the corridor for management:

Fire: Generally fire occurs in all over areas during fire season due to heavy biotic interference i.e from February to May every year which causes huge damage of regeneration.

Poaching: Occasionally poaching takes place by the ST people during Akhanda Sikara but elephant poaching is very rare even during last three years there is no elephant poaching in the corridor area.

Depredation: Generally during crop season i.e paddy cultivation period from November to January the elephants are coming to the corridor and damages paddy in nearby village but the human causality is not seen within the corridor for last ten years.

Electricity supply line: Nil inside corridor.

Mining: Stone Quarry (97 numbers) of Balasore district and 14 stone quarries of Mayurbhanj district are noticed on North and South side of the corridor. No quarry is operating within the corridor. Locations of 97 nos. of Granite stone quarries of Khaira Tahasil, Balasore district adjacent to Hadgarh-Kuldiha Corridor have been indicated in the corridor map with numerical serial numbers. Geo-coordinates of each quarry has also been provided.

Railway Tracks: Nil

Highway: Nil

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Other major issues:

Generally the people living in and around the corridor are collecting sal leaves for trading. It is a major income source of the local people.

Total area of the corridor: Hadgarh – Kuldiha = 1370 Sq. Km.

Past History of Stone Quarries:

There were 105 numbers of Granite Stone quarries operating in this area under Khaira Tahasil of Balasore District previously. These quarries are located in the village Sarisua & Kaithagadia, which were put to annual auction earning huge amount of Revenue to Govt. ex-chequer. The operation of Granite Stone quarries not only generated employment in field of quarrying, transportation, crushing stone in to chips etc. but also cater to requirement of building materials for infrastructural development such as Roads, Bridges and Buildings etc.

Present status of the Stone Quarries in Khaira Tahasil:

Since the year 2013 all the 105 Granite Stone Quarries under Khaira Tahasil have been closed and those are non functional officially. But as there is huge demand of Granite Stone/Chips materials not only in Balasore District, but also in nearby Mayurbhanj, Bhadrakh, Keonjhar Districts towards infra structural Development in Government as well as non-Governmental & private organizations, individuals, illegal quarrying, excavation & transportation of Granite stone materials contained from those closed quarries & also from nearby area. To check this cladenstine operation the District Administration imposed Sec-144 of Cr. P.C. in the quarry area.

To this effect Tahasildar Khaira has pointed out those socio-economic, infrastructural development aspects of this Balasore District as well as in nearby districts and apprised vividly in his proposal for seeking clearance from NBWL for those Stone quarries operation, which has also been forwarded to the P.C.C.F. (WL) & C.W.L.W, Odisha, Bhubaneswar vide Memo No.7514/dt.31.12.2013 of the D.F.O. Balasore (WL) Division as those Stone quarries/Project area is coming within 10 km distance from the Kuldiha Wildlife Sanctuary.

On the dates 8th to 10th March, 2017 the NHRC has paid a visit to that locality with reference to the Case No.7797/18/1/2016 and found at many places illegal stone quarries were going on and hording of unclaimed illegal Granite Stone/Metal at different places. The local people prayed before the Commission for making those closed stone quarries into operational on consideration of socio-economic, employment generation, infrastructural development etc.

At present out of those 105 numbers of granite Stone Quarries 08 nos. have not been taken into consideration as they are coming within the Elephant Corridor and left to be closed for good and balance 97 numbers of Quarries come outside the Corridor, which comes under this Plan.

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Impact of stone quarry operation:

Quarrying can generate a number of on-site and off-site environmental effects through the blasting, excavation, crushing, screening, stockpiling and transport of aggregate.

The degree and nature of effects caused by quarrying varies according to the type of quarry, the scale of operation, methods used to excavate aggregate, the geology of the area and the surrounding land uses. The effects of quarries also vary by their nature (rock or sand) and whether they are in short- or long-term use, in continuous use or used irregularly or seasonally.

Rock-won aggregate is typically produced through drilling and blasting it from suitable rock deposits, and crushing and screening it to the desired size.

The uses of rock aggregate range from road preparation and finishing (base and surface) to composite for concrete.

Effects are either on site, on neighboring properties or completely off site, such as the transportation of aggregate. The environmental effects of quarrying primarily include:

- The disturbance of land and vegetation
- Dust
- Vibration
- Noise
- Traffic
- Visual effects
- Impact on cultural and historic heritage values
- The discharge of contaminants into air, water and land.

The effects of quarrying need to be considered when developing appropriate objectives, policies and methods in plans to manage quarrying. Although the effects of quarrying can often be mitigated, they cannot always be avoided.

Existing use rights should also be considered when identifying effects and developing appropriate methods to manage them.

