

STATUS OF WOMEN IN INDIA

(A SOCIO - ECONOMIC ANALYSIS)

Dissertation submitted to the Jawaharlal Nehru University
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DEDICATED TO
WOMEN STRUGGLING FOR
RECOGNITION OF THEIR IDENTITY

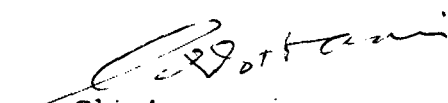


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C E R T I F I C A T E

This is to certify that the dissertation entitled : STATUS OF WOMEN IN INDIA : A SOCIO-ECONOMIC ANALYSIS, submitted by RAJEEV SHARMA, in fulfilment of the six credits out of the total of twenty-four credits for the award of the Degree of Master of Philosophy (M.Phil.) of this University, is a bonafide work to the best of our knowledge and may be placed before the examiners for evaluation.


Chairperson

20.7.90.


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Supervisor.

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Errors of substance or judgement if any, are my sole responsibility.


(RAJEEV SHARMA)

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CHAPTER - I

INTRODUCTION

CHAPTER I

INTRODUCTION

'Status of women' is a pretty worn-out theme. A huge mass of literature on women has already appeared in the western world. In India as well, there have been a good number of studies conducted on women. In the contemporary India, today the subject has received so much of attention that it has virtually become a burning topic of discussion for the media and the people.

The call for realising and defining woman's role in the development of society was never so acute as it is today. The general advancement, facilitated by modern technology has aroused a new awareness. A great renaissance has set in for upliftment of their socio-economic status. So it is quite natural that a good deal of studies have been conducted to achieve the goal. It definitely needs to be discussed more and more in detail till the Indian woman attains her due status.

Women play a vital role in the society. Though women are the key factor in the process of change and development, yet their work and contribution is often

underestimated. Women's involvement in the economic and social development process in our country has remained comparatively neglected area which shows that the Indian society has hardly bothered to pay due attention to its women folks. This has been the case in most developing countries as well, which made the UN report, prepared at the time of Women Decade, to conclude that while women and girls contributed half of the world population, did two-third of the world work hours, and yet received only a tenth of the world's income and owned less than a hundredth of the world property¹. This very aptly sums up the women status in a male dominated world.

It can be said without inviting much objections perhaps that the role of women in Indian society so far has been secondary barring a few exceptions. Women do not enjoy equal status with men in most respects, and play only a limited role in national socio-economic development. Although they constitute about half the total population, their share in various areas of activity has been totally disproportionate to their numerical strength. Compared with men, women have

1. United Nations - Women and Development - Guidelines for programme and Project Planning, 1982, p.5.

very limited opportunities in most spheres of economic and social activities.

The status of Indian women has never been at par with that of women in developed countries. Though the status of an Indian woman in law is much higher than her counterpart in other countries, in practice it has hardly meant much. Stronghold of tradition, ignorance of their fundamental rights, low standard of living, low level of literacy and economic dependence, are some of the factors which stand in the way of improving the status of Indian women.

India is a strangely developing country! Though the country has gone through the implementation of five-year plans and the eighth is in the process of implementation, women as half of the population have derived very little economic benefits. It was implicitly assumed by planners and policy-makers that development planning will automatically bring socio-economic benefits to the women as to other section of society. However, these hopes and expectations are belied by economic trends in the last few decades. The economic policies of the Government have not expanded the avenues of employment in a manner that would make a

significant effect upon her economic status. A rigorous scientific analysis is required to explain how and why half of the human race is downgraded in the socio-economic and cultural arena of the society in comparison to the other.

More than a hundred and fifty years of social reform movement and nearly four decades of planned development have not stirred Indian society to its depths. Although the Government recognises that the improvement of status of women is an important aspect of national progress and development, but even after nearly four decades of planning, the condition of women do not show much improvement. For the vast majority of women, development has brought no benefits ; in fact, "there is indisputable evidence of a steady decline in the status of women in society "². The Sixth Five Year Plan mentioned - "Despite all development measures and the constitutional legal guarantees, women have lagged behind men in almost all sectors "³. Thus, substantial progress in desirable

2. Indian Council of Social Sciences Research, Critical Issues on the Status of Women: Suggested Priorities for Action, Advisory Committee on Women's Studies, ICSSR Publication No.107, 1977, p.1.

3. Government of India, Sixth Five Year Plan, 1980-85 (New Delhi, Planning Commission, Govt. of India Press, 1981), p.423.

directions, to the extent necessary to change the status of women, has not been made.

The present work is just an endeavour to analyse factors influencing women's position from a socio-economic point of view. Whether the vast majority of Indian women, shut away from the mainstream of development for decades, are still unaffected or have they benefitted from the changes that have taken place in the recent decades needs to be studied.

I.1 THE HISTORICAL PERSPECTIVE

A historical study of women in India reveals that there were distinct stages of rise and fall in her status. The changes in the mode of production, and in the super-structural setting from time to time introduced many variations in the status of women. Although the basic character of the 'system' remained the same, a few 'noticeable' variations could be observed in different countries. As a matter of fact, within the Indian sub-continent there have been infinite variation on the status of women diverging according to cultural milieu, family

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structure, class, caste, property rights and morals .

The historical evidence confirms that during the Vedic age women enjoyed considerable freedom and equal opportunities with men .⁵ Women participated fully in religious rituals, had freedom of movement, were educated like boys, married late and had a voice in the selection of their marriage partners. Widow remarriage was permitted; and unmarried or married, the women enjoyed an honoured position in family and society .⁶

After the Vedic period the position of women deteriorated considerably. The Hindu lawgiver Manu had made woman entirely dependent on men and subjected her to the authority of a father, husband and son in the different periods of her life as daughter, wife and mother. His dictum was that "for women there can be no freedom at any stage in life". The Hindu lore thus created a paradoxical and contradictory imagery of women - on the one hand she was the

4. Thaper, Romila, Looking Back in History in, Devaki Jain (ed.), Indian Women, Director, Publications Division, Govt. of India, New Delhi, 1975, p.5

5. Ibid, p.7.

6. Altekar, A.S, The Position of Women in Hindu Civilization, 3rd ed. (Banares, Motilal Banarasidas Publishers, 1963), pp. 336-360.

embodiment of purity and spiritual power and on the other, essentially weak and dependent creature needing the constant guardianship and protection of man⁷. During the golden periods of India's history under Mauryas and the Guptas, there was a gradual erosion of women's rights; regressive customs like child marriage, purdah and sati began in the turbulent times that followed⁸.

There was no apparent change in the position of women throughout the Hindu period and was reinforced by the Muslim masters whose custom and tradition were noted for the complete subordination of women by men and which considered women as inferior to men. Thus, there was a vast gulf between the status of the women in the early Vedic period and the 19th century⁹.

The Britishers at first followed a policy of non-interference in the social and religious life of the people

7. Thomas, Paul - Indian Women Through Ages (Bombay, Asia Publishing House, 1964), Quoted in Jana Matson Everett, Women and Social Change in India, (Heritage Publishers, 1978), p.37.
8. Verma, H.R. and Verma Amrit, Indian Women through the Ages (New Delhi, Great India Publishers, 1976), p.ii.
9. Kuppuswamy B., Social Change in India (Vikas, Delhi, 1972), p.180.

of India to win their co-operation in the administration of the country. As a result woman went down imperceptibly in social status. The Indian women was treated as an appendage of man with a distinct and meekly accepted conception of her family duties and obligations. She had not even the haziest awareness of her rights in the early years of British rule in India¹⁰.

Ram Mohan Roy and his successors and followers focussed attention on the social evils which victimised women, and the various Hindu revival organizations, such as the Arya Samaj and the Brahmo Samaj gave a great impetus to the awakening of womanhood. The founding of the Brahmo Samaj in 1828 started the movement for the emancipation of Indian women from the clutches of ignorance and evil social customs. Educated women came forward demanding equal rights with men; Rambai Ranade, Pandita Rambai, Sarala Devi, Chanda Rani, Sreemathi Saroj Nalini and a host of others are known for their valuable service for uplifting the position of women during this period¹¹.

10. Devi U. Lalitha, Status and Employment of Women in India (B.R. Publishing Corporation, Delhi, 1982), p.10.

11. Ibid, p. 10

The movement for the emancipation of women which slowly started from the middle of the 19th century was quickened in the 20th century. After the First World War, Mahatma Gandhi set the pace for the progress of Indian women in all spheres of life. He called Manu's dictum "a symbol of our barbarism". He advised women to emancipate themselves from the drudgery of the kitchen. Adhering to Gandhi's appeal, women came out in thousands and took part in the national movement.

Thus, the line of social reformers begins with Ram Mohan Roy and is strengthened by an array of distinguished names, men and women, and the most recent among them was none other than Gandhiji who was radical in his belief that there is no justice when large sections of population, women and other underprivileged sections, are denied a fair deal. These social reformers - their names are legion - are responsible for the legislation to abolish sati, validate widow remarriage, raise the age of consent, restrain child marriage and raise the legal age of marriage¹².

12. Menon, Lakshmi N., Changing Status of Women - A Historical Perspective, Family Planning and the Status of Women in India - Report of a seminar, held on Aug. 10-14, 1969, New Delhi, (Pub. by Central Institute of Research & Training in Public Co-operation, New Delhi), p.5.

I.2 THE LEGAL PERSPECTIVE

While it is not possible to bring about a change in the status of women through legislation action alone, the importance of an effective legislative policy cannot be under-estimated.

The Constitution of India, proclaimed on 26th Jan. 1950 , guarantees equal rights to women, without any discrimination based on sex. The values set forth by the Indian Constitution envisage a socialistic pattern of society under democratic form of government, wherein equality, freedom and non-exploitation are assured to all sections of the people irrespective of race, religion and sex as their fundamental rights. The Indian Constitution guarantees to all citizens "equality of status and opportunity.....assuring the dignity of the individual". Article 14 of the Indian Constitution ensures equality before the law - "The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India ¹³". Article 15 expressly "

13. Basu, Justice Durga Das, Introduction to the Constitution of India - 11th ed. (Prentice-Hall of India Pvt Ltd., New Delhi, 1985), p.87.

prohibits any discrimination" and also provides a clause which says - "Nothing in this article shall prevent the State from making any special provision for women and children".¹⁴ Article 16 states explicitly that "no citizen shall, on grounds only of religion, race, caste, sex, descent, place of birth or any of them, be ineligible for any office under the State".¹⁵ Its attempt to make special provisions to reverse the imbalances of contemporary society has earned the Indian Constitution the sobriquet of a social document embodying the objectives of a social revolution.¹⁶

India is a multi-religious state. Most of our customary laws have their sanction in religion and there is no doubt that the perpetuation of personal laws does violate the principle of equality before the law so scrupulously laid down in the constitution. There have been legislative enactments to reduce some of the lacunae in personal, criminal and labour laws. Some of the important enactments affecting women, which have also been amended from time to time, are :

14. Ibid., p.90

15. Ibid., p.92

16. Government of India - "Towards equality", Report of the Committee on the Status of Women, (Deptt. of Social Welfare), p.1.

- i. Equal Remuneration Act
- ii. Factories Act
- iii. Maternity Benefit Act
- iv. Criminal Law (Amendment) Act (Act 43)
- v. Criminal Law (Amendment) Act (Act 46)
- vi. Hindu Marriage Act
- vii. Hindu Law of Succession
- viii. Special Marriage Act
- ix. Child Marriage Restraint Act
- x. Dowry Prohibition (Amendment) Act

The amendments in personal law have, however, been concentrated in laws relating to the majority community - the Hindus. This has contributed to a widening of the differences between different systems of personal law. There are five systems of personal law that govern five religious communities - Hindu, Muslim, Parsee, Christian and Jewish¹⁷. In addition, there are some secular laws, e.g. the Special Marriage Act which was amended in 1956 legalising all inter-caste and inter-communal marriages, can be invoked by citizens belonging to any community. The agitation for a

17. Government of India - Women in India (Country Paper: Ministry of Social and Women's Welfare, Govt. of India, New Delhi, 1985), p.19.

uniform civil code is the demand of Indian women today, so as to do away with the existing anomalies which go against the spirit of equality guaranteed in our constitution.

Finally, in addition to the various legislative changes made in the Women's Decade, Constitutional amendment was also made in 1976 by adding a chapter - Fundamental Duties. This enjoins all citizens to renounce all "practices derogatory to the dignity of women".

There is a sharp difference of opinion about the changes taking place over the years in the position of women in India. Some regard these changes as profound and pervasive. They point out to the increasing participation of women in public life and to the changes introduced in their legal status¹⁸. Others maintain that the position of women has changed very little and that Indian society continues by and large to be a male dominated society.

The social backwardness of Indian women points to the great hiatus between their legal status which is more or

18. Murli Manohar, K and V. Shobha, The Status of Women in India - Some Trends and Issues, (Department of Public Administration, Kakatiya University, 1981)p.6., (unpublished). Quoted in K.Murli Manohar - Socio Economic Status of Indian Women (Seema Publications, Delhi), p.5.

less equal to that of men, and their actual position in society, which is still far from the ideal which exists on paper¹⁹. The educational, economic, political and social backwardness of women has to be tackled and eradicated in order to realise the goals laid down in Constitution.

I.3 THE DEMOGRAPHIC PERSPECTIVE

According to the 1981 census, out of the total population of 684 millions, 48.3 percent or 330.4 millions were females. 77.0 percent of the females live in rural areas whereas 23.0 percent live in urban areas. Unlike in most western countries, the number of males exceeds the number of females in India.

In India, the sex-ratio was 933 females per one thousand males in 1981 as compared to 930 in 1971 and 941 in 1961. For the first time, in the history of post independent India, the sex-ratio has increased during the last decade (1971-81). This is a welcome feature of the 1981 census. The low proportion of females in the total population is largely due to higher female than male mortality rates. Female

19. Kapur, Kamla Bhasin, "In Education" (Seminar No. 165, May 1973), p.16.

mortality rates are higher than the male mortality rates upto 40 years due to a variety of reasons including the lower status accorded to women and the hazards of child bearing at an early age. The maternal mortality rate too, is very high (500 per 100,000 live births) in India, and an explanatory factor for this is the high frequencies of pregnancies combined with low nutritional levels. Further due to lack of adequate institutional facilities, more than 90 percent of deliveries continue to take place at home, most of them unattended by trained paramedics. It may be noted that maternity beds constitute only 17 percent of the total hospital beds facilities ²⁰ .

Since the female's health status is biologically superior to the male's, normally women's life-expectancy ratio is higher than the males. In India it is the opposite ²¹ . According to the Registrar General's estimates, during 1951-61, the expectation of life at birth was 41.9 years for males and 40.6 for females. In the next decade,

20. Economic and Social Commission for Asia and Pacific -
Country Monograph Series No.10. Population of India, p.364.

21. Shiva, Dr.Mira, 'We have failed them all' (Sunday Observer, September 17, 1989), p.29.

i.e. 1961-71, the corresponding figures were 46.4 years and 44.7 years. Estimates based on SRS data pertaining to the period 1971-81, depict 50.9 years as the life expectancy of males and 50.0 years for females. Though over the years the life expectancy has increased and the gap between expectation of life at birth for males and females has narrowed down, however it is far from satisfactory.

In India, age at marriage shows continuously an upward trend. Still the age at marriage is quite low in India compared to the developed countries. The female mean age at marriage was 16.6 years in 1961 which rose to 17.1 years in 1971 and further increased to 18.3 years in 1981. In 1981, the female mean age at marriage was above the minimum of 18 years stipulated by amendment in the law in 1978 (Child Marriage Restraint Act).

Education is an important key to the improvement of status. It has been regarded as a silent reformer and an instrument of change. In India, the level of literacy continues to be very low. The female literacy rate increased from 12.88 percent in 1961 to 18.7 percent in 1971 to 24.8 percent in 1981. When the difference between male and female literacy rate is studied, it indicates that there is a wide

disparity in the male-female education. The male literacy rate was 34.44 percent in 1961 which rose to 39.45 percent in 1971 and to 46.74 percent by 1981. These figures bring out one sad fact that boy's education is given more importance than girl's education in India. Sarojini Besaria rightly observed that education largely remains for a girl, a consumer commodity, the acquisition of which add to her eligibility for marriage and improves her prospects for a better match; it has not as yet emerged as a liberating force .

Participation of women in the economic activities is one of the major indicators of the status of women. In India as well as among all the states, generally female participation rates are much lower than the male participation rates due to various socio-cultural factors. Traditionally, it was not considered appropriate for women to work outside the home for wages. This normative value must be taken into consideration when assessing the work-force participation of women. The participation rate for women of India is especially low, reflecting this value structure. Unfortunately, over the years one cannot see any

22. Besaria, Sarojini, Women and Education, theme paper, National Conference on Women's Studies (Bombay, SNDT University, 1981).

clear-cut trend due to non-comparability of worker-participation rates. In 1981, the work participation rate in India for females was 13.99 percent and for males it was 51.62 percent, if we consider only main workers. If both main workers and marginal workers are included, the work participation rate for males and females works out to 53.2 percent and 20.8 percent respectively. Thus, there is no doubt the females are at a disadvantage as compared to the males. There has been a lot of improvement in all the spheres to enhance their status. Still more is to be achieved.

CHAPTER - II

REVIEW OF LITERATURE

CHAPTER - II

REVIEW OF LITERATURE

The socio-economic variables that should be looked into for pursuing this study makes it imperative to scan the studies concerned with status of women and its socio-economic determinants. A brief review of literature is presented here in two sections. The first section deals with the definition of the status of women. The second section presents a brief review of studies related to the socio-economic variables which have a bearing on status of women.

The review of the existing literature has given a broad idea of the work done in this field and the spectrum of socio-economic variables that could be related to status of women.

II.1 DEFINITIONS OF THE STATUS OF WOMEN

The status of women is a concept which may be regarded differently in different places and even at different periods of life. Differentiation between men and women, political, economic and social, can best be judged, therefore, within the same society. A woman's status in society as distinct from a man's has been more sensitive to social, cultural and economic differences and, consequently,

varies not only from an socio-cultural group to another but also within the group itself as these dimensions undergo a change¹. In a small country with a homogenous culture, the status of women is usually uniform. But in India, with its variety of religious beliefs, castes and cultural patterns, there are striking variations in the status of women within the country.

