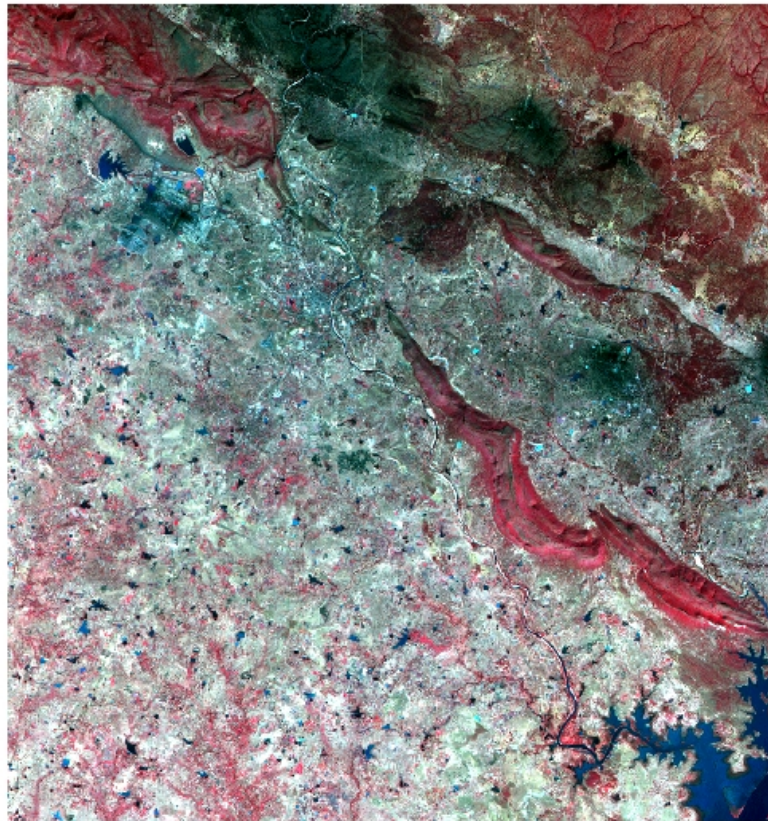
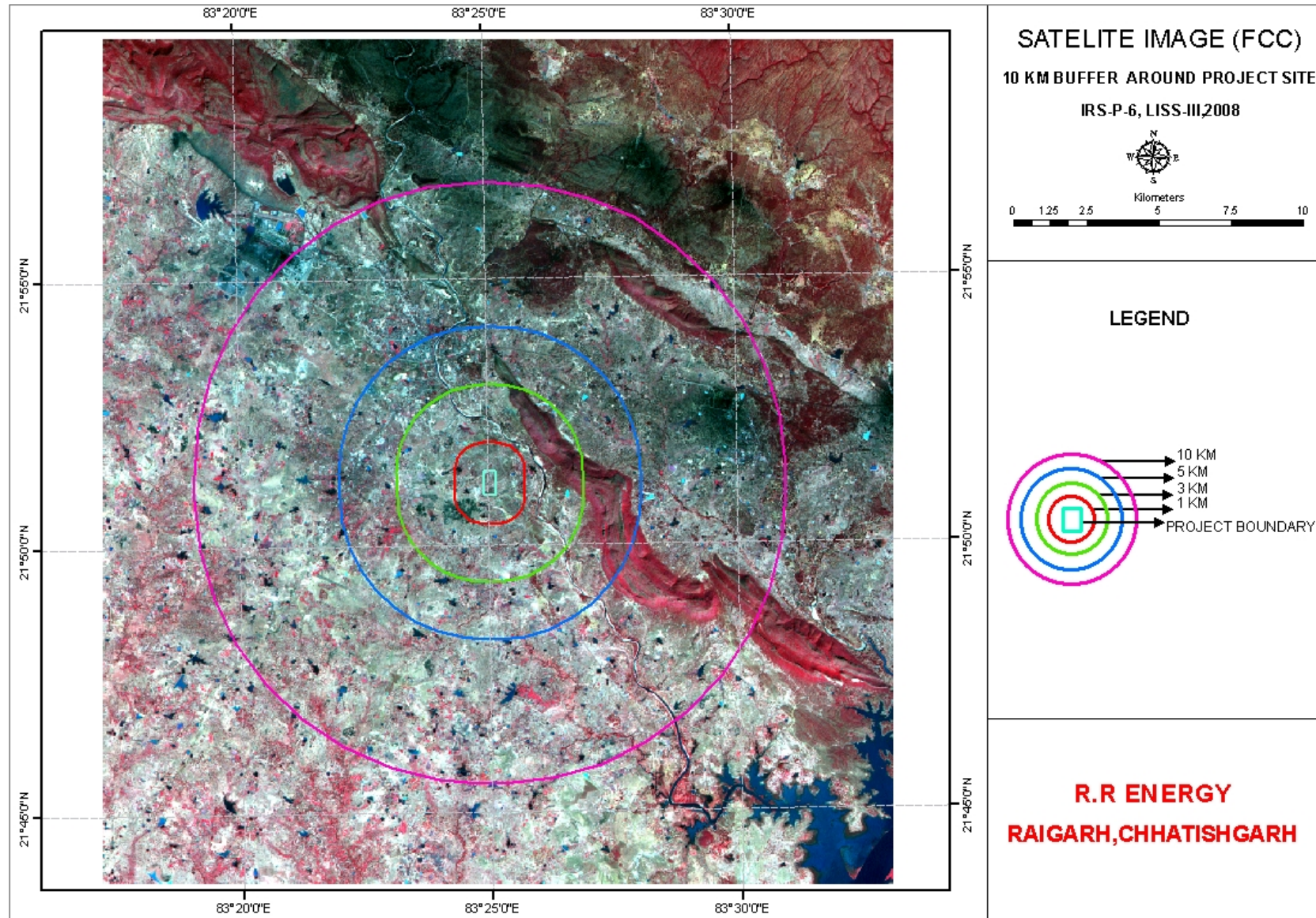


