REVIEW OF LITERATURE
Ayurveda is the ancient (6000BC) Indian system of Healthcare and longevity. Around 1050 plants are currently used in various Ayurvedic preparations. Ayurveda has a vast literature in Sanskrit and various Indian languages covering various aspects of diseases, therapeutics and pharmacy. The earliest references to medicinal plants are found in Rig-Veda and Atharva-Veda, dating back to the fourth millennium B.C. Charak Samhita (1500 BC) is the first recorded treatise fully devoted to concepts and practice of Ayurveda. It listed 341 plants and plant products for use in medicine. Sushruta Samhita (2500 BC.) has special emphasis on surgery. It describes 395 medicinal plants; 57 drugs of animal origin; 64 mineral and metals as therapeutic agents. Sushruta lived and practiced surgery in Varanashi (Pushpangadan 1996). Another important authority in Ayurveda is Vagbhatta of Sindh (Presently in Pakistan), who practiced around 7th century AD. His work Ashtang Hridayam is considered unrivaled for the principles and practice of medicine. The last celebrated writer on Hindu medicine was Bhav Mishra of Magadha, whose treatise Bhav Prakash, written around 1550, is held in high esteem by modern Ayurvedic practitioners for its description of approximately 470 medicinal plants. Apart from these, many Nighantu granthas were written between the 7th and 16th centuries (Sukh Dev 1999). Ayurvedic texts were much respected in the neighbouring countries. They were translated in various languages — e.g. Greek (300 BC), Tibetan and Chinese (300 AD), Persian and Arabic (700 AD). In recent years Ayurveda has attracted much attention in economically developed countries such as Europe, United States and Japan (Hartzell & Zysk 1995). Kautilya’s Artha Sastra (4th century BC) makes mention of some food plants, that can sustain hunger for long time like fortnight or even a month. (Sensarma P. 1996). Ethnobotanical investigations in various Indian Puranas have also been made by Sensarma (1984, 1987, 1988, 1989, 1992).

Plant science was also studied from the viewpoint of betterment and behavior of plants themselves in ancient India. In Vrikshyurveda by Surapla (Sadhale 1996), a scholar of
seventh century we can see how thoroughly the science of plant life has been studied. He advises about which trees should be grown around a house and which should not be; he also describes the types of soils preferred by different trees, their propagation practices and methods of planting. Like human beings internal diseases of plants are also thought to be caused by tridosha i.e. cough, vata and pitta, describes the ways to treat them. He has identified some indicator plants for the presence of ground water.

Rich heritage of Indian system of herbal medicine had caught the attention of the west since the beginning of the colonial days. Garcia da Orta, the personal physician of then Portuguese Governor in India, published his Colloquies on the simple and common drugs of India in 1563. Henrich Adriaan van Rheede, tot Drakenstein the Dutch Governor of Cochin, with the help of four Indian scholars, Ranga and Appu Bhattan, Vinayak Pandithan and Itty Atchutan, published a 12 volume work on Kerala Medicinal Plants 1678-1703 – (Ray Desmond 1990).

Amongst Indian authors working on Indian Medicinal plants, the most memorable work has been done by Nadkarni (1908), Kirtikar and Basu (1918) and Chopra et. al.(1956).

Sivarajan and Balachandran (1994) have given a good account of plants that are mentioned in Ayurveda. Recently Arya Vaidya Sala of Kottakal, Kerala has published an exhaustive text running in five volumes, dealing with 500 key species (Ed. Warrier P. K. et. al. 1994-96). This unique compendium deals with distribution, taxonomic identification, plant parts used, properties and uses of plants and verses from ancient texts. Naik (1998) has noted more than 500 plant species from Marathwada that are used as medicinal plants.