The term 'status', was used in a different sense till 1920. It was used to refer to some of the capacities which could be legally enforced and also the limitations of the people or their relative superiority and inferiority. But since 1936 this term has undergone radical changes. In 1936 it entered the social science vocabulary as "any position in a social system" in the work of Ralph Linton (Zelditch,² 1968).

A committee appointed by the Government of India on status of women in 1971 and its findings published in 1974, defined status as "a position in a social system or subsystem which is distinguishable from and at the same time

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1. Bhatti, Zarina, "The Problem" (Seminar No. 165, May 1973), p.10.
 2. Zelditch, Morris "Social Status" International Encyclopedia of the Social Sciences, Vol.15, (New York: Macmillian, 1968), p.251

related to other position through its designed rights and obligations"³.

In sociological terms, status may be defined as the position accorded to functionaries or role occupants placed in the same or similar situation, vis-a-vis, other functionaries or role occupants placed in other situations in the societies. Status is, therefore, a relative concept. Social status has also been defined "as a function of economic opportunities and amenities"⁴.

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An individual's status in society depends on the totality of rights, political, legal, economic and social, enjoyed by him or her. Status is intimately connected with the role of an individual. Ralph Linton, an eminent anthropologist says, "A status, as distinct from the individual who may occupy it, is a collection of rights and duties..... Role and status are quite inseparable and the distinction between them is only of an academic nature"⁵.

3. ICSSR (1974), Status of Women in India (Allied Publishers, New Delhi).
4. Desai Neera, Women in Modern India (Vora & Co. Pub. Pvt. Ltd., Bombay, 1957), p.266
5. Linton, Ralph, The Study of Man: An Introduction (Appleton, New York, 1936)

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is the dynamic aspect of status. The individual is socially assigned to a status and occupies it in relation to other statuses.

Parsons has defined the term in a different fashion, though it stems initially from the definition of Linton, "hence it is the participation of an actor in a patterned interactive relationship which is for many purposes the most significant unit of the social system"⁶. Goodenough's⁷ conception of status includes combinations of right and duty.

There is a scope for equating the term 'status' with the term 'role' as these two are used almost interchangeably. But this is a wrong approach and a wrong interpretation. While status defines who a person is, role defines what such a person is expected to do. However, it has to be stressed here that these two terms cannot be viewed independently as these are inter-related.

The term 'status' thus refers to the expected kind of social behaviour associated with a particular social

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6. Parsons, Talcott, The Social System (Amarind Publishing, New Delhi, 1951).
 7. Goodenough W.H., "Rethinking 'status' and 'role' towards a general model of a cultural organization of social relationships", in Michael Banton (ed.), The Relevance of Models for Social Anthropology, A.S.A. Monograph (1) London: Tavistock.

position (Ward) . Besides the ascribed status, there is also the 'achieved status' which results from one's efforts and personal achievements. The concept of status is used to indicate the ordering of individuals in terms of attributes such as level of education, occupation, income perception of one's status within the home and in the community. decision making role. number of restrictions imposed on one's activities, freedom and so on. Considering 'status' in the light of these attributes it is to be noted that the level of status of women varies from region to region, even within a country.

It is difficult to assess accurately the status of women within a society and more so across societies, due to lack of an unambiguous operational definition of "status of women". there is some agreement regarding its theoretical definitions. But there is no single definition of 'status of women' which holds for all cultures. nor is status a homogenous characteristic capable of simple measurement.

At any given time, a woman occupies several positions and plays a number of roles in the family, community and the wider social system. Her status in society

8. Ward Barbara E.: Women in the New Asia. (UNESCO. 1963)

in determined by her composite status resulting from the merging of her various positions and roles. It depends also on her consciousness of her own status⁹. In the ultimate analysis, status is "the conjunction of positions a woman occupiesas a worker, student, wife, mother the power and prestige attached to these positions and the rights and duties she is expected to exercise"¹⁰. These definitions suggest that 'women's status' is a multidimensional phenomenon, or a composite of several different and perhaps inter-dependent variables.

¹¹
Lipset distinguishes two kinds of evaluative processes involved in status stratification; both are exceptionally important in the female world. One is "accorded" status and the other is "subjective", the first referring to the entity - individual or group or class - as the object on which status is conferred by others and the second to the entity's evaluation of itself vis-a-vis

9. Government of India (1974). "Towards equality". Report of the committee on the Status of Women. (Department of Social Welfare, New Delhi). p.7.
10. Status of Women and Family Planning (C/CN/6/575/Ref. No.E75/V5. 1975).
11. Lipset, Martin Seymour. Political Man New York. Doubleday 1960 - "Social Class". International Encyclopedia of the Social Sciences. Vol.15. (New York: Macmillian. 1968). p. 296-316.

others in its reference group.

12

Bernard Barber specifies several "dimensions of social stratification" such as education and knowledge, income or wealth, occupational prestige, religious and ritual parity, family and ethnicity, and power (1968, 292). The first three of these correspond to what Lipset calls the objective aspect of stratification (1968, 310) because they are amenable to measurement or scaling. and they are the ones usually used for operationalizing SES (or Socio-economic Status).

Several authors prefer to adopt the term "female autonomy" because it indicates "the ability (technical, social and psychological) to obtain information and to use it as the basis of making decisions about one's private concerns and those of one's intimates. Thus, equality of autonomy between the sexes implies equal decision making ability with regard to personal affairs" (Dyson and Moore, 1983)¹³. Further, this term is considered to be more

12. Barber, Bernard, "Social Stratification: Introduction" International Encyclopedia of the Social Sciences. (New York: Macmillan 1968), Vol.15. pp. 288-295.

13. Dyson, Tim and Mick Moore "On Kinship Structure. female autonomy and demographic behaviour in India", Population and Development Review. 1983, Vol.9. No.1, pp.35-60.

amenable to empirical measurement than the concept of status
(ESCAP. 1987)¹⁴ .

Perhaps the most apt measure of status is the extent of control that a person has over his or her own life, derived from access to knowledge, economic resources and political power and the degree of autonomy enjoyed in the process of decision making and choice at crucial points in the life cycle. In this context, Ruth Dixon has defined women's status "as the degree of women's access to (and control over) material resources (including food, income, land and other forms of wealth) and to social resources (including knowledge, power and prestiges) within the family, in the community and in society at large. It is measured de-facto rather than de-jure, both in absolute terms and relative to men"¹⁵ . Mayra Buvinic has defined it as "the ranking in terms of prestige, power, or esteem, according to the position of women in comparison with, relative to the ranking - also in terms of prestiges, power.

14. ESCAP (1987) "Female autonomy and fertility: an overview of the situation in South Asia". Asia-Pacific Population Journal. Vol.2, No.4. pp.43-52.

15. Dixon, Ruth. Rural Women at work. (Baltimore: John Hopkins University Press. 1978). p.6.

esteem - given to the position of men"¹⁶. Low status thus implies lack of control over material or social resources and so also a lack of control in the shaping of one's own destiny¹⁷.

Thus, as mentioned earlier, there is no single definition of 'status of women' which holds for all cultures. nor is status a homogenous characteristic capable of simple measurement. The concept of the 'status of women' is one which conceals as much it enlightens.

II.2 STATUS OF WOMEN AND SOCIO-ECONOMIC FACTORS

While each of the above definitions of 'status of women' has its own special contribution, in this study stress has been laid on the indices of women's status which deominate the literature - education and employment, in the light of other variables. The literature linking women's status and fertility is voluminous. Number of authors have

16. Buvinic, Mayra. Women and World Development: An Annotated Bibliography. (Washington D.C., American Association for the Advancement of Science and Overseas Development Council), p.2.
17. Chaudhary, Rafiqul Huda, Female Status in Bangladesh, p.2. Quoted in ESCAP - Country Monograph Series No.10, Population of India. p.359.

cited the status of women as a key determinant of fertility suggesting that changes in women's status may be the central element in successful efforts to reduce fertility. Studies have shown that literacy is an important variable because it is negatively associated with fertility; the association is stronger in the case of females. It is true for both urban and rural areas. Improvement in literacy and educational level affects fertility as a result of an increase in the value of two intermediate variables, viz. age at marriage and proportion of those who marry, as well as in the attitude regarding the number of children desired and in the acceptance of family planning methods and a greater ability to plan in a rational way.

18

Empirical findings in the studies of UN(1961)¹⁸
for Bangalore city. Mukherjee and Singh (1961)¹⁹ . E.D.
Driver's(1963)²⁰ survey of Nagpur. NSS (1967)²¹ and

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18. United Nations. The Mysore Population Study (New York, 1961). pp. 83-86.
 19. Mukherjee, R.K. and Baljit Singh - Social Profiles of a Metropolis (Asia Publishing House, Bombay, 1961).p.166.
 20. Driver, E.D. Differential Fertility in Central India. (Princeton University Press, New Jersey, USA, 1963).p.88.
 21. National Sample Survey (NSS), Sixteenth Round: July 1960 - June 1961. No.116. Tables with Notes on Family Planning. Delhi (The Cabinet Secretariat, Govt. of India, 1967). p.22

Hussain's (1970) study of Lucknow city confirms the negative relationship between fertility and education. In Bangalore city (UN study 1961), women aged 45 years and over who had ever been married and had a high school or university education had 4.0 children compared to 5.4 for those with less education. No significant difference was found in the fertility of illiterates and women educated upto middle school standard. The sixteenth round of NSS depicted a negative relationship between educational attainment of the married urban women and her completed family size. It was found that completed average family size was 6.10, 6.32 and 6.25 for the illiterate, for those whose education did not go beyond the primary school level, and for those who had completed the primary school education, respectively. For those who had the secondary school education and above, the average family size was 4.25 and 2.62 respectively.

Kiser (1967) in a study in United States found

22. Hussain I.Z, An Urban Fertility Field: A Report on city of Lucknow (Demographic Research Centre, Lucknow University. 1970).
23. Kiser, "Social, economic and religious factors..." p.222. Quoted in 'The Determinants and Consequences of Population Trends: Vol.1 (United Nations, New York. 1973) p.98.

that. "the differentials in fertility rates by education.... were still strong in 1960 although they lessened somewhat over the previous decade. Although the relative increase in fertility of the ever-married college graduates tended to be larger than that of women of lower educational attainment, the college graduattes still had the lowest fertility rates at all ages. The ever-married white women whose education was limited to elementary school were of conspicuously high fertility".

In a study conducted in Panaji. Goa in 1969 by Asha A. Bhende and G. Rama Rao²⁴. they studied mean number of children born alive per currently married woman by present age and her educational level. It was found that the average number of children ever born, standardised for age, was 3.51 for those who were either illiterate or had upto primary school level, 3.45 for those who had some secondary school education but had not passed the matriculation examination and 2.57 for those who had either passed the matriculation examination or had studied beyond that level.

24. Bhende, Asha A. and G. Rama Rao -Fertility and Family Planning in Panaji. Goa (unpublished). Quoted in Dr.(Mrs) Asha Bhende and Mrs. Tara Kamitkar, Principles of Population Studies. (Himalaya Publishing House. Bombay. 1988). pp. 268-269.

Similar association was observed between educational attainment and the average number of children ever born by J.R. Rele and Tara Kanitkar²⁵ for each religion in a study conducted for Bombay.

26

D.N. Lal and Rudranand Prasad in an recent paper have considered, status of women, education and improvement in family income level as crucial factors for declining fertility. They have argued that unless the level of education is raised to matriculation and family income exceeds a minimum threshold level, the decline of fertility may not set in. Among the recommendations they have suggested, includes raising the girl's age at marriage to 21 years.

The differences observed in the fertility performance arising out of educational status may be attributed mainly to the differential age at marriage.

25. Rele, J.R. and Tara Kanitkar, "Fertility differentials by religion in Greater Bombay: role of explanatory variables". in L.T. Ruzicka (ed.), 'The Economic and Social Support for High Fertility' (Canberra, 1976). pp.371-383.
26. Lal, D.N. and Rudranand Prasad. 'On some socio-economic and Population Measures for fertility control' in M.E. Khan and D.V.N. Sharma (ed.) 'Socio-Economic Development and Population Control' (Manohar, New Delhi, 1988). pp. 132-144.

Various demographers in India and abroad have indicated a negative association between fertility and age at marriage, namely United Nations (1961)²⁷, Agarwal (1966)²⁸, Karkal (1968)²⁹, Raman (1973)³⁰, Das Gupta (1974)³¹, Goyal (1974)³² and Cassen (1978)³³. Rise in age at marriage implies a shorter reproductive span which consequently reduces family size.

In the Mysore Population Study (United Nation. 1961). it was observed that females who marry between 14 and

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27. United Nations. Op.cit.
28. Agarwala, S.N. "Raising the marriage age for women. a means to lower the birth rates. "Economic and Political Weekly", 24th Dec. 1966. pp. 797-98.
29. Karkal, Malini (1968). Age at Marriage. Journal of Family Welfare. 14(3). pp. 51-56.
30. Raman, M.V. (1973). Summary Statement: Calcutta Fertility Survey - 1970. in conference of IUSSP Sub-Committee on comparative fertility analysis. Brussels, 7-9 May.
31. Gupta, M.Das (1974). Factors Affecting Age at Marriage in India, London School of Economics (unpublished) Quoted S.C. Gulati - Fertility in India (Sage Publications. New Delhi. 1988) p.51.
32. Goyal, R.P.. Fertility and Family Planning in Urban Delhi - in A. Bose et al. (ed.) Population in India's Development: 1947-2000. (Vikas Publishing House. Delhi, 1974). pp. 352-357.
33. Cassen, R.H.. India: Population. Economy Society. (Holmes and Meier Publishers Inc. New York, 1978).

17 years gave birth to 5.9 children, while those marrying between 18 and 21 years eventually gave birth to only 4.7 children. According to S.N. Agarwala, if the proportion of currently married women in India changes to that obtained in Kerala, corresponding to the marriage age of 19 to 20 years, the reduction in the birth rate would be of the order of 29 percent. If the age at marriage of women in India is raised to at least 20 years, there will be a decline in the birth rate by about 30 percent. However, Talwar's calculations bring out a comparatively small reduction and birth rate by raising the age at marriage. Finally in this context, Mukherji's³⁴ observation based on factual evidence too appears to be of great significance - 'Whatever might be the efficacy of various devices of birth control, one unmistakable device is postponement of marriage. If the marriage can be postponed up to the 20th or 21st year of girls, the number of children born will decrease by at least one child per mother for no less than 80 percent of all married women in Calcutta.'

34. Mukherjee, S.B.. 'Studies on Fertility Rates in Calcutta'. p.18. in M.E. Khan and D.V.N. Sharma (ed.) Socio-Economic Development & Population Control. (Manohar Publications. New Delhi. 1988), p.141.

All these findings point towards a negative association between the educational status of women and fertility and age at marriage an important intermediate variable in the relationship between educational attainment and fertility.

Taking up the second indicator of women's status - participation in the labour force - the relationship with fertility is not very clear. It is believed the female work participation provides an alternative identity to motherhood and thereby it exerts a negative influence on fertility. Although a negative association between female work and fertility has been found in several developed countries. the relationship has not always been clear and inverse in the case of developing countries. (Stycos and Weller 1967³⁵ ; Goldstein 1971³⁶ ; Kupinsky 1977)³⁷ . However, in the developing countries the probability of an inverse relationship appears to be higher in the urban than in the rural areas, and in the 'modern' than in the 'traditional'

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35. Stycos. J. Mayone and R.H. Weller. 'Female working roles and fertility', Demography. 1967. pp.210-219
 36. Goldstein Sidney, 'The Influence of labour-force participation and education on Fertility in Thailand'. Population Studies. Vol.26. no.3. 1972. pp. 419-436.
 37. Kupinsky Stanley (ed.). 'The Fertility of Working Women: A synthesis of International Research'. (Praeger. New York. 1977).

sectors of societies . There are some cases even in the urban areas of developing countries where women employment has not been found to be associated with fertility .³⁹ Moreover, studies show that labour-force participation per se may not be so important as the type of employment that is engaged in by the women (Conception; 1974)⁴⁰ .

Cleland (1987)⁴¹ in recent study has shown that greater participation of women in non-traditional roles of economic activity, greater access to health-care and subsequent decline in infant and child death-rates influence the level of birth-rates, and have played a part in their declines.

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38. Selvaratnam, S.. Population and Status of Women. ESCAP-Asia-Pacific Population Journal Vol.3. No.2. June 1988.
39. Smithsonian Institution 'The Policy Relevance of recent Social Research on Fertility', quoted in George B. Simmon, The Policy Implications of the Relationships Between Fertility and Socio Economic Status in M.E.Khan. D.V.N. Sharma. (ed.), Socio-Economic Development & Population Control. (Manohar, New Delhi. 1988). p.11.
40. Conception, Mercedes B. 'Female Labour force Participation and Fertility. International Labour Review. (Vol. 109. No. 5-6. 1974).
41. Cleland, John G.. 'Socio-economic determinents of fertility: an assessment of recent findings and their implications', Population Policies and Programmes Current Status & Future Directions. ESCAP. Asian Pop. Studies Series No.84. Bangkok. pp.43-48.

By taking income to depict the economic status,
Sinha (1957)⁴² and NSS (1970)⁴³ demonstrated inverse
relationship between fertility and income. But Sovani
(1948)⁴⁴ found it difficult to establish any relationship
between fertility and income from his study of Kolhapur
city.

Thus one does not get a clear picture of the true
relationship. Though many studies especially in
industrialized countries have displayed the inverse
relationship between family size and the extent of female
participation in the labour force. the interpretation is,
however. open to question : it may be that women who go out
to work are more likely than others to restrict family size;
or that the selection aspect, whereby women with no children
or few children find it easier to enter the labour force.
may be paramount⁴⁵ .

