

EXECUTIVE SUMMARY

1.1 Introduction

KIADB has proposed to develop Canara Industrial Area in an area of 585.66 acres near Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk, and Dakshina Kannada District. Land use breakup of the proposed is given below

Table 0.1: Land use Breakup of the proposed project

S.No	Description	Acres	Hectares	% of Land Use
1	Industrial	404.60	163.70	69.10
2	Civic Amenities	29.28	11.84	5.00
3	Park & Buffer Zone	65.21	26.38	11.13
4	Parking & Transport	29.28	11.84	5.00
5	Roads	34.46	13.94	5.88
6	Commercial	7.17	2.90	1.22
Land in slope +5.05A Encroached by Karnataka Forest Department		15.66	6.33	2.67
Total Area		585.66	236.93	100.00
Forest Land (59.00A+5.05A Encroached)		59.00		

The proposed industrial area will include following infrastructure facilities:

- Industrial Plots
- Approach roads and internal roads with storm water drains
- Power supply and street lighting
- Water supply network
- STP
- Power Sub-Stations
- Rain Water Harvesting System
- Landscape
- Public utilities
- Parking
- Green Belt Development

1.2 Water demand

Requires 5.6 MLD amount of water will be drawn from Nethravathi River for the proposed industrial area.

1.3 Power Demand

The power requirement for the proposed development is 43.92 MW. The source of power will be from Mangalore Electricity Supply Company Limited (MESCOM)/KPTCL.

1.4 Green Belt

15m buffer zone along the boundary of the project site will be earmarked for green belt development as per guidelines of CPCB. Also landscaping will be done at appropriate places. The proposed project also proposed to have parks.

1.5 Amenities

Provision of plots for Police Station, STP, Canteen, electric grid, public transport & solid waste management etc., will be made.

INTRODUCTION OF THE PROJECT

1.6 Identification of the Project Proponent

Karnataka Industrial Areas Development Board (KIADB) is a wholly owned infrastructure agency of Government of Karnataka, set up under Karnataka Industrial Areas Development Act of 1966. This Board functions as per statutory provisions, rules and regulations enacted there under. The Board comprises of senior government officers in their ex-officio capacities. KIADB holds pride in being the first government organisation in Karnataka to obtain ISO 9001 certification in the year 1997.

Now the KIADB is following ISO 9001:2000 module covering its functions of Land Acquisition, Development and Allotment functions in Bangalore Urban and Rural districts.

KIADB has so far developed 141 industrial areas in 28 districts of the State. KIADB has proposed to develop CANARA Industrial Area in an area of 585.66 acres near Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk, and Dakshina Kannada District

The Ministry of Environment and Forest (MoEF), Government of India in its latest Notification (dated 14th September, 2006) on EIA directs that on and from the date of publication of new Notification construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule should undertake the EIA/EMP study before any construction work.

KIADB as a part of the compliance to the regulatory requirement i.e., to obtain Environmental Clearance from MoEF has appointed **ABC Techno Labs India Private Limited (Consultant)**, Chennai as Environmental Consultants who are accredited by National Accreditation Board for Education and Training (NABET)-Quality Council of India (QCI), New Delhi.

1.7 Brief Description of nature of the project

KIADB is proposed to develop the CANARA Industrial Area near Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk, Dakshina Kannada District in an area of 585.66 Acres.

- Industrial area is about 69.10% of the total area
- Civic amenities area is about 5.00% of the total area
- Park & Buffer Zone is about 11.13% of the total area
- Parking area is about 5.00% of the total area
- Roads is about 5.88% of the total area
- Commercial is about 1.22% of the total area
- Land in slope +5.05A Encroached by Karnataka Forest Department is about 2.67% of the total area

1.8 Need of the project and its importance

The project will generate direct and indirect employment opportunities for the local people. The plant will create additional employment during construction & operational phase. Additionally, certain works like security will be outsourced on contract. The secondary employment in the form of providing services to the employed manpower will also be developed in the neighboring villages.

