CHAPTER I

INTRODUCTION

1.1: The Problem:

The fertility of women has always been a matter of vital concern to all the people (Thompson and Lewis, 1970, p.238). There are three fundamental characteristics of population viz. (a) biological, (b) socio-cultural, and (c) economic. Biological characteristics include birth rate, death rate, age & sex composition, and ethnic structure. Fertility is one of the major demographic aspects not only of the biological characteristics but all the three fundamental demographic process of a society in a region.

The development of an area can be viewed as a multidimensional phenomenon. Some of the major dimensions include level of socio-economic development and population characteristics such as level of nutrition, status of women, etc. Fertility may be considered as most important factor to be studied as regards development. Due to the complex nature of the distribution of births a fertility investigation needs special directions. One of these is to analyze more closely the level of fertility, examining the pattern of steps towards the size of family that is finally reached, or the schedule of spacing successive births on the part of a group of women. Another is to study the association between difference of fertility and individual sentiments toward family and related matters. Fertility is the occurrence of live births and must not be confused with fecundity, by which we normally mean reproductive capacity or the ability to have children. Thus fertility is one of the main aspects of population study not only because it
usually exceeds mortality and migrations and is therefore the main determinant of population growth and a principal influence upon population distribution, but also because it is more difficult to understand than mortality. While mortality is essentially individual inevitable and involuntary, fertility is none of these things and is far less constant and predictable. To control over the population explosion simple awareness and availability of family limiting methods may not effectively be successful unless people are properly motivated to reduce fertility. This transformation in attitudes and behaviour regarding fertility calls for highlighting the relevance of different socio-economic, cultural and demographic variables, affecting fertility behaviour to evolve an integrated effective plan for limiting fertility.

Population of underdeveloped areas is increasing at an accelerated high growth rate, whereas the socio-economic development is lagging and is unable to balance at par, for the common people. The unplanned and uncontrolled growth of population is continuously widening the gap of positive inclination with socio-economic growth and consequently creating various serious problems in the society. Poverty, unemployment, poor health and environmental degradation are the basic problems and a major challenge for development policy, as a result of explosive population growth, in the underdevelopment parts of our country such as Sagar district.

The population problem expanding as an epidemic has attracted the attentions of demographers and experts of the population to analyse the task and ensure standard of living. It is obvious that this would require change in the attitudes of the people to control relatively high fertility. Government is also keen to curb down the rate of fertility by implementing various programmes and policies.
The BIMARU States (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) of India have tremendous population problems. Madhya Pradesh is one of them. In this state out of 45 districts, ten districts have relatively more population problems and Sagar is one of them. Thus, it becomes imperative to study the various aspects of population is Sagar district, which consequently may give a broad way for understanding the basic problems of population.

The imbalance between growth of population and resources is surprisingly increasing in the study area and the society is facing various socio-economic and environmental imbalances. It therefore implies that the study on various dimensions of fertility with different societal angles may be helpful in understanding the ways and means of solving such problems.

The population problem in India was realised in 1971 census and after this decade Government have announced many polices related to fertility. The first effective policy to control fertility was announced in 1976 in which emphasis was given to fix age at marriage from 15 to 18 years for girls and 18 to 21 years for boys. Monetary increases were also suggested to be increased for sterilisation of both males and females. But 1977 appeared as a set back to fertility control due change in this policy. Government policy on fertility and bringing down birth rate included both long term and short term policies. The long term policy comprises efforts to increase age at marriage and education of females along with birth control measures. The short term policy deals with birth control through sterilization of both male and female, use of contraceptives and mother child health (MCH) programme etc.
The population of Sagar district is increasing at a very fast rate and therefore its pressure on natural and socio-economic resources is also increasing continuously. The persistence of poverty remains the basic socio-economic problems and a major challenge for development policy. The region supported some 636.2 thousand people in the year 1951. The population has now increased to more than 2021.8 thousand in 2001, giving an absolute addition of some 1385.6 thousand persons during the past five decades of this century. This compares more than three times increase in the population of this region. The growth rate of population has increased by 3.5 times from 6.56 percent in 1951 to 22.7 per cent in 2001.