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42. Sinha, J.N.. Differential Fertility and Family Limitation. (Lucknow University. 1957).
 43. NSS. Nineteenth Round: July 1964-June 1965. Tables with Notes on Differential Fertility and Mortality rates in Rural and Urban areas of India. Delhi. 1970.
 44. Sovani, N.V.. Social Survey of Kolhapur City. Part I. Population and Fertility (Pune. Gokhale Instt. of Politics and Economics. 1948).
 45. United Nations. The Determinants and Consequences of Population Trends. Op.cit... pp. 101-102

Several studies have been conducted on the position of women vis-a-vis economic development. Various studies analysing female labour force participation rates in countries at different stages of economic development have found a tendency for the crude activity rate (that is, the proportion of the total female population who are economically active to follow a U-shaped curve in relation to the level of development. Thus, female activity rates are expected to be the highest on average in the least developed countries, to be lowest in countries at intermediate stages of development, but to rise again among the most industrialized countries .

It has generally been hypothesised that the higher rate of economic development of a state, the lower the percentage of women in the labour force, as in the initial stages, women have a tendency to withdraw from the labour force. As stated by Sinha ⁴⁶ (1965), in the early stages of economic development, the scope for the employment of women

46. Durand John D. The Labour Force in Economic Development: A comparison of International Census data - 1946-1966 (Princeton, 1975), p.82.

47. Sinha J.N., 'Dynamics of Female Labour Force Participation in Developing Economy', Proceeding of the World Population Conference, Belgrade, 1965, Vol IV, pp. 336-337.

narrows as a result of the contraction of agricultural and household industries. Though employment opportunities in the modern sector grow, these accrue mostly to men on account of unemployment and underemployment prevailing in these countries in the early phase of development. This trend is reversed at the later stage when the growth of the demand for labour in the modern sector exceeds the contraction in the traditional sector.

48

Weller (1968) advocated that with economic development female participation in certain activities increase but often this increase cannot compensate for decline in female employment in traditional industries. The 'long run' effects of industrialization may be good but 'short run' effects is to lower female employment.

49

Boserup concluded that women's status declines with decline in their productive roles during the transition from rural to urban industrial economy based on wage labour because their : (i) family obligations make them less mobile

48. Weller. R.H. "A Historical Analysis of Female Labour Force Participation in Puerto Rico". Social and Economic Studies. Vol xvii (March. 1968). pp. 66-69.

49. Boserup. E.. in Preface to Women and National Development . The Complexities of Change (ed.) Willesely Editorial Committee. (University of Chicago Press.1978)

than their male counterparts. (ii) Occupational choice is more narrowly limited by custom. (iii) educational and training aspects are less as compared to men and (iv) even without these handicaps they face discrimination in recruitment.

While discussing women, demography and development, Halen Ware ⁵⁰ (1981.p.24) refers to a three stage evolution of the relationship between the three elements. In her view, women were contributory factor to the subsistence economy in simple hunter gatherer and horticulture societies. With the introduction of plough agriculture, women's contribution to income was visible and marginally less than men's and their confinement to the domestic sphere was matched by a decline in their status. Finally with industrialization, in the long run, women re-emerge out of the domestic sphere and make their contribution. Significantly, women's fertility is the highest in the middle stage and that their status of relative to men is at its lowest. In earlier hunter gatherer and horticultural stage, they limited over-all family size.

50. Quoted in Mohammad A. Masood, Women Development, Income and Fertility. (Sangshita Mudran & Prakashani, Dhaka, 1985). p.17.

Ambannavar regards urbanization as the key factor for the decline in female participation as the growth of industries destroy rural household industry without alternate employment opportunities to women workers.

In the light of the above arguments, it would be worthwhile to correlate female labour-force participation rates with the economic development.

51. Ambannavar J.P.. 'Changes in Economic Activity of Males and Females in India. 1911-61' Demography India 4(2). December. 1975.

CHAPTER - III

RESEARCH DESIGN AND ANALYTICAL FRAMEWORK

CHAPER - III

RESEARCH DESIGN AND ANALYTICAL FRAMEWORK

III.1 STUDY AREA

In order to examine the status of women and the relevance of different variables in its context, within the Indian sub-continent - with its distinct culture, social values, economic development, technological progress, etc.. data has been collected at the state level, pertaining to three census periods 1961, 1971 and 1981. For this study, only the major states have been considered to avoid the problem of comparability of data. The 1951 census period was deliberately ignored as boundaries of many states have changed with the creation of the states based on the language, with the merging of former princely states, with the termination of colonialism by foreign power, etc. Since, some of the states and centrally administered areas are too small compared with states like Uttar Pradesh, Bihar and Maharashtra, giving equal weightage to small pockets of population would give a distorted picture of the economy. So, this study would be restricted to 16 major states, namely, Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh,

Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

III.2 OBJECTIVES AND HYPOTHESIS OF THE STUDY

The over-all objective of this study is to examine the inter-relationship that exists between selected variables and status of women. They include socio-economic and demographic variables which are relevant for studying this association. The other specific objective of the present analysis is to establish whether there is a change in the position of women over a period of time. This study also attempts to highlight the differences between various states with reference to various dimensions of status of women and socio-economic parameters.

It is hoped that this study would be helpful in pointing out factors which are likely to influence the position of women in India and which may prove beneficial for enhancement of their status.

Keeping these objectives in mind, this statistical inquiry is designed to test the following hypothesis, considering the major states of India :

i. Higher the social and economic status of women lower

- the fertility.
- ii. Higher the social and economic status of women, lower the mortality.
 - iii. Higher the economic development, lower the economic status of women.
 - iv. Higher the crime rate, lower the social status of women and
 - v. Higher the communication level, higher the social status of women

III.3 SELECTION OF THE VARIABLES

The next consideration was the socio-economic variables that should be considered. As the study was for all India as divided into states, so the already published data was taken into consideration. A number of variables which were likely to influence the position of women were considered, but only those which were regarded relevant and for which data were readily available were included in this study. Thus, the selection of the variables was based primarily on two considerations :

- i. Its possible relation with the status of women and
- ii. Availability of data.

Even with these two simple criteria, numerous problems cropped up which will be discussed later.

To consider the impact of social environment, data regarding literacy for females as well as their different educational levels have been included. As the population objectives are generally influenced by the social characteristics of the females, data on average age at marriage, number of females per 1000 males, as also female workers percentage of female population and sectoral distribution of female workers have also been obtained - all concerned with the socio-economic status of females.

Health indices too, reflect the status of women in general. Therefore a number of health indices such as the life expectancy at birth, infant mortality per thousand live births and crude death rate are considered. Hospital beds per 1000 population have been included to indicate the strength and spread of health services.

There seems to be a good deal of appreciation of the role of communication in carrying the message of population development to the people, particularly the role it can play in the enhancement of the status of women by

creating an awareness and changing the attitude of the masses. towards women. Communication tends to play a modernising and developmental role in so far as it exposes people to the larger society and transfers information necessary for development from its origin or source to the ultimate users. Communication impact is studied through - daily newspaper circulation per 1000 population.

Seven variables have been used to assess the significance of economic development and spread of modern technology in India. viz. percent urban population to total population. surfaced roads per 100 square kilometres. motor vehicles per 10.000 population. inhabitants per post office. Two variables are concerned with electricity - electricity consumption per capita and percentage of villages electrified. Economic impact is studied through - per capita income at current price.

Several studies have noted meaningful relationship between fertility and socio-economic indicators. to name a few - literacy age at marriage. urbanization. infant mortality. Keeping this point in mind. four variables which measure fertility have been included. viz.. general fertility rate total fertility rate. crude birth rate and

child-woman ratio. All the same, an attempt would be made to examine relationship among these variables also.

Dowry deaths still take place, despite a legislation enacted against it. Initially, in this analysis, it was proposed to study whether the states where the status of women is low, there is high incidence of dowry deaths. Unfortunately lack of relevant data frustrated the attempt to pursue this line of thinking in this study. Nevertheless, data on cognizable crimes reported per 1000 population has been included to see if it has any bearing on the status of women.

Finally, all the selected socio-economic variables are grouped into seven categories, such are : social status of women, economic status of women, health, fertility, development, crime and communication. One is, all the same, conscious that these groupings are arbitrary, that there is a close relationship between these variables and that they can be clustered into alternative groups.

The variables selected for the broad socio-economic characteristics are as follows :

SOCIAL STATUS OF WOMEN

X	Sex ratio
12	
X	Female literacy rate
13	
X	Female age of marriage
14	
X	Different educational levels - Primary level
44	(female)
X	Middle level (female)
45	
X	Matriculation/Higher Secondary level (female)
46	
X	Graduate and above (female)
47	

ECONOMIC STATUS OF WOMEN

X	Percentage of female workers engaged in the
39	Primary sector
X	Percentage of female workers engaged in the
40	Secondary sector
X	Percentage of female workers engaged in the
41	Tertiary sector
X	Female work participation rate
48	

HEALTH

X	Crude death rate
16	
X	Life expectancy
17	
X	Infant mortality rate
18	
X	Hospital beds per 1000 population
22	

FERTILITY

- X Crude birth rate
15
- X General fertility rate
19
- X Total fertility rate
20
- X Child-woman ratio
21

DEVELOPMENT

- X Percent urban population to total population
11
- X Surfaced roads per 100 square kilometres
24
- X Motor-vehicles per 10,000 population
25
- X Inhabitants per post-office
26
- X Electricity consumption per capita
27
- X Percentage of villages electrified
28
- X Per capita income at current price
29

COMMUNICATION

- X Daily newspaper circulation per 1000 population
23

CRIME

- X Cognizable crimes reported per 1000 population
30

III.4 DATA SOURCES AND LIMITATIONS

Data pertaining to the various dimensions of status of women as well as different parameters were collected on a retrospective basis (1961, 1971 and 1981 census periods) from a number of census and survey materials. The bulk of the present analysis is based on

various census publications and Family Planning Year Books. Data related to the infrastructural and development indices were collected from the Central Statistical Organization (CSO) publications.

As far as the quality of demographic and socio-economic data is concerned, under-reporting of certain activities such as female economic activity, and definitional problems have all been the subject of repeated enquiry. Since the data has been obtained from a diversity of secondary sources, possibly varying in their reliability and exhaustiveness, as a result, several gaps, particularly in socio-economic variables, had to be accommodated. Gaps were filled using reasonable estimates of the missing variable data.

There is also the problem of incompatibility of definitions. In 1961 census, "person was considered as 'worker' in such activities like cultivation, dairying, and household industry if he had some regular work for more than one hour a day throughout the greater part of the working season. In the case of regular employment in any trade, profession, service or business, the basis was whether the person was employed during any of the 15 days preceeding the

day on which the household was visited. Any woman who, in addition to her household work engaged herself in work for sale or wages, or in domestic service for wages for others, was treated as a worker" (The Population of India, 1974 : pp.94-95)¹. The definition of a 'worker' was broad enough to include all those rural women who worked even for a short time. In other words, it would include all those women whose primary activity was productive 'non-work' but who had secondary employment.

In 1971 census, a 'worker' was a person whose main activity was participation in any economically productive work by his physical or mental activity. Work involved not only actual work but also effective supervision and direction of work. In the case of regular work like trade, business, profession, or service, etc., a person was regarded as worker if he had participated in such work on any one of the days during the preceding week. In respect of seasonal work, a person's main activity was ascertained with reference to such work in the last one year" (The Population of India, 1974 : p.95)². The 1971 census tended to under-

1. Quoted in M.K. Premi, A. Ramanamma, & Usha Bambawale, An Introduction to Social Demography, (Vikas, New Delhi)
2. Ibid., p.56.

report women workers, since only those whose main activity was participation in productive work were recorded as workers, all those whose main activity was domestic work were categorised as non-workers even though they were engaged in some productive work.

The dichotomy of worker/non-worker of the 1961 and 1971 census was discarded, and a trichotomy consisting of main workers and marginal workers and non-workers was adopted for the 1981 census. For the main worker, a time criterion of engagement in work for the major part of the year (i.e., at least 183 days) was adopted. Those who worked some time during the last year, but not for the major part, were treated as marginal workers. Those who had not worked at all during the last year were non-workers. This trichotomy partially permitted a comparability of 1981 census economic data with that of 1971 as well as 1961. The main workers of 1981 census correspond to the workers of 1971 and the main workers and marginal workers of 1981 together correspond to the workers of 1961³.

Non-availability of data of general fertility rate (GFR) and total fertility rate (TFR) for the 1961 period was

3. Census of India 1981, Series I - Part II B(i) - Primary Census Abstract, General Population.

another area of concern. This study has been further hampered by non-comparability of education data. In 1961 census, data was collected only for three categories, namely literate (without educational level), Primary or Junior basis and Matriculate and above. In 1971 and 1981 census, data was collected for seven and eight categories respectively. To study the impact of higher education on other socio-economic variables, 1961 was therefore deliberately left out, as data was not available above matriculation level.

III.5 METHODOLOGY

From the study framework provided earlier, it is quite clear that an assessment and an analysis of female's status will involve the use of the selected socio-economic indicators in the various states which exhibit considerable diversity. Since individual variables does not give clear picture, in this section, details of methodology for working out state-wise composite indices has been provided. The basic principle behind this is to combine a number of economic, social and cultural factors in order to produce a over-all picture of a region.

In the present study, the composite index has been

generated with the help of 'Principle Component Analysis' which is a method of factor analysis, was first fully developed by Harold Hotelling⁴. It is a relatively straight forward method of transferring a given set of variables or indicators into a new set of composite variables or principal components that are orthogonal (uncorrelated) to each other. It is designed primarily to synthesise a myriad variables to a fewer number of factors or clusters which retain the maximum amount of descriptive ability. In other words, these elicited clusters or factors can be considered for the analysis of a complex set of variables instead of taking all the variables separately. The strength and direction of the inter-relationship between a variable and the factor is depicted through the magnitude and sign of the factor loading or correlation between the factor and the variable.

In factor analysis, the beginning is made with the correlation matrix of variables, based on a set of observations. The correlation matrix is used to identify a smaller number of factors or clusters of closely associated

4. Hotelling Harold, Analysis of a Complex of a Statistical Variables into Principle Components, Journal of Education Psychology, Vol.24, 1933, pp 417-441 and 498-520.

variables. The clusters are based on the principle that most closely associated variables are combined within a single factor and the variables assigned to a given factor should be most nearly independent of those assigned to other factors. Thus the technique of multiple factor analysis facilitates the proper identification of clusters of variables having some statistical properties of cohesiveness and homogeneity within and independence (orthogonality) between them .

Analysis has been worked out on the technique of first principal component. It depicts the single best summary of linear relationships demonstrated in the data. In other words, first principal component (P_1) is that linear combination of weighted variables which explains the maximum of total variance. The model can be put as;

$$P_1 = \sum_{i=1}^n a_{ji} \cdot Z_j$$

where

a_{ji} = factor loadings or weights; and

5. Gulati, S.C., Fertility in India - A Econometric Analysis of a Metropolis (Sage Publications, New Delhi, 1988), p.71.

Z_j = standardised value of the observed variable'⁶.

The second component under the condition that it is orthogonal to the first, may be defined as the linear combination of variables that accounts for the most residual variance after the effect of the first component is removed from the data. The subsequent components are defined in the same manner with all the variance in the data is completely exhausted.

III.6 PLAN OF THE STUDY

The entire material has been very carefully organized and is presented in six chapters. The demographic and socio-economic situation of Indian women are analysed in the following chapters from a wide perspective with the help of census and survey data. An effort is then made to identify some of the factors that may help in improving the status of women.

The composition of the different Chapters is as follows:

6. Tewari, R.T., Changing Pattern of Development in India, (Ashish, New Delhi, 1984), p.38.

CHAPTER I : INTRODUCTION

This chapter gives introduction to the study. It deals with the problem and presents the position of women in India from historical, demographic and legal point of view.

CHAPTER II : REVIEW OF LITERATURE

In this chapter an attempt has been made to scan the literature pertaining to the subject. The first section deals with the definitions of the status of women. The second section discusses studies relating to status of women and socio-economic factors.

CHAPTER III : RESEARCH DESIGN AND ANALYTICAL FRAMEWORK

It contains information on the study area, objectives and hypothesis, data sources and its limitations and one methodology adopted for pursuing this study. This chapter also presents a brief account of the rationale behind the selection of the variables. It also explains the over-all study framework.

CHAPTER IV : SOCIO-ECONOMIC DEVELOPMENT AND FEMALE STATUS

Inter-state variation among different variables is analysed and presented in this chapter in two sections. One section deals with the socio-economic factors while other section reflects the position of women in the major status under consideration.

CHAPTER V : FACTORS INFLUENCING STATUS OF WOMEN

This Chapter presents the situation of women as revealed by the findings of this study, and tries to identify the factors which may have an influence on the status of women.

CHAPTER VI: SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

This final chapter contains a short summary of conclusions and some suggestions offered for possible action programmes for women.

Additional references that are not cited in any of the chapter but have been useful for this study are given in the bibliography.

CHAPTER - IV

SOCIO-ECONOMIC DEVELOPMENT AND FEMALE STATUS

CHAPTER IV

SOCIO-ECONOMIC DEVELOPMENT AND FEMALE STATUS - AN ANALYSIS OF VARIATION

This chapter seeks to analyse the inter-state variation among the different variables reflecting social and economic development and women's position in the 16 major states at three points of time. The analysis is presented here in two sections.

Section 1 discusses important variables of development, fertility and health indices are considered for the final analysis. Section 2 focuses on women's socio-economic status.

IV - 1 INTER-STATE VARIATIONS IN SOCIAL & ECONOMIC DEVELOPMENT

Since the basic objective of the study is to analyse the change and the factors affecting status of women in India, suitable variables were considered and they were modified as per the requirement of factor analysis.

Percentage of urban population to total population

which is one of the important variables considered for development index depicts wide inter-state variations. Despite the predominant rural nature of the Indian economy, there has been a fast trend towards urbanisation. The urban population increased from 78.9 million in 1961 to 109.1 million in 1971 and 156.2 million by 1981. The decadal increase in urbanisation during the periods 1951-61, 1961-71 and 1971-81 was in the order of 26.4 percent 38.2 percent and 46.0 percent respectively. In percent terms, India is only 23.25 percent urban according to the 1981 census and this cannot be considered a high level of urbanization.

