



**ବନଖଣ୍ଡ ଅଧିକାରୀଙ୍କ କାର୍ଯ୍ୟାଳୟ ସୁନ୍ଦରଗଡ଼ : ସୁନ୍ଦରଗଡ଼ ବନଖଣ୍ଡ**  
**OFFICE OF THE DIVISIONAL FOREST OFFICER; SUNDARGARH FOREST DIVISION.**

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Memo No. 846/4F (Misc) /2021 - Dt- 22 -02-2021

To

The Regional Chief Conservator of Forests,  
Rourkela Circle, Rourkela.

**Sub: -** Proposal for Seeking prior Approval of GOI, MOEF & CC Under forest conservation Act, 1980 for Diversion of 1.0948 Ha. Forest Land for the construction of Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) Project of GAIL in Odisha Phase-II.  
**-Diversion of Revenue Forest land Under Sundargarh Forest Division 1.0948 Ha.**

**Ref: -** **Proposal No. FP/OR/Others/46243/2020**  
**State Serial No:-OR-09/2021, Dt: 19.01.2021**

In inviting a reference to the subject cited above, the User Agency has submitted the proposal for diversion of 1.0948 ha of Revenue Forest land in Sundargarh Forest Division **Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) Project of GAIL in Odisha Phase-II**, the details of forest diversion proposal is furnished below:-

**1. Brief Description:**

GAIL (India) Limited, India's principal Gas Transmission and Marketing Company, was set up by the Government of India in August 1984 to create gas sector infrastructure for sustained development of the Natural gas sector in the country. The 1800-km Hazira-Vijaipur-Jagdishpur (HVIJ) pipeline became operational in 1989. During 1991-93, three LPG plants were constructed and some regional pipelines acquired, enabling GAIL to begin its regional gas distribution in various parts of India.

GAIL (India) Limited, is India's flagship Natural Gas company, integrating all aspects of the Natural Gas value chain (including Exploration & Production, Processing, Transmission, Distribution and Marketing) and its related services. In a rapidly changing scenario, GAIL is spearheading the move to a new era of clean fuel industrialization, creating a quadrilateral of green energy corridors that connect major consumption centre in India with major Gas Fields, LNG terminals and other cross border gas sourcing points. GAIL is also expanding its business to become a player in the International Market.

M/s. GAIL (India) Limited envisages to strengthen local gas grid network in any state / U.T. of India via authorization by MoPNG. GAIL (India) Limited, a Public Sector Undertaking (PSU) company is also one of the leading companies in the field of Natural Gas transmission pipeline. GAIL has taken a lead in developing energy transportation infrastructure and connecting major natural gas supply sources and demand markets. GAIL is first company in India to transport natural gas on open access basis



and is a pure natural gas transmission company. The company has developed requisite expertise and confidence with proven project management competencies.

GAIL has been awarded authorization by Ministry of Petroleum and Natural Gas to lay a network of gas pipeline and associated facilities for the transportation of natural gas to fulfill the requirement of various consumers in the states of Eastern UP, Bihar, Jharkhand, Odisha, & West Bengal.

In view of this M/s GAIL (India) Limited, is planning to lay a pipeline for transportation of natural gas from Jagdishpur to Haldia and Dhamra along with various spur pipelines through the Jagdishpur Haldia-Bokaro-Dhamra Gas pipeline (JHBDPL).

Gail (India) Limited has proposed to lay Jagdishpur– Haldia-Bokaro – Dhamra Natural Gas Pipeline (JHBDPL) Project under Authorization from MoPNG (Ministry of Petroleum and Natural Gas), Govt. of India. The Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) Project of GAIL is a part of the Prime Minister Urja Ganga Project. The approximate length of the JHBDPL pipeline is 2600 kms and passes through the various parts of Eastern UP, Bihar, Jharkhand, Odisha & West Bengal.