The population problem, if not tackled in an organized way, can be as serious as an epidemic and its effects will be disastrous (Divakar and others, 1978:68). The population experts have a unique role to perform in analyzing the problem and ensure better health and standard of living (Seth and Others 1979:34). This requires a definite change in the attitudes of people for accepting the small family norm. Intensive efforts are being made by the government to popularize the small family norm among the people. Several studies have also been conducted to assess the attitudes of the people towards the family planning program (Shastri, 1976, and Wadia, 1977). The ultimate aim of a family planning program is to arrest the growth of population through reduction in fertility (Jain 1969:33). Motivation for the acceptance of family planning has lately become difficult, because in India, opinions are often held collectively and community has an important role to play in decision making (Divakar and Others, 1978).

At the time of independence a large population was living below the subsistence level. That is why India was the first country to
adopt fertility control as an integral part of its development program in 1952. Population growth is a very complex problem especially in our country where the population base is very large, even a small growth rate adds a large absolute number to its population. Pressure of population arising from large population base and even a moderate growth rate puts a brake on both economic development and social change. The policy response to the problem, therefore have to be determined after assessing the anticipated population situation.

The principal thrust was to give a boost to the family planning programme and thereby bring down the birth rate. The success of health and family planning program depends to a large extent on willing participation of the people. Recently National Population policy 2001 has been declared in our country. According to this policy the states unable to control over the population growth would be discouraged and dis-animating. It is also declared that such states would not be allowed to represent their representative on the ground of increasing population till 2026. More over the followers of the principle of small family have been provided to avail sixteen facilities viz. Health insurance and award to those poor families who would sterilize after two children. Those families, below poverty line if marry after legal age and related female produces a child after attaining the age 21 years, are, proposed to be awarded. It is also declared that a National Commission has been set up to look after the better functioning of the population policy under the chairmanship of the Prime Minister of India. Thus, the 12 states including Madhya Pradesh have been put within the framework of effective functioning of the population policy.

1.2: Policy on Fertility:
The programme on fertility control in our country is being promoted on voluntary basis as a people’s movement in keeping with the democratic tradition of the country. This program seeks to promote responsible parenthood, with a two child norm—male, female or both through independent choice of the family planning method best suited to the acceptor for conveying the message of small family norm to the masses. Motivational, education and persuasive efforts are made without any resort to any form of coercion. Family planning services are offered through total health care delivery system. Peoples’ participation is sought through all institutions, voluntary agencies, opinion leaders, and people’s representative and government functionaries. Imaginative use of the mass media an inter-personal communication is resorted to for explaining the various methods of contraception and removing the socio-cultural barriers whenever they exist. As a result of this strategy, the number of acceptors of various methods of family planning has been registering an increase form year to year.

The planning commission has recommended certain measures for the inculcation of the need and techniques to control fertility. The commission believes that progress in the field of family planning depends first on creating a sufficiently strong motivation in favour of birth control and secondly on providing acceptable harmless, cheap and efficient methods. Two necessary requisites for the implementation of this policy are: (i) Intensive studies about the attitudes and motivations affecting size, and techniques and procedures for the education of the public on family planning, and (ii) Field experiments on different methods of family planning as well as medical and technical research.
The objectives of the population policy of our country as laid down by the planning commission are:

1. To obtain an accurate picture of factors contributing to the rapid increase in population,

2. To discover suitable techniques of fertility control and devise methods by which knowledge of these techniques can be widely disseminated,

3. To make advice on family planning on integral part of service in government hospitals and public health agencies.

4. To conduct field experiments through Government hospitals regarding fertility control through planning the family and its suitability, acceptability and effectiveness in different sections of the population.

On the recommendation of the planning commission, the Government of India, under the Union Ministry of Health, has set up the family planning Board to direct the family planning programme under the Second Five Year Plan. Its function was to advise on the following matters:

i) research and studies on inter-relationship between economic, social and population changes on reproductive patterns, attitudes and motivations affecting the size of family.

ii) to educate the public opinion matters of family planning

iii) to advise and provide necessary services in the family planning programme as an integral part of the public health activities, through hospitals, health centres and clinics,

iv) to provide facilities for the training of personnel in family planning,
v) formulation of schemes for the improvement of the health of the mothers and children and for bringing about better conditions of family living,  
vi) research on the production of contraceptive, and,  
vii) Literature and periodicals in furtherance of the objective of the scheme.