- Raw materials can be sourced locally. Hence the cost for procurement is less
- Increase in Market & Business Establishment facilities
- The State Government will benefit through revenue recovery from excise duty.

1.9 Imports v/s Indigenous Production

Once the industries start production, the import v/s indigenous production factor can be worked out.

1.10 Export Possibility

Once the industries start production, the export possibilities can be explored.

1.11 Domestic/Export Markets

Once the industries start production, the domestic/exports markets can be evaluated.

1.12 Employment Generation (Direct & Indirect) due to the project

Due to the proposed project, approximately 25,500 job vacancies will be created.

PROJECT DESCRIPTION

1.13 Type of the project including interlinked & Interdependent Projects

KIADB has proposed to develop CANARA Industrial Area near Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk and Dakshina Kannada District. Once the industrial plots are completely sold interlinked/interdependent, projects will be taken up such as textile Industries, general industries etc.

1.14 Location of the Project

KIADB is proposed to develop the CANARA Industrial Area near Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk, Dakshina Kannada District in an area of 585.66 Acres. Location map of the proposed project is given below in Figure 3.1

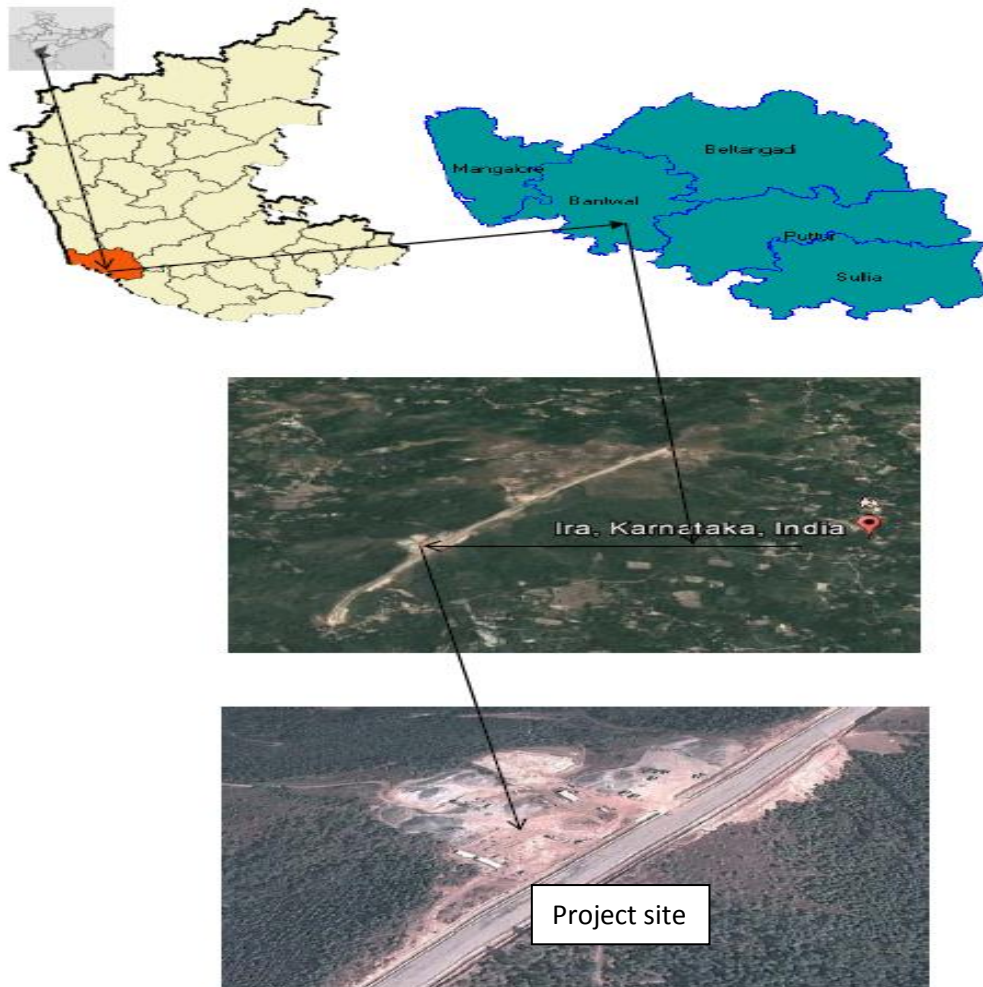


Figure 0.1: Location Map

Figure 0.2: Topo Map

1.15 Details of Alternative sites

No alternative site proposed- Land developed by Karnataka Industrial areas Development Board (KIADB).