GAIL (India) Limited has been authorized by Govt. of India vide letter dated 14.03.2016 to lay, Build and Operate a cross country Gas pipeline from Jagdishpur to Haldia(WestBengal) / Dhamra (Odisha) including associated Spur Pipe lines. The said pipeline shall be passing through the states of U.P., Bihar, Jharkhand, West Bengal and Odisha for supply and distribution of Natural Gas / RLNG to various industries and City Gas Distribution networks. Accordingly, GAIL has to start pre-project activities immediately and pipeline is scheduled to be completed by 2021.

The proposed Jagdishpur-Haldia-Bokaro-Dhamra Pipeline along with spurlines will be laid across forest land falling along / across the ROU (Right of Use) and various utilities such as roads, canals, rivers etc. The said pipeline shall be laid at the minimum depth of 1.2 mts. below NGL (Natural ground level) .

The Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) Project is being executed in Odisha in two parts.

Part-1: Dhamra- Angul Pipeline (DAPL).

Part-2: Bokaro- Angul Pipeline (BAPL) Odisha Section.

1) The Dhamra-Angul Pipeline (DAPL) is a part of Jagdishpur-Haldia-Bokaro-Dhamara Pipeline (JHBDPL). The JHBDPL is the part of Pradhan MantriUrja Ganga Project being executed by GAIL (India) Ltd., a Central Government Maharatna Company for uninterrupted supply of the environment friendly natural gas to various Industries, domestic consumption and CNG fuel for vehicle etc. The Dhamra-Angul underground pipeline which is a linear project will pass through various villages in eight districts of Odisha involving 12.2282 ha forest land and 1051.8811 ha of non-forest land. The stage-I/in principal approval for Dhamra Angul Pipeline (DAPL) Section is already obtained.

2) The present proposal is for laying of underground natural gas pipeline along with Optical Fiber Cable (OFC) fromBokaro to Angul (Odisha section). The Bokaro-Angul Natural gas pipeline (BAPL) Odisha Section by GAIL (India) Ltd. involves 65.4036 ha of forest land and 658.5433 ha of non- forest land passing through 212 villages in Odisha section.This BAPL Odisha section involves 07 forest divisions namely Rourkela, Sundargarh, Jharsuguda, Rairakhol, Bamara, Deogarh and Angul and 05 Districts namely Sundergarh,Jharsuguda, Sambalpur, Deogarh and Angul. The starting point of Bokaro-Angul Pipeline (BAPL) Odisha section is village Bankuba, Tehsil Biramitrapur, District Sundargarh latitude N 22°26' 51.7673" and Longitude E 84°46'12.0843" and end point is village



Budhapankha ,Tehsil Banarpal ,district Angul latitude N 20°52' 54.286" and Longitude E 85°15'7.687" length of pipeline is 296.105 km.

### **Justification:**

The criteria for route selection are

- Optimum distance between source of supply and consumer location (demand points)
- Avoidance of Wild Life Sanctuaries, Reserved Forest, Mining area and Defense establishment to the best possible.
- Avoidance of rocky marshy and low-lying areas
- Safety of people and environment
- Easy access to route during construction and operation.

The route was selected based on least disturbance to environment, forest, human habitation and aquatic bodies. It avoids National Parks and Wild Life Sanctuaries.

The selected route is optimized considering the above factors and connectivity between supply source and consumer location.

### **2- Maps.**

The user Agency has furnished the maps as mentioned below:

Sl.No.	Particulars	Scale	Annexure
1	Location Map of the project area on Topo sheet No. F44R13	1 : 50,000	Annexure-05
2	Index Map /Layout plan	1 : 6000	Annexure-06
3	DGPS Survey map by ORSAC of all Villages Litibeda, Chhamunda, Kureibaga, Lamati, Kulata, Phiringabahal, Kheriakani, Dharuadihi & Suamal	1 : 4000	Annexure-17