This board has suggested: (i) the formation of an executive committee to implement the policy formulation by the family planning officer in each State, with a central subsidy for three years, to coordinate family planning activities throughout the State and to act as liaison officer of the central family planning organizations; and (ii) the provision of financial assistance to voluntary organizations after examining the requirements of each case.

1.3: Previous Work

The high fertility and consequently the rapid growth of population observed during second half of the twentieth century drew the attention of the demographers and population geographers to the implications of a rapid population growth in the context of social and economic development. But the inadequacies in the basic demographic data, particularly those related to the available vital statistics from the reporting system largely impeded the progress of fertility research. This was no doubt realized by the government, which set up expert committees from time to time to examine the question. Despite all these steps it would appear as though it might take some time before we can hope to achieve the degree of perfection attained in some of the more advanced nations of the world in the matter of vital data. Nevertheless, with the gradual development of modern statistical science in this
country, there was also a growing interest in demographic research. The acquired statistical skill could be fruitfully employed for designing sample surveys for collection of demographic data. It is held that scientifically planned sample surveys could adequately meet the needs of demographic research, provide estimates of population growth and furnish useful information of or the study of differential fertility and mortality.

The Indian Statistical Institute started collecting data on fertility in this manner as early as 1937. The National sample survey was started in 1950 with the object of obtaining comprehensive and containing information relating to social, economic and demographic particulars on country-wide basis. In some of the rounds of the National Sample Survey, detailed information on the fertility history of the couple and the associated demographic characteristics has been collected on an all India scale. On the basis of these data a number of studies, some of them of methodological importance have been carried out. In particular fertility trends, differential fertility, age specific fertility rates, family planning, under – reporting of vital events due to recall laps and other factors, and the techniques for the adjustment of such under reporting etc. The nature of demographic research carried out in the institute has been summarized in a note on demographic research given in the Institute’s Annual Reports for 1961-62.

Besides, the lively interest taken by other institution in India also contributes substantially to the development of demographic research in the country. The Gokhale institute of economics and politics has undertaken extensive demographic studies in both the rural and urban areas of western India, which have given a variety of information on essential demographic aspects. The population survey jointly
sponsored by the Government of India and the United Nations Organization in Mysore State in 1951, for studying the inter-relationships of economic, social and population changes, reflects the recognition of the importance of demographic research as an aid to social and economic planning. The report embodying the result of the survey is a work of great significance in the demographic literature of the country. Indian institute of Population Studies has made a number of useful studies particularly with reference to fertility. The institute publishes population review, a bi-annual journal of Asian Demography.

The Planning Commission had come into being by this time and in the context of the developmental schemes formulated by the commission, various aspects of the population problem began to receive greater attention. This led, among other things, to the inclusion of family planning in the first five year plan which was elaborated in the subsequent plans. The program emphasized the need to obtain an accurate picture of the factors contributing to the rapid population increase in India. Further, the government is giving financial assistance to training and research institutions to carry on demographic studies. A network of demographic research centers has been established for the promotion of demographic work and training. Commendable work not only in the area of fertility but also in several other demographic spheres is being pursued by the Registrar General’s office which also publishes a journal Indian Population Bulletin besides there are other institutions whose contributions to the advancement of demographic research in this country cannot be construed as small.

In the fifties and sixties some studies were purely descriptive; while in the seventies, eighties and nineties they were mainly evaluative. These studies were conducted on varying types of
sample sizes and provided data on fertility and motivation. The key variable used to explain fertility differentials were cast, religion, family type, land - holding, occupation, income, education, type of dwelling and socio-cultural practices such as age at marriage, type of marriage and their association with fertility. The status study on population was sponsored by the family planning foundation of India. The publication is in three volumes. The first volume is concerned with the behavioural research, the second volume with demographic research and the third volume with biomedical research.