1.16 Size or Magnitude of Operation

The KIADB proposed to develop the industrial area in an area of **237.00 ha**. The land use breakup of the proposed project is given below in **Table 3.1**

Table 0.1: Land use Breakup of the proposed project

S.No	Description	Acres	Hectares	% of Land Use
1	Industrial	404.60	163.70	69.10
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1.17 Project Description with process details (schematic diagram/flow chart showing the project layout, components of the project etc.)

KIADB is proposed to develop facilities as detailed in Table 3.1 with basic facilities like roads, water supply power, parking, utilities, so there is no process involved in the proposed project. The layout map of the project is given below in **Figure 3.3**

Figure 0.3: Layout Map

1.18 Raw material required along with Estimated Quantity, Likely Source, Marketing Area of Final Products, and Mode of Transport of Raw Material & Finished Product.

Raw materials required for construction will be procured locally & from the nearest quarry.

1.19 Resource optimization/recycling & reuse envisaged in the project

Excavated earth will be utilized for leveling purpose & other pavement works. Fly ash will be utilized as building material. Treated wastewater will be reused for gardening purpose.

1.20 Water requirement & Power requirement and its sources

Water

Require amount of fresh water for the proposed project is about 5.6 MLD and it will be drawn from the Nethravathi River through Irrigation Department for the proposed industrial area.

Power

The power requirement for the proposed development is 43.92 MW. The source of power will be from Mangalore Electricity Supply Company Limited (MESCOM)/KPTCL.

1.21 Quantity of wastes to be generated (liquid & solid) & scheme for their management/disposal

The manufacturing/ production sections will produce the Industrial fraction of waste and the non-production sections such as administration buildings, green spaces, roads and the working population will generate the Municipal waste. The quantities of waste likely to be generated from the proposed project have been estimated on the basis of population and land use characteristics.

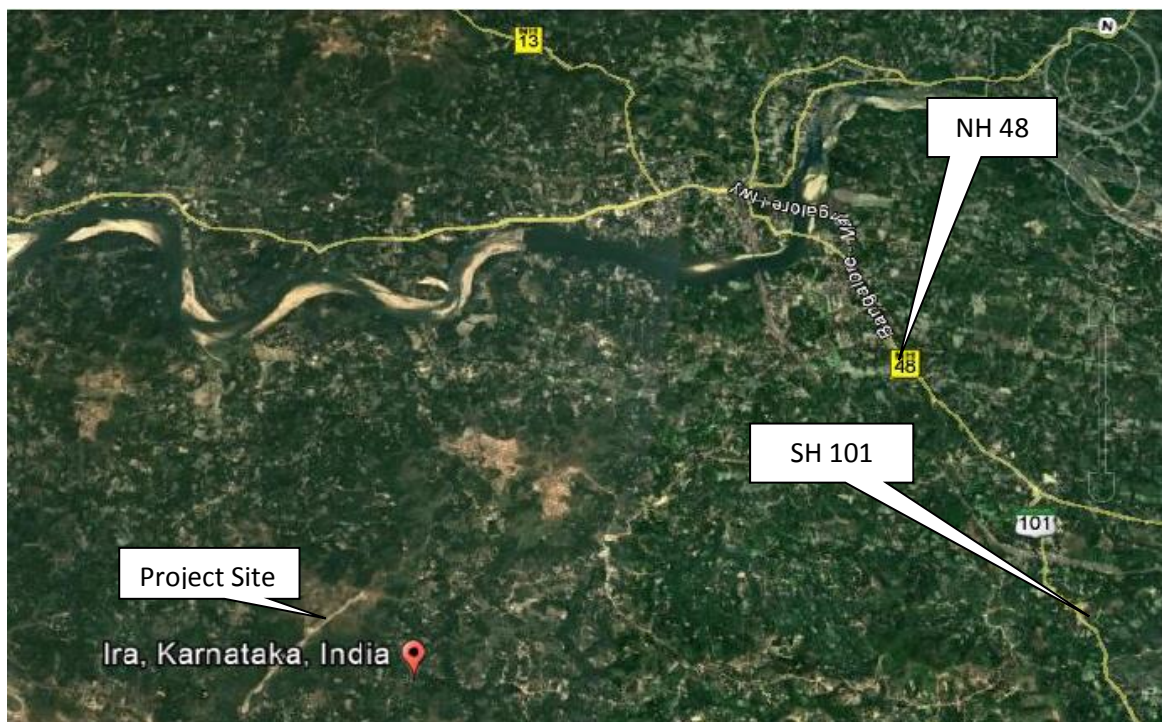
The industries generating solid waste have to manage such waste by themselves and are required to seek authorizations from Karnataka Pollution Control Boards under relevant rules.