REPORT ON
LANDUSE / LANDCOVER OF
10 KM BUFFER AROUND PROJECT SITE



R.R ENERGY ,RAIGARH,CHHATISHGARH

Preparation of Land use map from Satellite Image IRS-P6-LISS-III, 2008



**LAND USE AND LAND COVER MAP
PROJECT SITE AT KESLA
CHHATISHGARH**

The location of the project site is $83^{\circ} 24' 55''$ To $83^{\circ} 25' 10''$ E longitude and $21^{\circ} 50'56''$ To $21^{\circ} 51'22''$ N latitude.

The extend of area is $83^{\circ}19'10''$ To $83^{\circ}30'46''$ E and $21^{\circ}45' 33''$ To $21^{\circ}56' 48''$ N

LANDUSE / LAND COVER

Following land use classes are found within the 10 km buffer area around project site. They are :

1. Town/City
2. Village settlement with vegetation cover
3. Kharif crop (Single crop)
4. Grooves/Orchards
5. Open forest
6. Scrub forest
7. Forest/Agriculture plantation
8. Land with scrub
9. Land without scrub
10. Air strip
11. Mining area
12. Industrial area
13. Tank/Pond/reservoir
14. River

DESCRIPTION OF LAND USE CLASSES :

Town/city

High reflected area mostly square or rectangular shape of bigger size found in satellite image is interpreted as Town/City area.

Village settlement with vegetation cover

Mostly square or rectangular shape area with vegetation cover found in satellite image is signified as settlement area.

Grooves / Orchards

This land use class mainly covers with tree near settlement area.

Kharif crop (Single crop)

Gray colour having parcels in satellite image are interpreted as Kharif crop area. The crop area is normally found along the drainage line and low land area. Only once in a year, crop is harvested in this area.

Open forest

Like dense forest, open forest is also found within R.F. and P.F. and the area from 40% to 10% canopy is considered as open forest.

Scrub forest

Crown cover less than 10% is called scrub forest and it should be within reserved or protected forest.

Forest / Agricultural Plantation

Afforested area within forest boundary or outside forest is called Forest / Agricultural Plantation area. The signature in satellite image is red in colour and in a regular shape of vegetation cover.

Land with scrub

Outside the reserved and protected forest, this land with scrub is available being covered with bush/scrub.

Land without scrub

Mostly, the barren land which does not have any capability to grow vegetation or the fallow land covered with grass is called land without scrub.

Air strip

A rectangular shape area of light gray colour in the satellite image interpreted as air strip.

Mining area

An irregular shape of light green colour patch in the satellite image is signified as mining area.

