APPLICATION FOR ENVIRONMENTAL CLEARANCE

PRE-FEASIBILITY REPORT

FOR

"PROPOSED DEVELOPMENT OF KUDUTHINI INDUSTRIAL AREA PHASE 1"

Land Area261 Ha (645.18 Acres)

By

M/s. Karnataka Industrial Area Development Board

AT

VILLAGE: Kuduthini

TALUK: Bellary

DISTRICT: Bellary

STATE: Karnataka

(Project under violation)

Project Termed under Schedule 7 (c) – Category A- Industrial Estates/ Parks/ SEZ etc as per EIA Notification 2006 and its amendments (Applicability of General Conditions since Karnataka – Andhra Pradesh State Boundary is within 10 Km radius)

Report Prepared by

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KIADB. Plot No. CA-1, Mundargi,
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February 2022

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1.0 EXECUTIVE SUMMARY

M/s. Karnataka Industrial Areas Development Board is an undertaking of Government of Karnataka entrusted with the objective of providing industrial infrastructure through development of industrial areas proposed to develop Kuduthini Industrial Area near Kuduthini Village, Bellary Taluk, Bellary District, Karnataka State in an area of 261 Ha (645.18 Acres).

M/s. Karnataka Industrial Areas Development Board (KIADB), has already initiated few constructional activities inside the industrial area without prior Environmental Clearance viz., construction of infrastructure facilities like roads, culverts, storm water drains, ground level storage reservoir (2 MLD capacity) and construction site office within the proposed IDA. Therefore, this application is prepared and submitted to MoEFCC under violation project.

As per the EIA Notification 14th September 2006 and its subsequent amendments proposed project is termed under Schedule 7(c) – Industrial Estates /Parks /SEZ etc, Category A, as the project location is at a distance of 8.62 kms of Karnataka and Andhra Pradesh State boundary in the direction of SSE. Since, the applicability of General Condition of MoEFCC notification, the project appraisal will be done at Expert Appraisal Committee (EAC), MoEF&CC as treated as **category A** project.

Initially, KIADB has submitted application form on dated 17th January 2021, vide **Proposal No: IA/KA/NCP/192205/2021, File No 21/2/2021-IA.III** for obtaining Terms of Reference (TOR) under non violation project category and project was deferred in due to violation aspects involved within the Industrial Area.

Again, KIADB submitted application form under violation project category and the project was considered on 273rd EAC meeting held on 16th-17th September 2021 for obtaining Terms of Reference Proposal No. IA/KA/NCP/225521/2021 and File No. 10/37/2021-IA.III, results is "EAC observed that this is a case of violation and there is no mechanism to consider these type of proposal in the Ministry till the final directions from the Court. Hence, the aforementioned proposal was not considered by the EAC in its 273rd meeting during 16th - 17th September, 2021 and it was returned in its present form.

Now, once again KIADB submitting this application form for obtaining the approved TOR for the preparation of EIA and EMP report under violation case, with reference to the Office Memorandum issued by MOEFCC, Government of India, Dated 28th January 2022 on handling of violation cases under EIA Notification 2006, considering the Standard Operating Procedures (SOPs) for identification and handling of violation cases under EIA notification

2006, proposed Kuduthini project is coming under **Issue Number 12** that is " Penalty provisions for Violation cases and applications : (a) For New Projects : (i) where operation has not commenced" : 1% of the total Project cost incurred upto the date of filing of application along with EIA/EMP report [Example : Rs. 1 Lakh for project cost of Rs. 1 Cr].

After sanction of approved TOR from EAC, New Delhi, accordingly, EIA & EMP report will be prepared along with public hearing proceedings for obtaining the Environmental Clearance of the proposed Kuduthini Industrial Area Phase-1.

Total water requirement for the project is 5232.5 KLD. Fresh water requirement is 3573 KLD, which will be utilised for domestic requirement, process and green belt development. Fresh water requirement will be met from Tungabadhra high level canal which is ~2.69 km from project site. 1659.5 KLD will be met from recycled water.

Total power requirement is estimated to be 31 MVA. The power required for the proposed project will be sourced from Karnataka Electricity Supply Company limited. Since none of the plots are occupied by industries till date and exact power requirement detailshas been assumed based on the power requirement pattern observed in other KIADB Estates.

Sufficient area will be allotted for greenbelt development, which shall include the buffer zone and green belt developed by individual industries to meet MoEF&CC guidelines. All applicable guidelines as per the state and/or central regulatory bodies shall be considered in the development of proposed project.

The cost for the proposed project is 233 Crores. Capital cost towards EMP will be around 3000 Lakhs and operating cost will be around 30 Lakhs. Cost towards CER activities will be 3.495 Lakhs (1.5% of the Project Cost as per OM dated 1st May, 2018). The EMP cost and CER cost are in addition to the estimated Project cost. The Corporate Environment Responsibility (CER) budget would be allotted as per the guidelines prescribed in the latest OM from MoEFCC dated 30.09.2020

2. INTRODUCTIONOF THE PROJECT

2.1 Identification of the Project and Project Proponent

KIADB is a wholly owned infrastructure agency of government of Karnataka, set up underKarnataka Industrial Areas Development Act of 1966. KIADB holds pride in being the first Government organization in Karnataka to obtain ISO 9001 certification in the year 1997.

Aim and Objectives of the KIADB

- Promote rapid and orderly development of industries in the state.
- Assist in implementation of policies of government within the purview of KIAD Act.
- Facilitate in establishing infrastructure projects.
- Function on "No Profit – No Loss" basis.

Functions of the KIADB

- Acquire land and establish industrial areas in the state.
- Provide basic infrastructure in the industrial areas.
- Acquire land for single unit complexes.
- Acquire land for government agencies for their schemes and infrastructure projects.

KIADB has formed 173 industrial areas spread all over the state and acquired land fornearly 473 single unit complexes ensuring balanced industrial development in all regionswith well thought of infrastructures and unique features.

2.2 Brief Description of nature of the project

KIADB is proposing Kuduthini Industrial Area in an area of 261 Ha (645.18 Acres) at Kuduthini Village, Bellary Taluk, Bellary District, Karnataka State. The application is submitted under violation since roads, culverts, storm water drains, 2 MLD (Ground level storage Reservoir) GLSR have been constructed and construction of site office is in progress

2.3 Need for the Project and its Importance to the Country & the Region

In order to develop the socio economic conditions, infrastructural developments and allother area developments, setting up of industries and establishing Industrial Area isessential. In view of this the industrial area at Kuduthini village is proposed keeping in view ofthe required availability of resources in terms of manpower, raw materials and otherclimate & general infrastructure. Due to the proposed project,

- There will be 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, UGD lines, street lights etc. will be developed.

2.4 Demand – Supply Gap

There are many steel industries in the vicinity. The establishment of industries in the proposed Industrial Areawill also bring more employment opportunities.

2.5 Import vs. indigenous production

The proposed Industrial Area is specifically envisaged for promoting large and medium scale operations. Hencethere is a huge potential with respect to marketing and trade products in domestic and export trading.

2.6 Export possibility

The indigenous production of such products will boost the opportunity to export. The proposed Industrial Area will have all Infrastructures to draw new industries with the advantage of nearness of the site to Bellary.

2.7 Employment Generation due to the project

Man power requirement during construction phase is estimated to be 100 numbers and during operation phase is estimated to be 6800 numbers.

2.8 Project Benefits

- Generation of employment to local youth.
- The proposed activity will not require human displacement or will involve habitat loss.
- The project will also contribute in increase in revenue in form of various taxes, which will be paid to Government time to time.

3.0 PROJECT DESCRIPTION

3.1 Type of the project

The project is termed under Schedule 7(c) – Industrial Estates /Parks /SEZ etc, Category B, as per EIA notification 2006 and its subsequent amendments.

Secondary Metallurgical processing industries with capacity 30,000 >TPA (Rerolling industries) and CETP are proposed (**If at least one industry** in **the proposed Industrial Estate** falls under the **Category B**, entire Industrial Park shall be treated as Category B, irrespective of the area). For this project, Karnataka and Andhra Pradesh state boundary is at a distance of 8.62 km, SSE. Since General Condition is applicable for the project, the project appraisal will be done at MoEF&CC as **A category** project. Roads, culverts, storm water drains, 2 MLD (Ground level storage Reservoir) GLSR have been constructed and construction of site office is in progress. Hence the application is submitted under violation.

3.2 Project location

The site is located at Kuduthini villageBellary Taluk, Bellary District, Karnataka State.

The Project Index map is given in**Figure 2-1**, Satellite imagery of project site is given in **Figure 2-2**and Site layout is given in**Figure 2-3**.Site photographs are given in **Figure 2-4**.