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Noise issues and effects:

Noise is often generated by quarrying through blasting, hydraulic rock breaking, crushing and vehicle movements. This noise has the potential to affect the amenity of surrounding areas. Noise is one of the primary issues leading to reverse sensitivity pressures, where quarries are vulnerable to complaints from nearby residents which may lead to constraints on quarrying activities such as reduced operating hours and blasting event times.

Methods to manage noise:

Methods to manage other noise-generating activities could also be used in relation to the quarry industry: for example, those relating to traffic noise.

Timing restrictions on operations:

Timing restrictions may be imposed on typical quarry operations such as blasting, vehicle movements and crushing as a condition of consent, and are reasonably easy to monitor. Although time restrictions may be appropriate in many circumstances, it is important to consider the impact this may have on the quarry operation. Often, it will be appropriate to set different time restrictions for quarry operations based on the particular activity and the noise it generates. For example, the timing restrictions on traffic movements may need to be different than restrictions on blasting times. Stone quarry operation will be taken up between 7AM to 5PM. Blasting will be allowed between 4PM to 5PM. In no case quarrying should continue after 5PM till 7AM.

Loading & Transportation :

Mined out stone will be transported through trucks/tippers to the local domestic market for sale. Loading will be done manually. Stone will be exclusively used for different construction, building work etc. Further, the material can also be used for non-industrial purposes. Total 3 trucks/tippers (10 T/12T capacities) per day will be used for transportation of stone from the lease area. Transportation from quarry till 2KM distance will continue up to 6PM. No vehicle should start after 6PM.

Dust and air quality issues and effects:

Quarries have the potential to create dust through on-site and off-site activities such as the blasting of rock, the crushing and screening of aggregate and machinery movement around the site, and to and from the site. This dust has the potential to cause adverse effects on neighboring properties, such as the soiling of clean surfaces and outdoor living areas, roofs providing tank water, reduced visual quality and can also cause respiratory problems.

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The nuisance effects from dust and impacts on amenity can be difficult to assess and can sometimes be subjective. Whether the effects from dust are offensive and objectionable will be dependent on the nature of the source, the sensitivity of the receiving environment, the weather and on individual perceptions. Case law has determined that the judgment of whether something is offensive or objectionable has to be linked to whether it is of such an extent that it is likely to have an adverse effect on the environment.

Methods to manage dust and air quality effects:

The management approach for dust and air quality effects should be based on environmental standards at the boundary of the site and include effective mitigation measures implemented on site. Quarry operators can implement a number of procedural measures (eg, water spraying) and structural measures (eg, vegetation) to mitigate the effects of dust beyond the boundary of the site. Water spraying with boom fitted on a water tanker will be done in everyday on the roads up to 2KM from the quarry site at 10AM.

Issues and effects of earthworks, stockpiling and overburden:

Quarries, by their very nature, generally involve earthworks of significant scale through the extraction of rock from land-based resources. Although a large amount of aggregate is removed from the quarry for use elsewhere, there is also a large amount of material that typically will remain on site. The by-product from quarrying not used for aggregate is generally referred to as 'overburden' ie, the material overlying a rock formation that cannot be used for aggregate.

It is in the quarry operator's interest to keep the amount of overburden to a minimum to maximize the commercial efficiency of the quarry. This overburden can be used effectively to fill up the mined pits and also to rehabilitate the site. Quarry efficiency and the desire to avoid the unnecessary truck movements from the site mean that overburden may need to be placed on the quarry site or in close proximity. Thus, quarry operators may, as part of their applications, be seeking to create new land forms, normally through the filling of valleys but also through creating mounds or hills.

Traffic issues and effects:

A core activity associated with quarries is the transportation of aggregate from the (quarry) site to the location of demand. The transport of aggregate requires heavy haulage, and quarries have the potential to significantly increase heavy traffic movements around the site and the key transport corridors providing access to the site. There is the potential for these heavy trucks to damage the roads. Managing traffic from quarries therefore requires consideration of the effects of traffic on the surrounding area and the roading network.

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Effects of quarry traffic include dust, vibration, congestion, safety and noise, and these are mainly determined by the sensitivity of the surrounding environment. For example, noise from vehicles associated with quarry operations may be prominent if located in, or adjacent to, rural areas where the background noise levels are generally low. Vehicle noise is also an issue in urban areas where increased traffic congestion makes it increasingly necessary for quarry transport to take place outside of peak traffic hours when traffic volumes are lower. Background noise levels at night are also lower, accentuating potential noise issues associated with the distribution of quarry resources.

Water quality, use issues and effects:

Gravel extraction, processing and transportation of aggregate involves processes which generate suspended sediment with the potential to be entrained in water and eventually discharged into stream, surface water or groundwater. Quarries can also interrupt natural groundwater processes through changes or concentration of areas of recharge.