Industrial area

The low reflected area having black patches in the satellite image is interpreted as industrial area

Tank/Pond/reservoir

In this classification system, the perennial water body is considered as tank/pond. The reservoir is comparatively bigger in size and checked with a dam.

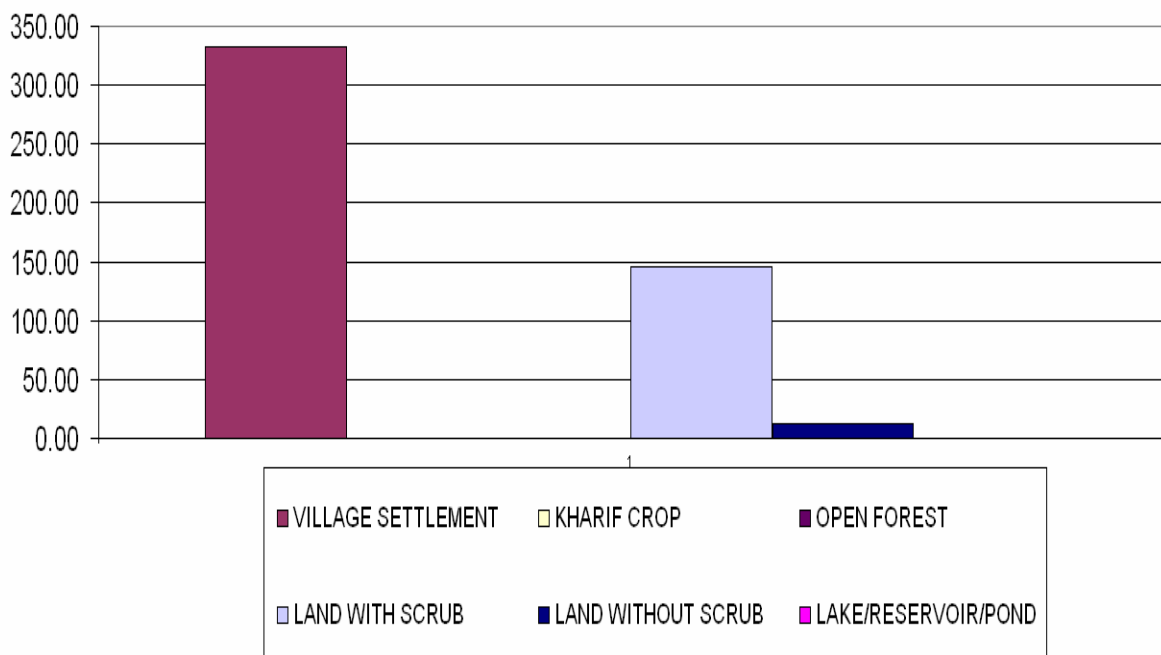
River

In the classification system, the perennial drainage having more width is considered as river.

Landuse Categories within 1Km. buffer around project site.

The landuse categories within 1Km. buffer area are village settlement, kharif crop, open forest, land with scrub, land without scrub and tank/pond.