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KIADB. Plot No. CA-1, Mundargi,
Industrial Area,1st Stage,
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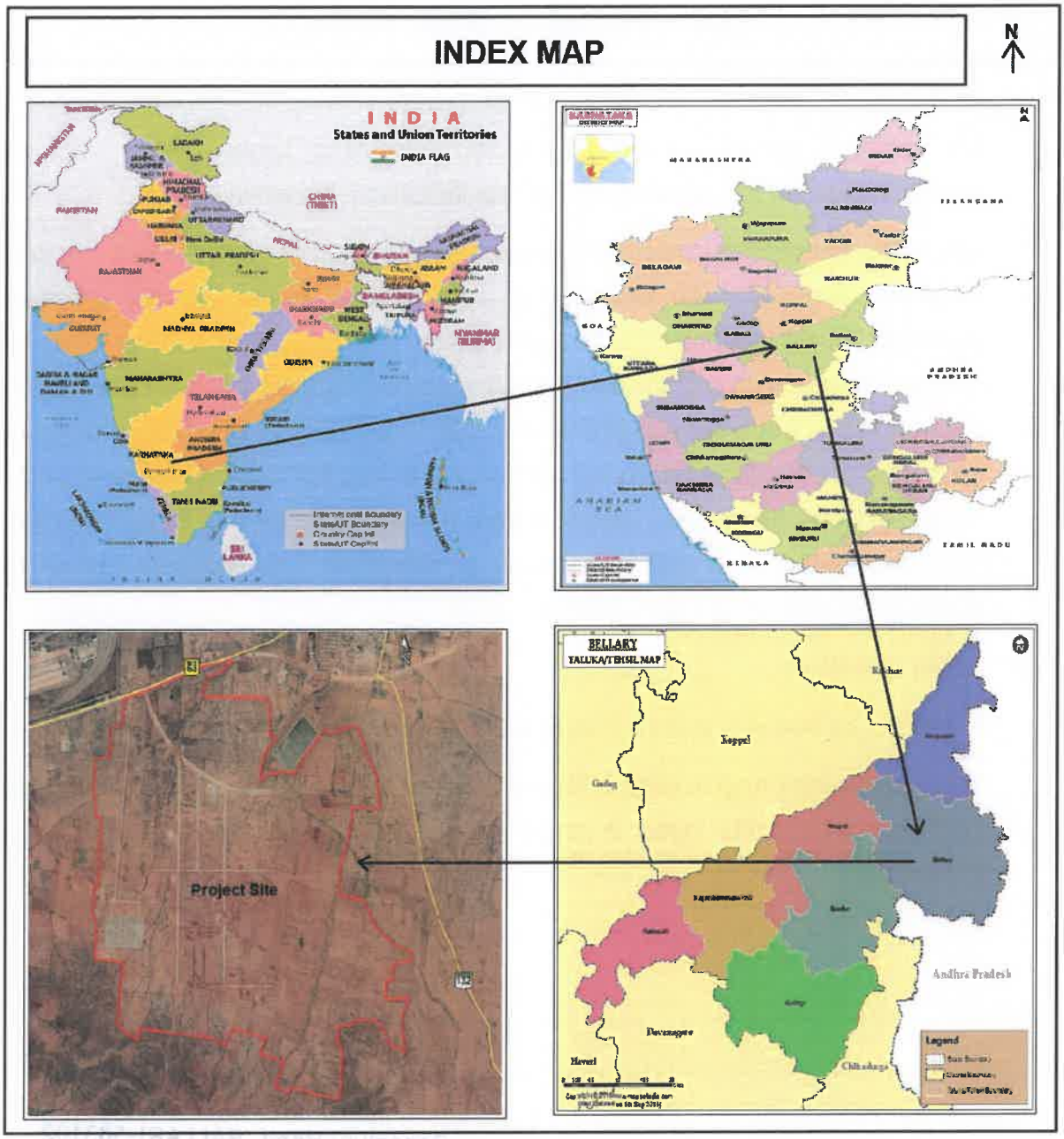
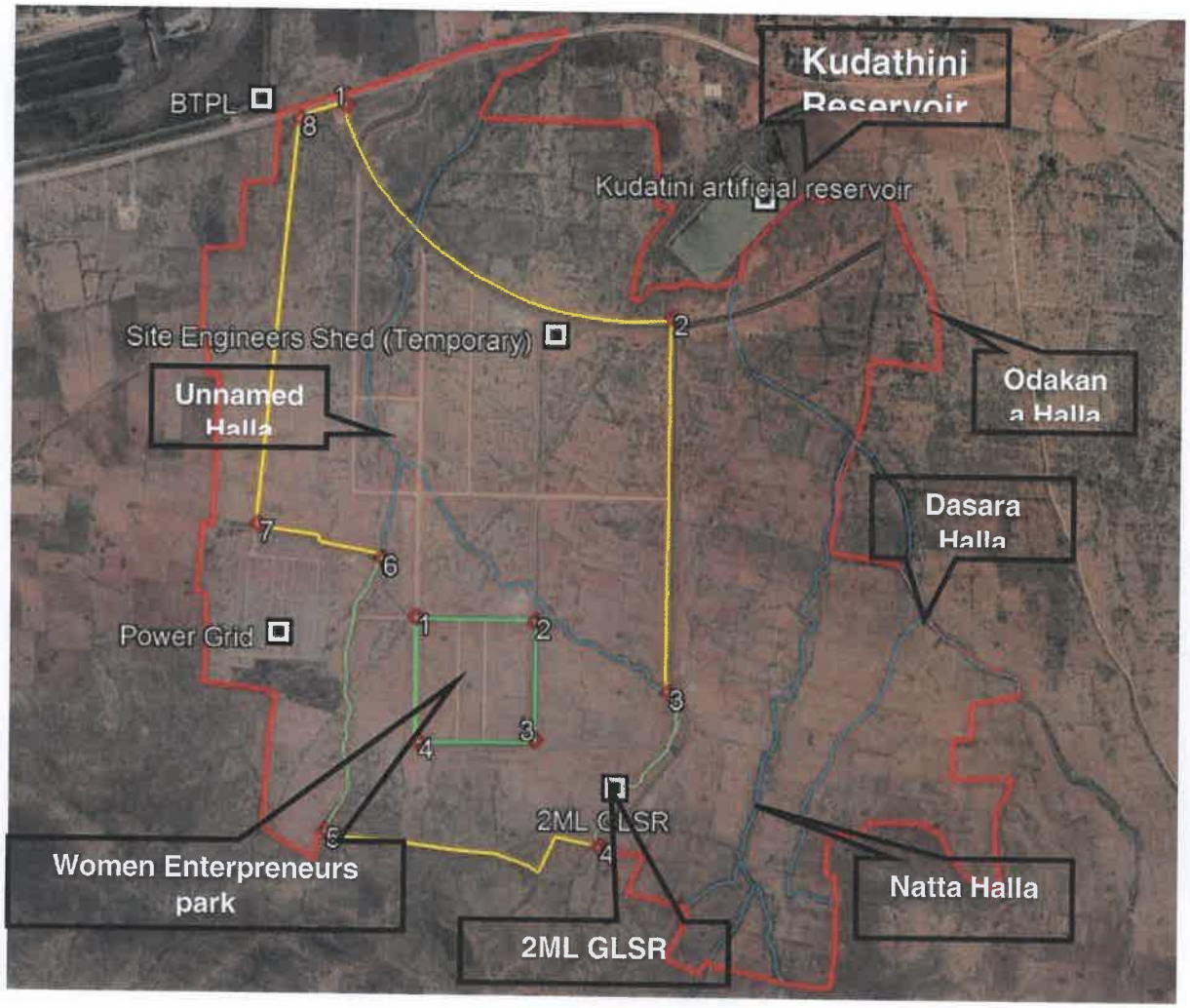


Figure 3-1 Index Map of Project location



Industrial Area Phase I		
Nodes	Longitude	Latitude
1	76°44'11.71"E	15°11'22.42"N
2	76°44'16.86"E	15°11'23.32"N
3	76°44'56.25"E	15°10'57.44"N
4	76°44'49.49"E	15° 9'56.11"N
5	76°44'15.11"E	15° 9'57.74"N
6	76°44'7.16"E	15°10'33.37"N
7	76°44'7.09"E	15°10'33.81"N
8	76°44'11.91"E	15°11'21.80"N

Women Entrepreneurs Park		
Nodes	Longitude	Latitude
1	76°44'26.99"E	15°10'22.89"N
2	76°44'41.88"E	15°10'22.70"N
3	76°44'41.53"E	15°10'8.37"N
4	76°44'26.75"E	15°10'8.40"N

Legend

- Boundary Coordinates
- Boundary of Kuduthini Industrial Area
- Boundary of Kuduthini Industrial Area Phase 1
- Boundary of Women Enterpreneurs park
- Halla

Figure 3-2Google image of project Site

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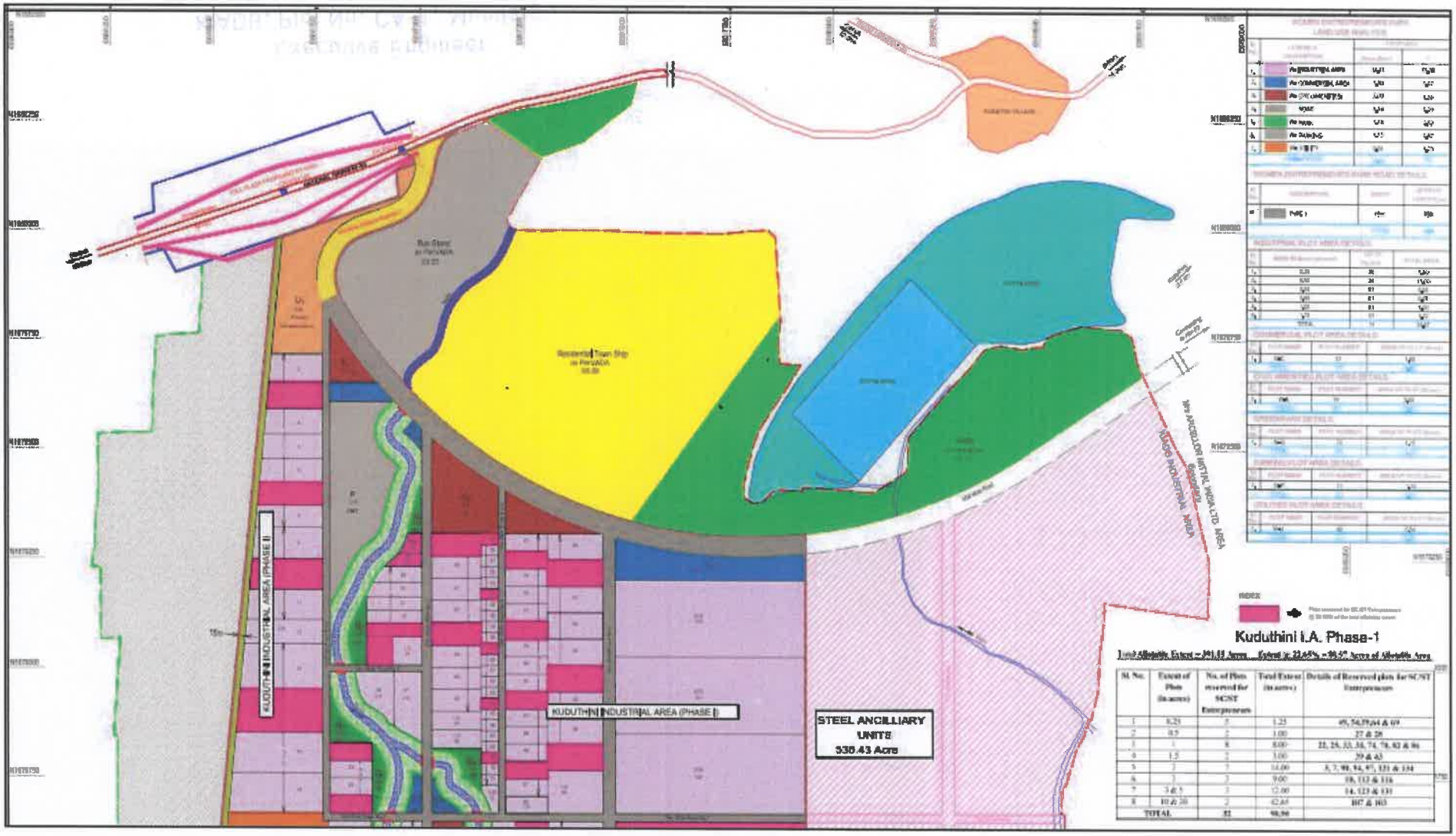

Figure 3-3 Proposed site layout

KIADB Kuduthini Layout

KIADB Main Entrance

Storm water drain within site near security room

Existing security room within site

Figure 3-4 Existing site conditions

Road near site entrance

Pump house within

GLSR towards west of site

Culvert within the site

Figure 3-5Roads, culverts, GLSR developed at site

Nala on the east of site

Construction of house for security

Construction of KIADB site office

2 MLD GLSR at site

Figure 3-6Nala and construction activities at site

3.3 Project Cost

The cost for the proposed project willbe 233 Crores. Capital cost towards EMP will be around 3000 Lakhs and operating cost will be around 30 Lakhs. Cost towards CER activities will be 3.495 Crores (1.5% of the Project Cost as per OM dated 1st May, 2018). The EMP cost and CER cost are in addition to the estimated Project cost.

3.4 Details of Alternate sites considered

No alternative sites are considered for the project.