In addition to the potential effects on water quality, quarries will often use water for cleaning and washing aggregate and to control dust. The actual demand for water varies and many quarries use little or no water as most is used and then returned to groundwater. However, large quarries use significant amounts of water for dust suppression, particularly during drier times of the year.

Minor mineral sector provides a reliable supply of construction materials for road making, building and bridge construction and maintenance of road networks and railway tracks. Construction stones from small mining areas are the basic materials required in development of construction industry. Thus, mining of these minerals needs proper planning to ensure that the supply is managed in a sustainable way so that best balance is obtained between environmental, economic and social consideration. This is particularly true in India where development activities are growing fast. Significant increase in establishment of stone quarries is observed in last two decades particularly around Balasore District.

Mining, Environment and development have become complimentary to each other. The environment management plan will identify and address the impacts where these are adverse in nature, and there after design mitigate measures to manage such impacts in a manner as to conserve environment and ecology of the area. The EMP has been prepared with a view to ultimately ensure the adverse impacts are minimized if these cannot be prevented altogether

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The location map of the cluster stone quarries area along with all physical features is enclosed in Annexure)

Presence of National Park & Sanctuary situated within periphery of 10Kmfrom the area:

Kuldiha Wildlife Sanctuary is located within the periphery of 10 Km from the boundary.

Water Requirement and Power Requirement:

The water will be required for dust suppression.

No electrical power shall be required for operations as the mining will be worked out during day time only. Minimal power required for office shall be taken from the general electric supply of the area.

Employment Generation (Direct and Indirect) due to the project:

The mining operation in the cluster area will be carried out by semi-mechanized method such as loading, sorting & sizing. Indirect employment through creation of hired vehicles, food stalls, shops etc. also can be generated to full fill the day to day requirements of the mining personals.

Land Use Pattern:

Since the individual quarries are at the development stage and the excavation of construction stone from the quarry areas have not been completely exhausted so proposal for reclamation of mined out land for the cluster would not be provided at this stage. The reclamation proposal will be provided in the next plan period/conceptual period of mining. However, plantation has been suggested in the area, during plan period as a reclamation measure.

Water Quality:

Impact on Water Quality:

a) **Impact on Surface Water** - There are no first order streams passing through the quarry area. So, surface drainage will not be affected by mining. Runoff from the mining benches or from overburden during the rainy season is mitigated by guiding the run off through channel with check collapse in old benches. The rain water pouring on the exposed excavated area will be diverted to the settling ponds by constructing garland drains around the proposed pit. Mine water will be allowed to properly settle in the water sump made for it and clean water only will be allowed to go into the settling ponds. Will be developed as water reservoir which will serve as recharge pit. There will

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be no outside discharge of liquid effluent from the mine site. It is, therefore, apparent that there will be negligible impact of mining on the surface water regime.

b) **Impact on Ground Water** - Ground water pollution can take place only if the mining rejects contain toxic substances, which get leached by the precipitation water and percolate to the ground water table thus polluting it. Any nearby wells or other sources of water can be rendered unfit for drinking and even for industrial use. This is not the case with this deposit as the minor mineral (construction stone) or topsoil does not contain any harmful ingredients. Mining in the area will be done well above the water table. The water table will not be intersected during mining in the lease area. Hence there is no adverse impact of mining on the ground water quality. It is clear from that mining in the area is proposed above the ground water table up to the end of life of mine

Anticipated Environmental Impacts & Environment Management Plan:

The environmental parameters are likely to be affected by mining are related to many factors i.e. physical, social, economic, agriculture and aesthetic. Therefore, it is essential to assess the impacts of mining on different environmental parameters, before starting the mining operations, so that abatement measures could be planned in advance for eco-friendly mining in the area. The Environmental management plan has been formulated for the cluster Stone quarries to mitigate the adverse impact of stone mining on the surrounding environment. This includes an environmental policy on protection of environment and public safety. The river management functions involve strategic planning, sustainable allocation of resources and environment compatible mining methods for protecting the health of the river system. Management of mining areas includes legal, social and economic considerations, as well as scientific insights. The environment parameters affected due to stone mining project are land use, topography, drainage pattern, water resource, soil quality, ambient air quality, socioeconomic status, ecology and occupational health, etc.

The Objective of the Plan:

- Restoration of landscape consistent with the economy of mining operations, keeping in view the drainage pattern, geological stability, vegetation etc.
- Reducing Air Pollution in mining area and roads leading to them.
- Minimization, mitigation and where possible elimination of degradation in land, quality of air and water.
- Making least disturbance to the water regime and water quality.
- Soil & Moisture Conservation measures in corridor area.