### **4-Flora & Fauna:**

Common floral species in the study area are : Amba (*Mangifera indica*), Amla (*Phyllanthus emblica*), Arjun (*Terminalia arjuna*), Ashoka (*Saraca asoca*), Bahada (*Terminalia belerica*), Bandhan (*Ougenia ojeinensis*), Bija (*Pterocarpus marsupium*), Bheru (*Chloroxylon swietiana*), Champa (*Michelia champaca*), Char (*Buchanania lanzan*), Dhaman (*Grewia*), Dhaura (*Anogeissus latifolia*), Dhoben (*Dalbergia paniculata*), Harida (*Terminalia chebula*), Jamu (*Syzygium cumini*), Kanchan (*Bauhinia spp.*), Karanj (*Pongamia glabra*), Kendu (*Diospyros melanoxylon*), Khair (*Acacia catechu*), Kurum (*Adina cordifolia*), Kusum (*Schleichera olesia*), Mahalimba (*Ailanthus excelsa*), Mahula (*Madhuca indica*), Tentra (*Albizia procera*), Mukhtamanji /Ritha (*Sapindus laurifolia*), Mundi (*Mitragyna parvifolia*), Rai (*Dillenia pentagyna*), Rajmohi (*Lannea coromandelica*), Saguana (*Tectonagrandis*), Sal (*Shorea robusta*), Salai (*Boswellia serrata*), Semal (*Bombax ceiba*), Sidha (*Lagerstromia parviflora*), Siris (*Albizia lebbek*), Sisso/ Bali (*Dalbergia sissoo*), Sissooi/Pahari



(*Dalbergia latifolia*), Sunari (*Cassia fistula*), Tentuli (*Tamarindus indica*) etc. are noticed in the area and no rare or endangered flora or fauna is noticed in this area as per Site Inspection Report of the undersigned at Annexure-B.

Terrestrial floral survey shows that, 208 species of plants were recorded from the entire study area. Around 67 (i.e. 32% of total recorded flora) species were recorded from the proposed project site. The species recorded in the project site include, 30 species of trees, 8 species of shrubs, 15 species of herbs, 5 species of climbers and 5 species of grass. The species recorded in the study area included 98 species of trees, 27 species of shrubs, 51 species of herbs, 18 species of climbers, 10 species of grass and 4 species of epiphytes and parasites. The local distribution of the plant species with respect to their occurrence (abundant, common and sporadic) have been given in the following Table.

#### LOCAL DISTRIBUTION OF PLANT SPECIES

Sl. No.	Types of Plant	Local Distribution		
		Abundant	Common	Sporadic
1	Trees	25	45	28
2	Shrubs	12	9	6
3	Herbs	30	19	2
4	Climbers	9	7	2
5	Grasses	3	5	2
6	Epiphytes & Parasites	3	1	0

#### Fauna

The lease area does not form a part of any National park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve or Ramsar site.

Local Name	English Name	Zoological Name	Schedule
<b>MAMMALS</b>			
Squirrel	Indian Palm Squirrel	<i>Funambulus pennant</i>	II
Cat	Jungle Cat	<i>Felisc haus</i>	II
Musa	Rat	<i>Rattusrattus</i>	V
Thekua	Rabbit	<i>Lepus nigricolis</i>	IV
<b>BIRDS</b>			
Baya	Weaver bird	<i>Ploccus phillipinus</i>	IV
Koili	Cuckoo	<i>Eudynamis &amp; colopaceus</i>	IV
Kau	Crow	<i>Corvus splendens</i>	V
Sua	Parrot	<i>Psittacula krameri</i>	IV
Para	Pigeon	<i>Columba livia</i>	IV
GharaChatia	Sparrow	<i>Passer domesticus</i>	IV



REPTILES			
Dhamana	Rat Snake	Ptyas mucous	II

#### **5- Wildlife Management:**

There is no rare / endangered/ unique species of fauna is seen in the area. But the movement of elephants is seen in the area.

#### **6-Tree Enumeration:**

Since the area proposed for diversion exceeds 1 ha in accordance with provision in para 2.2 (ii) of the guidelines under Forest (Conservation) Act, 1980, in the applied area of 1.0948 ha. In total, 3738 nos. of trees (Forest-147nos, non- Forest Govt -401nos, Private Land-3190nos) above 30 cm girth have been enumerated in the plots ,2525nos of Bamboo in (Forest-600nos, non-forest Govt-919nos, Private Land-1006nos). By extrapolation 3738 nos. of trees are computed over 1.0948 ha of forest land applied for diversion.