Surprisingly high range of variation is observed at state-level which signifies that urban population in country is very unevenly distributed. It was highest in Maharashtra (28.22%) followed by Tamil Nadu (26.69%) and Gujarat (25.77%) in 1961 and this trend continued in 1971 and 1981 too. Himachal Pradesh, Orissa and Bihar in all three time periods were found to be the least urbanized states. As between comparatively richer states (Punjab, Haryana, Gujarat and Maharashtra), the middle income states (Karnataka, Rajasthan, Tamil Nadu and West Bengal) and the poor states (Andhra Pradesh, Bihar, Madhya Pradesh, Orissa

and Uttar Pradesh), the rate of urbanisation since 1951 has varied, and to some extent narrowed down. But overall the richer states continue to have a higher level of urbanisation with 31.7 percent of urban population in 1981, as compared to 17.5 percent in poor states. However, in the recent years (1971-81) the growth rate of urban population in the poor states has accelerated. The growth of urban population in these states was rapid indeed, in the three decades since 1951, with the growth rate at 4.57 in 1971-81 as against 3.55 in the rich state, and the lowest at 3.23 in the middle income states.¹

Per capita income with all its limitation is generally considered to be the most important indicator of the development of a state. All through planning since 1950, the growth of national income and of per capita income, have been the key objectives of various plans. As a result of various programmes and policies, some progress has indeed been registered in this regard. But the growth has not been wholly satisfactory. Per capita income in our country is growing very slowly and in view of the unequal

1. Mohan, Rakesh and Chandrashekhar Pant, "Morphology of urbanisation in India". Economic and Political weekly, 25 Sept. 1982.

income distribution, the rise in the standard of living of the masses is negligible. Per capita income at current prices was highest in Maharashtra (Rs.409) in 1961 whereas it was highest in Punjab in 1971 and 1981 (Rs 1016 and Rs.2642 respectively), mainly due to the impact of green revolution in the late sixties which resulted in the substantial increase in agricultural production leading to prosperity of the people particularly in Punjab and Haryana where as Maharashtra is a highly urbanised and fast industrializing state. Bihar had the lowest per capita income (Rs 215, Rs 426 and Rs 795 in 1961, 1971 and 1981 respectively) closely followed by Orissa. Bihar and Orissa - states still dormant but with a wealth of opportunities. It is obvious that the more highly developed states like Maharashtra, Tamil Nadu, Gujarat and Punjab have high per capita income and are also the states having higher level of urbanization.

2

Crude birth rate² included in the fertility index does not show much state-wise variation. Not only the birth

2. Crude Birth Rate (CBR) = $\frac{\text{No. of live births in a calendar year in a given geographical area}}{\text{Mid-year Population of that area}} \times 1000$

rate is high, but it has remained almost stable at a high level. Gujarat and Punjab had the highest crude birth rate in 1961 (45.7 and 44.7 respectively), but in 1971 and 1981 it decreased appreciably. In 1981, crude birth rate in Gujarat was estimated to be 34.5 and Punjab - 30.3. All-India figure for CBR, which was 41.7 in 1961, 36.9 in 1971 has further come down to 33.9 in 1981, is still considered to be a very high figure. U.P., Bihar, M.P. and Rajasthan recorded the highest crude birth rate in the country according to the 1981 figures. Many economic and non-economic factors may be responsible for this high birth-rate and these factors are so strong in their influence that the birth-rate has remained high for many years. Among them the major ones are: poverty of the people, religious and social attitudes, illiteracy, ignorance about birth-control devices, early marriage and high infant mortality rate. So it was quite expected, Kerala which has high literacy level, high age at marriage and low infant mortality rate had the lowest crude birth rate (25.6 in 1981) in the country.

As already mentioned in Chapter III (III-4), the

estimates for total fertility rate (TFR)³ and general fertility rate (GFR)⁴ at state level were not available for 1961. In 1971, the value of GFR and TFR for all India was 168.00 and 5.65 respectively and in 1981 the corresponding values were 136.65 and 4.20. The states which exhibited high fertility rates well above the all-India average in 1971 and 1981 are U.P., Bihar, M.P., Rajasthan and Haryana. The lowest fertility rates were recorded in Kerala (GFR=94.7 and TFR=2.8 in 1981) followed by Tamil Nadu (GFR=107.00 and TFR=3.40 in 1981). Maharashtra, Karnataka, Andhra Pradesh and Himachal Pradesh too had low fertility rates. Thus it can be said that in India the lowest fertility rates are found in the South while in North one finds high fertility rate. A multiple number of factors influence fertility everywhere, making it difficult to single out the particular factor influencing fertility but industrialisation, urbanization and socio-economic factors which include

3. Total Fertility Rate (TFR) can be termed as the sum total of age specific fertility rates (ASFR) or in other words it is an estimate of the number of children a cohort of 1000 women would bear if they all went through their reproductive years exposed to the age-specific fertility rates in effect at a particular time

4. General Fertility Rate (GFR) = $\frac{\text{No. of births during a year}}{\text{Midyear population of women aged 15-49}} \times 1000$

education attainment and economic status have everywhere found to have lowered the rate of fertility.

Trends in life expectancy⁵ are relevant in considering the improvement in the quality of life. In India, life expectancy was 41.2 years in 1961, 47.7 years in 1971 and 54.4 years in 1981. this large increase in life expectancy recently has been caused by a substantial fall in the death rate and in infant mortality rate⁶. Crude death rate⁷ was 22.8 in 1961, it came down to 14.9 in 1971 and was only 12.5 in 1981. Infant mortality rate declined to 115 in 1981 from 129 in 1971 and 154 per thousand in 1961. This had been possible due to considerable improvement in the availability of medical facilities and public health services which has enabled the country to control epidemics almost fully. In 1981 Kerala had the lowest crude death

5. Life expectancy represents the average number of years of life which a new born may be expected to live.

6.
$$\text{Infant Mortality Rate (IMR)} = \frac{\text{No. of deaths of infants before attaining the age of 1 year during a calendar year.}}{\text{Total live births in the calendar year}} \times 1000$$

7.
$$\text{Crude Death Rate (CDR)} = \frac{\text{Total no. of deaths in a calendar year in a given geographical area}}{\text{Population of that area at mid year}} \times 1000$$

rate (6.60) and infant mortality rate (40.0) but the highest life expectancy (66.5) in the country. On the other hand, Uttar Pradesh had low expectation of life (46.8 years) but high crude death rate (16.3) and high infant mortality rate (157.0) followed by Madhya Pradesh, Orissa and Bihar.

The reason behind such an impressive performance in Kerala besides other factors already mentioned, is the spread of medical facilities. Hospital beds per 1000 inhabitants in Kerala were the highest in 1981 (1.96 beds per 1000 population against the all-India figure of 0.83 beds per 1000 population) followed by Maharashtra, Punjab and Himachal Pradesh. The states where health facilities are highly inadequate are Madhya Pradesh (0.38 hospital beds per 1000 inhabitants), Bihar (0.40 beds per 1000 inhabitants), closely followed by U.P., Orissa and Rajasthan. Health care and medical facilities programmes, initiated and executed since the advent of planning have not proved to be very effective due to continuous high growth of population. In 1961, the availability of hospital beds per 1000 population was 0.53, it rose to 0.66 in 1971 and 0.83 in 1981. The large variations at the state-level indicates that the spread of health facilities has been very uneven.

Cognizable crimes reported per 1000 population is an useful indicator to gauge the crime and law and order situation prevailing in the country and in various states. In India, the crime rate shows an upward trend. In 1961, the number of cognizable crimes reported per 1000 population was 1.42 which rose to 1.73 in 1971 and 2.02 in 1981. Among the states Madhya Pradesh proved to be the most insecure state. It topped in crime rate in all the three time periods. The number of cognizable crimes reported per 1000 population in 1961 in M.P. was 2.25 followed by West Bengal (1.84) and Tamil Nadu (1.74). In 1971, Madhya Pradesh and Maharashtra topped in the crime rate in the country with a identical figure of 2.54 cognizable crimes reported per 1000 population closely followed by U.P. (2.42). Between 1971 and 1981, cognizable crimes reported per 1000 population rose sharply in Madhya Pradesh - 3.24 cognizable crimes reported per 1000 population. It was followed by Maharashtra (2.75) and J&K (.67). On the other hand, Punjab and Himachal Pradesh had lowest crime rate in the country in

8. Cognizable crimes : These include murder, dacoity, robbery, house-breaking, theft and others. 'Others' includes kidnapping and abduction, criminal breach of trust cheating, counterfeiting and miscellaneous crimes.

all three time period. The notable feature was that there was not much change in the crime rate in these states during this period. Infact Punjab registered a decline in the number of cognizable crimes reported per 1000 population between 1971-81. In 1961, it was 0.85 crimes per 1000 population in Punjab and in 1971 it slightly rose to 0.89 and lowered down to 0.81 in 1981. Surprisingly U.P. and Bihar as expected, did not exhibit a high crime rate as compared to other states. Many of the crimes might have gone unreported in these states which resulted in a lower crime rate than it was expected.

To study the impact of communication on status of women, one variable has been included, viz. daily newspaper circulation⁹ per 1000 population. In India, daily newspaper circulation is continuously on the rise. In 1961, daily newspaper circulation per 1000 population was 8.58 and 14.37 and 1971 which further increased to 21.71 by 1981. Though it is not a very impressive figure but one should not forget the fact that majority of Indian population especially women are illiterates who can neither read nor write. Kerala had

9. Newspaper refers to any printed including cyclostyled periodical work containing public news or comments or public news, circulation refers to average number of copies sold and distributed per publishing day.

the highest daily newspaper circulation per 1000 population in 1961 and 1981 (40.35 and 58.89 respectively) followed by Maharashtra. In 1971, daily newspaper circulation per 1000 population was slightly better in Maharashtra (34.27) than Kerala (32.85). Tamil Nadu occupied the third place in 1961 and 1971 but was replaced by Punjab in 1981 for the third place closely followed by U.P. The daily newspaper circulation per 1000 population continued to be very low in Himachal Pradesh, Jammu & Kashmir, Haryana and Bihar without much change in all the three time periods.

The above analysis has investigated statewise variation considering important variables which might have a bearing on status of women. The details of all the variables can be had from the Appendix (Table Nos. A-1, A-2 & A-3). To sum up, the above variables exhibit the following trends: large size of population and rapidly growing with slow falling birth-rate and fast declining death-rate; large variations in the level of urbanisation; a large proportion residing in rural areas; unequal income distribution; large proportion of children, and a rising but low life expectancy.

IV.2: POSITION OF WOMEN IN THE SOCIETY

A simple index which gives a comparative picture of the growth of male and female population is the sex-ratio which is defined in the Indian census as the number of females per one thousand males. Except, for 1981, the sex-ratio in India has shown a declining trend. Although the country as a whole is marked by adverse sex-ratio, males outnumbering females, but regional variations are quite significant.

In India the sex-ratio was 941 females per thousand males in 1961 which declined to 930 in 1971. For the first time, in the post-independence period, the sex-ratio registered an increase during the last decade (1971-81). It increased marginally, from 930 females per thousand males in 1971 to 933 females per thousand males in 1981, but this increase has not been uniform. To give a few examples, in Gujarat, the sex-ratio increased from 934 to 942 during 1971-81, while in Bihar it decreased from 954 to 946 during the same period.

Census data for the three time periods under consideration reveal that throughout the period sex-ratios

are persistently higher (more masculine) in the northern states and comparatively low for southern states and with the exception of West Bengal other eastern states under study (Bihar and Orissa) can be grouped with the southern states. The difference between the two is well marked in Punjab, Haryana, Rajasthan and Uttar Pradesh in the north and Kerala and Tamil Nadu in the south, confirming thereby, the regional dichotomy between the north and south in terms of sex-ratio also. In Haryana, the sex-ratio was lowest (870 females per 1000 males) and Kerala had the highest sex ratio (1032 females per 1000 males) in India during the 1971-81 period. The same trend was found in 1961 and 1971 periods also.

The declining sex-ratio has been viewed as "a disturbing phenomenon in the context of the status of women", because this trend is contrary to the experience of a large number of countries where expectation of life at birth is generally higher for females. Visaria (1967)

10. Mitra, Ashok, India's Population: Aspects of Quality and Control (Abhinav Publications, New Delhi, 1978) pp. 371-397.

11. Visaria, P.M., 'The Sex Ratio of the Population of India and Pakistan and Regional Variations during 1901-61 in A. Bose (ed.) - Pattern of Population Change 1951-61 (Allied Publishers, Bombay, 1967)

attributed the cause of this regional variation to mortality differentials. A study showed that 99.6 percent of women, in the sample, performed all household chores right through their pregnancies; 65.9 percent attended to normal manual work, and only 20 percent received the luxury of rest after delivery - for just two months.¹² This naturally affected both the rate of mortality and the degree of health of mother and child.

It is generally difficult to give an acceptable and satisfactory explanation for the overall picture of a lower number of females. However, a few reasons can be indicated. One is that girls in India are not as adequately looked after as boys. Secondly, the burden of bearing children at an early age, the lesser use of birth-control devices and the greater frequency of births at short-intervals lead to the death of many a woman. Thirdly, it is doubtful whether at the time of census women are counted correctly. Because of the large illiteracy and social customs which keep many women behind the curtain, quite a number go unreported.

12. Sainath, P., A critical Diagnosis, (Imprint, March, 1988) p.28-29.

During the past several decades, despite the progress of education and social reforms, there has been a slow rise in the average age at marriage. Universality of marriage and early age of marriage are the two distinct features of India's marriage pattern. In 1971, the female mean age at marriage was 17.1 years was below the minimum age of 18 years stipulated by a amendment in the law in 1978 (Child Marriage Restraint Act). An encouraging feature of the 1981 Census was that the female age at marriage was higher than the minimum age prescribed by law. It was 18.3 years in 1981 as compared to 17.1 years and 16.6 years in 1971 and 1961 respectively.

A detailed analysis of 1961 data showed that the region comprising Bihar, Orissa, Madhya Pradesh, Rajasthan and U.P - the heartland of India - as the region where the mean age at marriage was then below 15 years.¹³ Regional variations in age at marriage have been studied for the period 1961-71 by Goyal¹⁴ (1975) and has concluded that the states that had the highest age at marriage were with the

13. Agarwala, S.N., India's Population Problems (Tata Mc Graw Hill, 1972), p.77.

14. Quoted in Singh, K.P., 'Demographic Behaviour and Status of Women in India:'

exception of Punjab, southern states. 1981 census also confirms the same trends despite the increase in the age at marriage over the decades. Barring Punjab, all other states in the north have comparatively low age at marriage whereas Western (Gujarat and Maharashtra) and eastern (Bihar, Orissa and West Bengal) states with the exception of Bihar, are more near the southern pattern where age at marriage is comparatively high. In the southern states, Andhra Pradesh is an exception, it has comparatively low female mean age at marriage in all three time points (15.7, 16.2 and 17.3 years in 1961, 1971 and 1981 respectively). In 1981, Kerala had the highest female mean age at marriage (21.8 years) closely followed by Punjab (21.1 years). On the other hand, Rajasthan recorded the lowest mean age at marriage (16.7 years) followed by Madhya Pradesh and Bihar (16.6 years) for the same period. Age at marriage is closely related to the level of female education and on the whole, the southern-states have higher female literacy and consequently, higher age at marriage which in turn reduces fertility. Despite an uptrend in the female mean age at marriage, it continues to be very low in some states.

The success of any development strategy depends

largely on the extent to which human resources are developed in terms of skills, education, health and well being. Education develops basic skills and abilities, and thereby boosts productivity. It also fosters a value system conducive to the national development goals. There is also an abundance of research which points to the possibility that rising levels of education result in lower fertility, increase in age at marriage and enhances women's status in the society. Educational level, is therefore, considered to be one of the most important indicators of women's status.

In spite of the fact that the percentage of female literates as compared to the total population increased from 12.88 per cent in 1961 to 18.7 percent in 1971 to 24.8 percent in 1981, it continues to be low and much below that achieved elsewhere, and as such it is unsatisfactory. In terms of total population, it may be noted that while a little over half the male population is illiterate, the illiterates among females account for over three fourths. It is thus evident that progress in literacy especially among the females, has not kept pace with the growth of population.

In a country like India, there is marked

demographic diversity. The state-wise variations in the literacy rates are indeed striking. For example, in Kerala state, the female literacy rate was 65.73 percent and in Rajasthan, it was only 11.42 percent. Female literacy rates below the national average of 25 percent were observed for eight states. The states include, Andhra Pradesh, Bihar, Haryana, Jammu & Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh.

If this variation is analysed region-wise for 1971 and 1981, it shows that with the exception of Andhra Pradesh, all other states in south have comparatively higher female literacy rate (Table No. A2&3). As against this in the north, barring Punjab and Himachal Pradesh all other states have very low female literacy rates. Punjab is supposed to be one of the places where girl's education had an earlier beginning than elsewhere¹⁵. In east except West Bengal, all other states exhibiting low female literacy rates can perhaps be grouped with the northern states, whereas West Bengal and western states (Gujarat & Maharashtra) exhibiting high female literacy rates may be grouped with the southern states. This grouping is true for all three

15. Agarwal, S.P., and J.C. Agarwal (ed.), Nehru on Social Issues (Concept Publishing Co., New Delhi), p.139.

time points, except in 1961, Himachal Pradesh had low female literacy rate (9.49%). Thus, there is not much significant change in the trend since 1961. Interestingly, for all three time periods, Kerala had the highest female literacy rates, 38.9 percent, 54.31 percent and 65.73 percent in 1961, 1971 and 1981 respectively. In 1961, Jammu & Kashmir had the lowest female literacy rate (4.26%) while Rajasthan had the lowest female literacy rates in 1971 and 1981 (8.46 percent and 11.42 percent respectively).

