CHAPTER - I

Introduction
This thesis encompasses the study of the bio-medical and social aspects of infertility in a cross-cultural population of Tirupati in Andhra Pradesh state of Southern India. The work is the first of its kind from the point of anthropological, medical and social approaches.

Biological anthropologists have been studying human populations in space and time by various approaches; anthropometric variation which entails the morphological variation of populations through body measurements, genetic variation which is made possible by genes and their natural selection, as also their spread and fixation in populations, sero-genetic variation by which serum protein and enzyme variations can be delineated, DNA and other molecular variations and so on. These extensive studies have undoubtedly broadened the horizons of the subject matter of biological anthropology but the applications of these are yet to be fully realised for the benefit of the humanity. As the understanding about the universe grows more, the traditional borders limiting the realms of the subject matter become wider and wider leading to the emergence of new fields. In this sense, biological anthropology is making rapid advances by moving into more specialized and problem-oriented areas with multidisciplinary approach from bio-behavioral to bio-cultural base (Baker, 1988). The international Biological Programme (IBP, 1960) a platform for multidisciplinary approach to research goals (Baker and Weiner, 1966 and Baker, 1968), provides the opportunity for biological anthropologists to interact with other bio-medical and social scientists in a multidisciplinary context. This approach tends
to encourage cross-fertilization of ideas and develops a trend towards scientific problem solving (Little and Hass, 1989).

A good deal of the applied research in biological anthropology is related to health problems and consequently shifting their attention towards the study of aetiology of various diseases and their prevalence among various human populations. Weiss and Chakraborty (1982) have also stressed the need for researchers to maintain the thread of evolutionary inquiry as part of their work since many disease states can only be understood from bio-cultural perspectives. Examples of research on these lines consist of Allison's (1954) and Living Stone's (1958) work on sickle-cell diseases, the discoveries of Gajdusek (1977) on slow viruses in New Guinea and Blumenberg (1977) on Hepatitis 'B' on Australia antigen, the work of Myrianthopoulos and Aronson (1966) on the complex pattern of Tay Sachs disease and Neel (1979), Mazes and Mather's (1974 and 1975) work on osteoporosis in traditional Canadian Eskimos and investigations on cardiovascular disease and diabetes in South Pacific population (Prior et al.1977).

Reproductive health of humans is important as it reflects through fertility and infertility. Of them, infertility is not only a medical problem but also a social stress. Though the human species is fertile in its outlook, the dimension of "infertility" also contributes to the well-being of the species. The causes of infertility as such assume considerable importance especially among humans who are bio-cultural. The cultural technology of man, i.e., medical, is able to intervene with biology and able to resolve
issues of "social stress". Unfortunately, females are the main victims of social taboos, relating to infertility as a curse rather than an expression of a disease process, specially in backward communities. In addition, many unresolved social, ethical, legal, scientific and environmental issues are related to diagnosis and treatment of infertility (Ghosh, 1999). Further, with the advent of the twenty-first century, a number of medical, environmental and social changes have profoundly affected human reproduction. Moreover, infertility, an extraordinary medical problem, has affected an estimated 10% of couples worldwide and has a devastating impact on the reproductive and social lives of humans, particularly in areas with limited access to medical care (Bentley and Mascie-Taylor, 2000).

India as a developing country is inhabited by a wide variety of heterogeneous populations with different levels of socio-economic conditions. The country is characterised by tribal and non-tribal communities. The latter are predominantly Hindus, a religious group including the Brahmins, Kshatriyas, Vysyas and Sudras of the Varna System. The other religious groups comprise Muslims, Christians, Jains etc., - all living side by side with Hindus harmoniously. This secular character of the country speaks of its unity in diversity. Two important characters of the Indian Hindu population stand out prominently: one is that they are more orthodox and traditional and secondly, the population is established more on folklore and religion than on scientific way of living. It is against this background, the present study is attempted to discern the ways and means of solving the 'infertility' at the instance of available and growing ART.
The study on ‘bio-medical and social aspects of infertility among cross-cultural population’ aims to contribute towards further knowledge on ‘infertility’. The samples have been drawn from couples who have attended the infertility clinics in Tirupati city during the course of one year. The cross-cultural population of our work is expected to serve better in understanding the dimension of ‘infertility’ in the context of biological, medical and social point of view.

The work also provides baseline information on ‘infertility’ and the associated factors. Further, it is useful for future surveillance of secular trends among Indian human populations which are undergoing rapid demographic and socio-economic changes. The main focus of the study lies between infertility and its bio-medical aspects in relation to social situation and other living conditions and its implications for understanding their meaning from the stand point of human welfare and well being.

The work begins with a critical review of the previous works on ‘infertility’ among different populations worldwide in general and India in particular. The aim and objectives, the methodological problems and details of the data and procedure adopted in the study are outlined, followed by the presentation of the analysis and results. The results are then discussed in order. The last chapter is devoted to portray the major findings of the study together with their implications.