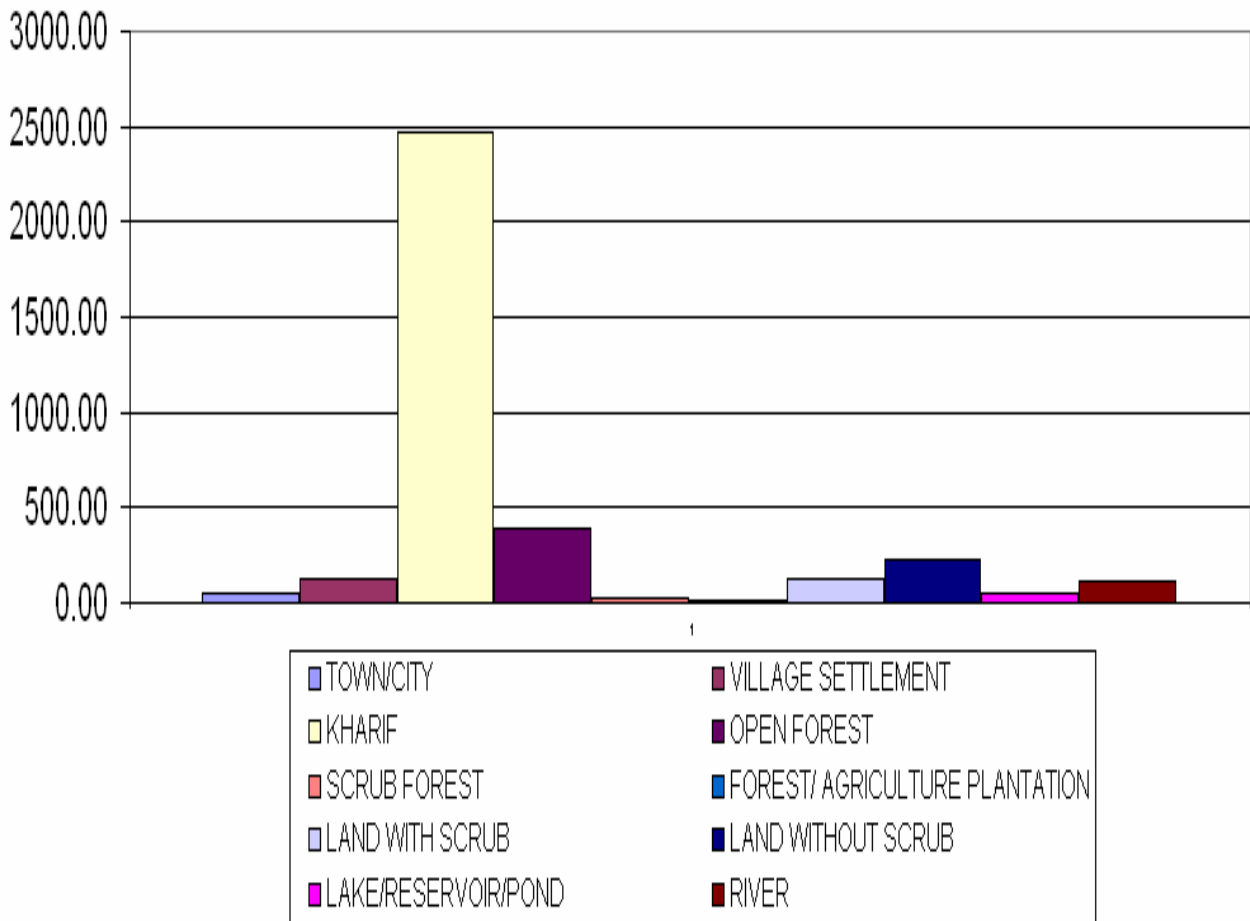
DISTRIBUTION OF LANDUSE
WITHIN 1KM. BUFFERFROM PROJECT SITE



Landuse Categories within 3Km. buffer around project site.

The landuse categories within 3 Km. buffer area are town/city, village settlement, kharif crop, open forest, scrub forest, forest plantation, land with scrub, and land without scrub, tank / pond and river.