The proportion of women educated at higher levels is also very small. As there have been vast differences in literacy rates in different states of India, it would be useful to examine the level of education for the same period in these states (Table A3) The general trend in the quality of literacy is that literates tend to be more highly educated, on the average, in later census years. Categories of educational attainment used here are primary (completed primary but less than middle), middle (completed middle but less than matriculation or higher secondary), matriculation or higher secondary (completed matriculation or higher secondary but less than graduate) and graduates and above (bachelor's or higher). Typically, the proportion of

literate with primary education tends to decline, and the proportion of literates with matriculation or higher secondary or more education tends to increase. This was true for all-India and it also tends to be true for most of the 16 major states.

There are some interesting differences among the major states, however. For example, Kerala, despite its high level of female literacy (65.73 percent in 1981) had the lowest proportion of female literates (1.59 percent) in the graduate and above category, after Orissa (1.05 percent). On the other hand, Rajasthan, despite its low level of literacy (11.42 percent in 1981) had a comparatively high proportion of literates in the graduate and above category (3.90 percent). In 1981, Jammu and Kashmir and Uttar Pradesh had the highest proportion of female literates (4.76 percent and 4.55 percent respectively) in the graduate and above category. These two states were among those states which had the lowest female literacy rates in the country.

Evidently a mass education system need not have a high proportion of students going on to graduate-level education. Conversely, a system where only a small

proportion attend school, mainly from well-to-do families, may have a high proportion of students going on to graduate-level education¹⁶.

Female employment has been regarded as a central variable related to the improvement in women's status. Unfortunately, in India, as well as among all the states, generally female work participation rates¹⁷ are very low. Comparing the trends in female work participation rates in different states as well as India, a significant decline was noticed between 1961 and 1971 decade, whereas a slight increase was noticed between 1971 to 1981 decade, for most of the states. The participation rate in 1971 was, however, the lowest, but this fall cannot be attributed entirely to the observed secular trend, a major part of it seems to be result of change in the definition which became more stringent in the 1971 census.

In India, there are marked variations in the proportion of females in the work-force. During 1971-81, in

16. ORG & Census Commissioner India, Recent Literacy Trends in India, (Occasional Paper No.1 of 1987).

17.
$$\frac{\text{Work Participation Rate (Females)}}{\text{Total female population}} = \frac{\text{Total no. of female workers}}{\text{Total female population}} \times 100$$

the north except Madhya Pradesh (22.35%) and Himachal Pradesh (28.71%), all other states have much lower rates of female labour force participation as compared to south where they are fairly high. Andhra Pradesh had the highest female labour force participation rate (27.02%) followed by Maharashtra (23.98%). Nearly similar trend was observed for the 1961-71 period also. In the primary sector, the proportion of female workers has declined, while in the secondary and tertiary sectors, it has increased, though only marginally.

The participation of women in gainful employment seems to a great extent influenced by the observance of purdah. Report of the committee on the status of women (1974)¹⁸ revealed varying degrees of observance of Purdah and the highest percentage of Purdah was found in Haryana (72.6 percent) followed by Rajasthan (62.18 percent), Uttar Pradesh (46.4 percent) and Punjab (44.6 percent) and it was very low in southern states (Kerala 4.3 percent and 4.9 percent in Tamil Nadu).

18. ICSSR, Status of women in India, Report of the National Committee on the Status of the Women, 1974, Quoted in - Women's Contribution to India's Economic & Social Development (Ed. V.S. Mahajan), Deep & Deep Publications 1989, p.283

Quite a large part of explanation for low female participation rate also lies in the fact that most of the women are housewives, whose work is not counted as part of productive work on the ground that they are neither working, nor looking for jobs. This is in line with the tradition accepted for the calculation of national Income, wherein the work performed by housewives is excluded. However, this is bound to increase with the spread of education among females, change in attitudes towards work outside the house,¹⁹ and the development of the country.

The above analysis examined the position of women in India. Full details can be obtained from the Appendix (Table no. A-1, A-2 & A-3). To sum up, it reveals - a very slow rising female literacy rate with an overwhelming proportion of female population being illiterate, males outnumbering females, low but rising average age at marriage and a very low female work force participation rate. Overall barring few states, it depicts a very sad picture of women in our society.

19. Agarwal, A.N. 'Indian Economy - Problems of Development and Planning' (Wiley Eastern Limited, New Delhi), p.77.

CHAPTER - V

FACTORS INFLUENCING STATUS OF WOMEN

CHAPTER V

FACTORS INFLUENCING STATUS OF WOMEN -

an attempt at explanation

In this chapter, an attempt has been made to identify the factors that may have a bearing on the status of women. This chapter has been divided into three sections. Section 1 tries to examine the relationship that exists among various variables illustrated by the correlation matrices. Section 2 presents the factorial investigations which point out the significant variables relevant in each index in three separate time points. Section 3 A describes the relationship among the various indices and Section 3-B, analyses the ranking of the states considering different Indices and an over-all composite Index.

V.1 RELATIONSHIP AMONG THE VARIABLES:

This section seeks to analyse the magnitude and extent of correlation among the variables as depicted in respective correlation matrices.

Among the development variables, percent urban

population to total population (X_{11}) has significant positive correlation with per capita income (X_{29}) and per capita electricity consumption (X_{27}) which is true for all three time points. This reveals that the states which have high proportion of urban population have higher per capita incomes also. It may be because of the urbanisation and industrialisation that electricity consumption too is high. For the period 1971 and 1981, urbanization (X_{11}) is significantly positively correlated with motor vehicles per 10,000 population (X_{25}) at 1 percent level of significance, indicating that urban areas have a quite well-developed transport network.

Surfaced roads per 100 sq.km (X_{24}), which is an important infrastructural variable depicts a significant positive correlation with number of motor vehicles per 10,000 population (X_{25}) at 1 percent level of significance. The transport sectoral development has two dimensional development, one based on roads and the other on mode of transport. However, significant correlation was not observed for the 1971 and 1981 period between these two variable. Since there was not a proportionate increase in the surfaced roads per 100 sq.km as in the number of motor

vehicles per 10,000 population which registered a big increase during this period, a significant correlation was not found. In 1971, states having higher electrification of villages are found to have more surfaced roads which is indicated by their significant positive correlation at 1 percent level of significance. Significant positive correlation at 1 percent level of significance is found between electricity consumption (X_{27}) and per capita income (X_{29}) in all three time periods, which indicates that states having high per capita income consume more electricity per capita. In 1981, per capita income and percentage of villages electrified exhibit a significant positive correlation at 1 percent level of significance. This relationship can be explained very well if we consider the case of Punjab and Haryana which have sufficiently high per capita income as compared to other states and they have 100 percent villages electrification too. In most of the cases the result obtained (see table no.5.3) for correlation of development variables are positive. In few cases negative correlations have been found but very insignificant in magnitude. Theoretically speaking, since all the variables show development of different states, the correlation obtained should have been positive in value. Results

confirm theoretical expectation except few exceptions and negative correlations are found to have altered when one moves from 1960's to 1970's and to 80's. Interestingly in 1981, only in four cases very insignificant correlation have been obtained, it shows better results in recent years.

In constructing fertility Index, the variables considered are crude birth rate (X_{15}), general fertility rate (X_{19}), total fertility rate (X_{20}) and child-woman ratio (X_{21}). These are measures of fertility and theoretically, it is expected that all these variables be highly positively correlated which is also confirmed in the empirical results presented in table no.5.4. There were only two variables namely crude birth rate (X_{15}) child-woman ratio (X_{21}) for the 1961 period, and they exhibit significant positive correlation at 1 percent level of significance. As already mentioned, GFR and TFR were not included in this study for 1961, owing to non-availability of data. As expected, these variables are significantly positively correlated at 1 percent level of significance, which is true for all three time periods 1961, 1971 and 1981. Thus the nature of association between these variables are in keeping with general expectations.

Health Index consists of four variables, namely, crude death rate (X_{16}), life expectancy (X_{17}), infant mortality rate (X_{18}) and Hospital beds per 1000 population (X_{22}). It should be mentioned here that variable (X_{22}) (Hospital beds per 1000) population has been included to reflect the spread of medical facilities. Therefore, the two mortality variables viz., CDR (X_{16}) and IMR (X_{18}) exhibit a significant negative correlation with hospital beds per 1000 population in all three time periods. The improvement in the medical facilities in India has been one of the major factors in bringing down the death rate and raising the expectation of life at birth. Since, both crude death rate and infant mortality rate are measures of mortality, they have positive correlation. Generally, one finds that in the countries where infant mortality rate is high because of low level of development, the over-all crude death rate is also found to be high. As expected, life expectancy exhibits a positive relationship with hospital beds per 1000 population in all three time points but has got a significant positive correlation in 1961 and 1981 only at 5 per cent and 1 per cent level of significance. The infant mortality rate recorded an increase in 1971,

according to the data presented in table no.5.5 and this might have the reason for not finding significant correlation among life expectancy and hospital beds per 1000 population. It should be mentioned here that data for IMR for 1961 and 1971 have been collected from different sources, possibly varying in their reliability and exhaustiveness. Crude death rate exhibits a negative correlation with life expectancy, but significant negative correlation is found only in 1961 and 1981 at 1 per cent level of significance. This relationship indicates that with a fall in crude death rate, expectation of life at birth tends to rise. Thus, the type of association among the variables of the health index is, therefore, in the expected direction.

In 1961, only three variables have been considered for constructing Social Status of Women Index, whereas in 1971 and 1981 beside these, four other variables relating to different levels of educational attainment have been included. In all three time periods, female literacy rate (X_{13}) has a significant positive correlation with female age at marriage (X_{14}) at 1 per cent level of significance. Thus, a rise in the female literacy rate results in an increase in the female age at marriage. Education makes

Women aware of the pros and con of an early marriage. They will tend to marry later and will face higher "opportunity" costs in having children. They have a wider choice of extra familiar roles which will conflict with child bearing and a greataer ability to plan ahead in a rational way. A rise in the marriage age shortens the reproductive span and provides a conducive atmosphere for females to attain higher education. Sex ratio (X) in all three time periods exhibits a positive relationship but it is significantly correlated in 1971 and 1981 only, at 5 per cent level of significance. Female's education tends to improve their position in the family and in society. It also makes them realize their role in the society and in some cases they even become earning members in the family which save them from bad treatment and negligence. Thus, literacy can make conditions conducive for the balanced development of the child (without any sex-bias) as an individual and as a social being, and this may have a positive impact on the sexratio (number of females per 1000 males). Sex ratio has positive relation with female age at marriage also, but very low in magnitude. One of the policy measures adopted to control high growth of population is to increase female age at marriage and this can help the women to attain education.

The Government too lays stress on education for women. Hence, one will expect movement of female age at marriage and female education in the same direction. The results as given in table no. 5.6 & 5.7 confirms the above hypothesis.

Female age at marriage is positively affected by improvement in education. However, higher level of education does not seem to have a significant impact, infact the relationship comeout to be inverse which is absurd.

It is a fact that female education helps in increasing female age at marriage but in this analysis different levels of female education does not help much in this regards the proportion of literate females to total female population is very small and this does not give the expected results.

All the variables used for Economic status of Women Index are related to female workers in three sectors and their work participation rates. Since the share of female workers in primary, secondary and tertiary sectors add up to total female workers, increase in the share of female workers in one sector leads to decrease in the other. This implies a negative correlation among the shares of

different sectors. Empirical results obtained and shown in table no.5.8 indicate that percentage of female workers in the primary sector (X_{39}) has significant negative correlation with percentage of female workers in secondary sector (X_{40}) and tertiary sector (X_{41}) at 1 per cent level of significance, in the three time points, 1961, 1971 and 1981. It is interesting to note here that the states having higher share of female workers in secondary sector also have higher share in tertiary sector, and in all the three time periods they have significant positive correlation at 1 per cent level of significance. This shows that secondarisation and tertiarisation takes place simultaneously and they grow in complement with each other. In all industrially developed states in India, this phenomenon is found to be correct.

Female work participation (X_{48}) has significant positive correlation with percentage of female workers in primary sector (X_{39}) in all three time points but is negatively correlated with percentage of female workers in secondary (X_{40}) and tertiary sectors (X_{41}). This indicates that female employment is very high in primary sector. Secondary and tertiary sector employment depend on expertise

and technical skill which is found to be lacking with female workers and on the other hand, primary sector is subsistence in nature.

V.2 Factorial Investigations

1961 :- A perusal of the factor loadings in Table 5.9 for Development reveals that the first factor is dominated by percent urban population to total population, (X_{11}), Electricity consumption per capita (X_{27}) and Per capita income (current price) (X_{29}). These variables are highly correlated with factor I, which explains 34.8 percent variance. This indicates that States which are developed have a high percentage of urban population and high per capita income as well as per capita electricity consumption. The second factor accounts for 28.1 percent of the total variance. Factor II recorded high loading values only on two variables i.e., surfaced roads per 100 sq. km. and Motor vehicles per 10,000 population. These two variables are quite closely related. The transport sector development has two dimensional development, one based on roads and the other on mode of transport. Factor loadings on Factor III show that Percentage of villages electrified (X_{28}) is the dominant variable in it. Factor III explains only 16.9

percent of the total variance.

Due to non-availability of data in 1961, only two variables namely, crude birth rate (X_{21}) and child-woman ratio (X_{15}) constitute the Fertility Index. A cursory look at the factor loadings on Factor I given in the Factor Matrix reveals that these two variables together account for 89.3 percent of the total variance. The analysis of fertility-related variables is generally difficult because when strongly associated variables are put together as explanatory variables, it becomes impossible to determine their separate effects.

The factor matrix for health variables derived with the help of factor analysis brought out two variables with high factor loadings on Factor I, which explains 68.3 percent of total variance. These variables are life expectancy (X_{17}) and hospital beds for 1000 population (X_{22}). The variable X_{22} explains the spread of medical facilities. the relationship of these variables signifies that the states with higher number of hospital beds per 1000 population will also have a higher expectation of life at birth. However in this case the result is confirmed if one takes into consideration the negative loadings. One finds the

crude death rate (X_{16}) and infant mortality rate (X_{18}), also quite closely associated have high negative factor loadings on the first factor. This negative relationship indicates that states where medical facilities are well-spread and life expectancy is high, the crude birth rate and infant mortality rate would be low.

In 1961, only three variables constitute the Social status of women Index owing to non-inclusion of data on different educational attainment level of females. These three variables namely, sex ratio (X_{12}), female literacy rate (X_{15}) and female age at marriage (X_{14}) have high factor loadings on factor I which explains 60.7 percent of the total variance. Thus, the social status of women would be found high in 1961, in the states where the number of females for 1000 males, female literacy rate and female age at marriage too is high.

Economic status of women Index comprises of four indicators. Factor analysis brought out a factor matrix where in the first factor itself explained about 79.7 percent of total variance, and hence there was no need to compute the second and subsequent factors and the factor I could be taken as the composite index of the economic status

of women. The two variable with high factor loadings on factor I are percentage of female workers in secondary sector (X_{40}) and percentage of female workers in tertiary sector (X_{41}). Thus, in 1961 the economic status of women would be high in the states where the percentage of female workers in the secondary and tertiary sector is also high. As development takes place, there is a shift of the workers from the primary sector to secondary and tertiary sector. The two variable, with high negative factor loadings on factor I are percentage of female workers in the primary sector (X_{39}) and female work participation rate (X_{48}). Thus, the percentage of female workers in the primary sector and female work participation rates were not found to be responsible for high economic status of women.

Finally the overall composite Index which is composed of all the individual five indices discussed above, exhibits that the first factor is dominated by Development Index, Health index, social status of women index and economic status of women index., these indices together explain 44.9 percent of the total variance. Thus in 1961, the states which have a high ranking on the over-all composite index would be explained largely by the above four indices. Fertility was not found to be significant in Factor

I, whereas in factor II which explains 24.4 percent variance, fertility explained the bulk of variance.

1971 : Factor analysis of the 7 indicators reflecting economic development brought out five variables with high factor loadings on factor I, namely percentage of villages electrified (X_{28}) and Per capita income (X_{29}). Factor I explains 46.1 percent of the total variance. It is worth mentioning that in 1961, first factor explained only 34.8 percent of the total variance. It is quite expected as economic development takes place explanatory power of other variables will also tend to rise. A cursory look at the factor loadings on factor II given in the factor matrix (Table.5.15) reveals that there is no variable with high positive factor loadings, which explains 20.4 percent of the total variance. Factor III explains any 16.8 percent of total variance and is dominated by X_{26} that signifies Inhabitants per post office.

Four variables constitute the fertility index. Factor analysis of these four indicators generated a factor matrix, wherein the first factor itself explains about 85 percent of the total variance. All the four indicators are

found to be highly correlated with the fertility index. As mentioned earlier, these variables, crude birth rate (X_{15}) and general fertility rate (X_{19}), total fertility rate (x_{20}) and child woman ratio (X_{29}) are strongly associated variables of fertility as such they all have high factor loadings on factor I.

In the Health Index, the first factor explains 56.6 percent of total variance. Two variables namely crude death rate (X_{16}) and Infant mortality rate (X_{18}) have extremely high factor loadings on factor I. Hospital beds per 1000 population has high negative factor loadings on factor I. The relationship between spread of medical facilities and mortality rates thus found to be negative and as such it is in the expected direction. Factor II recorded high loading values only on one indicator i.e., expectation of life at birth (X_{17}). Second factor explains 25.1 percent of total variance. In 1961 Factor I alone explained 68.3 percent of the total variance, in which life expectancy and hospital beds per 1000 population recorded high factor loadings. In 1971 the situation has just reversed, the explanatory power of these two variables has declined while for mortality rates it has increased.

In 1971, various indicators reflecting different educational attainment level of female were also included in the social status of women Index. In all it comprises of 7 indicators. It is clearly evident from the factor matrix, three variable which have high factor loadings on factor I, explain bulk of the variance Factor I explains 43.6 percent of total variance. The variables are sex ratio (X_1), female literacy rate (X_{12}) and percentage of female literates having primary level education (X_{13}). In India, the level of literacy for females continues to be low and the proportion of educated females at higher levels is also very small, therefore matriculation/higher secondary level (X_{14}) and graduate & above level of education (X_{46}) recorded high negative factor loadings on factor I. The second factor is dominated by three variable, namely, female age at marriage (X_{14}), percentage of female literates attained matriculation/higher secondary level of education (X_{14}) and interestingly, female literacy rate (X_{16}) was found to be an explanatory variable in factor II also. Factor II explains 23.8 percent of total variance.