3.5 Magnitude of Operation

The proposed project has two components namely Kuduthini Industrial Area Phase 1 and Women Entrepreneurs Park. The area break up forKuduthini Industrial Area Phase 1 is given in **Table 3-1** and Women Entrepreneurs Parkis given in **Table 2-2.** The type of industries proposed is given in **Table 2-3.**

Table 3-1Proposed Area break up for Kuduthini Industrial Area Phase 1

S. No	Description	Proposed		
		Area in Ha	AreainAcres	%
1	Industrial Area	158.25	391.05	65.04
2	Commercial Area	4.17	10.31	1.71
3	Amenities	5.74	14.18	2.36
4	Road	25.33	62.60	10.41
5	Park (Green belt)	9.66	23.88	3.97
6	Nala	6.79	16.77	2.8
7	Buffer Zone (green belt)	19.95	49.30	8.2
8	Parking	4.88	12.05	2.0
9	Utility	8.56	21.13	3.51
	Total	**243.33**	**601.27**	**100**

Table 3-2Proposed Area breakup for Women Entrepreneurs Park

S. No	Description	Proposed		
		Area in Ha	AreainAcres	%
1	Industrial Area	13.93	34.41	78.36
2	Commercial Area	0.61	1.50	3.42
3	(CFC) Amenities	0.81	2.00	4.55
4	Road	1.28	3.16	7.20
5	Park (green belt)	0.46	1.15	2.62
6	Parking	0.46	1.15	2.62
7	Utility	0.22	0.54	1.23
	Total	**17.77**	**43.91**	**100**

Table 3-3Type of industries proposed

SNo	Category of Industries	Type of industries Proposed	Schedule & Category as per EIA Notification 2006 and its amendments	CPCB Classification	Pollution potential *	Area (Acres)	Area (Ha)	Plotted Area (%)
1	Metallurgy	Secondary Metallurgical Processing industries (Rerolling mills -capacity >30,000 TPA)	3(a) –B(Applicability of General condition Hence appraisal by MoEF&CC)	Red	A2F1, W15	111.8	45.25	26.3
2		Foundry units <5MT/Hr	Nil	Orange	A2F1, W15	45.58	18.45	10.7
3		Forging of Metals	Nil	Orange	Group A2F1	16.55	6.70	3.9
4		Fabrication	Nil	Orange	W13, A1D	15.75	6.37	3.7
5		Steel and Steel products using furnaces	Nil	Orange	A2F1, W15	37.31	15.10	8.8
6		Metal extraction involving furnaces	Nil	Orange	Group A2F1, HW4	30.32	12.27	7.1
7	Textile	Textile Processing	Nil	Red	W13, Group A2F2	63.56	25.72	14.9
8		Readymade Garments	Nil	White	Nil	11.79	4.77	2.7
9	Food products	Fruits and Vegetables processing	Nil	Orange	W13, A1D	35.97	14.56	8.5
10		Bakery and confectionaries/ Vegetable oil	Nil	Orange	W13, Group A2F2	14.61	5.91	3.4
11		Dairy and Dairy products	Nil	Orange	W13, Group A2F2	11.05	4.47	2.6
12		Dal mills and Flour mills	Nil	Green	Group A1D	6	2.43	1.4

SNo	Category of Industries	Type of industries Proposed	Schedule & Category as per EIA Notification 2006 and its amendments	CPCB Classification	Pollution potential *	Area (Acres)	Area (Ha)	Plotted Area (%)
13		Spice grinding	Nil	Green	Group A1D	8.72	3.52	2.0
14	Formulation of soaps, detergents and cosmetics by mixing and blending	Soaps, Detergents and cosmetics	Nil	Orange	W13, Group A1D	14.05	5.69	3.3
15	Cement products manufacturing	Cement products and tiles	Nil	Green	Group A1D	2.4	0.97	0.7
16	CETP	CETP – For industries within the Industrial Area	7(h) (Applicability of General condition Hence appraisal by MoEF&CC)	Red	W12, Group A1D			

Source: As per CPCB classification of industries dated February 29, 2016.

The zonation map for proposed Industrial area is enclosed as **Annexure -4.**

***Pollution Potential**

Water Pollution

a) W11 - Waste-water which is polluted and the pollutants are - not easily biodegradable (very high strength waste waters having BOD > 5000 mg/l); ortoxic; or both toxic and not easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits up-to 10 mg/l or having BOD > 5000 mg/l).

b) W12 - Non-toxic high strength polluted waste-water having BOD in the range of 1000-5000 mg/l and the pollutants are biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11 mg/l to 250 mg/l and having BOD strength in the range of 1000-5000 mg/l).

c) W13 – Non-toxic- polluted waste-water having BOD below 1000 mg/l and the pollutants are easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11mg/l to 250 mg/l and having BOD strength below 1000 mg/l).

d) W15- Waste-water generated from the physical unit operations / processes and which is polluted due to presence of TDS (total dissolved solids) of inorganic nature and of natural origin like fresh-water RO rejects, boiler blow-downs, brine solution rejects etc. (Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l.

Air Pollution

a) A1A – Presence of criteria air pollutants having prescribed standard limits up - to 2 mg/Nm^3

b) A1B – Presence of criteria air pollutants having prescribed standard from 3to10 mg/Nm^3

c) A1C – Presence of criteria air pollutants having prescribed standard from 11 to 50 mg/Nm^3

d) A1D – Presence of criteria air pollutants having prescribed standard from 51 to 250 mg/Nm^3

e) A1E – Presence of criteria air pollutants having prescribed standard from 251mg/Nm^3& above.

f) A1F – Generation of fugitive emissions of Particulate Matters which are:
   - Not generated as a result of combustion of any kind of fossil-fuel.
   - Generated due to handling / processing of materials without involving the use of any kind of chemicals.
   - Which can be easily contained /controlled with simple conventional methods

g) A1G – Generation of Odours which are:
   - Generated due to application of binding gums / cements /adhesives /enamels
   - Which can be easily contained /controlled with simple conventional methods

h) A2F1 – All such industries in which the daily consumption of coal/fuel is more than 24 MT/day and the particular (Particulate/gaseous/process) emissions from which can be controlled only with high level equipment's / technology like ESPs, Bag House Filters, High Efficiency chemical wet scrubbers etc.

i) A2F2 – All such industries in which the daily consumption of coal/fuel is from 12 MT/day to 24 MT/day and the particular(Particulate/gaseous/process) emissions from which can be controlled with suitable proven technology.

Hazardous waste

a) HW1 – Land disposable HW which requires special care & treatment for stabilization before disposal.

b) HW2 – Incinerable HW

c) HW3 – Land disposable HW which doesn't require treatment & stabilization before disposal. High volume low effect wastes such as fly-ash, phosphogypsum, red-mud, slags from pyro-metallurgical operations, mine tailings and ore beneficiation rejects)

d) HW4 – Recyclable HW, which are easily recyclable with proven technologies

3.6 Water Requirement

3.6.1 Construction phase

During construction Phase, water requirement is estimated to be 35 KLD. Details of water requirement including water for construction purpose, domestic needs and dust suppression are given in**Table 2-4.**

Table 3-4 Water requirement for construction phase

S. No	Activities	Water Requirement (KLD)
1	Domestic Water	5
2	Water for construction purpose	20
3	Other Uses (Water sprinkling, greenbelt development etc)	10
	Total	**35**

3.6.2 Operation Phase

Total water requirement for the project is 5232.5 KLD. Fresh water requirement is 3573 KLD, which will be utilised for domestic requirement, process and green

belt development. Fresh water requirement will be met from Tungabadhra high level canal which is ~2.69 km from project site. 1659.5 KLD will be met from recycled water. Water requirement for greenbelt (275 KLD), utilities for industrial purpose (471 KLD) and process (913.5 KLD) will be met from recycling of treated wastewater. Estimated water requirement is given in**Table 2-5**and water balance chart is given in**Figure 2-7.**

Table 3-5 Water Requirement – Operation phase

S. No	Water requirement	Water Requirement (KLD)	Total Water Break-up (KLD)	
			Fresh	Treated
1	Domestic Water	306	306	0
2	Process	1414	500.5	913.5
3	Utilities	471	0	471
4	Greenbelt	3041.5	2766.5	275
	Total	**5232.5**	**3573**	**1659.5**

Note:

1. Domestic Water Requirement is assumed @ 45 LPCD
2. Water requirement for Industrial & commercial plots @4 KL/Acre
3. Water requirement for amenities is taken @ 3 KL/Acre
4. Water requirement for green belt is taken @ 35 KL/Ha

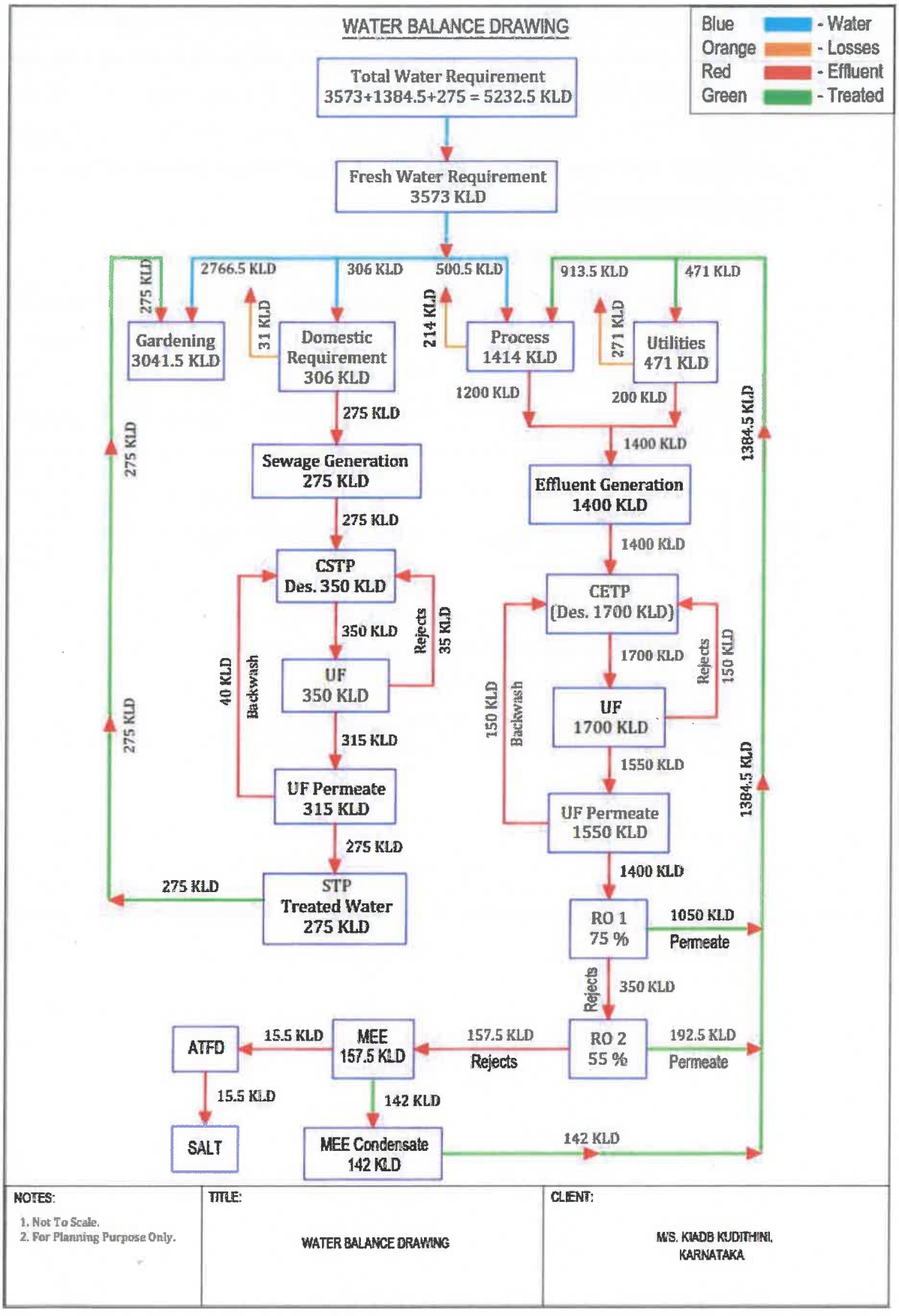

Figure 3-7 Water Balance Chart

3.7 Power and Fuel Requirement

Total power requirement is estimated to be 31 MVA. The power requirement, power back up for common facilities, HSD requirement for DG is estimated and given in**Table 2-6.**Individual industries will have their own power back up.