Gopalrao, (1974) has reviewed 550 studies from 1951 to 1974. These studies indicate the trends and differentials, policy and implementation, methods and their uses, and knowledge, attitude and practices of the people with regard to family planning. The trends and differentials were studied by estimating fertility of the population contraceptive use and acceptance studies were generally following studies of users of various contraceptives and concentrated primarily on the demographic and socio-economic characteristics, fertility status, experience and use satisfaction.

Raman (1964) has analysed the developments of fertility research in India. He has described the progress of fertility research in advanced countries and then development of fertility research in India.

Chandrasekarn (1964) has studied the impact of national policy on the fertility trends in India. In this study he has described those countries where fertility has experienced declining. He has described the progress of family planning programme in India and also suggested some measures for future policy.

Anand (1966) has analysed different rates of birth in the different socio-economic groups. She has selected one hundred women
samples from different sectors of Chandigarh by using random sampling method. She described some variables of fertility such as education income, occupation and residence. While, Gandotra (1966) has analysed the factors affecting Indian fertility in a changing set up. He has analysed two types of factors (a) factors affecting the reproductive span, and (b) factors affecting spacing between two successive births.

Parthasarathy (1973) has analysed the fertility decline in India during 1961-71 in India. He has described age wise fertility pattern, age at marriage and fertility etc. He concluded that fertility decline is partly due to the rise in the average age at marriage. Nayar (1974) has analysed the influence of education on fertility. He has compared some developed countries with three Indian states viz. Kerala, Karnataka, and Tamil Nadu. David and Gupta (1974) have analysed the demographic structure of population in the rural areas of southern Allahabad district. They have selected about 293 households for this study and their results have been analysed in detail. Gupta, Singh and David (1975) have made a study on fertility and fertility differentials in rural areas of Uttar Pradesh. This study is based on primary data, which were collected from households near Allahabad.

George (1976) has carried out a study on fertility differentials in three villages of Kerala. He concluded that there was a significant difference in fertility patterns among different socio economic groups. An inverse relationship between fertility and education was observed. Religion also exerted its influence on fertility, but varied among the different age groups. Fertility was influenced by, occupation and income. These differences in fertility are in general very similar to those found among many other Indian sub-groups.
Rao (1976) has analysed correlation between income distribution and fertility levels in India and some other countries. He has described that reduction in fertility is possible even with a low per capita income provided that the distribution of income is even. This study is based on 58 countries of the world.

Srinivasan (1977) has evaluated the family planning programme in the state of Bangalore, India in case study prepared for OECD Development Centre. The case study is in the application of certain selected techniques in evaluating the impact of family planning programmers on contraceptive acceptance and fertility.

Jaiswal (1977) has made a study on tribal policy in Madhya Pradesh. He concluded that the solution would lie in all-round development of the tribal, particularly in the field of education health and economic exaltation, which will help in tackling the problem of population explosion.

Srinivasan and others (1978) in their study have taken Karnataka state and studied the fertility, family size preference and family planning from 1951 to 1975.

Mitra (1979) on ‘national population policy relation to national planning in India’ has explored the underlying reason for the widespread reaction against the policy and undue efforts to the historical emergence of India’s current population policy and economic feasibility of the national policy for reducing the birth rate and achieving the small family norms.

Akhand and Saxena (1979) have made a study of determinants and impact of family welfare programme in 126 villages of Dharsiwa development block of Raipur district, Madhya Pradesh. Various aspects related socio-economic characteristics of acceptors have
been discussed in detail. This study also discussed the impact of family planning on the population growth.

Reddy and Gopal (1980) has described socio-economic factors and age at marriage in Karnataka State. This study is based on the application of regression analysis to the 1971 census data. This study concluded that literacy and urbanisation played a crucial role in determination of mean age at marriage, of both males and females.

Sharma and Mishra (1981) have described seasonality of the temporal variations in fertility. In this study an attempt has been made to reveal the monthly movements in the frequency of births, and to establish a theoretical gradation. The data for this analysis is taken from a study conducted in sixteen villages of Etawah district of Uttar Pradesh in the year 1979. This study is based on 430 sample respondents of the sample villages.

Srinivasan (1983) has analysed India’s family planning programme its impacts and implications. In this study he has described the progress of family planning programme since 1930 to 1983. He has concluded that the programme has made a significant impact on fertility levels since 1966. Four states of south India have achieved satisfactory performance up to 1982.

