

## **JUSTIFICATION FOR ROUTE SELECTION**

In consideration of the requirements of Environmental parameters, construction methodologies to be adopted for different terrain encountered en-route, design and engineering factors, availability of logistic support during construction, operation and maintenance of pipeline, various feasible routes were identified by the Jambusar Nagar Seva Sadan based on desk study of relevant topographic maps of Survey of India.

The study was subsequently supplemented with field reconnaissance and data collection along the feasible routes. Finally the optimum route was arrived at after analyzing the various data and conducting in depth study of topographic maps based on field data.

### **Methodology of selection of pipeline route**

Relevant topographic maps along the various alternative pipeline route (s) were identified. After conducting a detailed desktop study of the alternative routes on the topographic sheet the feasible routes were identified. This was subsequently supplemented with route reconnaissance data collection along the feasible routes for arriving at the optimum route.

### **Factors considered**

While identifying the various alternatives for selection of the optimum route following factors were considered.

- Pipeline route has been finalized in such a way that minimum forest land will be utilized as well as tree cutting will be avoided.
- Demand and supply center
- Compliance with environmental regulations
- Safety of people and property
- Shortest possible pipeline length
- Minimum number of bends
- Favorable ground profile for pipeline hydraulics
- Accessibility to pipeline route during construction maintenance and operation
- Location of pipeline facilities and access there to
- Avoidance of mining protected and reserved forest archaeological and other sensitive areas.
- Avoidance of unstable ground features
- Minimizing road, rail, rivers, and flood prone areas
- Avoidance of rocky stretches
- Avoidance of areas reserved for planned future development
- Flexibility for future expansion

Based on the above detailed route surveys have been carried out to finalise the exact corridor for laying the pipeline.