1. INTRODUCTION

Enzymes are special kind of proteins present in all biological systems used in catalysis of specific chemical reactions. These enzymes are highly specific in their action, work with high rate of conversion and their act on depend on various physiological conditions like pressure, temperature etc.

At present more than 1000 enzymes are known and they are classified in six main groups (IUPAC-1972). The categories of enzymes are made on the basis of their function in living systems like hydolases, catalases the splitting bonds such as C-O, C-N, C-C etc. by hydrolytic action. These main six groups are further divided into more specific enzymes depending on their catalysed reactions.

Cellulases are hydrolytic type of enzymes they acts on reducing and non-reducing chain of cellulose. During degradation of cellulose the first action made by endo-glucanases which degrade the central portion of cellulose followed by action of cellobiohydrolases.

Soil fungi are the important sources of enzymes production. Members of fungal organisms of all main categories i.e. Deuteromycetes, Ascomycetes, Basideomycetes during their growth and other activities produce number of enzymes. Due to their parasitic nature fungi degrade their food material by liberating special kind of enzymes like cellulases, pectinases, hemicellulases polygalactourinases, xylanases etc.

For large scale production of enzymes number of fungi and bacterial strains are used by researchers. The modern enzymes technology was started after the registration of patent on large scale production of enzyme distase from fungal molds. Later number of enzymes are recovered on large scale by various workers as well as companies and released them for the use of industrial purpose.
Particularly in fungi group *Aspergillus; Fusarium; Trichoderma; Penicillium; Rhizopus; Candida* and *Mucor* are the major genera studied for the enzyme production. In both rhizosphere and non rhizosphere soil there is record of different fungal strains. The potential of strain for the production of particular product is variable and it depends on various factors geomorphological properties of soil, pH of soil, various major and minor nutrient contents of soil.

In Nandurbar district major geographical area covered by forests and that forest soil shows vast difference in physicochemical properties. In the proposed work soil samples from both agricultural and forest soils will be considered for isolation fungal strains.

All types of cellulolytic enzymes shows the same chemical specificity for binding beta glycosidic linkage. The variations observed with macroscopic properties of substrates. Any typical cellulolytic complex released by any fungi which works on cellulose includes hydrolytic and oxidative enzymes. Among these enzymes endoglucanases, cellobiohydrolases and glucosidases are important enzymes. The enzyme action begins with activity of endoglucanases and ends with beta galactosidases.

Cellulolytic enzymes are involved in process of saccharification in which agricultural waste residues can be converted in glucose and biofuels like ethanol. Since four decades of research this application has not yet been economically feasible due less conversion rate of cellulose to glucose from cellulase group of enzymes, to overcome this difficulty there is scope for screening of soil fungi from the virgin fields. In addition to the isolation there is prospectus to design the novel media by composition of different agricultural wastes. Fungal cellulases have demands in food industry, soup manufacturing, textile processing and paper and pulp industry.

Thus it can be summarized that there is great potential of production of cellulolytic enzymes from novel isolates of soil fungi. The filamentous fungus *Trichoderma reesei* is
today a paradigm for commercial scale production of different cellulases and hemicellulases and is well adapted to fermenter cultivations. Beside well established applications of these enzymes in pulp, paper, food, feed or textile processing industries, these plant cell wall degrading enzymes are nowadays also employed for the saccharification of cellulosic plant biomass to simple sugars for bio fuel production (Bouwset al., 2008 ; Kumar et al., 2008).