Sharma (1983) has suggested an ideal age at marriage in rural population of Etawah district of U.P. This study is based on 215 samples from sixteen villages of Mahauva and Ajitmal developments blocks of Etawah district.

Islam (1984) has made a study on the rising age at marriage in Ghuskar villages of Lucknow district, Uttar Pradesh. This study is based on primary survey which, was conducted in the 299
households of the village. The study indicates that the age at marriage is increasing continuously in rural areas also.

Kapoor (1984) has analysed the differences in levels of fertility and mortality between Kerala and Uttar Pradesh. This study is based on the data obtained from SRS 1968-70 and differential fertility survey, 1972. He has described the causes of fertility differences socio-economic determinants of fertility and some intermediate variables of fertility differences, socio-economic differences in this study.

Saraswati (1985) made a study of fertility, family planning and status of women taking a sample village of Gujarat. They have presented the findings related to the health care including pregnancy, child birth and fertility control.

Naik and Sharma (1985) have made a study of two hilly Bhuiyan tribal villages of Orissa. In this study they have analysed the relationship between social structure and family planning.

Research in fertility preferences, particularly in our country has received considerable attention in recent years because of its relationship with an important bearing on the complex family building processes. In this perspective it is important to note that various conceptual and methodological issues and problems are of serious concern in any study related to fertility preference without which even face validity of reference data may not have meaning (Rasul 1993, P.24).

Sujatha and Murthy (1993) have analysed relationship between husband-wife communication and fertility between two sects of Brahmins. The sampling unit for the study was an eligible couple from the Vaidiki and Nuyogi sects of Brahmins who had one or more living children and the wife was in the reproductive age group of 15-49 years.
A sample of 375 eligible sects was selected from Tirupati, Nellore and Vijaywada towns of Andhra Pradesh, by the stratified multistage random sampling procedure.

Sharma and Sharma (1993) have analysed the status of women, fertility and family planning among tribal of south Rajasthan. This study is based on 24 sample villages of 4 development blocks of Udaipur district. The study has concluded that the status of women is low in this region and for success of FWP it is imperative that the status of women must be improved.

Pandey and Tiwari (1993), has made a study on social - cultural characteristics and health seeking behaviour of the hill Korwas of Madhya Pradesh. Rasul (1993) has made a study on fertility preference in Bangladesh. This study has analysed some conceptual and methodological issues in detail. Khandekar and others (1993) have analysed childbirth practices among women in slum areas of Allahabad. This study is based on 661 samples of lower socio-economic groups. Sujatha and Murthy (1993) have made a study on religiosity and fertility among Brahmins of Andhra Pradesh. In this study of five traditional variables were studied to assess the attitude of the respondents. For these variables positive values were treated as agree and negative values as disagree. The findings indicate that the more modern couples exhibited their modernity as compared to the more traditional couples.

Audinarayana and Rajasree (1995) have analysed cultural determinants of age at marriage taking 183 samples in Coimbatore City of Tamil Nadu. Various cultural determinants such as religion, caste, consanguinity, distance between husband and wife’s residence before marriage, sibling position, type of family lived in till marriage have been analysed. The findings of the study clearly establish the significant
influence of the various cultural characteristics on the age at marriage of both male and females.

Upadhyay and Sharma (1995) have analysed the fertility patterns and family planning acceptance among slum dwellers in Kanpur. Data for the study were collected from 370 male respondents living in eight selected slums of Kanpur. This study indicates that both fertility and family planning are higher among formal sector slum respondents than among informal sector respondents. Formal sector have, more secure jobs, greater social security and are more influenced by the city outside the slums. Yet their socio-cultural and economic characteristics in the formal and informal sectors were by and large similar.

Malhi and others (1999) have made a study on preferences for the sex of children and its implications for the reproductive behaviour in urban areas of Himachal Pradesh. The sample comprised of 425 currently married women, 30-49 years of age. The study is based on questionnaire and interview method. This study concluded that the preferences for male children, exerts a substantial planning behaviour of women in urban areas of Himachal Pradesh.