Four variables constitute the economic status of women Index. As can be seen from the factor matrix, two variables have high factor loadings on factor I which

explains 77.2 percent of total variance. Percentage of female workers in the secondary sector (X_{40}) and percentage of female workers in the tertiary sector (X_{41}) explain bulk of the variation in it. As in 1961, female work participation rate (X_{48}) and percentage of female workers in primary sector (X_{39}) registered high negative factor loadings. The pattern of association among these variables is in conformity with the general expectation.

Lastly, the over-all composite Index comprising of the indices discussed above is considered. The factor matrix reveals that factor I explains 44.0 percent of the total variance, recorded high factor loadings on Development Index and Social status of women Index. In 1961, Development Index, Health Index, Social status of women Index and Economic status of women Index dominated the factor I which explained 44.9 percent of variance. The explanatory power of Economic status of women Index has declined considerably possibly due to a large decline in the number of female workers in 1971 as a result of a change in definition of 'worker' which became more stringent in 1971. The Health Index and Fertility Index exhibit high negative factor loadings on factor I. In the Health Index in 1961,

life expectancy and hospital beds per 1000 population were the explanatory variables whereas in 1971 the bulk of the variance is explained by crude death rate and infant mortality rate. So negative correlation with factor I in 1971 is quite expected. The second factor accounts for 24.4 percent of total variance and as in 1961, is dominated by fertility Index.

1981: A cursory look at the factor loadings in Table 5.21 for development reveals that five variables dominate factor I. These variables are Percent urban population to total population (X_{11}), Motor vehicles per 10,000 population (X_{25}), Electricity consumption per capita (X_{27}), Percentage of villages electrified (X_{28}) and Per capita Income (X_{29}). The Factor I alone explains 51.8 percent of total variance. In 1961, three variable dominated factor I namely X_{11} , X_{27} and X_{29} and it explained 34.8 percent of total variance. In 1971, five variables X_{11} , X_{25} , X_{27} , X_{28} , and X_{29} explained 46.1 percent of total variance in factor I. Thus, these variable were significant in 1981 also and their explanatory power too increased, explaining 51.8 percent of total variance. Factor II explains about 20 percent of total variance, in which Inhabitants per post office (X_{26}) recorded high factor loadings. This variable

(X₂₆) did not prove to be a very significant explanatory variable for development, it recorded negative factor loadings on factor I in all three time points because instead of taking post offices per 1000 population, Inhabitants per post office has been considered.

In the Fertility Index, all the four indicators of fertility exhibit high factor loadings on factor I. Since these are very closely related variables, it is very difficult to determine their separate effects. Factor I itself explains as high as 88.4 percent of the total variance.

A perusal of the factor loadings on factor I is given in the factor matrix for health variables exhibits extremely high values for crude death rate (X₁₆) and Infant mortality rate (X₁₈). The first factor alone explains 90.3 percent of the total variance and hence computing of second factor and subsequent factors was not required. Two variable namely, life expectancy (X₁₇) and hospital beds per 1000 population (X₂₂) registered high negative factor loadings on factor I. Thus, crude death rate and infant mortality rate show a negative relationship with life expectancy and hospital beds per 1000 population. The pattern of

association among these variables seem to be in conformity with the general expectation.

As in 1971, seven variables constitute the social status of women Index in 1981. It is clearly evident from the factor matrix, four variables namely, Sex-ratio (X_{12}), Female literacy rate (X_{13}), Female age at marriage (X_{14}) and Percentage of female literates attained middle level education (X_{45}) have high factor loadings on factor I. The factor I explains 42.8 percent of the total variance. In 1971, three variables dominated factor I which explained 43.6 percent of variance. Female age at marriage (X_{14}) as in 1981, did not have high factor loading on factor I instead percentage of female literates attained primary level education (X_{44}) had high factor loadings on factor I which was not found in 1981. Its possible explanation lies in the general trend that is observed in the quality of literacy that literates tend to be more highly educated, on the average in later census years. In India during 1971-1981 it was found that the proportion of literates with primary education tends to decline and the proportion of literates in higher levels tends to increase. It was true for all-India and most of the states under consideration. Factor II

explains 26.8 percent of total variance, dominated by three variables namely female age at marriage (X_{14}), percentage of female literates attained Matriculation/Higher secondary level (X_{46}) and Graduate and above level of education (X_{47}). Factor I and Factor II together explained 69.6 percent of the variance.

Factor analysis of the indicators of Economic status of women Index brought out two variables, X_{40} (Percentage of female workers in secondary sector) and X_{41} (Percentage of female workers in tertiary sector), explaining bulk of the variance. Factor I explains 72.1 percent of the total variance. This indicates that states with high economic status of women will have a high percentage of women in secondary and tertiary sectors. On the other hand, factor 1 has negative factor loadings for X_{39} (Percentage of female workers in primary sector) and X_{48} (female work participation rate). Similar trend was observed for 1971 also.

Finally, a perusal of the factor loadings factor I given in the factor matrix (Table.5.26) for the over-all composite Index comprising of the Indices discussed above reveals that the first factor is primarily dominated by

socio-economic characteristics. Development Index, Social status of women Index and Economic status of women Index have high factor loadings on factor I, which itself explains nearly 60 percent of the total variance. Among these indices, Economic status of women Index was not a significant explanatory factor in first factor in 1971.

V.3A RELATONSHIP AMONG THE INDICES

Having identified the dominant socio economic, demographic and fertility variables i.e. the variables which explained maximum variance in the respective indices, through factorial investigations in the previous section, the next step involves the analysis of different Indices and their inter-relationship.

This analysis will help in forming a clear and comprehensible picture of multidimensional relationships between important aspects of status of women and different parameters of economic development, health and fertility. Thus, an attempt has been made here to find out whether there is any significant correlation between socio-economic status of women and other selected variables composed in separate Indices and how this correlation coefficient

changes over time?

A glance at table no.5.27, which exhibits the correlation for the 1961 period reveals that economic development Index has significant positive correlation with social status of women Index at 5 percent level of significance. This indicates that with development, the social status of women tends to rise. Development Index depicts a positive relationship with health Index and economic status of women Index also. The health Index in 1961 had life-expectancy and hospital beds per 1000 population as the dominant variables, and these tend to increase with economic development. This relationship is in the expected direction. Development exerts a positive effect on economic status of women also. This means that with development, concentration of female workers in secondary and tertiary sectors register an increase. Unexpectedly, development show a positive relationship with fertility too, though it is very low in magnitude. Its possible explanation lies in the fact that during this period planned development was introduced in the country, so the effect of development was not felt much on fertility, which was quite high during

that stage. Simon (1977)¹ explained the partial and the total effect of economic development on fertility. He viewed the short-run effects of income on fertility as partial and the long-run effect via other fertility affecting variables as total. The partial effect of income or economic development on fertility refers to the direct or immediate impact in the short-run whereas the total effect consists of direct as well as indirect effects generated through other related social changes induced by economic development. The complex factor of modernisation ensuing from economic development dominates the negative relationship between fertility and income in cross-sectional and long-run temporal data whereas in the short run time series data, the modernisation variable does not over shadow the positive effect of income on fertility.

On the other hand, fertility is found to be influenced negatively by social status of women. Fertility Indexed has significant negative correlation with social status of women Index at 5 percent level of significance. Many studies have found inverse association between female

1. Simon, Julion L, The Economics of Population Growth, (Princeton University, Princeton, 1977), Quoted in S.C. Gulati, Fertility in India (Sage Publications, New Delhi, 1988), p.31.

literacy and fertility and an important intermediate variable in the relationship between the two is - age at marriage. Fertility has negative relationship with women work-force participation. This indicates that higher the number of women engaged in the secondary and tertiary sector, lower would be the fertility. The nature of association between the three are in keeping with general expectations.

Health Index exhibits a positive correlation with economic as well as social status of women in India. This just shows that where the quality of life is good, the number of educated women, the number of females per 1000 males and female workforce participation would be high. Lastly, social status of woman Index depicts a high significant correlation with economic status of women Index at 1 percent level of significant. Unlike in primary sector, employment in secondary and tertiary sector require a certain level of education. Since the female workforce participation in secondary and tertiary sectors were the two dominant variables in the economic status of women Index, this relationship is in conformity with the general expectation.

The results of the 1971 data are presented in table no.5.28 reveals a significant negative correlation between Development Index and Health Index at 5 percent level of significance. This is in sharp contrast to the 1961 period, where these two Indices showed a positive relationship. Its explanation lies in the different set of variables that explained the maximum variance in Health Index in 1961 and 1971. As had been mentioned earlier, in 1961 life expectancy and hospital beds per 1000 population were the dominant variables while in 1971, crude death rate and infant mortality rate were the dominant variables. Unlike in 1961, development exhibits a negative relationship with fertility also in 1971. By and large it is expected that an increasing level of development would result in a decline in fertility and mortality rates. The theory of demographic transition explains the changes as follows; In the initial stages of development, both fertility and mortality rates are high. As development begins, the mortality rate declines. After a lag of some time, the fertility rate also begins to decline. Eventually at a higher level of development, both stabilise at lower level. Our country is still in the developing stage, so a negative relationship between

fertility and development do exist but it is not as significant as in case of mortality and development. As in 1961, Economic status of women Index and Social status of women Index show a positive relationship with development. In 1961, social status of women had a high positive correlation with development at 5 percent level of significance, which was not found in 1971. In 1971, different levels of female's education attainment were included in the social status of women Index. Despite steady progress in development, proportion of women at higher level of education is very low. Out of the total female literates in 1971, only around 9 percent attained Matriculation and higher level of education. Therefore, the impact of development when categories of educational attainment were not included in 1961 was more pronounced than in 1971.

Fertility Index exhibits a significant positive correlation with Health Index significant at 5 percent level of significance. This relationship shows that places where mortality level is high, fertility level too is high. A number of studies have found a positive relationship between mortality especially infant mortality and fertility. Heer & Smith have been able to demonstrate that, in the face of high mortality, parents who want to assure that a tangible

number of their children survive to adulthood will have to² give birth to more children than they might otherwise want . This has led many to the conclusion that a substantive decline in mortality and especially in infant mortality must³ be a precondition for changes in fertility behaviour . On the other hand, fertility Index exhibits a highly significant negative correlation with social status of women. Index at 1 percent level of significance, while in 1961 it was correlated at 5 percent level of significance. In 1971, beside other variables that were in 1961, levels of educational attainment was also included. Since there exists a inverse association between fertility and education, addition of literacy related variables further strengthened the negative relationship.

Surprisingly, a positive relationship between social status of women Index and economic status of women Index do exist, but it is not significantly correlated. It is in sharp contrast to one 1961 period,, when it was

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2. Heer, David M., and Dean O Smith, "Mortality Level, Desired Family Size & Population Increase". Demography 5:1, 1968, pp. 104-121.
 3. Notestein, Frank, "The Problem of Population Control" in P. Hauser (ed.) - "The Population Dilemma", (Princeton Hall, New Jersey, 1969).

highly **positively** correlated at 1 percent level of significance. It may have occurred due to two reasons. Firstly, the inclusion of different levels of educational attainment for females in 1971 in social status of women Index weakened the relationship. Since more than 80 percent of Indian women are engaged in the primary sector which has nothing to do with literacy. So adding more literacy variables did not have an positive impact. Secondly the change in the definition of worker in 1971 had an drastic effect on female work participation rate. In 1961, female work poarticipation rate was 27.96 percent which was reduced to just 11.85 percent in 1971. The definition of worker became more stringent in 1971 which resulted in an decline in female workers.

The table no.5.29 illustrates the results for 1981. It reveals a significant correlation between Development Index and other Indices except Social Status of Women Index. Fertility shows a significant negative correlation with development at 5 percent level of significance. In 1961, development had posttiive relationship with fertility though the correlation value was very low while in 1971 it had negative relationship. As has been already explained, in

the initial stages of economic development there is little or no effect on fertility. Then slowly after a lag of time it starts declining. Though no single factor can be held responsible for this fertility decline. Infact it is the combined effect of several factors related to development which effect fertility, to name a few, Industrialization, urbanisation, raising levels of living and increased cost of bringing up children. As in 1961, Development Index is significantly negatively correlated with Health Index at 5 per cent level of significance. Similarly, positive relationship exists between development and social status of women.

Interestingly, in 1981 a significant positive correlation between Development Index and Economic Status of Women Index was found at 5 per cent level of significance. Such an relationship was absent in 1971 and 1961. With a steady progress in development, there is generally a shift of workers from primary to secondary and tertiary sectors. This might have been the reason for a significant positive relationship that is noticed for the 1981 period only. In 1981, it was observed that in the primary sector, the proportion of female workers has declined, while in the secondary and tertiary sectors, it has increased, though

marginally. This was true for most of the major states in 1981.

As in 1971, fertility Index has a significant positive correlation with health Index and a significant negative correlation with social status of women Index. Both are significantly correlated at 1 per cent level of significance. For all the three time periods - 1961, 1971 and 1981, a negative relationship was observed between fertility and Economic status of women but it is not significantly correlated. Female work participation provides an alternative identity to motherhood and their work may conflict with child bearing and will face higher 'opportunity' costs in having children, which thereby exerts a negative influence on fertility. Many studies have shown that labour force participation per se may not be so important as the type of employment that is engaged in by the women. Greater participation of women in non-traditional roles of economic activity has been found to have a significant impact on fertility. Since more than 80 per cent of women workers in India are employed in the primary sector, proportion of women workers is very small in secondary and tertiary sectors, the negative relationship

between fertility and economic status of women was not a significant one.

The exact nature of this relationship is not yet known. It is that women who have smaller number of children tend to take paid jobs outside their homes, or is it that those who have already paid jobs restrict their family size to the very minimum, so that they can work? It is difficult to say anything firmly⁴.

In 1971, a negative relationship was observed between Health Index and Social and Economic Status of Women Index. However in 1981, a significant negative correlation is noticed for Health Index and Social and Economic status of Women Index. The former is correlated at 1 per cent level of significance and the latter at 5 per cent level of significance. Many studies have pointed out that the educational attainment of parents, especially that of mothers, have a significant relationship with mortality levels, especially Infant mortality rate. This relationship tends to be strong at higher levels of education. In Greater Bombay, it was observed in 1966, that the levels of

4. Bhende, Asha A and Mrs Tara Kanitkar - 'Principles of Population Studies' (Himalaya Publishing House, Bombay, 1988), p.272.

infant mortality were highly influenced by the literacy and educational attainment of them others. The infant mortality rate was the highest for infants of illiterate mothers and the lowest for infants whose mothers had either passed the matriculation examination or had higher educations.⁵ In 1981, a appreciable increase was noticed in female literacy rate (from 18.7 per cent in 1971, it rose to 24.82 per cent in 1981). It was also found that the proportion of literate with primary education declined, and the proportion of literate with martrication or higher secondary or more education increased. This might have resulted in further strengthening the negative relationship between mortality and social status of women.

As already mentioned, Health Index depicts a significant negative correlation with Economic status of Women Index, at 5 per cent level of significance in 1981, which was not found for the 1971 period. With a steady progress in economic development there is a fall in the death rate and new avenues open up for work. Participation

5. Ruzicka, Ladislav T. and Tara Kanitkar, "Infant mortality in an Urban Setting: The Case of Greater Bombay" in K.E. Vaidyanathan (ed.) Studies in Mortality in India, Gandhigram: The Gandhigram Institute of Rural Health and Family Planning, 1972, p.200.

in primary sector decrease while in secondary and tertiary sector it increase. Since, in the Economic status of Women Index, the variables representing percentage of female workers in the secondary and tertiary sectors explain maximum variance, from this one can infer that females employed in these sectors would experience low mortality levels. Occupation may influence death-rate by providing income and raising her standard of living. Both income and occupation may influence her diet, her housing conditions and habits.

REGRESSION RESULTS

	X ₂₃ (Communication)	X ₃₀ (Crime)
1961	.09* (6.319)	- .53*** (-2.182)
1971	.06 (.910)	- .58 (-.694)
1981	.02*** (1.901)	- .45** (-2.304)

* Level of significance = 1 percent
 ** Level of significance = 5 percent
 *** Level of significance = 10 percent

Figures in bracket = T value.

Since one variable each represented crime and communication level, it could not be included in the factor analysis. Their relationship with social status of women has, therefore been analysed through regression analysis. Newspaper per 1000 population represents communication. The impact of crime has been studied through cognizable crimes reported per 1000 population. The results for three time periods reveal that except in 1971, communication exerts a positive effect on social status of women while crime has a negative effect on social status of women in India. In 1971 regression coefficient values were found to be statistically insignificant. Thus it can be said that availability of wide network of communication enhances the social status of women while a high crime rate reflects low social status of women.

V. 3B LEVELS OF SOCIO-ECONOMIC DEVELOPMENT AND STATUS OF WOMEN

Various Indices were calculated using the principle component method for all three time periods and the states have been assigned different ranks on the basis of the value of the Indices. There are five indices, viz., Development Index, Fertility Index, Health Index, Social status of Women Index and Economic status of Women Index and

on the basis of these an over-all composite Index was generated. The results are analysed below for each Index separately.

DEVELOPMENT INDEX

A glance at table no.s 5.30, 5.31 and 5.32 do not reveal any significant change in the rankings in the Development Index during the three time periods. In 1961, the states which were accorded high ranks are Maharashtra (1), West Bengal (2), Tamil Nadu (3), Gujarat (4), Punjab (5) and so on. Thus, Maharashtra occupied the first place in 1961, occupied the same place in 1971 also but in 1981 it was pushed to second place by Punjab. West Bengal which occupied second place in 1961 was surprisingly pushed to seventh place and further down to ninth place in 1971 and 1981 respectively. The development in this state was very slow as compared to other states especially Punjab and Haryana which made great strides forward in the last two decades. Tamil Nadu held third place in 1961 and 1971, closely followed by Gujarat. However, in 1981, it went down behind Gujarat and Haryana. Thanks to the green revolution in the sixties, Punjab and Haryana have become one of the most prosperous states in India. These states ~~have~~ have

achieved 100 per cent electrification of villages and the per-capita income too is among the highest. The high ranking states like Maharashtra, Tamil Nadu, Gujarat and Punjab are also the states of greater urbanization.