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- Least disruption to the existing basic ecological status in the mining area during mining.
- Restoration of the elephant corridor with plantation.
- Increasing water availability for the wild animals.

Mitigative Measures for Control of Air Pollution:

In this cluster mining project, the source of dust emission is from:

1. Blasting Operation,
2. Mining Activities,
3. Loading & Transportation

However, the measures as suggested below will be followed to mitigate the pollution arising due to the above mining activities and transportation.

1. Proper mitigation measures like water sprinkling on roads within the lease area will be adopted to control fugitive dust emission. Every day at 10AM water will be sprinkled on load by water tanker fitted with boom. 2 such tanker will be used every day.
2. Water will be sprinkled at quarry faces & along loading sites to reduce dust emission.
3. Covered vehicles must be provided to prevent spillage of stone. All such vehicle loaded with material will be covered with tarpaulin.
4. Overloading will be prevented.
5. Plantation will be carried out on approach roads & safety zone of lease areas.
6. To control the emissions regular preventive maintenances of equipment will be done.
7. It will be ensured that all transportation vehicles will carry a valid Pollution under Control (PUC) certificate.
8. No crusher unit will operate within 2Km. distance from the boundary of Hadgarh-Kuldiha Wildlife Sanctuary.
9. No crusher unit within 2Km distance from Hadgarh - Kuldiha Elephant Corridor will operate after sunset i.e. 6PM till the next day morning i.e 7AM.

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Finished mining product (stone/ road metal) will be transported through road due to which additional 10 tippers per day will be used. Regular maintenance and water sprinkling on the road will be done to minimize the pollution due to transportation. Hence, existing road network is sufficient to handle the increase load on traffic for the mining in cluster area.

Noise Pollution

Noise will be produced at the lease area due to movement of trucks/tippers only. The following sources of noise increases the noise levels in the cluster mining zone as well as in the surrounding areas:

- Drilling;
- Blasting;
- Vehicular Movement

To control noise pollution during the proposed mining operations following steps will be practiced.

- The noise generated by the machinery will be reduced by proper lubrication of the machinery and equipment.
- Noise level shall be maintained within prescribed limits in the working zone (for 8 hr. Exposure).
- The workers employed should be provided with personal hearing protection equipment, with earmuffs and earplugs combined, if required, as a protection from the high noise level generated at the mining site.
- The provision of green barrier along the boundary will further reduce the propagation of noise level generated.
- Limiting time exposure of workers to excessive noise.
- No quarry operation after 5PM.
- No transportation after 6PM within 2KM distance.
- Blasting and use of explosive will be restricted between 4PM to 5PM.
- Carrying out blasting only during daytime and avoiding the same on cloudy days and when strong wind blows across.
- Speed of trucks entering or leaving the mine is limited to moderate speed of 10 kmph to prevent un due noise from empty tippers.
- Very old vehicle and equipments will not be used.

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**Water Pollution:**

There will not be any waste water discharges to water bodies or nallas from the mining operations. There is no first order stream passing through the lease area. So, surface drainage will not be affected by mining. Runoff from the mining benches or from overburden during the rainy season is mitigated by guiding the run off through channel with check collapse in old benches. The rain water pouring on the exposed excavated area will be diverted to the settling ponds by constructing garland drains around the proposed pit. Mine water will be allowed to properly settle in the water sump made for it and clean water only will be allowed to go into the settling ponds.

Mitigation Measures:

Adequate control measures will be adopted to check not only the wash-off from soil erosion but also uncontrolled flow of mine water. The measures to be adopted are:

- No perennial water body is present in the close proximity to the quarry
- During monsoon period surface runoff around the quarries and dumps near the natural drains will follow the garland drains to arrest the eroded sediments, which shall pass through a series of garland drains before being discharged to the natural drainage system.
- No wastewater will be generated during mining operation.

Waste Water Management:

No waste water will be generated from the mining activity of minor minerals as the project only involves mining of stone from the proposed lease area. Water will only be used for domestic purpose, control of dust & Plantation.

Soil Environment:

In the cluster mining lease area, the soil cover is in thin layer. The soil from the area proposed for mining will be scrapped and will be used for afforestation purpose and the overburden will be used for reclamation. There is no provision for separate stacking of surface soil excavated from mining operation. The excavated waste if any shall be utilized on existing roads, haul roads to be constructed around the lease & transport roads. Waste if any will be used for covering the reclaimed area, which can

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help in the improvement of the growth of the planted saplings. No major impact on soil of the study area is envisaged due to mining activities. Hence, there will be no major impact to the soil environment.