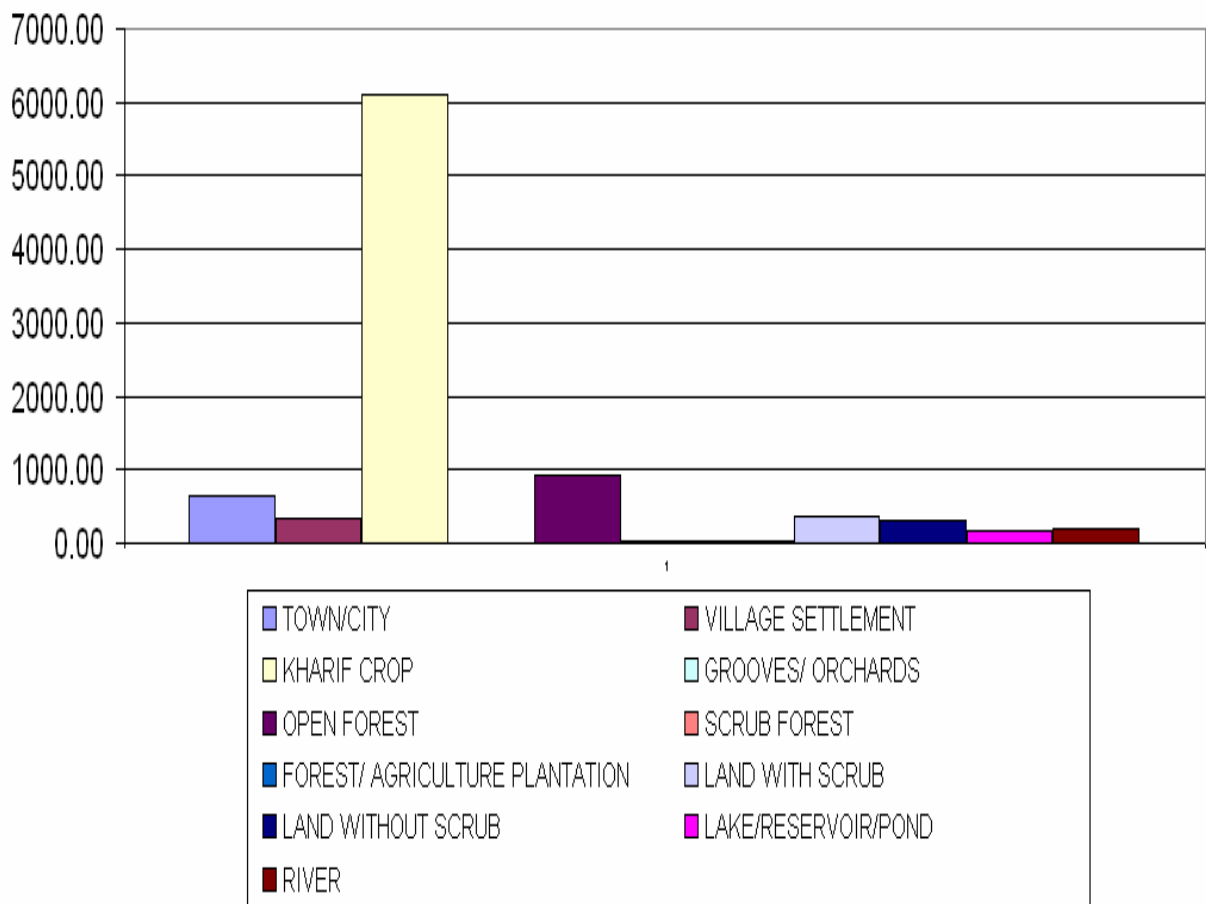
**DISTRIBUTION OF LANDUSE
WITHIN 3 KM BUFFER FROM PROJECT SITE**



Landuse Categories within 5Km. buffer around project site.

The landuse categories within 5 Km. buffer area are town/city, village settlement, grooves/orchards, kharif crop, open forest, scrub forest, forest plantation, land with scrub, land without scrub, air strip, tank/pond and river.