On the other hand, the states which were assigned the lowest ranks in the three time points, too do not show any significant change. In 1961, the lowest ranked states were Rajasthan (12), Madhya Pradesh (13), Uttar Pradesh (14), Orissa (15) and Bihar (16). Orissa and Bihar remained at the bottom in 1971 and 1981 also. These states are still dormant and not much developmental activities have taken place. Jammu and Kashmir in 1971 and Himachal Pradesh in 1981 were among the lowest five ranked states, while Uttar Pradesh, Madhya Pradesh, Orissa and Bihar in all three time periods were among the lowest ranked states in India. The low ranking of these states points towards their economic backwardness indicated by low per capita income and low level of urbanization.

FERTILITY INDEX

A perusal of the rankings in Table no. 5.32 for fertility reveals the regional dichotomy between the north

and south in terms of fertility. There has been quite a number of changes in the ranking of the states. In 1961, highest fertility according to the ranks assigned to various states, was found in Haryana (1), Punjab (2), Gujarat (3), Rajasthan (4) and Madhya Pradesh (5). However, in 1971 and 1981 Uttar Pradesh occupied the topmost position. There was a appreciable decline in the rankings of Punjab and Gujarat. Infact, in 1981 Punjab was amongst the five low ranked states which recorded low fertility. The states which exhibited high fertility rates and were accorded highest ranks in 1971 and 1981 are Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh and Haryana. A multiple number of factors may be responsible for this, making it difficult to single out the particular factor influencing fertility but industrialisation, urbanisation and socio-economic factors which include educational attainment and economic status have everywhere found to have lowered the rate of fertility. The low fertility states according to their ranks in 1961 were Jammu & Kashmir (12), Kerala (13), Orissa (14), Andhra Pradesh (15). and Tamil Nadu (16). In 1981, Kerala replaced Tamil Nadu to occupy the last position, mainly due to a rapid fertility decline in the last two decades. In 1981, the ranking of the states is as follows - Andhra Pradesh

(11), Punjab (12), Karnataka (13), Maharashtra (14), Tamil Nadu (15) and Kerala (16). Thus on the basis of the above rankings of fertility Index the country can be roughly divided into two major regions, namely, north and south. Over all in the northern states fertility level is higher than the southern states and the eastern and western states can be grouped along with the southern states.

HEALTH INDEX

In the Health Index in 1961 the highest ranked states were Kerala (1), Jammu and Kashmir (2), Himachal Pradesh (3), Haryana (4) and West Bengal (5). In 1971, the ranking were completely reversed. The states which were ranked very low in 1961, were having high ranks in 1971. The high rankings states in 1971 were Uttar Pradesh (1), Orissa (2), Madhya Pradesh (3), Bihar (4) and Gujarat (5). the change in the ranking occurred mainly due to a change in the explanatory variables in Health Index. In 1961, the explanatory variables were life expectancy and hospital beds per 1000 population. In 1971 the situation just reversed, the explanatory power of these variables declined while for mortality rates (CDR and IMR) it increased. Kerala which occupied the highest rank in 1961,

was placed at the bottom in 1971 and 1981. This is simply because Kerala has the lowest crude death rate and infant mortality rate and highest life expectancy and hospital beds per 1000 population. In 1971 and 1981, Uttar Pradesh, Madhya Pradesh, Orissa, Bihar, Rajasthan were the highest ranked states which shows that mortality level is very high there. The low ranked states during the same period are - Kerala, Punjab, Maharashtra, Karnataka, Jammu and Kashmir and Haryana. In these states, quality of life is good with comparatively low mortality levels and high expectation of life at birth.

SOCIAL STATUS OF WOMEN INDEX

A perusal of the rankings in the Social status of Women Index reveals wide disparity in the northern and southern regions. In 1961, the states where social status of women was found to be the highest are Kerala (1), Maharashtra (2), Tamil Nadu (3), Karnataka (4) and Orissa (5). On the other hand, the lowest ranked states in the Index for social status of women are Madhya Pradesh (12), Uttar Pradesh (13), Jammu and Kashmir (14), Haryana (15) and

Rajasthan (16). In all the three time periods, Kerala retained the first rank which shows that social status of women is very high there. In 1971 and 1981, the other states where social status of women was found to be high are Tamil Nadu, Karnataka, Orissa, Himachal Pradesh and Andhra Pradesh. These states have comparatively high sex-ratio (number of females per 1000 males), high female literacy rate and high average age at marriage. On the other hand, the low ranking states did not depict any significant change since 1961. These states have a low and adverse sex-ratio, low female literacy rate and low average age at marriage.

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ECONOMIC STATUS OF WOMEN INDEX

As described earlier, the explanatory variables in the Economic status of Women Index in all three time periods were percentage of female workers in secondary sector and percentage of female workers in tertiary sector. Thus, the states where proportion of female workers engaged in these two sectors is high, would be depicted by high ranks. In 1961, the economic status of women was found to be the highest in Kerala (1), Punjab (2), West Bengal (3), Tamil

Nadu (4) and Orissa (5). In the following next two decades the position of Kerala declined slightly and in 1981 it was placed at second position behind Punjab. In 1971 and 1981, the other states which exhibited high economic status are West Bengal, Haryana and Jammu and Kashmir. In Punjab, though female work participation rate is very low (1.18 per cent and 2.27 per cent in 1971 and 1981 respectively) but still it had a high rank because it has a very high percentage of women workers in secondary and tertiary sectors (17.23 per cent and 65.59 per cent in 1971 and 14.77 per cent and 52.98 per cent in 1981 in secondary and tertiary sectors respectively). The states which were assigned the lowest ranks in the Economic status of women index in 1961 were Maharashtra (12), Rajasthan (13), Madhya Pradesh (14), Jammu and Kashmir (15) and Himachal Pradesh (16). There was not much change in these rankings in the next two decades except a change in the rankings of Jammu and Kashmir. It was replaced by Bihar in the five lowest ranked states in the Economic status of women index. In all the three time periods, Himachal Pradesh remained at the bottom, which signifies that economic status of women is very low in Himachal Pradesh.

COMPOSITE INDEX

On the basis of all the Indices discussed above, an over-all composite index was generated. As expected Kerala has the top most rank in all the three time points. This is obvious because Kerala has the lowest fertility and mortality rates, high literacy level, high age at marriage and life expectancy. In 1961, besides Kerala, other states which had highest ranks are Tamil Nadu, West Bengal, Maharashtra and Punjab. On the other hand, the lowest ranked states for the same period are Himachal Pradesh, Rajasthan, Uttar Pradesh, Madhya Pradesh and Bihar. These states have low female literacy, low female age at marriage high crude birth rate and crude death rate, low life expectancy, high infant mortality rate and child-woman ratio. low per capita income and a high proportion of female workers in primary sector. In 1971 and 1981. the highest ranked states do not show any marked change in the rankings. Except Punjab all high ranked states are southern states - Kerala. Tamil Nadu, Maharashtra and Karnataka. Even the lowest ranked states did not depict any significant change. In 1981, the five lowly ranked states were Orissa (12), Madhya Pradesh (13), Rajasthan (14), Bihar (15) and Uttar

Pradesh (16). Their ranks signify the low level of socio-economic development in these states.

Table - 5.1
CORRELATION MATRIX : DEVELOPMENT VARIABLES

1961	X ₁₁	X ₂₄	X ₂₅	X ₂₆	X ₂₇	X ₂₈	X ₂₉
Percent urban population to total population (X ₁₁)	1.0000						
Surfaced roads per 100 sq.km. (X ₂₄)	-.29783	1.00000					
Motor vehicles per 10,000 population (X ₂₅)	-.04551	.83829*	1.0000				
Inhabitants per post office (X ₂₆)	.06094	.09216	.21152	1.0000			
Electricity consumption per capita (X ₂₇)	.54993**	-.06168	.31981	.02879	1.0000		
Percentage of villages electrified (X ₂₈)	.19135	-.05273	-.01610	-.24820	.16535	1.0000	
Per capita income (current price) (X ₂₉)	.75540*	-.06511	.28811	-.09870	.67278*	.04421	1.00

* Level of significance = 1 per cent

** Level of significance = 5 per cent.

Table - 5.2

CORRELATION MATRIX : DEVELOPMENT VARIABLES

1971	X ₁₁	X ₂₄	X ₂₅	X ₂₆	X ₂₇	X ₂₈	X ₂₉
Percent urban population to total population (X ₁₁)	1.0000						
Surfaced roads per 100 sq.km. (X ₂₄)	.13243	1.0000					
Motor vehicles per 10,000 population (X ₂₅)	.61082*	.29645	1.0000				
Inhabitants per post office (X ₂₆)	.03519	-.10941	.11918	1.0000			
Electricity consumption per capita (X ₂₇)	.69347*	.21404	.60121*	-.16685	1.0000		
Percentage of villages electrified (X ₂₈)	.30448	.65753*	.21151	-.25800	.38779	1.0000	
Per capital Income (Current price) (X ₂₉)	.5381/**	.08670	.51813**	-.37325	.79609*	.25004	1.0000

* Level of significance = 1 per cent

** Level of significance = 5 per cent.

Table - 5.3

CORRELATION MATRIX : DEVELOPMENT VARIABLES

1981	X ₁₁	X ₂₄	X ₂₅	X ₂₆	X ₂₇	X ₂₈	X ₂₉
Percent urban population to total population (X ₁₁)	1.0000						
Surfaced roads per 100 sq.km. (X ₂₄)	.05294	1.0000					
Motor vehicles for 10,000 population (X ₂₅)	.60228*	.08590	1.0000				
Inhabitants per post office (X ₂₆)	.17393	.399204	-.10547	1.0000			
Electricity consumption per capita (X ₂₇)	.71246*	.06538	.83528*	.4885	1.0000		
Percentage of villages electrified (X ₂₈)	.44148**	.31084	.5481/**	-.16665	.62669*	1.0000	
Per capita income current price) (X ₂₉)	.50152**	-.12268	.75/92*	-.04664	.85621*	.58242*	1.0000

* Level of significance = 1 per cent

** Level of significance = 5 per cent.

Table - 5.4

CORRELATION MATRIX : FERTILITY VARIABLES

1961	X ₁₅	X ₂₁		
Crude birth rate (X ₁₅)	1.0000	-		
Child-woman ratio (X ₂₁)	.78526*	1.0000		

1971	X ₁₅	X ₁₉	X ₂₀	X ₂₁
Crude birth rate (X ₁₅)	1.0000			
General fertility rate (X ₁₉)	.83502*	1.0000		
Total fertility rate (X ₂₀)	.87063*	.89846*	1.0000	
Child-woman ratio (X ₂₁)	.71862*	.74538*	.73774*	1.0000

1981	X ₁₅	X ₁₉	X ₂₀	X ₂₁
Crude birth rate (X ₁₅)	1.0000			
General fertility rate (X ₁₉)	.82127*	1.0000		
Total fertility rate (X ₂₀)	.82249*	.98003*	1.0000	
Child woman ratio (X ₂₁)	.67319*	.87143*	-.88726*	1.0000

* Level of significance = 1 per cent

** Level of significance = 5 per cent

Table-5.5

CORRELATION MATRIX : HEALTH VARIABLES

1961	X_{16}	X_{17}	X_{18}	X_{22}
Crude death rate (X_{16})	1.0000			
Life expectancy (X_{17})	-.93513*	1.0000		
Infant mortality rate (X_{18})	.39837	-.22149	1.0000	
Hospital roads per 1000 population (X_{22})	-.73997*	.5557/**	-.48681**	1.0000

1971	X_{16}	X_{17}	X_{18}	X_{22}
Crude death rate (X_{16})	1.0000			
Life expectancy (X_{17})	-.10364	1.0000		
Infant mortality rate (X_{18})	.86128*	-.03239	1.0000	
Hospital roads per 1000 population (X_{22})	-.52289**	-.15357	-.44916**	1.0000

1981	X_{16}	X_{17}	X_{18}	X_{22}
Crude death rate (X_{16})	1.0000			
Life expectancy (X_{17})	-.91468*	1.0000		
Infant mortality rate (X_{18})	.92395*	-.89736*	1.0000	
Hospital roads per 1000 population (X_{22})	-.82582*	.84841*	-.81121*	1.0000

* Level of significance = 1 per cent

** Level of significance = 5 per cent.

Table - 5.6

CORRELATION MATRIX : SOCIAL STATUS OF WOMEN

1961	X_{12}	X_{13}	X_{14}				
Sex ratio (X_{12})	1.0000						
Female literacy rate (X_{13})	.35285	1.0000					
Female age at marriage (X_{14})	.17099	.64997*	1.0000				

1971	X_{12}	X_{13}	X_{14}	X_{44}	X_{45}	X_{46}	X_{47}
Sex ratio (X_{12})	1.0000						
Female literacy rate (X_{13})	.44075*	1.0000					
Female age at marriage (X_{14})	.21190	.83732*	1.0000				
Educational attainment (%)							
Primary level (f) (X_{44})	.31224	.18625	.24872	1.0000			
Middle level (f) (X_{45})	-.00998	.03192	.02902	.00943	1.0000		
Matriculation/H.Secondary level (X_{46})	-.64697*	-.09746	.15545	-.37194	.09042	1.0000	
Graduate & above (f) (X_{47})	-.83357*	-.40331	-.26544	-.41798**	.09983	.13626*	1.0000

* Level of significance = 1 per cent

** Level of significance = 5 per cent.

Table - 5.7

CORRELATION MATRIX : SOCIAL STATUS OF WOMEN

1981	X ₁₂	X ₁₃	X ₁₄	X ₄₄	X ₄₅	X ₄₆	X ₄₇
Sex ratio (X ₁₂)	1.0000						
Female literacy rate (X ₁₃)	.49990**	1.0000					
Female age at marriage (X ₁₄)	.30705	.81058*	1.0000				
Educational attainment (%) Primary level (f) (X ₄₄)	.13170	.36456	.37120	1.0000			
Middle level(f) (X ₄₅)	.37341	.34499	.40704	.03045	1.0000		
Matriculation/Higher secondary Level (X ₄₆)	-.47413**	.07210	.32170	.04079	.06552	1.0000	
Graduate and above (f) (X ₄₇)	-.86965*	-.36170	-.22338	-.08688	-.39526	.56401*	1.0000

* Level of significance = 1 per cent

** Level of significance = 5 per cent.

Table - 5.8
CORRELATION MATRIX : ECONOMIC STATUS OF WOMAN

<u>1961</u>	X ₃₉	X ₄₀	X ₄₁	X ₄₈
Percentage of female workers in primary sector(X ₃₉)	1.0000			
Percentage of female workers in secondary sector (X ₄₀)	-.85950*	1.0000		
Percentage of female workers in Tertiary sector (X ₄₁)	-.98837*	.77178*	1.0000	
Female work participation rate (X ₄₈)	.60888*	-.45616**	-.62194*	1.0000

<u>1971</u>	X ₃₉	X ₄₀	X ₄₁	X ₄₈
Percentage of female workers in primary sector(X ₃₉)	1.0000			
Percentage of female workers in secondary sector (X ₄₀)	-.87709*	1.0000		
Percentage of female workers in Tertiary sector (X ₄₁)	-.96775*	.72780*	1.0000	
Female work participation rate (X ₄₈)	.55100**	-.37021	-.59259*	1.0000

<u>1981</u>	X ₃₉	X ₄₀	X ₄₁	X ₄₈
Percentage of female workers in primary sector(X ₃₉)	1.0000			
Percentage of female workers in secondary sector (X ₄₀)	-.77702*	1.0000		
Percentage of female workers in Tertiary sector (X ₄₁)	-.96516*	.58524*	1.0000	
Female work participation rate (X ₄₈)	.51028**	-.28273	-.53974**	1.0000

* Level of significance = 1 per cent

**Level of significance = 5 per cent.

Table - 5.9

FACTOR MATRIX : DEVELOPMENT INDEX

<u>1961</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	<u>FACTOR III</u>
Percent urban population to total population (X_{11})	.85099	-.27044	-.16362
Surfaced roads per 100 sq.km(X_{24})	-.09924	.93019	.24229
Motor vehicles for 10,000 population(X_{25})	.28318	.93597	.11809
Inhabitants per post office (x_{26})	-.01644	.32477	-.74588
Electricity consumption per capita (X_{27})	.85025	.09509	-.01448
Percentage of village electrified (X_{28})	.24287	-.18666	.72581
Per capita income (current price) (X_{29})	.91613	.02956	-.05063
TOTAL VARIANCE EXPLAINED	34.8	28.1	16.9 TOTAL= <u>79.8</u>

Table - 5.10

FACTOR MATRIX : FERTILITY INDEX

<u>1961</u>	<u>FACTOR I</u>	<u>FACTOR II</u>
Crude birth-rate (X ₁₅)	.94479	
Child-woman ratio (X ₂₁)	.94479	
TOTAL VARIANCE EXPLAINED	89.3	TOTAL = <u>89.3</u>

Table - 5.11

FACTOR MATRIX : HEALTH INDEX

	<u>FACTOR I</u>	<u>FACTOR II</u>
Crude death rate (X ₁₆)	-.96359	
Life expectancy (X ₁₇)	.86686	
Infant mortality rate (X ₁₈)	-.57193	
Hospital beds per 1000 population (X ₂₂)	.85098	
TOTAL VARIANCE EXPLAINED	68.3	TOTAL = <u>68.3</u>

Table - 5.12

FACTOR MATRIX : SOCIAL STATUS OF WOMEN INDEX

<u>1961</u>	<u>FACTOR I</u>	<u>FACTOR II</u>
Sex-ratio (X ₁₂)	.56152	
Female literacy rate(X ₁₃)	.90134	
Female age at marriage (X ₁₄)	.83185	
TOTAL VARIANCE EXPLAINED	60.7	TOTAL = <u>60.7</u>