Scheme of Plantation & Development:

Plantation will be carried out within the elephant corridor, at the lease boundary, approach road, vacant school building area, public areas, etc. to control dust, air & noise pollution and improve aesthetic environment and improved habitat condition within the corridor. The dead plants will be replaced by fresh plantation to reclaim the original number. The species chosen for green belt and avenue are fast growing with good canopy and having dense leaf density. The species to be planted within the corridor should be fruit bearing, shade bearing and fodder species to meet the requirement of the wild animals.

Indigenous misc. species adaptable to the site and recommended as below for maintenance:

Fodder Plants:

- 1) Ban Kapasia (*Kydia calycina*)
- 2) Pani Kodal (*Firmiana colorata*)
- 3) Tentra (*Albizzia stipulate*)
- 4) Dhaman (*Grewia tiliacfolia*)
- 5) Mirigichara (*Grewia rhamnifolia*)
- 6) Piasal (*Pterocarpus marsupium*)
- 7) Kamlagundi (*Mallotus philippensis*)
- 8) Rai (*Dillenia pentagyna*)
- 9) Bhualo (*Cordia oblique*)
- 10) Bel (*Aegle marmelos*)
- 11) Kumbhi (*Careya arborea*)
- 12) Kala Sissoo (*Dalbergia latifolia*)

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- 13) Kusum (*Schleichera oleosa*)
 14) Mango (*Mangifera indica*)
 15) Jari (*Ficus rumphi*)

Cover plants:

- 1) Chhatian (*Alstonia scholaris*)
 2) Jamu (*Syzygium cuminii*)
 3) Karanj (*Pongamia pinnata*)
 4) Kurum (*Adina corolifolia*)
 5) Gandhana (*Premna latifolia*)
 6) Kangada (*Xylia xylocarpus*)
 7) Java Bar (*Ficus benamina*)
 8) Neem (*Azadirachta indica*)
 9) Bar (*Ficus bengalensis*)
 10) Panas (*Artocarpus heterophyllus*)
 11) Tentuli (*Tamarindus indica*)
 13) Kasi (*Bridelia retusa*)
 14) Giringa (*Pterospermum heyneanum*)
 15) Mahul (*Madhuca indica*)

Type of Plantation:

1. Bald hill plantation in corridor - 200 Ha.
2. ANR with gap plantation in corridor - 200 ha.
3. Avenue plantation on roads leading to quarry areas - 25Rkm.
4. Distribution of seedlings to the public, institution near to the mining area @ 1 lakh per year.

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36

Occupational, Health & Safety:

To control and minimize the risks around the workplace, lessees will implement Health, Safety and Environment Policy with the following measures.

- Ear-muffs will be provided to the workers whenever needed and good maintenance of vehicles will be provided
- Dust masks will be provided as additional personal protection equipment (helmet and safety shoes) to the workers working in the dust prone area, if required.

Socio-Economic Environment:

Critically analyzing the existing environmental status of the socio- economic profile and visualizing the scenario with the project, the impacts of the project would be varied and may generate positive impacts of the mining of stone/road metal quarry in the region that are stated below:

- The mining operations will provide direct employment to people.
- The villages and their inhabitants & domestic animals will not be disturbed from their settlements due to the mining operations.
- Local work force will be given first preference for employment.
- Mining activities will benefit the local people due to provision of more infrastructural facilities (developments of approach routes within the village area, health facilities etc).
- Awareness programs shall be arranged on health, hygiene and sanitation. Periodic health checkup camps, blood donation camps shall be organized by project authority for villagers, contract laborers, employees and their family members.

Soil & Moisture Conservation Measures:

Within the elephant corridor area SMC work is one of the important activity for conservation of rain water in the natural nallas by constructing series of Loose Boulder Check Dams, Diaphragm walls and water harvesting structures. There are 6 identified nallas within the corridor. On an average 10 LBCD and 2 Diaphragm wall and one WHS will be constructed on each nalla to meet the water requirement of the wild animals.

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Besides that, 2 water bodies at load laying areas within corridor will be excavated for elephant to use for bathing.

Retaining Wall:

The existing mines are so deep with vertical that wild animals may meet accidents while moving in corridor. To keep them away from the mined area it is proposed to construct retaining walls with dry stone packing with 0.5 mtr. width, 1 mtr height and length of 100 mtr. on an average near each quarry to prevent entry of animals in to quarry area. There are 97 stone quarries, which will have such retaining walls on their uphill side.

Reclamation of abandoned quarries:

Earlier there were 105 stone quarries in the proposal. But keeping safety of the animals in the elephant corridor, 8 quarries were not allowed. Now it is required to close these abandoned 8 quarries and fill them with over burden materials and frozen soil to take up mine dump plantation. In future when any such quarry is exhausted they will also be reclaimed in the same manner.

Project Outlay:

Total Project outlay from the year 2023-24 to 2031-32 comes to Rs.1214.46 Lakh.