Elemin and Bhuyan (1999) have described the differential fertility in North Eastern Libya. This study is based on primary data, collected by direct interviews. The various determinants of fertility have been described in this study such as literacy, occupation, and age of wife breast feeding, socio-economic status and child mortality.

The present study on the dimensions of fertility in Sagar district is based on 11 sample villages of Sagar district and Sagar Urban centre. The villages have been selected on the basis of stratified random sampling technique treating development block boundary as a stratum.
1.4 Objectives of Study

The basic aim of present study has been to identify and analyse the important socio-economic and demographic variables which are closely associated with different dimensions of fertility characteristics. A common observation on the alternative theoretical foundations of fertility behaviour, the following fertility related dimensions or characteristics may be studied in Sagar district:

1. Existing family size: measure of cumulative or ex-post facto fertility.
2. Desired number of children: measure of additional desired fertility.
3. Period since last pregnancy: Measure of duration of effective contraception
5. Respondent income: measure of opportunity cost of children

The primary consideration of the present study has been to analyse the fundamental features of population growth and dimensions of fertility in the whole district along with the impact of Family planning programme. The unprivileged sections (viz. SC/ST) of the society have little economic resources and yet multiplying their families without knowing the future consequences. Therefore an attempt has also been made to probe the factors responsible for fertility in different castes and religion of the study region.

The main objectives of the study may be represented as follows-

(i): To analyse the various characteristics of population, such as age and sex composition, level of education and occupation structure. These characteristics have significant impact on population growth and
also played a significant role in determining the fertility level and progress of family planning programme among the general population of the region.

(ii): To know the impact of family planning programme on the fertility of population because this programme has direct impact on the birth rate and hence the growth rate of population.

(iii): To have an attempt for a geographical appraisal of the above dimensions of fertility.

(iv): To make suggestions for improvement in the present adverse situation.

1.5: Source of Data and Methodology

The study of spatial differentiation and spatial interaction of different element of population in based on the choreographic maps, which have been prepared by making use of village wise statistics (Zelinsky, 1966, P.5). In fact, the entire study has taken form of an interpretation what have emerged on the maps.

The first step was the compilation of village-wise population data. They were collected from District Census Handbook, Sagar District (1981 & 1991). The next step after the compilation of data (village-wise) their computation into rates and ratio, were subsequently mapped. With the help of choropleth method, which bring out real contrasts more effectively. A selection of the class intervals for these maps have been made with a view that ‘size sorting’ of distribution of data is most effectively accomplished with the intervals,
which have been considered the mesh sizes in cartography with the chosen values forming the screen wire (Mackay, 1955, PP. 71-81).

In view of a large number of base units, the selection of class interval was not possible from inspection of data. Frequently graphs were drawn, and median and average values were calculated for all individual item of the study. The number of slabs was then selected by considering the total range of data, the significant breaks in their distribution, and their distribution with the references to the average values. Usually the number of categories does not exceed six so that the human eye may easily accommodate, a different, shaded distribution, (Robinson, 1966, P.231). In order to obtain the comparability of broad pattern the class intervals have been kept similar in mapping the same element for different periods. The spatial patterns, which have emerged, the maps have been systematically interpreted. An extensive field observation was undertaken to substantiate spatial correlation.

The patterns of decadal changes in population for the period 1901-2001 have been analysed in details, while other population characteristics have been studied for the period 1981-2001. Thus, the study not only includes practically all aspects of population geography of the region, but it also contains the changes in the demographic character of the region, which helps in obtaining a better understanding of the demographic personality of the region.

1.6: Period of Study:

The analysis of the population is mainly based on 1991 census and available relevant data from 2001 census as regards to study area. The data pertaining to all the aspects of population for census 2001 are not available till date. Some of the aspects for which comprehensive
data were available have also been analysed for earlier decades. Broad patterns of changes in other aspects, where ever possible, have been analysed at higher administrative level for the period 1901-2001. For comparison of results available data of Sagar district in census reports 1981, 1991 and 2001 have been utilized. The analysis of the family planning programme in Sagar district has been done since the beginning of the programme in early fifties but the detailed data were available from 1961 onwards. It is worth mentioning here that the changes occurring in the different aspects of population and fertility have also been analysed for various decades from 1951 to 2001.

