STUDY AREA & SITES
Raipur is surrounded by many industries. Raipur is situated in the state of Chhattisgarh which lies between 19°5' to 23°51'N latitude and 81°25' to 83°38'E longitude. Many industries have grown up and are still growing due to availability of raw materials and minerals in this region. Some type of industries includes Steel mills, Fertilizer factory, Gudakhu factory, Paint industries, some Paper mills, Chemical industry, Oil mills and several other large and small-scale industries. Information gathered from the district industrial center, Raipur, show that till 1994, there were 58 large and medium scale industries, 476 small scale industries and 13 proposed large scale industries in Raipur district.

Out of the following above, only two industries were selected for physicochemical analysis of the effluent and isolation of bacteria from the effluent for further practical studies and experiments

1. FERTILIZER FACTORY: Dharamsi Morarji chemicals (DMC).

Dharamsi Morarji chemicals (DMC) factory is located at village Kumhari 15 kms away in the west of Raipur city. DMC extends over an area of 81 hectares. Popularly known to manufacture phosphatic fertilizer, this factory also manufactures sulphuric acid, chlorosulphonic acid, oleum, alumina sulphate and sodium silica fluoride. The factory manufactures nearly one-
lakh tonnes of sulphuric acid per year. The total sulphur waste discharged by the plant is about 700 tonnes per year. About 310m$^3$ per day of liquid effluent is discharged into Kharoon river through a narrow channel. This channel runs eastward in a zigzag manner. It is about 3 kms long, 3.4 metres wide with about 2 metres average depth. Calcium is mixed with the effluent so the effluent is white in colour.

2. **AUTOMOBILE GARAGE (Modern Automobile Garage)-:**

Automobile garage is selected in the Raipur city. It is located in Ramsagar para, Raipur known as Modern automobile garage. It is a service center for automobiles.