

### **Justification for locating the project in forest Area:**

At present the approach road from Jorudih is being used for transportation of minerals from the mines to M/s Tata Sponge Iron Ltd. at Bileipada and to public railway sidings for onward despatch to the steel plants of the Company. This road route is also used by number of other mines around Khondbond area for transportation of minerals. Transportation of minerals by other approach road is not possible due to hilly terrain. As there is no other alternate for evacuation of minerals from the lease, production level of the mine is restricted to about 2 MTPA only. In order to meet the increased requirement of iron ore for the steel plants, it was planned to expand operations in the Khondbond mine. Accordingly approval for revised scheme of mining was obtained from Indian Bureau of Mines and Environmental Clearance for Mining of 8 MTPA Iron ore (ROM), 0.10 MTPA Manganese Ore (ROM) was obtained from MoEF, Govt. of India vide letter no. J-11015/888/2007-IA.II(M), Dt. 21.12.2011. The expansion program envisaged addition of higher capacity mining fleet and installation of State of the Art Beneficiation Plant to process 8.00 MTPA throughput and also evacuation of final product out of the Khondbond lease to the company steel plant through environment friendly pipe conveyor system. With the proposed expansion ~6.00 MTPA of final product (Iron ore lumps and fines) need to be transported out of the mining lease. This expansion is possible only if mineral is transported through the long-distance conveyor. Since the forest lands coming within the selected route are existing in scattered plots, it has not been possible to avoid the forest area.

Similarly, for 33KV DC Transmission line all the available options have been explored but no corridor without the involvement of forest land could be found. Three (3) numbers of alternate routes were surveyed, the merits and demerits are as follows:

**[I] FIRST ALTERNATIVE (MARKED ON MAP AS ALT-I):** This route emerging from 220/33 kV MRSS of TATA STEEL terminates at Khondbond proposed plant confronts the Baitarani Reserve Forest in its way. The length of the proposed route is 15.187 KM out of which length of route passing through Forest Area is 7.307 KM. The total involvement of land for its corridor is 22.7805 Ha and the area in Forest Land is 10.9525 Ha. The Forest area is having higher density of vegetative growth and thus will attract extensive felling of trees.

Apart from involving greater forest coverage, the route will have one railway crossings near to TATA Ferro Alloys Plant. This route would have crossed 2 Numbers 33 kV line and SER owned Joda-Banspani 132 kV line and telephone Line. This route would have passed over Joda village having dense population and all effort to bypass it was in vain.

**[II] SECOND ALTERNATIVE (MARKED ON MAP AS ALT-II):** The total length of the route is 14.32 KM out of which 6.0499 KM of route length comes inside Forest land. The total area of land for its corridor is 21.48 Ha & the Forest land involved is 9.7485 Ha. The proposed transmission line is to cross the South Eastern Railway line connecting KJR and JSR. Moreover, the line would have also crossed 33 kV Transmission line twice near Banspani, purely a densely populated area. The line would also have crossed 220 kV Transmission line. Most importantly the proposed route would have strung over the quarters belonging to Tata Steel, very much unsafe for habitants. All possible efforts were made to bypass the same route, but could not avoid the same. As the ground clearance of 33 kV line is only 5 Mtrs, it would not have been possible to keep adequate safe clearance once it

is allowed to cross the buildings. The line would have strung over Joda West Manganese mining area, generally not permissible by the Director of Mines.

**MOST FEASIBLE ROUTE PROPOSED:** The Transmission Line is proposed to connect 220/33 kV Main Receiving Substation at Joda to the Proposed Plant at Khondbond. The two locations could not have been connected without involving Forest Land. Khondbond Iron Ore Mine is surrounded by Baitarani Reserve Forest and thus the Proposed Route had to encounter Forest Land. The total length of the proposed route is 11200.68 mtr involving area of 10.717 Ha. Route Survey over the total distance of 11200.68 mtr of 33 kV Line was very meticulously done to avoid Forest Land. We have explored all the feasible options but the Forest land could not be avoided completely and the route involving least forest land has been adopted. The line is having only 1(one) 220 kV line crossing. When we compare the 3(three) routes surveyed, the route under discussion is shortest, occupies least Forest area, does not involve any Railway crossing, require least tree felling & doesn't have to pass over any populated area.

The proposed corridor asked for diversion has been selected along the lease boundaries and through non-mineralized barren zone so that future mining operation is not affected. As per the approved Geological Plan, this part of the Utility corridor is passing entirely over the major shale bearing zone in which probability of mineral underlying is negligible.