



Justification of Site Selection

Adani Cementation Limited is setting up a 3.3 MTPA Integrated Unit in Lakhpat. The major raw material for production of clinker in the plant is limestone, which is to be sourced from nearby Mudhvay Limestone Mining Block 'C'. A quantity of 15400 metric tons of limestone will have to be transported from Mines to Plant on daily basis (approx. distance 3.1 Km). Moreover, Clinker (10,000 tpd) and Cement (3200 tpd) produced inside the Plant will have to be transported daily from plant to nearby captive Jetty (approx. distance 6 km), whereby it will be dispatched to the Grinding Units and Coastal Markets.

For the transportation from Plant to Jetty, 3 alternative routes (Option-1, Option-2 & Option-3) are examined (Please refer Attachment-1) based on optimization of land requirement, minimum environmental damage and feasibility of the project. Option wise area of proposed conveyor alignment is given below:

Conveyor Alignment Option	Option-1	Option-2	Option-3
Total Length (in Km)	4.76	4.78	5.07
Pvt. Land (in Ha.)	1.94	2.42	2.50
Govt. Land (in Ha.)	0.84	1.27	1.32
Forest Land (in Ha.)	2.93	2.05	2.27
Total Require Area (in Ha.)	5.71	5.74	6.09

Based on above alternative conveyor alignment survey Option-2 is considered for proposed establishment of the project.

Conveyor alignment options are also examined on following two feasible modes of operation:

- A. Installing a Conveyor Corridor
- B. Building Road Infrastructure



Comparison of Capital Expenditure

1. Capital Expenditure for Conveyor : 133.00 Rs Crore
2. Capital Expenditure for Road : 74.40 Rs Crore

Total Savings in Capital Expenditure in case of road option: **58.60 Rs Crore**

Comparison of Transportation Cost

Item	Conveyor (Rs/MT)	Road (Rs/MT)	Difference (Rs/MT)	QTY per year (MMT)	Total (Rs Crore)
From Limestone mine to Plant	10.32	50.00	39.68	5.00	19.84
From Plant to Jetty (Clinker)	11.20	100.00	88.80	3.30	29.30
From Plant to Jetty (Cement)	11.20	100.00	88.80	1.00	8.88
Total Difference in transportation cost per year					58.20
NPV of Difference over 30 years (with 0% Escalation Rate)					512.88

The difference in above NPV and saving in Capital Expenditure is around **Rs 454.28 Crore**. Hence, financially it is preferable to install a conveyor for transportation. Moreover, if the road mode of transportation is employed, the projected daily traffic of Truck/ Dumper will be 250 trips on an average both from Mines to Plant and from Plant to Jetty. The impact of stress rendered on the surrounding sensitive environment by the pollution and commotion caused by this heavy traffic of vehicles will be irreversible. Also, since the location is tide sensitive, there may arise safety and reliability issues of road transportation. However, in case of Conveyor, though a diversion of 2.6564 ha of Forest Land will be required; there will be savings in transportation cost and additionally, no harm will be caused to the environment. So both from financial and environmental perspective, it is recommended to opt for Conveyor mode of transportation.