Table 3-6Power and fuel Requirement

Details	Capacity/Quantity	Source
Power Requirement (MVA)	31	KPTCL
Back-up (kVA)	3x500 (common amenities)	Back up by individual industries through DG
Diesel Requirements (KL/Month)	15	From nearby Petrol bunks

Note:

1. Power requirement for Industrial and commercial Plots @0.06 MVA/Acre
2. Power requirement for amenities and utilities @0.05 MVA/Acre
3. Power requirement for roads and parking area @0.03 MVA/Acre

3.8 Man power Requirement

Around 100people will be employed for construction phase and 6800 people for operation phase. Details are given in **Table 2-7**.

Table 3-7 Manpower requirement for the project

Description	Persons / day
Construction Phase	100
Operation Phase	6800

Note:

Man power for industrial plots@ 15 persons/ Acre= 6382 nos.

Manpower for commercial plots @ 20 persons/ Acre = 236 Nos.

Manpower for amenities& utilities @ 5 persons/ Acre = 180 Nos.

3.9 Air Pollution Control Measures

Individual industries will have their Air Pollution Control equipment/Measures as per CPCB /KSPCB guidelines like adequate stack heights for DGs and boilers for proper mixing of pollutants before they are dispersed to atmosphere.

Metallurgical industries will be mandated to provide Spark arrestor and bag filter system for furnaces.

3.10 Waste Management and Disposal Method

3.10.1 Liquid Waste Management

- Total water requirement – 5232.5 KLD
- Effluent generated –1400 KLD.
- Sewage generated - 275 KLD
- Sewage will be treated in CSTP of 350 KLD and treated sewage will be recycled for green belt development.
- Effluent will be treated in 1800 KLD CETP, followed by RO and ATFD. Treated effluent will be recycled for process and utilities

3.10.2 Solid Waste Management

- **Municipal Solid Waste**

  Municipal solid waste generation during construction and operation phases of the project with treatment method is given in **Table 2-8.**

Table 3-8 Municipal Solid Waste Generation and Management

Type	Construction Phase (Kg/day)	Operation Phase(Kg/day)	Treatment method
Organic	27	1836	Will be segregated by individual industries and composted at site in common Municipal Waste processing area and the compost will be used as manure for green belt development.
Inorganic	18	1224	Sold to KSPCB authorized recyclers
Total	**45**	**3060**	

Norms- @0.45 Kg/capita/day

Population:construction phase- 100 numbers, operation phase – 6800 numbers.

- **Hazardous Waste**

  Individual industries will have their own Hazardous waste storage area, within their unit and the same will be segregated and disposed as per the Hazardous and Other Wastes (Managementand Transboundary Movement) Rules, 2016.

4.0 SITE ANALYSIS

4.1 Connectivity

KIADB is proposing KuduthiniIndustrial Area (Phase-1) at KuduthiniVillage, BellaryTaluk, BellaryDistrict, Karnataka State

The site is well connected by roads and railway lines. The salient features of the project site aregiven in **Table 3-1**andSatellite imagery of the study area is given in **Figure 3-1.**

Table 4-1Salient Features of the Project Site

S. No.	Particulars	Details
1.	Co-ordinates of the project site	Corner points: Site Co-ordinates (Major) 1: 15°11'29.33"N 76°44'32.40"E 2: 15°10'16.56"N 76°45'40.48"E 3: 15° 9'39.53"N 76°45'17.68"E 4: 15°10'25.69"N 76°43'59.55"E
2.	Elevation	Average ~505 m above MSL
3.	Present land use	Agricultural land will be converted to Industrial Use (Reference- Bhuvans 2012 Land use/land cover)
4.	Nearest Highway	NH 67(Ramnagar- Bellari-Krishnapatnam Port), Adjacent to site, N
5.	Nearest railway Station	Kuduthini railwaystation~3.07 km, NE
6.	Nearest Airport	• Bellary Airport, ~12.35 km, E • Bangalore Int. Airport (Kempegowda), ~237.59 km, SSE
7.	Nearest sea Port	Mormugao Port, ~315.06km, W
8.	Nearest village	Kuduthini~ 0.44 Km, ENE
9.	Nearest major city	Bellary, ~13.32 km, E

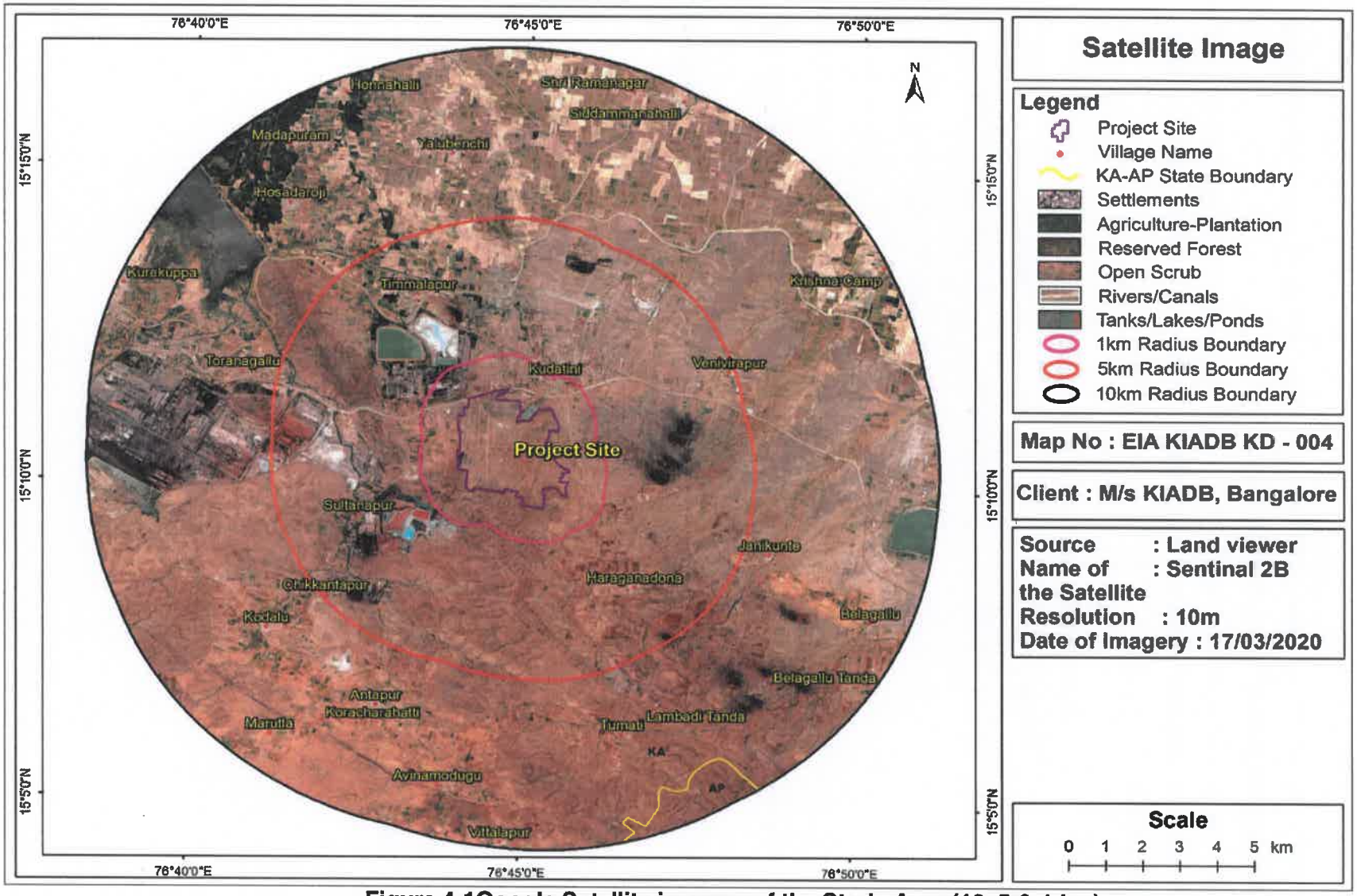

Figure 4-1Google Satellite imagery of the Study Area (10, 5 & 1 km)

4.2 Landform, Land use and Land ownership

The entire land has been handed over to KIADB. Land documents are enclosed as **Annexure-1**. Site layout is enclosed as **Annexure-2.**

4.3 Topography of District

The district consists of two widely differing naturaldivisions, an eastern and western separated by the Sandurhills which run right across the district from north-westto south-east. The eastern division which is smaller insize, is a flat, almost tree-less, expanse covered mainlywith black cotton soil is diversified here and there by therocky hills which rise of it, "like island out of the sea",a characteristic feature of Deccan. The western division,though containing scattered patches of black cotton soils for the most part covered with mixed and redferruginous soil. It is broken up by a constant successionof wild and rugged hills and lies at a greater elevationthan eastern part.The Sandur hills are, after the Tungabhadra, is the mostnoticeable physical feature of the district. They begin atMallapuram on the bank of Tungabhadra and run southeast for over 30 miles with only one break, the twobeautiful gorges of the Narihalla. Their highest point isthe hill above the famous Kumaraswami temple near theirsouthern boundary which is 3,400 feet above the sealevel. About six miles east of the Sandur hills and alignedroughly parallel to them from north-west to south- eastis the copper mountain range. The highest point in theridge is 3,285 feet above the sea level. Kudligi hills, Gudeok hills and Alur hills are some of the important hill ranges. Besides all these ranges and lines of hills, the district also has several isolated clusters and eminence. The best known of these are the two rugged and picturesque groups lying north to the Sandur range.