Hence, 3738 nos. of trees above 30 cm girth may be required to be felled during mining operation over the applied forest land. The canopy density has been reported to be 0.4 as per reported by the undersigned in Part-II of the application.

Therefore, 3738 nos. of trees are required to be felled as per tree enumeration report of Range Officer Sundargarh/ Bargaon of Sadar, Sundargarh and Bargaon Tahasil at page Annexure- 13.

#### **7-Compensatory Afforestation:**

The User Agency has submitted undertaking that the Compensatory Afforestation in lieu of forest land will be taken up in Lamra PRF of Jamankira Range of Bamra WL Division. Further, the User Agency has submitted an undertaking to pay the entire amount for Compensatory Afforestation in lieu of the total forest area proposed for laying out gas pipelines for Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDL), Odisha Phase-2 Project of GAIL.

#### **8-Cost benefit analysis:**

The Cost Benefit analysis for the above project Submitted by User Agency, which is enclosed at Annexure-16.

#### **9-Environmental Clearance:**

State Pollution Control Board, Odisha has conveyed its consent to lay out gas pipeline under ground for transportation of natural gas for Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDL), Odisha Phase-2, which is enclosed at Annexure-14 & 15.



**10.-Certificate under Forest Right Act, 2006:**

The User Agency has Submitted Undertaking to furnish forest Right Act Certificate, which is enclosed at Annexure-18.

**11-Violation:**

No violation under the FC, Act is reported to have committed by the User Agency as per Site Inspection Report of the undersigned.

**12-Position of displaced people and adequacy of rehabilitation, if any:**

This project involves no displacement for diversion of 1.0948 Ha Revenue forest land in village Litibeda, Chhamunda, Kureibaga, Lamati, Kulata, Phiringabahal, Kheriakani, Dharuadihi & Suamal.

**13-Position of rare and endangered species available or importance of area from archaeological point of view:**

No rare and endangered species are reported from the applied area. The area is not important from archaeological point of view.

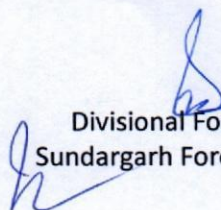
**14-Others:**

- The basic information of Sundargarh Division has been furnished as Annexure - H.
- The User Agency has furnished undertaking to pay the NPV as Annexure-E.
- The User Agency has submitted the DGPS survey map along with shape file of the boundary of the forest area involved of Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDL), Odisha Phase-2 Project, which has been duly verified by ORSAC and duly authenticated by the DFO, Sundargarh. As per DGPS survey the revenue forest area comes to 1.0948 ha. A copy of the DGPS survey map is enclosed herewith at Annexure-17.

**15-Recommendation:**

In view of the above position, the proposal for diversion of 1.0948 ha of Revenue Forest land in Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDL), Odisha Phase-2 Project is forwarded herewith in 5 sets along with supporting documents for consideration on its own merit and onward transmission to Govt. of India for diversion in favour of Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDL), Odisha Phase-2 (GAIL India LIMITED) under Sundargarh Forest Division in Sundargarh district of Odisha.

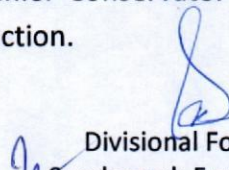
Encl:-As above.

  
Divisional Forest Officer,  
Sundargarh Forest Division. 02/02/2022



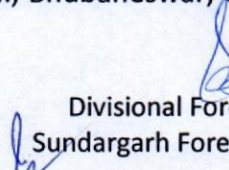
Memo No.847/4F (Misc) /2021 - Dt- 22 -02-2021

Copy forwarded to the Principal Chief Conservator of Forests, Forest Diversion & Nodal Officer, FC-Act. , Office of the Principal Chief Conservator of Forests Odisha, Bhubaneswar for favour of information and necessary action.

  
Divisional Forest Officer,  
Sundargarh Forest Division.

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Copy forwarded to the GM (Const), GAIL India Ltd., Bhubaneswar, Odisha for information and necessary action.

  
Divisional Forest Officer,  
Sundargarh Forest Division.