SITE ANALYSIS

1.22 Connectivity

The project site is located in Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk and Dakshina Kannada District. The area lies in the northern latitude of 12°49'01.1" and eastern longitude of 74°58'58.0". Site is well connected by road, rail and airport. Site is well connected with the State Highway, SH-101 east direction and Site is also connected with National Highway NH-48 towards north direction, Mangalore International Airport is around 17.5 Km northwest direction away from the project site. Bantwal Railway Station is about 8.9 Km north east direction from the project site. The figure showing the connectivity to the project site in the nearby region is given in the **Figure 4.1**

Figure 0.1: Connectivity of the site



1.23 Land form, Land use & Land Ownership

Presently the land is with shrub in most of the area. KIADB has proposed to acquire lands required for development of Industrial estate and the amenities. KIADB has acquired land from the village near Ira, which is located near Ira, Chelur, Balepuni and Kurnadu village.

1.24 Topography

The topography of the district varies from plain to undulated terrains at various locations. An interesting feature of the coastal strip and the middle belt is that, it is not a plane but a series of estuarine low lands separated by numerous hill ranges. The coastal tract is the most densely populated part of the district and is the most fertile belt. The middle belt again has an undulated topography with hills and dales.

1.25 Existing land use pattern

The district has 1218476 hectares of forests, which constitutes (26.93 %) of the total geographical area of the district (477000 ha). Net area sown during the year is 2008-09 was around 130400 ha. And 27800 hectares of land was sown more than once.

Land use pattern of the district	Geographical Area	Forest area	Land under non-agricultural use	Permanent pastures	Cultivable wasteland
Area (Lakh ha)	477	128	63	19	31

Land use pattern of the district	Land under Misc. tree crops and groves	Barren and uncultivable land	Current Fallows	Other Fallows
Area (Lakh ha)	31	59	7	5

*Source: Agriculture Contingency Plan for District: DAKSHINA KANNADA.

1.26 Existing Infrastructure

a) Infrastructure

- 6 Industrial Areas and 5 industrial estates in the district
- In addition KIADB has proposed to establish an Industrial Area and Industrial Estate in the district
- Taluk in the Dakshina Kannada district have been divided into zones for zones for industrial incentives.

Zone 3: Bantwal, Mangalore(excluding corporation limits), Puttur, Sullya&Belthangadi.