Topo map of study area is given in **Figure 3-2**and contour map of the study area is given as **Figure 3-3.**

Source:

https://censusindia.gov.in/2011census/dchb/2911_PART_A_DCHB_BELLARY.pdf

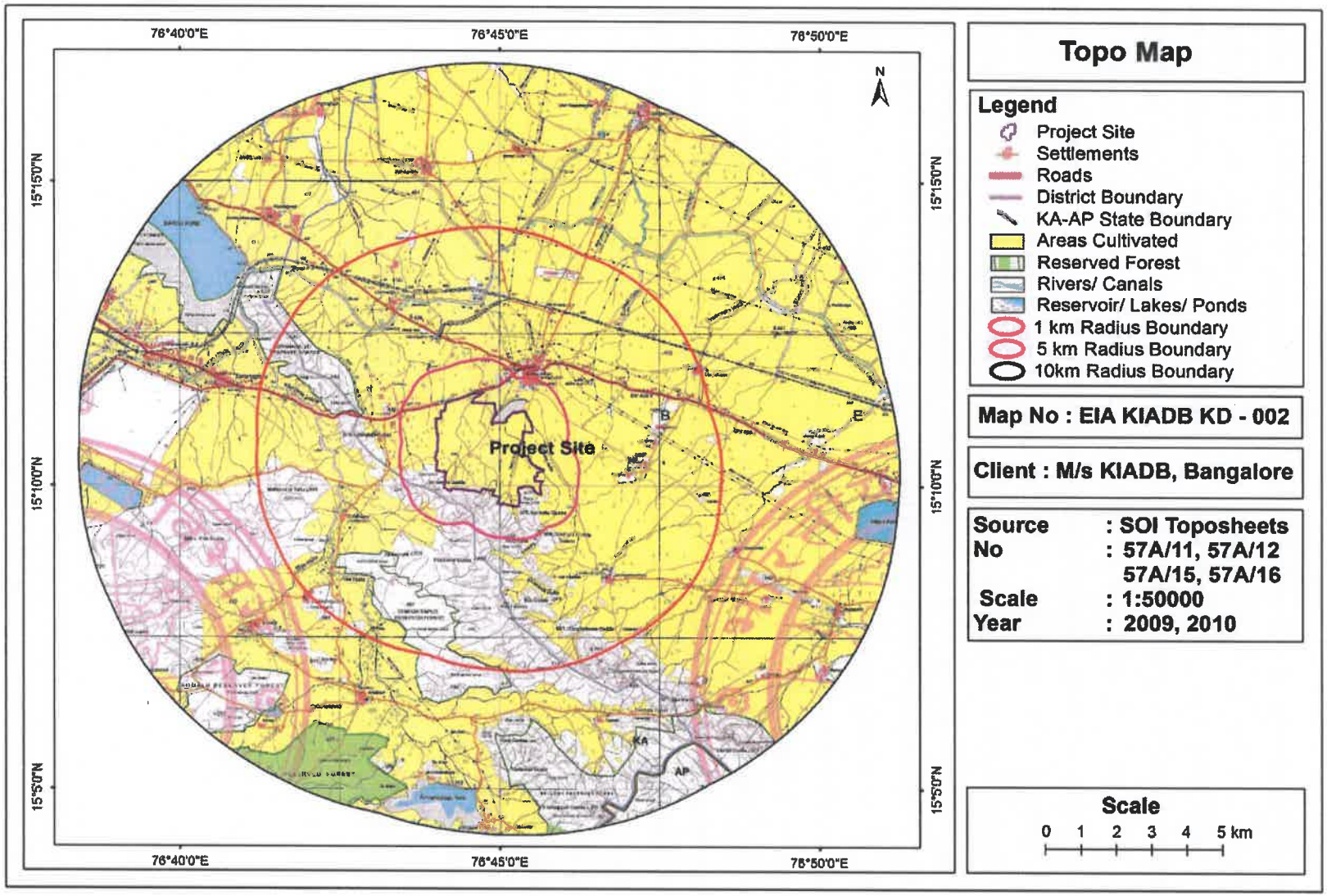

Figure 4-2Topomap of Study Area

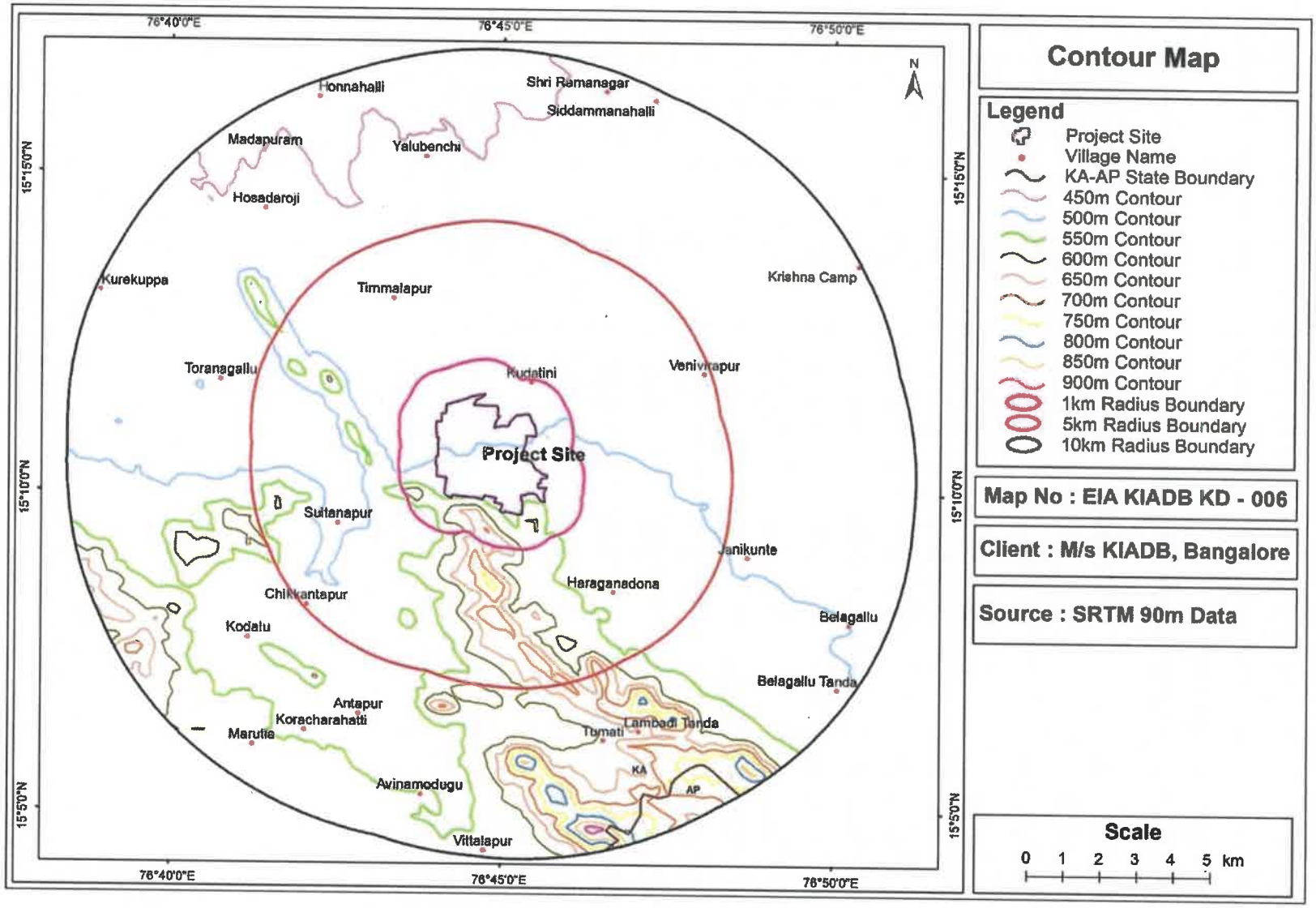

Figure 4-3 Contour map of the study area

4.4 Existing Land use pattern

Total Project Study area is 445.31 Sq.km.Land Use /Land Cover statistics of 10 Km radius of the Study Area is given in**Table 4-2**and land Use pattern of Study area is given in LULC map of the Study area is given in**Figure 3-4**. Land use map of the study area is given in **Figure 3-5**.

Table 4-2Land Use/Land Cover statistics of 10 Km radius of the Study Area

S.No.	Description	Area (Sq.Km)	Area (Acres)	Area (Hectares)	Area (%)
1	Cropland	166.959	41256.40	16695.9	37.493
2	Scrub land	149.07	36835.94	14907	33.476
3	Urban	42.31	10455.01	4231	9.501
4	Scrub Forest	26.56	6563.11	2656	5.964
5	Fallow land	15.46	3820.24	1546	3.472
6	Reservoirs/ Lakes/ Ponds	12.081	2985.28	1208.1	2.713
7	Barren Rocky Area	10.24	2530.36	1024	2.300
8	Rural	6.45	1593.83	645	1.448
9	Gullied/Ravinous Land	5.99	1480.16	599	1.345
10	Mining	4.72	1166.34	472	1.060
11	River/ Stream/ Canals	2.96	731.43	296	0.665
12	Forest Deciduous	2.15	531.28	215	0.483
13	Salt Affected Land	0.26	64.2473	26	0.058
14	Plantation	0.1	24.71	10	0.022
	Total	**445.31**	**110038.33**	**44531**	**100**