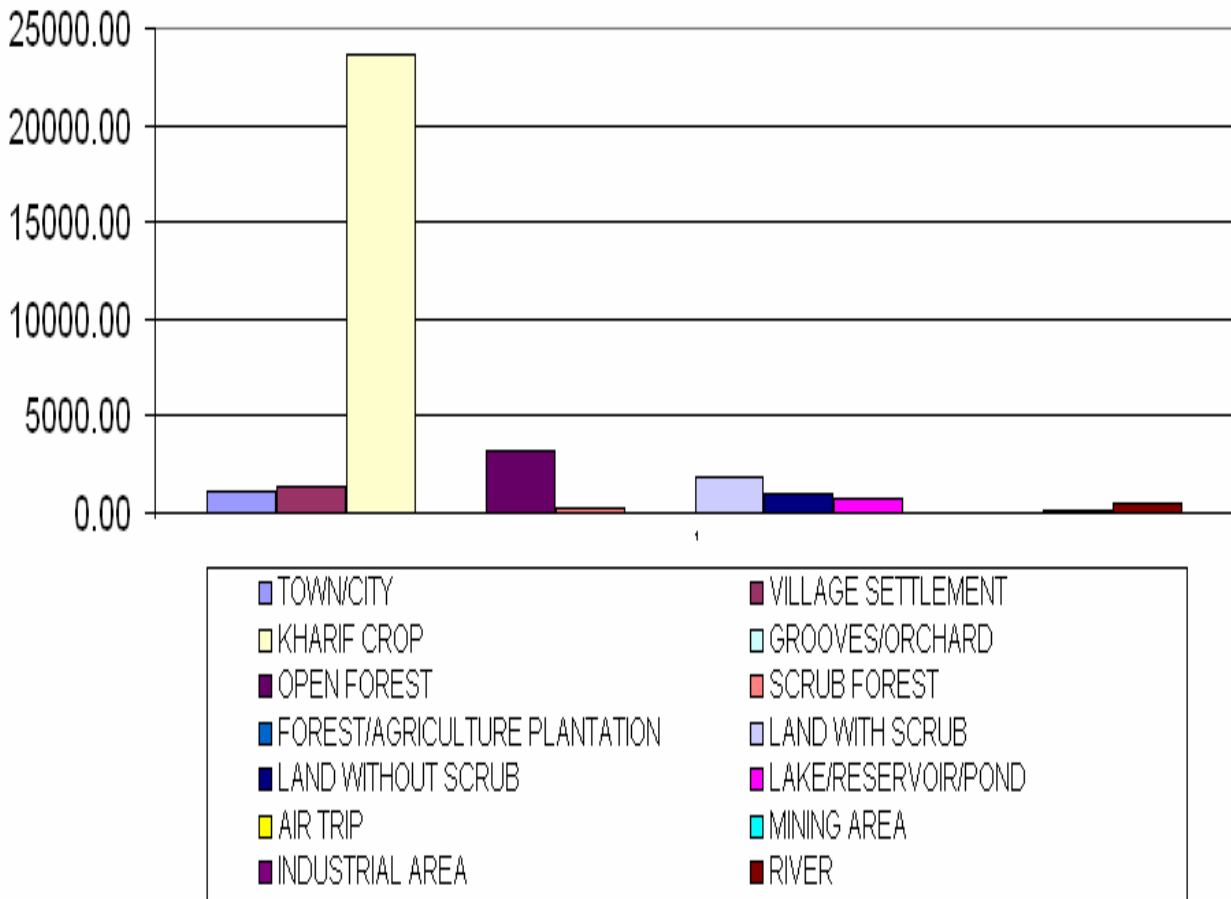
**DISTRIBUTION OF LANDUSE
WITHIN 5 KM BUFFER FROM PROJECT SITE**



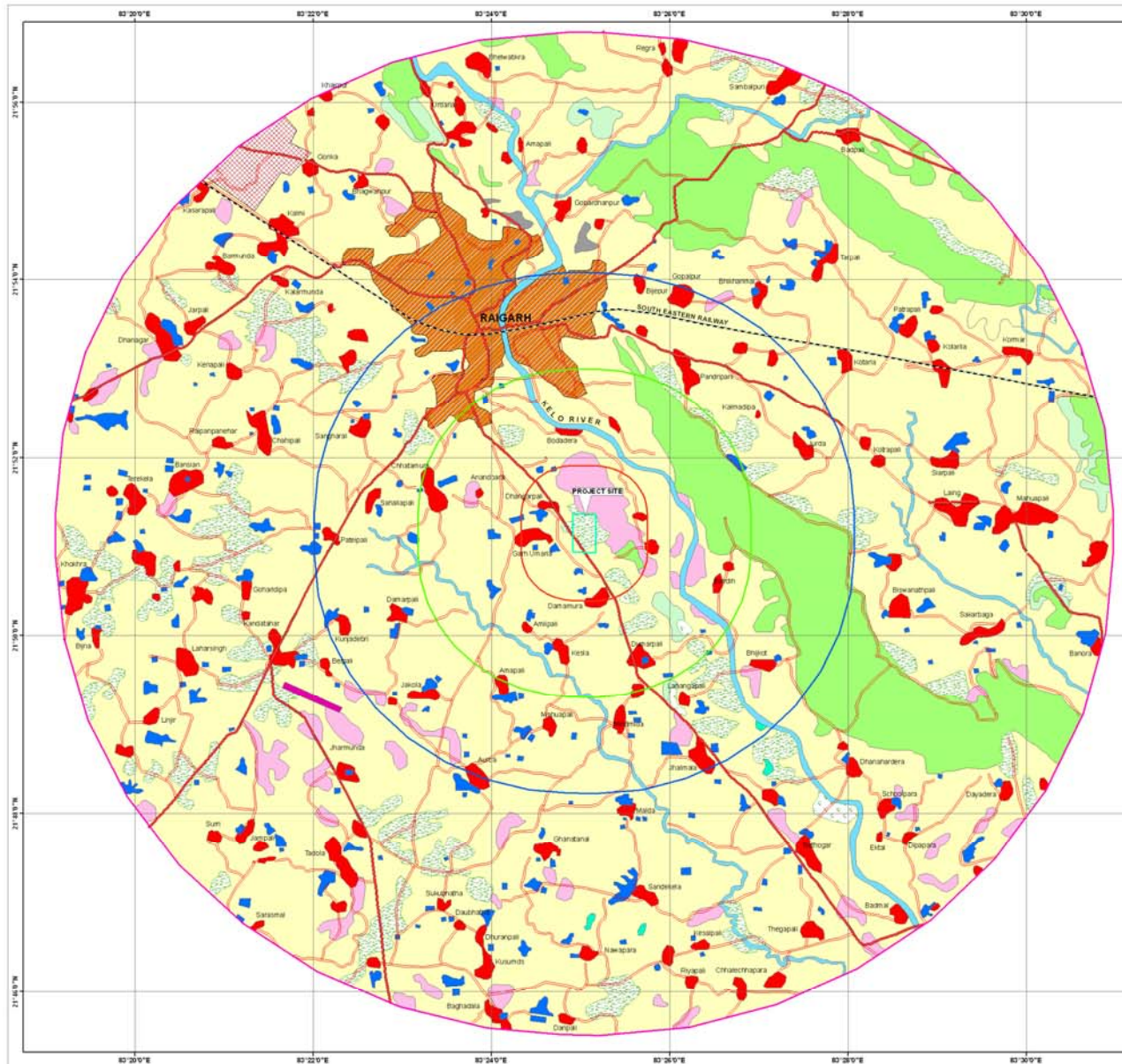
Landuse Categories within 10Km. buffer around project site.