1.7: The Unit of Analysis:

The base unit of mapping of general demographic material in this study has emphasised the need for analysis at village level because village is considered as a fundamental unit of social organization. Mapping of data at village levels brings out the real spatial pattern conveying the ultimate details of the phenomena mapped, (Krishan 1968), Chandna (1968) and Mehta (1970). Earlier Zelinksy (1966) indicated the utility of a local or village unit the boundaries of which usually stagnate for centuries to keep the demographic data at comparable levels for different periods of time. Incidentally, it may be mentioned here that data of a higher administrative level is rarely comparable for different points of time on account of their unstable boundaries during a long period of time. It is a fact that analysis at village levels reveals the real spatial pattern, and also that the population data at village level are comparable for different periods on account of the fact that village boundaries usually remain unchanged for centuries.
The mapping by 1868 units reveals sufficient spatial contrasts and the comparability of their data for different years have been ensured by compiling the village data. Data have been collected from two sources (1) Census Reports and (2) Primary Survey. As in the case of the other parts of India, rich demographic information for the region comes from the censuses. The main source of demographic material has been the District Census handbooks of Sagar district which provide not only summary figures on all important aspects of the area but also contain village wise statistics. The data of sample villages collected through schedules have been tabulated and analysed. These data have helped in suggesting important features of the determinants of fertility and their differentials. The results of the data have been interpreted and explained.

Data on other aspects are either appended in the district census handbooks or they have been collected from different government departments. Old data are available in the State Gazetteers and different volumes of the Gazetteer of India. The data for fertility and family planning have been collected from Directorate of Public Health and Family Welfare, Bhopal. The analysis of some parts of these two sections has been based on the field survey. In the survey about 1200 families have been interrogated residing in two urban centres and 11 sample villages. The selection of sample villages is based on stratified random sampling techniques. The region has been divided into eleven development blocks and one sample village has been selected from each development block. In urban area Muslim families and in villages SC/ST families have been thoroughly studied. In a sample village cent per cent house-holds have been interrogated to obtain the information pertaining to fertility behaviour and performance of the family planning
programme. The data obtained from primary and secondary sources have been analysed with the help of rates and ratios computed there from. The calculation of rates and ratios are based on the Barclay’s Techniques of Population Analysis (1959). Their patterns have been presented with the help of statistical tables, composite indices and choropleth maps.

1.8: The Scheme of Study

The study of fertility and its dimensions in Sagar district has been presented in the nine chapters. The first chapter deals with the introduction about the related work done in the past and the methodology. The second chapter includes general outline of the physio-cultural setting of the regions specially location physiography, climate, soils and socio-economic situations. The characteristics of general population viz. socio-economic and demographic background, distribution, growth- level of education, age and sex composition and occupational structure have been placed in third chapter. In order to assess the dimensions of fertility in the study area, it was desirable to calculate and discuss different rates of fertility viz. Crude birth rate, fertility ratio, gross fertility rate, age specific fertility rate, general fertility rate, total fertility rate and commutative fertility rate etc. and therefore they have been placed in fourth chapter. The fertility as regards demographic characteristics viz. present age of women, age at marriage, age at first child birth, marriage child birth difference, period of marriage, difference in the period of two births, age difference in husband and wife etc. has been given in fifth chapter. The economic status mainly depends on occupation of family members and therefore annual income from all sources, occupation and use of children to raise economic status, women participation in work and residences, and other
social characteristics such as castes, size of family, religious beliefs etc. have been discussed in chapter six. Education is one of the important dimension which affects fertility to a large extent therefore various aspects of education as regards influences on fertility viz. education of wife, husband, whole family and level of education have been placed in chapter seven.

It is well known fact that the national family planning programme has a primitively prominent role controlling fertility in the country. It would be a draw back of any study pertaining to fertility of a region, if the family planning programme and its impacts on the society are not studied in details. Thus such observations and discussions coupled with the achievements of mother-child health programme in the region have been detailed in the eighth chapter. The ninth chapter deals with the analysis of sample villages. In this chapter a profile of the surveyed villages has been presented on their demographic and socio-economic aspects. The summary, conclusions and suggestions have been discussed in the last part of the thesis.

REFERENCES