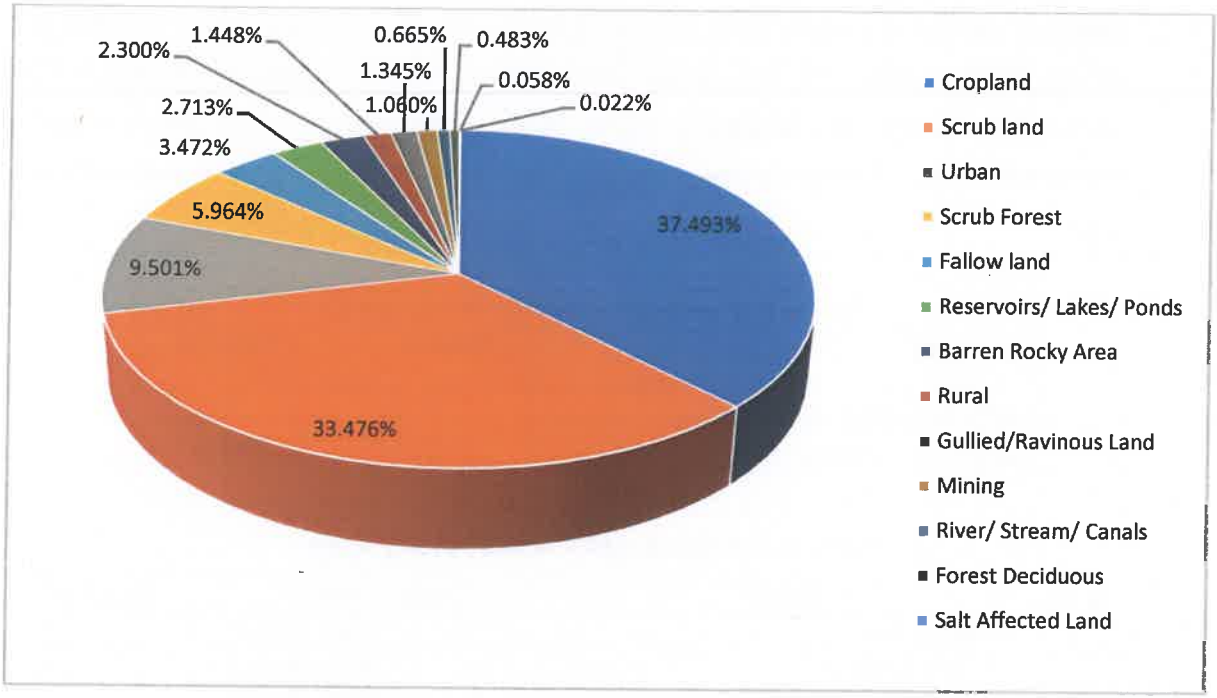

Figure 4-4Land Use Pattern of the Study Area

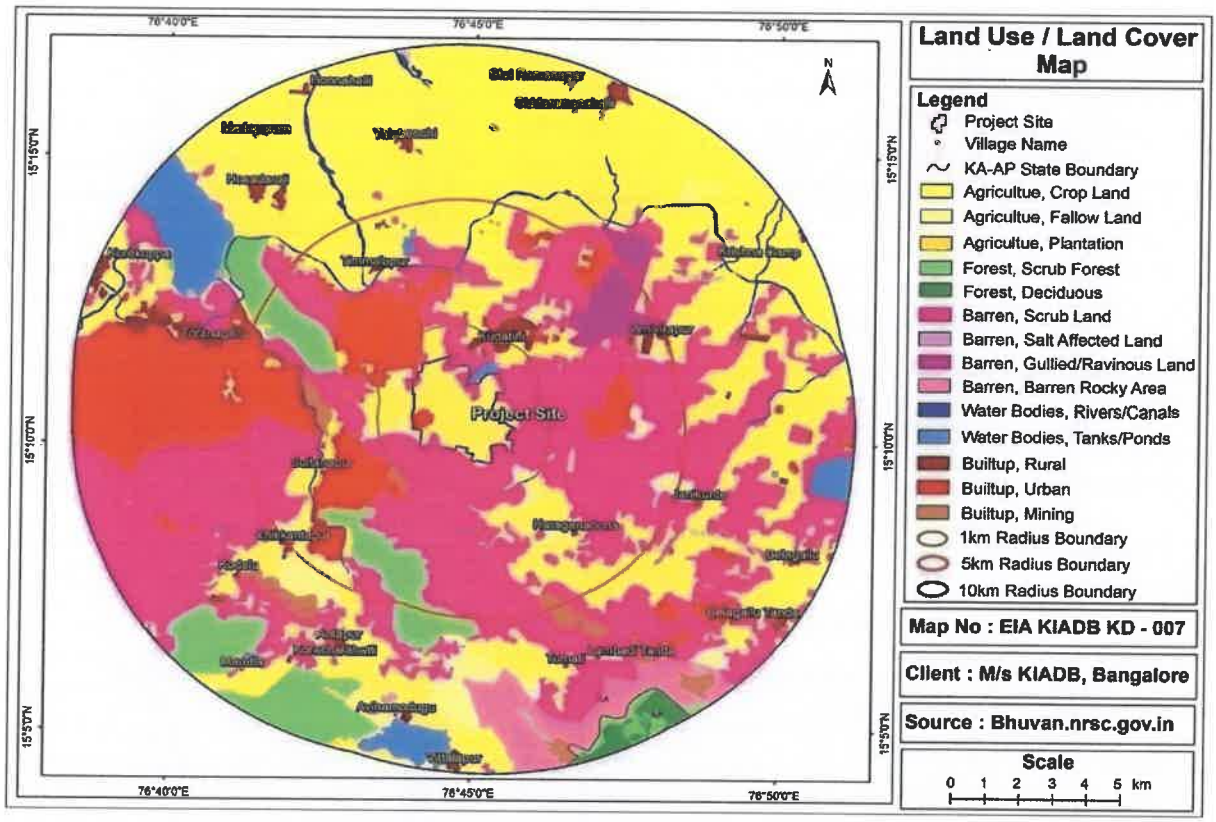

Figure 4-5 Land use Map of the study area

Sanctuary within the study area and its distance and direction are given in **Table 4-3**. Water bodies within 15 Km radius from project site are given in **Table 4-4**and theReserve forests and sanctuary within 15 Km radius from project site is given in **Table 3-5.**Environmental sensitive location map within the study area is given in**Figure 3-6.**

Table 4-3Sanctuary within Study area

Sanctuary	~ Distance	Direction
Daroji Bear Sanctuary ESZ	10.45	NW
Daroji Bear Sanctuary core	11.49	WNW

Table 4-4 Water Bodies within Study Area

S. No	Places	Distance (~Km)	Direction
1	Natta Halla	Within the site	
2	OdakanaHalla	Within the site	
3	Dasara Halla	Within the site	
4	Kotta Kere	Within the site	
5	KaniganaHalla	2.62	W
6	SigeHalla	3.55	WSW
7	Hire Halla	3.44	SW
8	UrumundraHalla	4.53	E
9	BankanHalla	3.58	NE
10	Tungabhadra High Level Canal	2.69	N
11	RamappannaHalla	3.11	NW
12	DarojiKere	6.86	NW
13	NariHalla	8.95	WNW
14	GokulapurHalla	9.90	S
15	ChatramHalla	6.77	E
16	ElumoriHalla	5.30	E
17	TannaHalla	8.98	E
18	Narihalla Reservoir	14.54	WSW
19	ErangaligaHalla	10.53	ENE
20	Tungabhadra Right Bank Main Canal	14.55	N

Table 4-5 Reserve Forestswithin Study Area

S. No	Reserve Forests	Distance (~Km)	Direction
1	Toranagallu RF	2.05	W
2	Chikkantapur RF	2.42	SSW
3	Daroji RF	6.39	WNW
4	Kodalu RF	7.22	SW
5	Marutla Ext RF	7.68	SSW
6	Bellary RF	6.48	S
7	Metriki RF	9.61	S
8	Daroji Bear Sanctuary ESZ	10.45	NW
9	Billakallu RF	11.35	NW
10	Daroji Bear Sanctuary	11.49	WNW

S. No	Reserve Forests	Distance (~Km)	Direction
11	Joga RF	14.72	W
12	Ubbalagandi Ext RF	10.69	SW
13	Donimalai RF	12.93	SW
14	Metriki RF	10.59	S
15	Bandaravi RF	14.04	S

Executive Engineer
KIADB. Plot No. CA-1, Mundargi,
Industrial Area,1st Stage,
Bengaluru Road, BALLARI-583102

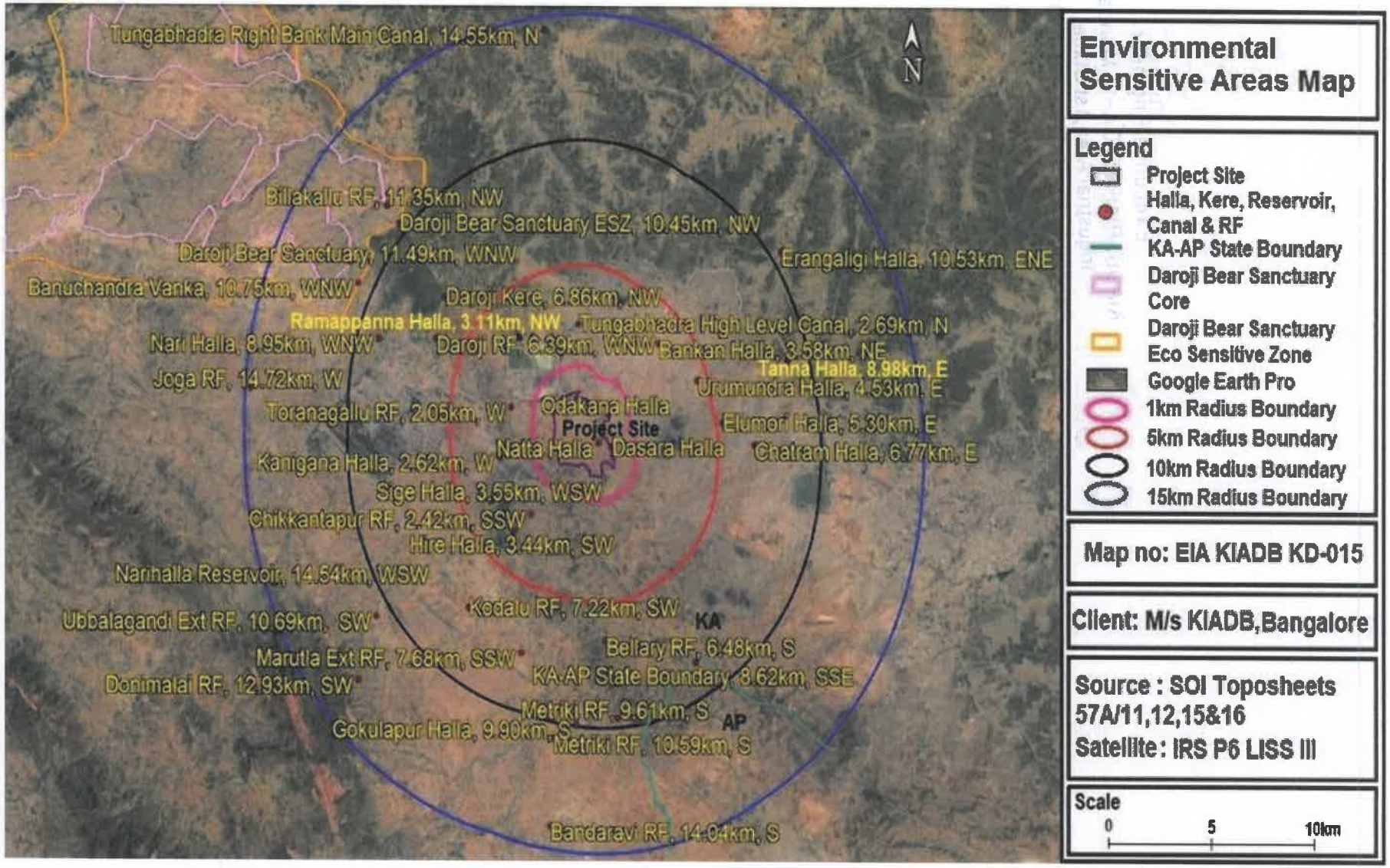

Figure 4-6 Google map showing Environmental Sensitive areas within 15 Km radius

4.5 Soil classification of District

The soils of the district are derived from Granites, Gneisses and Schistose rocks. The Sandy loam soil mixed with black and grey soil occurs along the stream beds. These are originated from gneisses and granites. They are permeable and mildly alkaline in nature. The thickness of the soil varies from 0.2 to 1.00m. The Red soil are the major type of soil in the district, found mainly at elevated places especially at fringes of hills due to decomposition of rocks and surrounding granitic and gneissic hills. These soils are with high permeability and neutral pH. Black soil with high initial infiltration rate when dry and cracked. On getting wet cracks will close and infiltration rate will be very low. These are derived from schistose rocks. The Black soil is found in the prolonged submerged areas and canal command areas having low Permeability. It is calcareous and mildly alkaline in nature.