2017-18 (in Lakh)	2018-19 (in Lakh)	2019-20 (in Lakh)	2020-21 (in Lakh)	2021-22 (in Lakh)	2022-23 (in Lakh)	2023-24 (in Lakh)	2024-25 (in Lakh)	2025-26 (in Lakh)	Total amount (in Lakh)
91.19	164.15	242.73	262.78	252.18	108.87	56.45	26.70	9.41	1214.46

Funding Agency :

The funds for implementation of the management plan may be allocated from the environmental cost realized from the all quarries rationally in proportion to the quantity of production.

Implementing Agency:

Divisional Forest Officer, Balasore Wildlife Division & Divisional Forest Officer, Baripada Forest Division

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Funds Requirement for implementation of Comprehensive Wildlife Management Plan for Mitigation of impact which would be caused by operation of Stone Quarries in Khaira Tahasil near Kuidiha Wildlife Sanctuary, Balasore during 2023-24 to 2031-32 (In Lakhs)

Sl. No	Wildlife Management Action Plan	Total	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Management of existing corridor.										
1.1	Survey demarcation of the corridor boundary line 1370Ha. @2MD @Rs.333/-	9.14	4.57	4.57							
1.2	180 nos. of concrete pillar posting along the corridor boundary @Rs.5000 per pillar.	9.00	4.50	4.50							
1.3	Filing of sand, soil and crusher dust for reclamation of 8 nos. quarries (@ Rs.1,00,000/- per pit)	8.00	2.00	2.00	2.00	2.00					
	Total:	26.14	11.07	11.07	2.00	2.00	0.00	0.00	0.00	0.00	0.00
2	Improvement of quality of the Corridor										
2.1	Creation of 2 nos. water body (@ Rs.6,50,000/-)	13.00			6.50	6.50					
2.2	Dry stone guard wall along the boundary of corridor and adjoining quarry boundary line. 100mtr. x 0.5mtr. x 1mtr. x 97quarries (@ Rs.3000 per running meter).	145.50			48.50	48.50	48.50				
2.3	Creation of Diaphragm wall in 2 nos. per Nallas in existing 6 Nallas. (@ Rs.50000/-)	6.00		3.00	3.00						
2.4	Creation of loose bolder check dams 10 nos. each in 6 Nallas (@ Rs.40000/-)	24.00		12.00	12.00						
2.5	Bald Hill Plantation over 200 ha. within the limit of corridor @ 40 Ha. in 5 years as per Annexure-A.	670.85	52.60	95.60	114.36	124.76	134.17	81.57	38.57	19.81	9.41
2.6	A.N.R. without gap over 200 Ha. @ 100Ha. in 2 phases as per Annexure- B	107.68			10.07	32.97	31.46	15.73	12.31	5.14	
2.7	Weed eradication over 300 ha. in 3 years @Rs.10000 per Ha.	30.00		10.00	10.00	10.00					
	Total:	997.03	52.60	120.60	204.43	222.73	214.13	97.30	50.88	24.95	9.41

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39

Protection to prevent fire and wildlife depredation.												
3	Creation of 50 KM fire line (@ Rs.3080/- per Km. for 1st Year & @ Rs.1000 per Km. in subsequent year)											
3.1	Engagement of 4 fire fighting watchers in summer season and 4 cattle watchers in rainy season. (@ Rs.9990/- per watcher).	16.00	3.20	3.20	3.20	0.5	0.5	0.5	0.5	0.5	0.5	0
3.2	Engagement of anti-depredation watcher for 2 months (4 person in a squad @ Rs.9990/-).	4.00	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0
3.3	Hiring of vehicle for protection of fire for 4 months. (@ Rs.50000/- per vehicle including POL).	10.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0
3.4	Purchase of fire fighting equipments.	10.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0
3.5	Purchase of anti-depredation equipments.	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0
3.6	Publication like signage and awareness campaigning.	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0
4	Total :	53.54	11.54	10.5	0							
Prevention of pollution.												
4.1	Water spray on the quarry area alongwith quarry approach roads (once in a day engaging 2 water tankers for 5 months @ Rs.2500/- per day)	7.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0
4.2	Free distribution of 1 lakh seedlings (6 months seedlings) in every year in the peripheral villages.	70.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	0

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4.3	Raising of Avenue Plantation 25 Rkm in the roadside of approach roads 5 RKM per year (18 months old seedlings, 500 plants per RKM) as per Annexure : C.	60.25	0.48	6.48	10.3	12.05	12.05	11.57	5.57	1.75	
	Total :	137.75	15.98	21.98	25.8	27.55	27.55	11.57	5.57	1.75	0
	Grand Total :	1214.46	91.19	164.15	242.73	252.18	262.78	108.87	56.45	26.70	9.41

Escalation of 20% on total cost = 1457.35 Lakhs

Sundar
25/11/2020
Divisional Forest Officer
Balasore Wildlife Division, Balasore

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Annexure : A

Bald Hill Plantation over 200 ha. within the limit of corridor @ 40 Ha. in 5 years.