Zone 4:Mangalore (Corporation limits)

- Proposed Creation of an IT Zone covering the district Suvarna Karnataka Development Corridor.

b) Industry Profile

- Huge scope for industrial growth and development in cashew kernel, coconut oil, food and beverages, manufacturing activities rubber or plastic goods and wooden product etc.
- Presence of many construction and infrastructure related industries such as bricks, tiles and stoneware manufacturing
- 17 large-scale, 18918 small µ Enterprises and 6 medium and mega Industries.

c) Key Industries

- Chemicals and petro-chemical, Engineering, medical & Food Industries.
- Mining, printing, glass & ceramic, electronic & machinery.
- Other focus sectors are- manufacturing activities rubber or plastic goods and wooden product,Tourism.

d) Educational Institutions

- Karnataka Krishi Vignan Kendra, Mangalore University
- Manipal College of Dental Sciences- Mangalore.
- National Institute of Technology, Suratkal
- Mangalore Institute of Technology and Engineering
- PA College of Engineering
- KS Hegde Medical Academy
- Kasturba Medical College
- Mulki Ramakrishna Poonja ITI
- National Research Centre For Cashew

e) Tourism

Ullal – An enchanting beach marked by abundant trees, situated at a distance of 10 Kms from Mangalore is famous for historic locations like Someshwara Temple, summer sand beach resort etc.

- **Alekan Falls** – An attractive water fall noted for its picturesque locale, located near Bale Kallu Gudda (one of the highest altitude regions in the district).
- **Dharmasthala** - A beautiful sacred island formed by the magnificent river Nethravathi,
is famous for 800 year old Manjunatha temple and the Sri Gomateshwara statue built in 1973 which is carved out of a single stone to a height of 14 meter.

1.27 Climatic Data from Secondary sources

Dakshina Kannada region has wider climatic conditions with three different seasons. The pre monsoon starts from January to May. This period can be divided in to winter January to February and summer (march-may) winter is characterised by generally clear skies and very little rainfall. From April onwards erratic thunderstorms occur increasing during the month of May. The mean annual rainfall of the district is 3975 mm.

1.28 Soil Types

The soil in the district is mostly lateritic type, found distributed in the Pediplain area characterized by high iron and aluminium content. Lateritic soil is mostly red in color and yellow loamy, pale to bright red colours are also seen. Lateritic soil is suitable for Paddy, Sugarcane, Arecanut and Plantation crops, viz. crops like Cardamom & plantains. Loamy red soils are distributed in the lower reaches of valleys. Red lateritic soil is the most dominant soil type in the area. The texture of the soil varies from fine to coarse. The soil in valleys and intermediate slopes is rich in loam whereas in upper slopes it is much coarse in nature. The soil responds well to irrigation and other soil - management practices. Silty and loamy soils are of transported origin and are found mostly along river banks and in valley plains. They have good infiltration capacity and are well-suited for agriculture due to their fertility.

PLANNING BRIEF

1.29 Planning Concept

KIADB is proposed to develop an industrial park with all the facilities like amenities, utilities, parks, parking, and green belt roads in the total area **237.00 ha**. The land use breakup of the proposed project is given **Table 3.1**

1.30 Population Projection

The population for the project will be approximately 25,500 peoples and the population from varies regions migrate towards Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk & there will be slight increases in population.

1.31 Land Use Planning

The KIADB proposed to develop the industrial area in an area of **237.00ha**. The land use breakup of the proposed project is given below in **Table 5.1**

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Total Area		585.66	236.93	100.00
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As per the statutory requirement, 15m buffer zone will be left all along the boundary of the industrial area.

1.32 Assessment of Infrastructure Demand (Physical & Social)

The following infrastructure will take place for the proposed project

- Roads
- Approach Roads
- Water supply system
- Power
- Rain water Harvesting System
- Storm Water Drainage
- Firefighting System
- Green Belt Development
- Sewage Treatment Plant

PROPOSED INFRASTRUCTURE

1.33 Industrial Area

- i. **Industrial Plots:** 404.6 Acres will be facilitated as processing zone of various industries.
- ii. **Roads:**The proposed project consist of two roads 24 m wide and 30 m wide.
- iii. **Approach Road:**A suitable approach road from the State highway to the proposed site besides the existing roads.
- iv. **Water Supply System:** Required amount of fresh water (5.6MLD) will be drawn from Nethravathi River.
- v. **Power:**The power requirement for the proposed development is 43.92 MW. The source of power will be fromMangalore Electricity Supply Company Limited (MESCOM)/KPTCL.
- vi. **Rain Water Harvesting System:** The proposed expansion activity includes the rain water harvesting system through RWH structures like percolation pits proposed to be constructed along storm water drain at 100 m interval.