Source: CGWB report Bellary District, March 2011

http://cgwb.gov.in/District_Profile/karnataka/BELLARY.pdf

4.6 Climate data from secondary sources

The nearest Indian Meteorological Department (IMD) station located to project site is Bellary. The Climatological data of Bellary(15° 09' N and 76° 51'E), published by the IMD, based on daily observations at 08:30 and 17:30 hour IST for a 30-year period (1971-2000), is presented in the following sections on the meteorological conditions of the region. The monthly variations of the relevant meteorological parameters are given in **Table 3-6.**

Table 4-6 Climatologically Summary – Bellary (1971-2000)

Month	Temp (°C)		Rainfall		Relative Humidity (%)		Vapour Pressure HPa		Mean Wind Speed (Kmph)	Predominant Wind Directions (From)*	
	Daily Max.	Daily Min.	Total (mm)	No. of days	08:30	17:30	08:30	17:30		08:30	17:30
Jan	31.0	15.4	1.3	0.1	73	43	17.8	17.6	4.1	E	E
Feb	34.1	18.1	1.9	0.1	65	37	18.2	17.5	4.7	E	SE
Mar	38.1	21.0	2.9	0.4	53	28	18.2	16.4	4.6	E	E
Apr	40.3	24.0	15.7	1.4	49	26	19.7	17.2	5.3	W	NW
May	39.6	24.3	57.4	3.6	57	32	22.1	19.5	8.0	NW	NW
Jun	35.1	23.4	53.3	3.5	66	49	23.6	23.0	11.0	W	W

Month	Temp (°C)		Rainfall		Relative Humidity (%)		Vapour Pressure HPa		Mean Wind Speed (Kmph)	Predominant Wind Directions (From)*	
	Daily Max.	Daily Min.	Total (mm)	No. of days	08:30	17:30	08:30	17:30		08:30	17:30
Jul	32.2	23.0	37.9	3.3	70	56	24.0	24.0	11.7	W	W
Aug	31.5	22.5	59.8	4.2	72	59	24.0	24.2	10.8	W	W
Sep	32.1	21.7	115.2	5.8	73	56	23.8	23.5	8.3	W	W
Oct	31.6	20.8	88.7	5.4	72	58	23.2	23.6	4.5	NW	NE,E
Nov	30.5	18.3	37.2	2.5	71	55	20.9	21.4	4.5	E	E
Dec	29.9	15.5	6.7	0.6	72	49	18.3	18.6	4.2	E	E
Max.	**40.3**	**24.3**	**115.2**	**5.8**	**73**	**59**	**24**	**24.2**	**11.7**	**Annual Predominant wind direction is west**	
Min.	**29.9**	**15.4**	**1.3**	**0.1**	**49**	**26**	**17.8**	**16.4**	**4.1**		
Annual Avg/Total.	**33.8**	**20.6**	**477.9**	**31.0**	**66**	**46**	**21.1**	**20.6**	**6.8**		

As per the above IMD climatological Data given in**Table 3-6,** the observations drawn are as follows

- Highest Daily maximum temperature is 40.3°C and the Lowest daily minimum temperature is 15.4°C were recorded in the months of April and January respectively
- Maximum and minimum relative humidity of 73% and 26% were recorded in the months of January & September and April respectively.
- Maximum and minimum rainfall of 115.2 mm and 1.3 mm was recorded in the months of September and January respectively.
- Maximum and minimum Mean wind speed is 11.7 km/hr and 4.1 km/hr were recorded in the months of July and January respectively. Annual Wind predominant pattern is west.

4.7 Social Infrastructurenear the project site

Details of schools, colleges, hospitals, Government buildings near the project site are given in**Table 3-7.**

Table 4-7 Social infrastructure near the project site

S. No	Places	Distance (~Km)	Direction
	SCHOOLS		
1	Guru Deva Residential School	0.51	E

S. No	Places	Distance (~Km)	Direction
2	Hbh School	1.26	NNE
3	Government Model Senior Primary School Kuduthini	1.30	NNE
4	Shree Raghvendra English Medium High School	1.66	NNE
5	Gnana Vikas School	1.87	NNE
6	Satsanga Ashrama	0.56	NE
7	Government High School Kuduthini	1.20	NE
8	GOOD SHEPHERD SCHOOL	5.90	W
9	Government High School Toranagallu	6.24	W
10	Tamanna School for Specially Abled	6.28	W
11	Jindal Adarsh Vidyalaya	7.33	W
12	Jindal Vidya Mandir	8.36	W
13	Darululoom Anwar-E-mustaf	7.01	W
14	Govt School Belagallu Thanda	9.65	SE
15	Nandi International School	9.84	ESE
16	Morarji Desai Residential School	8.49	E
17	Sri Sai School	9.54	NNE
18	GOVERNMENT LOWER PRIMARY SCHOOL Basaveswara Nagar	10.07	NNE
19	Government High School Daroji	11.38	NW
20	Government Higher Secondary School Gadiganur	14.85	WNW
21	Government High School Buvvanahalli	13.52	WNW
22	Vaddu High School	11.93	W
23	Government Primary School Talur	13.54	W
24	Jindal Vidya Mandir	10.86	W
25	Murarji Desai Residential School Bannihatti	12.64	W
26	Kitturu Rani Channamma Higher Secondary School	14.57	WSW
27	Ramnagar Government Primary School	14.45	E
28	Kendriya Vidyalaya	14.52	E
29	Govt Primary School D C Nagar	13.61	E
30	Govt primary school Ballari	12.88	E
31	Ashirvad High school	14.89	E
	COLLEGES		
32	Government Pre-University College	1.64	NNE
33	SPGU EDUCATION SOCIETY ITI	1.74	NE
34	Govt. I.T.I College Kudathini	1.03	N
35	Rajiv Gandhi Institute for Steel Technology	6.22	W
36	BITM College	9.52	E
37	Government Higher Secondary School Hasodaroji	7.12	NW
38	Inspire Institute of Sport	11.90	W
39	Nalanda PU College	14.90	E
40	Indian College of Nursing	14.12	E
41	Rao Bahadur Y Mahabaleswarappa Engineering College	13.67	E
42	VVS Independent PU College	13.91	E
43	Veerashaiva Degree College	13.96	E
44	Vijayanagara Institute of Medical Sciences	14.17	E

S. No	Places	Distance (~Km)	Direction
45	Govt Dental Collage Ballari	14.23	E
	INDUSTRIES		
46	KPCL-Bellary Thermal Power Station	0.06	NW
47	Epsilon Carbon Pvt. Ltd	1.90	W
48	Bhuwalka Pipes Factory	2.26	W
49	Minera pellet plant	1.11	SW
50	Jindal Saw Ltd	2.59	WSW
51	Padmavati ferrous	3.82	SW
52	Jindal Group of Companies	1.78	W
53	Scan Steels Ltd	2.96	E
54	HothurIspat Pvt Ltd	3.35	E
55	ACC Limited	3.54	NE
56	Shatavahanaispatkudithini	3.85	NNE
57	Sri saisapthagiri steels pvt ltd	7.81	SE
58	HindusthanIspat Pvt Ltd	6.75	SE
59	Jai Raj Ispat Ltd	7.25	SE
60	Tunics sponge	8.33	SE
61	Suvan Steel	7.17	ESE
62	Neo industries	10.05	W
63	Divya Jyothi Steels Ltd	11.24	WSW
64	Phoenix Building Products Pvt Ltd	11.15	WSW
65	Kej Minerals Pvt Ltd	11.05	WSW
	HOSPITALS		
66	Government Wellesley Tuberculosis Hospital	13.86	E
67	PHC Kudithini	1.29	NNE
68	Government Hospital Toranagallu	6.27	W
69	Esi Health Centre Toranagallu	7.51	W
70	Jindal SanjeevaniMultispeciality Hospital	8.05	W
71	Piles Clinic	8.13	W
72	SRI SAI HOSPITAL	7	W
73	Care Dental Clinic	7.02	W
74	Primary Health Centre Siddamanahalli	9.45	NNE
75	Vidyanagar Hospital	10.69	W
76	GAD Bandihatti New Hospital	14.50	E
77	Shruti Hospital	14.67	E
78	Vijaynagar Institute of Medical Science Hospital	14.76	E
79	Asha Hospital	14.93	E
80	ANURADHA HEART CARE CENTER	14.93	E
81	Gastro Clinic and Surgical Centre	14.95	E
82	Govt Hospital Sriramarangapuram	12.70	NNW
	RELIGIOUS PLACES		
83	Sri Venkateshwara Temple	9.91	E
84	Shiva Temple Veniveerapura	6.58	E
85	Panduranga Temple	5.71	W

S. No	Places	Distance (~Km)	Direction
86	Gavisiddeshwara Temple	9.98	SSE
87	Yasmin Masjid	14.65	E
88	Madina Masjid	8.20	W
89	EkMinar Masjid (Cavalry Majid)	14.66	E
90	MASJID-E SATTAR SHAH	8.40	W
91	Hanuman Temple (Pavandham)	8.49	W
92	Shankaralinga Swamy Temple	6.52	W
93	ShankarappaTatta Temple	0.66	N
94	Satsangashrama Temple	0.73	N
95	Panchwati Temple	11.56	W
96	Sunkalmma Devi Temple	0.66	NNE
97	Huligemma Temple	0.80	NNE
98	Gavi Hanumappa Temple	0.87	NNE
99	SreeYemmaeBasappaThathanavara Mata Temple	0.92	N
100	BOLA BASAVESHWARA TEMPLE	0.96	N
101	Sri Sadguru Venkavadutara Temple	1.03	N
102	VASAGERAPPA TEMPLE	1.08	N
103	Kanayakaparameswari Temple	1.11	N
104	Kuduthini Mosque	1.14	N
105	Shri Dodda Anjaneya Swamy Temple	1.22	N
106	Lord Shive Temple	1.28	N
107	Dargah Masjid	1.60	NNE
108	Shree Kanakaraya Prasanna Temple	0.68	NNE
109	Sri Vittalarukmini& Sri shirdi Sai Baba Mandir Kuduthini	0.73	NE
110	GopalaKrishna Swamy Temple	0.99	NE
111	Haraginadoni A G Church	3.45	SE
112	Sri Devamma Temple	4.84	E
113	Munithaatha Temple	5.02	E
114	HOLY SPIRIT CHRUCH	5.27	W
115	Sri BanniMhankalamma Temple	6.04	W
116	Sunkalamma Temple	5.99	W
117	EMMANUEL PRAYER HOUSE	6.68	W
118	EL-SHADDAI CHURCH	8.57	W
119	Anjaneya Temple	7.98	W
120	Indian Pentecostal Church	7.72	W
121	Sri Markandeshwara Temple	9.73	WNW
122	Suglamma Temple	6.97	SSW
123	Aanthapur Mallikarjun Temple	6.75	SSW
124	Mosque Belagalluthanda	9.58	SE
125	SreeGanabava Temple	9.52	SE
126	ISKON Temple	6.83	W
127	Honnuraswamy Temple	9.39	ESE
128	MasidiGudi	9	ESE
129	Sri Siddeshwara Temple	8.95	ESE