	Area to be planted	0th Year	1st Year	2nd Year	3rd Year	4th Year	Total
2023-24	40 Ha.	52.60					52.60
2024-25	40 Ha.	52.60	43.00				95.60
2025-26	40 Ha.	52.60	43.00	18.76			114.36
2026-27	40 Ha.	52.60	43.00	18.76	10.40		124.76
2027-28	40 Ha.	52.60	43.00	18.76	10.40	9.41	134.17
2028-29			43.00	18.76	10.40	9.41	81.57
2029-30				18.76	10.40	9.41	38.57
2030-31					10.40	9.41	19.81
2031-32						9.41	9.41
Total :	200 Ha.	263.00	215.00	93.80	52.00	47.05	670.85

Bald Hill Plantation over 200 ha. within the limit of corridor @ 40 Ha. in 5 years

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Balasore Wildlife Division, Balasore

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Annexure : B

A.N.R. without gap over 200 Ha. @ 100Ha. In 2 phases

	Area to be planted	0th Year	1st Year	2nd Year	3rd Year	4th Year	Total
A.N.R. without gap over 200 Ha. @ 100Ha. in 2 phases (200 Plants per hectare ; 18 months seedlings)	2025-26	10.07					10.07
	2026-27	10.07	22.90				32.97
	2027-28		22.90	8.56			31.46
	2028-29			8.56	7.17		15.73
	2029-30				7.17	5.14	12.31
	2030-31					5.14	5.14
Total :	200 Ha.	20.14	45.80	17.12	14.34	10.28	107.68

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 Divisional Forest Officer
 Balasore Wildlife Division, Balasore

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Annexure : C

Raising of Avenue Plantation 25 Rkm in the roadside of approach roads 5 RKM per year

	Area to be planted	0th Year	1st Year	2nd Year	3rd Year	Total
2023-24	5 Km	0.48				0.48
2024-25	5 Km	0.48	6.00			6.48
2025-26	5 Km	0.48	6.00	3.82		10.30
2026-27	5 Km	0.48	6.00	3.82	1.75	12.05
2027-28	5 Km	0.48	6.00	3.82	1.75	12.05
2028-29			6.00	3.82	1.75	11.57
2029-30				3.82	1.75	5.57
2030-31					1.75	1.75
Total :	25 Km	2.40	30.00	19.10	8.75	60.25

Sunita
23/12/2022

Divisional Forest Officer
Balasore Wildlife Division, Balasore

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44

Annexure- 7/622



Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

6th Floor, Vayu Wing
Indira Paryavaran Bhawan
Jor Bag Road, Aliganj
New Delhi-110003

F.No.6-159/2016 WL(40th Meeting)
Dated: 7th February 2017

To
All Members,
Standing Committee of NBWL.

Sub: Minutes of 40th Meeting of Standing Committee of NBWL.

Sir/Madam,

Kindly find enclosed copy of the minutes of the 40th Meeting of the Standing Committee of National Board for Wildlife held on 3rd January 2017 at 11.00 AM in "Teesta", 1st Floor, Vayu Block, Indira Paryavaran Bhawan, Jor Bagh, New Delhi-110003 under the chairmanship of Hon'ble Minister of State (Independent Charge) for Environment, Forest and Climate Change.

Yours faithfully,

By

(Rajasekhar Ratti)
Scientist 'C'/Deputy Director (WL)

Encl: As above

Distribution:

1. Secretary, MoEF & CC
2. Director General of Forests & Special Secretary, MoEF & CC.
3. Member Secretary, NTCA, New Delhi.
4. Additional Director General of Forests (FC), MoEF&CC.
5. Additional Director General of Forests (WL), MoEF&CC.
6. Director, Wildlife Institute of India, Dehradun.
7. Director, GEER Foundation, Gandhinagar, Gujarat.
8. Prof. R.Sukumar, Central for Ecological Sciences, Indian Institute of Science, Bangalore.
9. Dr. H.S. Singh, Gandhi Nagar, Gujarat.
10. Pr. Secretary (Forests), Government of Andhra Pradesh, Hyderabad.

Copy to:

1. PS to Hon'ble MOS (I/C) E&F.
2. PPS to DGF&SS, MoEF&CC.
3. PPS to Addl.DGF(WL) and Member Secretary, Standing Committee (NBWL).
4. PPS to IGF(WL)/PS to DIG(WL)/PS to JD(WL).