Percolation pit will be at 30 cm diameter & 3 meters depth and Filled with broken half bricks (pebbles) for 2.85 m from bottom and coarse sand for the top 15 cm. The top covered with perforated R.C.C. slab, these pits will be made at intervals of 100 m center to center along the pitch boundary. Rain water collected in the terrace will be collected through a 150 mm PVC pipes down take and collected in rain water system.
- vii. **Storm water Drainage:**Suitable storm water drainage system will be connected based on rainfall intensity.
- viii. **Fire Fighting Systems:**The design and planning of Fire Fighting System shall be done keeping in view the following criteria:
 - i. National Building Code Sept 2005: Part IV for Fire Protection
 - ii. Local Bye-Laws.
 - iii. Relevant BIS codes: Specifically IS: 5290 and IS: 5312, IS: 908 and IS: 2190, IS: 3844, IS: 15105.
 - iv. TAC (Tariff Advisory Committee) Manual (for reference and guideline).
 - v. Consultation with local Chief Fire Officer.

External & internal fire hydrants at suitable and convenient locations shall be provided on fire water supply mains. The fire extinguishers will be located all over the building for immediate use. The type of hand appliances provided is such that the fire extinguishers can be directly taken and used for firefighting purpose at any location inside the building.

The ring main hydrant system consists of the hydrant valves, hose reels, heavy pipe to withstand a developing pressure of 10 Kg/Sq.cm, branch pipes, M.S. hose box, anti-corrosive treatment, pumps, priming tank, valves (Sluice valve, non- return valve, air release valve) and cables.

- ix. **Green Belt Development:** 15m buffer zone along the boundary of the project site will be marked for green belt development. Also landscaping will be done along the roads. The development of parks are planned in the proposed project.
- x. **Amenities:** Provision of plots for Police Station, lavatory facility, Canteen, electric grid, public transport & solid waste management etc., will be made.
- xi. **Sewerage System:** A well planned sewerage network is being planned for the proposed industrial area.
- xii. **Industrial & Solid waste Management:** The manufacturing/ production sections will produce the Industrial fraction of waste and the non-production sections such as administration buildings, green spaces, roads and the working population will generate the Municipal waste. The quantities of waste likely to be generated from the proposed project have been estimated on the basis of population and land use characteristics. The industries generating solid waste have to manage such waste by themselves and are required to seek authorizations from Karnataka Pollution Control Boards under relevant rules. For management of Industrial waste individual industrial units may consider having an agreement with the nearest Treatment, Storage, Disposal Facility (TSDF) operator to dispose the hazardous waste. TSDF sites generally have land filling and incineration facilities are available within their premises.

REHABILITATION & RESETTLEMENT (R & R PLAN)

The some area from the private is acquired and the compensation for the land losers is made as per the policy of the KIADB.

PROJECT SCHEDULE & COST ESTIMATES

1.34 Likely date of start of construction work

The construction work will be start after obtaining the Environmental Clearance & planned to start by 2015.

1.35 Likely date of completion of construction work

The likely date of completion of construction work is by 2017

1.36 Project cost

Approximately the project cost will be around 330 Crores.

ANALYSIS OF PROPOSAL

Proposed CANARA Industrial area at Ira, Chelur, Balepuni and Kurnadu village, Bantwal Taluk, Dakshina Kannada District and other surrounding villages will have very little negative impacts on the surrounding areas or on the environment. However all necessary pollution control measures will be adopted. The Project would indeed help the socio-economic condition of the area and it is highly recommended for the development of industrial area.

Due the proposed industrial area development at Ira, Chelur, Balepuni and Kurnadu villages, Bantwal Taluk, Dakshina Kannada District.

- There will positive impacts on the socio- economic status of the surrounding areas.
- More employment opportunities will be generated.
- Physical infrastructure development such as improvement to roads, street lights etc will take place.