S. No	Places	Distance (~Km)	Direction
130	srikalleshwara temple	8.92	ESE
131	Shri SevalalMariyamma Temple	5.68	SE
132	Jamia Masjid	8.87	NW
133	DarojiAnjineyya Temple	7.56	NW
134	Alhaj Hazrat Syed Sha MuhiyeddinQhadri	13.36	ESE
135	Sri SriSriSadhguru Mahadeva ThathanavaraMatha	12.24	E
	GOVERNMENT BUILDINGS		
136	Kudathini Police Station	1.68	NNE
137	Karnataka Power Transmission Corporation Sub Station	1.09	N
138	Haraginadoni Post Office	3.16	SE
139	Veniveerapura Post Office	4.86	E
140	Police Station Toranagallu	6.60	W
141	VADA	6.14	W
142	Gram Panchayat Office Toranagallu	6.30	W
143	Swarna Post Office	6.36	W
144	Taluk Office Kurekuppa	9.92	WNW
145	B.Belagal post office	8.98	ESE
146	Village Panchayat Office Belagal	8.94	ESE
147	Post Office Siddamanahalli	9.68	NNE
148	PANCHAYAT Office Siddamanahalli	9.96	NNE
149	Post office Yelubenchi	7.02	N
150	Gram Panchayat Office HosaDaroji	7.13	NW
151	Gram Panchayat Office Gadiganur	14.97	WNW
152	Post Office Vaddu	11.14	W
153	Vaddu Village Panchayat Office	11.12	W
154	talur post office	13.42	W
155	Nagalapur post office	13.36	W
156	Taranagara post office	14.57	WSW
157	Dr.B.R. Ambedkar Development Corporation Bellary	14.87	E
158	Govt. Of India. Ministry Of Labour & Employment	14.43	E
159	Karnataka State Pollution Control Board	13.55	E
160	post office yerrangali	11.85	NE
161	Gram Panchayat Office Devalapura	14.40	NW

4.8 Existing infrastructure

Presently roads storm water drains, pump house are already constructed at site. Basic infrastructures like water supply, power supply, storm water drain, CETP CSTP, Municipal solid waste processing area, Occupational health centre etc. will be provided by KIADB. The site is well connected by roads.

5.0 PLANNING BRIEF

5.1 Planning Concept

5.1.1 Manpower Requirement

For proposed construction requirements, around 100 people will be mobilized from nearby areas. For operational phase, there will be 6800 staff.

5.1.2 Land use planning

The Total land available for the proposed project is about 261 Ha (645.18Acres).Proposed project has two components namely Kuduthini Industrial Area Phase 1 and Women Entrepreneurs Park. Land use breakup for Kuduthini Industrial Area Phase 1 is given in **Table 4-1**and Women Entrepreneurs Park is given in **Table 4-2.**

Table 5-1 Land use pattern for 601.27 Acres (Kuduthini Industrial Area Phase 1)

S.No	Description	Proposed		
		Area in Ha	AreainAcres	%
1	Industrial Area	158.25	391.05	65.04
2	Commercial Area	4.17	10.31	1.71
3	Amenities	5.74	14.18	2.36
4	Road	25.33	62.60	10.41
5	Park (Green belt)	9.66	23.88	3.97
6	Nala	6.79	16.77	2.8
7	Buffer Zone (green belt)	19.95	49.30	8.2
8	Parking	4.88	12.05	2.0
9	Utility	8.56	21.13	3.51
	Total	**243.33**	**601.27**	**100**

Table 5-2 Land use pattern for 43.91 Acres (Women Entrepreneurs Park)

S. No	Description	Proposed		
		Area in Ha	AreainAcres	%
1	Industrial Area	13.93	34.41	78.36
2	Commercial Area	0.61	1.50	3.42
3	(CFC) Amenities	0.81	2.00	4.55
4	Road	1.28	3.16	7.20
5	Park (green belt)	0.46	1.15	2.62
6	Parking	0.46	1.15	2.62
7	Utility	0.22	0.54	1.23
	Total	**17.77**	**43.91**	**100**

5.1.3 Assessment of infrastructure Demand

Infrastructure like roads, storm water drain, site office, water supply system, Common Sewage Treatment Plant, Common Effluent Treatment Plant, Municipal solid waste processing area is proposed for the project.

5.1.4 Amenities/ Facilities

Amenities like fire station, Occupational Health Centre, commercial area are proposed for this project.

6.0 PROPOSED INFRASTRUCTURE

6.1 Industrial Area

Total 130 industrial plots are proposed for Kuduthini Industrial Area Phase 1 and 74 plots are proposed for Women Entrepreneurs Park. Details are given in **Table 5-1** for Industrial Area Phase 1 and **Table 5-2** for Women Entrepreneurs Park.

Table6-1 Plot details for Industrial Area - Phase 1

S.No	Area in Acres	No. of plots	Total Area (Acres)
1	0.25	23	5.75
2	0.49	01	0.49
3	0.50	05	2.50
4	0.99	01	0.99
5	1.0	30	30.0
6	1.12	01	1.12
7	1.25	02	2.5
8	1.5	08.0	12.0
9	2.0	27.0	54.0
10	2.43	01.0	2.43
11	2.56	01.0	2.56
12	2.38	1.0	2.38
13	3.0	07.0	21.0
14	3.05	01.0	3.05
15	3.32	01.0	3.32
16	3.61	01.0	3.61
17	3.89	01.0	3.81
18	4.09	01.0	4.09
19	4.38	01.0	4.38
20	5.0	04.0	20.0
21	5.2	01.0	5.02
22	5.31	01.0	5.31
23	7.67	01.0	7.67
24	18.54	01.0	18.54
25	20.0	05.0	100.0
26	20.84	01.0	20.84
27	22.73	01.0	22.73
28	30.96	01.0	30.96
Total		**130**	**391.05**

Table 6-2 Plot details for Women Entrepreneurs Park

S.No	Area in Acres	No. of plots	Total Area (Acres)
1	0.25	30	7.50
2	0.5	34	17.0
3	0.54	01	0.54
4	0.65	01	0.65
5	1.0	07	7.0
6	1.72	01	1.72
Total		**74**	**34.41**

6.2 Green belt

10.12 Ha (25.03 Acres) is proposed for Parks and Open spaces, which will be developed as green belt. Apart from this 19.95 Ha (49.30 Acres) is proposed as green belt buffer. Total green belt area proposed by KIADB will be 30.07 Ha (74.33 Acres) (11.52% of Total Industrial Area). Apart from thisindividual industries will be mandated to develop 33% of green belt area within their premises. 15m green belt will be developed along the periphery of the Industrial Area and along the nala. Green belt layout is enclosed as

6.3 Connectivity

The project site is well connected byNH 67(Ramnagar- Bellari-Krishnapatnam Port), which is adjacent to the site, towards North.

6.4 Drinking Water Management

Domestic water requirement for the project is estimated to be 306 KLD. Water source will be Tungabadhra Right bank canal ~.2.69 km from project site.

6.5 Industrial waste management

Individual industries will have their own area for segregation and storage of Hazardous waste materials. The same will be disposed as per the Hazardous and Other Wastes (Management, handling and Transboundary Movement) Amendment Rules, 2016.

7.0 REHABILITATION AND RESETTLEMENT (R &R) PLAN

7.1 R&R

The entire land has been handed over to KIADB for development of Industrial Area. Hence R & R is not applicable for this project. Land documents areenclosed as **Annexure-1**.

8.0 PROJECT SCHEDULE AND COST ESTIMATE

8.1 Likely date of start of construction and likely date of completion

Project time line is given in table below

Table 8-1 Project Timeline

S. No	Description	Time Frame
1	Environmental Clearance	September 2021
2	CFE	November 2021

8.2 Estimated project cost

The total capital investment for proposed project is estimated as INR 233 Crores and break up of cost details are detailed in **Table 7-2** for Kuduthini Industrial Area Phase 1&**Table 7-3**for Women Entrepreneurs Park.The time schedule for getting approval for the proposed project is within May 2021.

Table 8-2 Cost breakup for 601.27 Acres (Kuduthini Industrial Area Phase-1)

S.No	Description	Amount (in Lakhs)
A	**Land Cost**	
a	Cost of acquisition for 25 acres of land @ Rs.12.00 lakhs per acre	**300.00**
b	Cost of acquisition for 576.27 acres of land @ Rs.8.00 lakhs per acre	**4610.16**
	Subtotal (a+b)	**4910.16**
c	Add 1% cost for malkies and structures on (a+b)	**49.10**
	Sub Total (a+b+c)	**4959.26**
d	Add 10% Board service charges on Sub total	**495.93**
e	Add interest @10% per Annum for 6 years (495.926*6)	**2975.60**
	Total Land cost (A)	**8430.79**
B	**Development Cost**	
a	Development expenditure (Civil & Electrical Works)	**10858.03**
b	Add interest @ 10 % per Annum for 1 year on (a)	**1085.80**
c	Add Board service charges @ 10% on (a)	**1085.80**
	Total development cost (B)	**13029.63**
C	**Grand Total Cost (A+B)**	**21460.42**
D	**Allottable Area: -** Industrial Land + Amenities + Commercial Land 391.05+14.14+10.31 = 415.5 Acres	
E	**Cost of land per acre** 21460.42 Lakhs / 415.5 Acres	**51.64**
	Or say	**52.00**

Table 8-3 Cost breakup for 43.91 Acres (Women Entrepreneurs Park)

S.No	Description	Amount (in Lakhs)
A	**Land Cost**	
a	Cost of acquisition for 43.91 acres of land @ Rs.8.00 lakhs per acre	**351.28**
b	Add 1% cost for malkies and structures on (a+b)	**3.51**
	Subtotal (a+b)	**354.79**
c	Add 10% Board service charges on Sub total	**35.48**
d	Add interest @ 10% per Annum for 6 years (35.48 * 6)	**212.68**
	Total Land Cost (A)	**602.95**
B	**Development Cost**	
a	Development expenditure (Civil & Electrical Works)	**1299.15**
b	Add interest @ 10 % per Annum for 1 year on (a)	**129.92**
c	Add Board service charges @ 10% on (a)	**129.92**
	Total development cost (B)	**1558.99**
C	**Grand Total Cost (A+B)**	**2161.94**
D	**Deduct Assistance from Govt. of India at Rs. 800 Lakh / 100-acre park**	**(-) 351.28**
	Net Grand Total	**1810.66**
E	**Allottable Area: -** Industrial Land + Amenities + Commercial Land – 34.41+2.00+1.50 = 37.90 Acres	
F	**Cost of land per acre** 21460.42 Lakhs / 415.5 Acres	**47.78**
	Or say	**48.00 lakhs / Acre**

9.0 ANALYSIS OF PROPOSAL

9.1 Financial and social benefits

- The project site shall require no displacement of habitation.
- Socio-economic benefit to the locals as it would provide both indirect employment and direct employment during construction and operation of the Industrial Area.
- The social requirements such as Drinking water requirement, Promotion of Educational institutions, and Medical facilities to the villages, Community centers, recreation facilities etc. will also be developed as part of social responsibility.
- Indirect employment opportunities to local people in contractual works like housing construction, transportations, for supply of goods and services to the project and other community services.
- There will be increase in Market and business establishment facilities.
- There will be improvement in communication, transport, education, community development and medical facilities.

Thus, the proposed project will be beneficial for both the local as well as Indian economy.

Executive Engineer
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