Rich plant wealth and its knowledge of local habitants was recognized by many as early as late nineteenth century e.g. a paper dealing with famine foods of Marwar (King 1869), documenting Hindu beliefs about trees (Chowbe 1898) and noting the plants frequently mentioned by Hindu poets (Dymock 1898). In the first half of 20th century numerous works an ethnobotany or ethnology of various Indian tribes started. Haimendorf (1943, 1945, and 1948) studied the tribes living in peninsular India. Elwin (1939, 1947,
1949, 1950, 1965, and 1969) studied the ethnobotany of Central and Eastern India. Grison published his work about tribes of Central India. But it was in later half of 20th century, the general appreciation and awakening to the needs of ethnobotanical studies started in India. The credit for this goes primarily to the programmes on ethnobotany chalked out by Dr. E. K. Janki Ammal during 1953-55. This stimulated further ethnobotanical survey by institutes like National Botanical Gardens, Lucknow, Regional Research Laboratories of CSIR, Indian Medicine and Homeopathy and many research and teaching institutions. As a result, during last 50 years voluminous data has been collected, regarding ethnobotany in India.

The recent re-discovery of the remarkable medicinal properties of certain plants, like species of Rauvolfia, Ephedra, Panax, Podophyllum and Commiphora gave new impetus to ethnobotany. Jain and Mitra (1990) have reviewed some important ethnobotanical works in India. Several hundreds of papers have been published on ethnobotany mainly on folk medicine. Ethnobotanical work in India falls in following major categories.

a) Ethnobotany of certain ethnically distinct primitive or otherwise interesting human societies.

b) Ethnobotany of any specific geographical region, which may have one or more distinct ethnic groups.

c) Ethnobotany of particular utility groups of plants.

d) Ethnobotany of particular plant genus or family.

e) Studies dealing with diverse tools, appliances, gadgets and articles of personal adornment, which the primitive man has been designing and using since ancient times.

f) Ethnobotanical aspects of conservation and management of plant resources.

g) The study of mythological associations or faith in plant.

h) Miscellaneous subjects like local names of plants and their ethnology, resource concept and weather forecast from behavior of plants.
An exhaustive review of wild plants in Indian folk life has been presented by Vishnu Mittre (1990). “Contributions to Ethnobotany of India” edited by Jain S. K. (1991) presents 30 articles dealing with ethnobotany of all regions of India including Andaman and Nicobar.

The use of medicinal herbs in United States was quite common in 19th and early 20th century. With the knowledge of ‘germ theory’ for disease and increased availability of synthetic drugs, use of herbal medicine declined. Resurgence in the use of medicinal herbs is witnessed recently. This is due to some disillusionment with conventional medicine and its increased cost. Medicinal herbs now constitute the most rapidly growing segment of the total U.S. Pharmaceutical market. Botanical products are sold in the United States as dietary supplements or ethnic medicines. It has become a multibillion-dollar industry (Hartzel et al. 1999). This has made scientists and researchers aware of the situation about the status of medicinal herbs. Angell and Kaiser (1998) have expressed their concern for possible risks associated with wide spread use of preparations that have not been scientifically tested. They argue that “the fact that medicinal herbs are ‘natural’, does not assure their safety. Many natural products are quite toxic or carcinogenic”.

However, Pushpangadan (1996) states that the therapeutic effect of the formulations with multiple ingredients are possibly due to compound effect or synergistic effect of a number of compounds. It is also possible that the active compounds, when isolated in pure form, although active may be very toxic. But in the natural form, it is in association with other compounds either derived from the same plant or other plants, or other materials in the formulations, the toxic effect is either minimized or becomes absolutely non toxic.

In Germany since 1980, more than 300 clinical studies have been carried out with standardized phytopharmaceuticals. In Germany most of herbal drugs are registred as conventional drugs. This means that they meet the same stringent criteria of quality, efficacy and safety as synthetic drugs. (Wagner H. 1999).
As regards the study area i.e. Melghat, floristic work has been carried out by R.I Patel (1968) and M. A. Dhore (1988). Both the floras have also made a note about medicinal or otherwise use of the plant wherever the case is. Apart from these floristic works, R. B. Giri (1994) has done a survey of medicinal plants occurring in Melghat. He has noted 215 medicinal plants from this area, some of which are tribal medicines. Khaire and Giri (1993) gave an account of Melghat ethnobotany. They reported 25 species of medicinal plants used by Korkus of Melghat: all of them are woody plants except one (Biophytum sensitivum).

Such a voluminous literature is available about Indian ethnobotany, that it is very difficult to present it here. Any ethnic information available regarding plants identified during survey has been taken notice of; and is being presented in the following chapter of ethnobotanical survey. However author is aware of the fact, that though maximum possible literature has been reviewed, much more might have missed.