The area statistics given below in tabular form shows all the land use classes available within 10 km buffer area from project site. This also gives the comparative statistics from 1 km to 10 km buffer area.

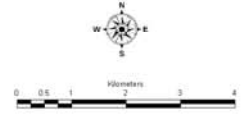
**DISTRIBUTION OF LANDUSE
WITHIN 10 KM BUFFER FROM PROJECT SITE**



LANDUSE AREA STATISTICS OF KESLA PROJECT SITE,CHHATISHGARH					
SL.	LUSE CATEGORIES	AREA IN HECT.			
		10 KM.	5 KM.	3 KM.	1 KM.
1	TOWN/CITY	1092.89	634.38	52.25	
2	VILLAGE SETTLEMENT	1408.05	331.62	129.18	32.81
3	KHARIFF CROP	23585.82	6116.61	2468.33	333.09
4	GROOVES/ORCHARD	13.34	2.56		0.00
5	OPEN FOREST	3217.50	933.30	386.27	14.82
6	SCRUB FOREST	205.91	35.07	28.11	0.00
7	FOREST/AGRICULTURE PLANTATION	50.82	18.60	9.76	0.00
8	LAND WITH SCRUB	1863.64	355.75	128.54	56.62
9	LAND WITHOUT SCRUB	929.66	310.00	228.91	146.26
10	LAKE / RESERVOIR / TANK	677.42	158.20	51.37	13.02
11	AIR STRIP	15.98	0.00	0.00	0.00
12	MINING AREA	28.57	0.00	0.00	0.00
13	INDUSTRIAL AREA	182.34	0.00	0.00	0.00
14	RIVER	511.21	197.85	112.12	0.00
	TOTAL=	33783.15	9093.95	3594.84	596.62

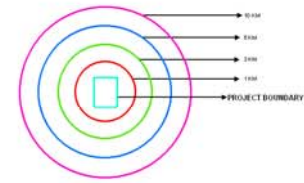


LAND USE / LAND COVER MAP
 WITHIN 10 KM BUFFER FROM PROJECT SITE



LEGEND

- URBAN AREA
- VILLAGE AREA
- KHARIF
- ORCHAD/GROOVES
- OPEN FOREST
- SCRUB FOREST
- FOREST PLANTATION
- LAND WITH SCRUB
- LAND WITHOUT SCRUB
- STONE QUARRY/CRUSER UNIT
- WATER BODY
- RIVER
- RAILWAY
- MAJOR ROAD
- OTHER ROAD



R.R ENERGY
RAIGARH, CHHATISHGARH