TC Attested

[Signature]

**TAHASILDAR
KHAIRA**

through buffer zone of Similipal TR as well as its ESZ. He mentioned that the proposal was recommended by the NTCA with due feasibility assessment carried by team of officers and scientists for the expansion in the Eco-sensitive zone of Similipal TR only. The ghat portion of road about 7.6 km passing through buffer zone of TR has not been recommended for widening. State CWLW added that widening in the buffer zone of TR in the ghat portion was recommended by state also. But adequate numbers of under passes are proposed as mitigation measures to be taken up during widening in the rest of the locations.

After discussions, considering the public utility of the road, the Standing Committee agreed to recommend the proposal along with the conditions stipulated by NTCA and CWLW.

40.4.1.5 Proposal for Stone Quarries Operation in Khaira Tahsil under Balasore district, Odisha. The proposed distance of 2.0 km away from Kuldiha Wildlife Sanctuary.

The member secretary briefed the Committee on the proposal and mentioned that the proposal involves operation of 97 Nos. of stone quarries located at a distance of 2 kms from the boundary of Kuldiha WLS at various distances from its boundary. All the quarries(individually) are less than 5.0 ha in area. He added that the proposal is required to seek the recommendation of SC-NBWL as part of environment clearance. The proposal was also referred to NTCA for comments.

The State CWLW mentioned that these quarries are located in the vicinity of Sarisua & Kaithagadia villages under Khaira Tahasil and spread over an area of 173.5ha. On other side of the hillock, a part of traditional elephant corridor, 'Similipal-Hadagarh-Kuldiha-Similipal' is situated. He added that the numbers of proposed quarries were reduced from initial 105 nos to 97 nos in view of wildlife corridor and other factors.

After discussions, considering the requirement of building construction material for ongoing infrastructural developments in the area and socio-economic benefits (which would flow by way of employment), the Standing Committee agreed to recommend the proposal subject to implementation of a Comprehensive Wildlife Management Plan in the region for mitigation of impact which would be caused by operation of all quarries and transportation of materials, to be prepared by State CWLW. The funds may be allocated from the Environment cost realised from the all quarries rationally in proportion to the quantity of production. A monitoring committee comprising of mines and environment department would be constituted for implementation of the plan.

TC Attested



**TAHASILDAR
KHAIRA**



OFFICE OF THE TAHASILDAR, KHAIRA

District- Balasore

At- Bishnupur, P.O/P.S:- Khaira, Balasore, PIN- 756048 email: - tah.khai-od@nic.in

No 97 Date 06/01/26

To

The Registrar,
National Green Tribunal, Eastern Zone Bench
Finance Centre, 3rd Floor, Block III B
New Town, Kolkata-700157.

Sub:- Submission of Demand Draft on behalf of Respondent No.1 in O.A No. 90/2023 filed by Rural Organization for Social Empowerment Vrs. State of Odisha & others.

Ref:- Order dated 09.12.2025 of Hon'ble NGT, EZB, Kolkata in O.A No. 90/2023.

Sir,

In inviting kind reference to the letter on the subject cited above, I am to say that the Hon'ble Tribunal during hearing in O.A No. 90/2023 on dated 09.12.2025 granted one more opportunity to Respondent No.1 for filing its response subject to payment of costs of Rs. 10,000/- for the delay and inconvenience caused in filing of response on behalf of the state. The said amount to be deposited with the Registrar, NGT, (EZB) within one month as per the kind order of Hon'ble Tribunal. In this connection, the Demand Draft bearing No. **204829** dated **06.01.2026** amounting to Rs. 10,000/- (Rupees Ten thousand) only on behalf of Respondent No.1 is enclosed with this Letter for favour of your kind information and necessary action.

The copy of the letter along with the Demand Draft may kindly be acknowledged.

Enclosure:-

DD No. **204829**

Date:-**06.01.2026**

Yours faithfully


Tahasildar, Khaira
(Respondent No.7)

Memo No. 98 Date 06/01/26

Copy forwarded to the Learned Additional Govt. Advocate, Office of the Advocate General, Odisha, Cuttack for information and necessary action.


Tahasildar, Khaira

Memo No. 99 Date 06/01/26

Copy submitted to the Additional District Magistrate, Balasore for favour of kind information and necessary action.



Tahasildar, Khaira

Memo No. 100 Date 06/01/26

Copy submitted to the Collector, Balasore for favour of kind information and necessary action for information and necessary action.



Tahasildar, Khaira

Memo No. 101 Date 06/01/26

Copy submitted to the Additional Secretary to Government, Revenue and Disaster Management Department, Odisha, Bhubaneswar for favour of kind information and necessary action.



Tahasildar, Khaira