Table - 5.13

FACTOR MATRIX : ECONOMIC STATUS OF WOMEN INDEX

	<u>FACTOR I</u>	<u>FACTOR II</u>
Percentage of female workers in Primary Sector (X ₃₉)	-.98170	
Percentage of female workers in secondary sector (X ₄₀)	.87686	
Percentage of female workers in tertiary sector (X ₄₁)	.96048	
Female work participation rate (X ₄₈)	-.72932	
TOTAL VARIANCE EXPLAINED	79.7	TOTAL = <u>79.7</u>

Table - 5.14

FACTOR MATRIX : OVER-ALL COMPOSITE INDEX

<u>1961</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	
Development Index	.66880	.38943	
Fertility Index	-.31089	.84903	
Health index	.51633	.49233	
Social Status of Women Index	.88534	-.31890	
Economic status of women index	.80704	.03921	
	<hr/>		
TOTAL VARIANCE EXPLAINED	44.9	24.4	TOTAL = <u>69.3</u>
	<hr/>		

Table - 5.15

FACTOR MATRIX : DEVELOPMENT INDEX

<u>1971</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	<u>FACTOR III</u>	
Percent urban population to total population (X ₁₁)	.78226	.32988	.14942	
Surfaced roads per 100 sq.km (X ₂₄)	.44820	-.70769	.40948	
Motor vehicles for 10,000 population(X ₂₅)	.74703	.29307	.32941	
Inhabitants per post office (X ₂₆)	-.23997	.44067	.81046	
Electricity consumption per capita(X ₂₇)	.89691	.19399	-.11614	
Percentage of village electrified (X ₂₈)	.58498	-.67634	.15344	
Per capita income (current price) (X ₂₉)	.80703	.20768	-.41831	
TOTAL VARIANCE EXPLAINED	46.1	20.4	16.7	TOTAL = <u>83.2</u>

Table - 5.16

FACTOR MATRIX : FERTILITY INDEX

<u>1971</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	
Crude birth-rate (X_{15})	.92953		
General fertility rate (X_{19})	.94483		
Total fertility rate (X_{20})	.95285		
Child-woman ratio (X_{21})	.86194		
TOTAL VARIANCE EXPLAINED	85.2		TOTAL = <u>85.2</u>

Table - 5.17

FACTOR MATRIX : HEALTH INDEX

	<u>FACTOR I</u>	<u>FACTOR II</u>	
Crude death rate (X_{16})	.93520	.10975	
Life expectancy (X_{17})	-.18902	.96526	
Infant mortality rate (X_{18})	.90344	.20114	
Hospital beds per 1000 population (X_{22})	-.73191	.13922	
TOTAL VARIANCE EXPLAINED	56.6	25.1	TOTAL = <u>81.7</u>

Table - 5.18

FACTOR MATRIX : SOCIAL STATUS OF WOMEN INDEX

<u>1971</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	
Sex ratio (X_{12})	.86986	-.19309	
Female literacy rate (X_{13})	.64687	.68672	
Female age at marriage (X_{14})	.48550	.83584	
Educational attainment - Primary level (f) (X_{44})	.56176	-.06598	
Middle level (f) (X_{45})	-.05993	.18837	
Matriculation/Higher secondary (f) (X_{46})	-.69957	.60261	
Graduate and above (f) (X_{47})	-.91436	.23200	
TOTAL VARIANCE EXPLAINED	43.6	23.8	TOTAL = <u>67.4</u>

Table - 5.19

FACTOR MATRIX : ECONOMIC STATUS OF WOMEN INDEX

<u>1971</u>	<u>FACTOR I</u>	<u>FACTOR II</u>
Percentage of female workers in Primary sector (X ₃₉)	-.98420	
Percentage of female workers in secondary sector (X ₄₀)	.86563	
Percentage of female workers in Tertiary sector (X ₄₁)	.95121	
Female work participation rate (X ₄₈)	-.68283	
TOTAL VARIANCE EXPLAINED	77.2	TOTAL = <u>77.2</u>

Table - 5.20

FACTOR MATRIX : OVER-ALL COMPOSITE INDEX

	<u>FACTOR I</u>	<u>FACTOR II</u>
Development Index	.70454	.39154
Fertility Index	-.74168	.51738
Health Index	-.73527	-.39925
Social status of women Index	.60754	-.66708
Economic status of women Index	.49499	.44363
TOTAL VARIANCE EXPLAINED	44.0	24.4
		TOTAL = <u>68.5</u>

Table - 5.21

FACTOR MATRIX : DEVELOPMENT INDEX

1981	<u>FACTOR I</u>	<u>FACTOR II</u>	
Percent urban population to total population (X ₁₁)	.75846	.15114	
surfaced roads per 100 sq.km(X ₂₄)	.11408	.83355	
Motor vehicles for 10,000 population(X ₂₅)	.89149	-.08425	
Inhabitants per post office (X ₂₆)	-.01390	.81926	
Electricity consumption per capita (X ₂₇)	.95621	.00310	
Percentage of village electrified (X ₂₈)	.75021	.06502	
Per capita income (current price) (X ₂₉)	.87515	-.19994	
TOTAL VARIANCE EXPLAINED	51.8	20.6	TOTAL = <u>72.4</u>

Table - 5.22

FACTOR MATRIX : FERTILITY INDEX

<u>1981</u>	<u>FACTOR I</u>	<u>FACTOR II</u>
Crude birth-rate (X_{15})	.87910	
General fertility rate (X_{19})	.97927	
Total fertility rate (X_{20})	.98369	
Child-woman ratio	.91427	
TOTAL VARIANCE EXPLAINED	88.4	TOTAL = <u>88.4</u>

Table - 5.23

FACTOR MATRIX : HEALTH INDEX

	<u>FACTOR I</u>	<u>FACTOR II</u>
Crude death rate (X_{16})	.96517	
Life expectancy rate (X_{17})	-.96350	
Infant mortality rate (X_{18})	.95667	
Hospital beds per 1000 population (X_{22})	-.91466	
TOTAL VARIANCE EXPLAINED	90.3	TOTAL = <u>90.3</u>

Table - 5.24

FACTOR MATRIX : SOCIAL STATUS OF WOMEN INDEX

<u>1981</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	
Sex ratio (X_{12})	.84583	-.40529	
Female literacy rate (X_{13})	.79371	.41386	
Female age at marriage (X_{14})	.68738	.63397	
Educational attainment - Primary level (f) (X_{44})	.36656	3.7148	
Middle level (X_{45})	.58947	.12620	
Matriculation/Higher secondary(f) (X_{46})	-.25886	.84615	
Graduate and above (f) (X_{47})	-.79440	.51986	
TOTAL VARIANCE EXPLAINED	42.8	26.8	TOTAL = <u>69.6</u>

Table - 5.25
FACTOR MATRIX : ECONOMIC STATUS OF WOMEN INDEX

<u>1981</u>	<u>FACTOR I</u>	<u>FACTOR II</u>
Percentage of female workers in Primary sector (X_{39})	-.98069	
Percentage of female workers in secondary sector (X_{40})	.79172	
Percentage of female workers in Tertiary sector (X_{41})	.93416	
Female work participation rate (X_{48})	-.65148	
TOTAL VARIANCE EXPLAINED	72.1	TOTAL = <u>72.1</u>

Table - 5.26
FACTOR MATRIX : OVER-ALL COMPOSITE INDEX

	<u>FACTOR I</u>	<u>FACTOR II</u>
Development index	.62391	.60213
Fertility index	-.91720	.31133
Health index	-.93329	-.00671
Social status of women index	.74170	-.61185
Economic status of women index	.58496	.61101
TOTAL VARIANCE EXPLAINED	59.9	24.1
		TOTAL = <u>84.0</u>

1961

Table 5.27

CORRELATION MATRIX : ALL INDICES

	<u>DEV. INDEX</u>	<u>FERT. INDEX</u>	<u>HLTH. INDEX</u>	<u>SOC. INDEX</u>	<u>ECO. INDEX</u>
DEVELOPMENT INDEX	1.00000				
FERTILITY INDEX	.04888	1.00000			
HEALTH INDEX	.33746	.05009	1.00000		
SOCIAL STATUS OF WOMEN INDEX	.42953**	-.045079**	.24205	1.00000	
ECONOMIC STATUS OF WOMEN INDEX	.36405	-.05791	.27108	.68208*	1.00000

* Level of significance - 1 per cent

** Level of significance - 5 per cent.

Table 5.28

1971

CORRELATION MATRIX : ALL INDICES

	<u>DEV. INDEX</u>	<u>FERI. INDEX</u>	<u>HEALTH. INDEX</u>	<u>SOC. INDEX</u>	<u>ECO. INDEX</u>
DEVELOPMENT INDEX	1.00000				
FERTILITY INDEX	-.21903	1.00000			
HEALTH INDEX	-.54100**	.42299**	1.00000		
SOCIAL STATUS OF WOMEN INDEX	.22455	-.61988*	-.06031	1.00000	
ECONOMIC STATUS OF WOMEN INDEX	.30232	-.09898	-.30648	.13634	1.00000

* Level of Significance - 1 per cent

** Level of significance - 5 per cent.

Table - 5.29

CORRELATION MATRIX : ALL INDICES

1981

	<u>DEV. INDEX</u>	<u>FERT. INDEX</u>	<u>HLTH. INDEX</u>	<u>SOC. INDEX</u>	<u>ECO. INDEX</u>
DEVELOPMENT INDEX	1.00000				
FERTILITY INDEX	-.44203**	1.00000			
HEALTH INDEX	-.53192**	.82226*	1.00000		
SOCIAL STATUS OF WOMEN INDEX	.07106	-.83424*	-.62903*	1.00000	
ECONOMIC STATUS OF WOMEN INDEX	.49478**	-.28517	-.52694**	.14063	1.00000

* Level of significance - 1 per cent

** Level of significance - 5 per cent.

Table - 5.30 RANKING OF STATES IN SOCIO-ECONOMIC DEVELOPMENT AND STATUS OF WOMEN.

STATES	DEVELOPMENT INDEX	RANKS	FERTILITY INDEX	RANKS	HEALTH INDEX	RANKS	SOCIAL STATUS OF WOMEN INDEX	RANKS	ECONOMIC STATUS OF WOMEN INDEX	RANKS	COMPOSITE INDEX	RANKS
ANDHRA PRADESH	-.44095	9	-.98808	15	-.92215	13	-.04551	7	-.25219	9	-.31513	8
BIHAR	-1.29206	16	.34470	7	-1.62080	16	-.41208	10	-.50291	11	-1.14836	16
GUJARAT	1.10296	4	1.11902	3	-.68966	11	-.12076	9	-.18231	7	-.09813	7
HARYANA	.24488	6	1.88326	1	.85192	4	-.95418	15	-.24491	8	-.45611	11
HIMACHAL PRADESH	-.51350	10	-.58632	11	.97611	3	-.66748	11	-1.54314	16	-.66504	12
JAMMU AND KASHMIR	-.68533	11	-.69452	12	1.54947	2	-.89551	14	-.85948	15	-.41362	10
KARNATAKA	.19742	7	-.03090	9	-.05013	9	.47382	4	-.06791	6	.21394	6
KERALA	-.04401	8	-.75865	13	1.62347	1	2.87537	1	2.45372	1	2.48058	1
MADHYA PRADESH	/.81383	13	.64856	5	-.71730	12	-.74208	12	-.85898	14	-1.09833	15
MAHARASHTRA	1.89605	1	-.18474	10	.48161	7	1.28509	2	-.52261	12	1.09181	4
ORISSA	-1.25148	15	-.85314	14	-1.05753	14	.07812	5	.27255	5	-.36900	9
PUNJAB	.50905	5	1.17934	2	.72275	6	.04708	6	1.57542	2	.73923	5
RAJASTHAN	-.75514	12	.73083	4	.40121	8	-1.07173	16	-.78654	13	-.93900	13
TAMIL NADU	1.24524	3	-2.30500	16	-.24384	10	1.06649	3	.56359	4	1.25689	2
UTTAR PRADESH	-.98092	14	-.01707	8	-1.12821	15	-.81217	13	-.27035	10	-.96652	14
WEST BENGAL	1.70429	2	.53118	6	.75807	5	-.80225	8	1.36028	3	1.06475	3

Table- 5.31 RANKING OF STATES IN SOCIO-ECONOMIC DEVELOPMENT AND STATUS OF WOMEN.

STATES	DEVELOPMENT INDEX	RANKS	FERTILITY INDEX	RANKS	HEALTH INDEX	RANKS	SOCIAL STATUS OF WOMEN INDEX	RANKS	ECONOMIC STATUS OF WOMEN INDEX	RANKS	COMPOSITE INDEX	RANKS
ANDHRA PRADESH	-.34324	9	-.35940	9	.17605	7	.76007	4	2.39215	1	.70014	5
BIHAR	-1.32371	16	-.24083	7	.66430	4	-.15424	9	-.68561	13	-.76117	13
GUJARAT	1.01219	4	.59433	6	.63066	5	.14638	7	-.40065	10	-.13664	9
HARYANA	.89534	5	1.57482	2	-1.04689	14	-.84437	13	.57578	3	.00207	8
HIMACHAL PRADESH	-.83347	11	-.7286	14	-.01501	9	.34255	6	-1.20897	16	-.17867	10
JAMMU AND KASHMIR	-1.07362	13	-.65189	12	-1.13106	15	-1.91573	16	-.01101	7	-.27739	12
KARNATAKA	.40824	8	-.70701	13	-.78376	13	.43696	5	-.27576	8	.68928	6
KERALA	.70738	6	-1.41026	15	-1.97432	16	2.04328	1	.47835	4	2.03259	1
MADHYA PRADESH	-1.11870	14	.96962	4	.90998	3	-.67956	12	-.96706	15	-1.39375	15
MAHARASHTRA	1.64060	1	-.64339	11	-.59058	10	.09160	8	-.83154	14	.77745	4
ORISSA	-1.12199	15	-.40906	10	1.45593	2	1.66419	2	.01374	6	-.24520	11
PUNJAB	1.35155	2	-.31735	8	-.61950	11	-.28962	10	2.25648	2	1.17393	2
RAJASTHAN	-.54714	10	1.54446	3	.55256	6	-.93635	14	-.51786	12	-1.25497	14
TAMIL NADU	1.07154	3	-1.54704	16	.16672	8	.97756	3	-.29396	9	1.01224	3
UTTAR PRADESH	-1.02645	12	1.63388	1	1.89533	1	-.94623	15	-.43025	11	-1.87007	16
WEST BENGAL	.47803	7	.61889	5	-.69034	12	-.67760	11	.33140	5	.06257	7

Table - 5.32 RANKING OF STATES IN SOCIO-ECONOMIC DEVELOPMENT AND STATUS OF WOMEN.

STATES	DEVELOPMENT INDEX	RANKS	FERTILITY INDEX	RANKS	HEALTH INDEX	RANKS	SOCIAL STATUS OF WOMEN INDEX	RANKS	ECONOMIC STATUS OF WOMEN INDEX	RANKS	COMPOSITE INDEX	RANKS
ANDHRA PRADESH	-.32808	8	-.41018	11	.01514	7	.46216	6	-.81606	13	.00762	9
BIHAR	-1.40035	16	1.29967	2	.88310	4	-.16010	10	-.71611	12	-1.14488	15
GUJARAT	1.05699	3	-.02342	7	.16119	6	-.08286	9	-.24721	9	.10837	7
HARYANA	.86169	4	.72957	5	-.08198	8	-.85013	13	.45000	5	-.14107	11
HIMACHAL PRADESH	-.87346	14	-.33640	10	-.45407	11	.70108	4	-1.15075	16	.01143	8
JAMMU AND KASHMIR	-.41329	10	.06963	6	-.54755	12	-.98236	14	.80506	4	-.02284	10
KARNATAKA	.32690	6	-.73298	13	-.69416	13	.58149	5	-.17472	6	.61900	5
KERALA	-.00102	7	-1.84359	16	-2.35026	16	2.55857	1	1.40880	2	2.20638	1
MADHYA PRADESH	-.86586	13	.99986	4	1.50682	2	-.82388	12	-.99688	15	-1.35538	13
MAHARASHTRA	1.54799	2	-.80453	14	-.854112	14	-.00300	8	-.83017	14	.67239	4
ORISSA	-.99052	15	-.24645	9	1.02294	3	.91106	2	-.20440	8	-.26404	12
PUNJAB	2.32940	1	-.46509	12	-.98543	15	-.16518	11	2.69731	1	1.42122	2
RAJASTHAN	-.49875	11	1.13419	3	.68151	5	-1.55349	16	-.49179	11	-1.14482	14
TAMIL NADU	.60140	5	-1.29732	15	-.13648	9	.87136	3	-.31031	10	72057	3
UTTAR PRADESH	-.83795	12	2.14995	1	1.73704	1	-1.40592	15	-.17903	7	-1.75807	16
WEST BENGAL	-.38520	9	-.19830	8	-.22848	10	.01073	7	1.05402	3	.26030	6

CHAPTER - VI

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

CHAPTER VI

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

The improvement of status of women has been recognised all over the world as an important aspect of national progress and development. In India as well. efforts are on to integrate women in the development process and removing the barriers hindering the progress of women. Since Independence, there has been a revolution in the status of Indian Women. Constitutionally and legally. no barrier exists in women having equality with men. special laws to protect women from most of the socially degrading customs have been enacted and enforced. India has gone through seven five year plans and the eighth is in the process of being implemented. The process of development and the changes that have occurred in the recent decades for their betterment has in anyway influenced the status of women is worth examining.

The purpose of the present analysis is to study the relationship between status of women and various socio-economic parameters considering the case of 16 major states of India, in 1961, 1971 and 1981 census periods. Defining status of women itself posed problems. There is no single definition which holds true for all cultures nor is status a homogenous characteristic capable of simple measurement. In India, with its variety of religious beliefs, castes and cultural patterns, it becomes even more difficult to suggest a unambiguous operational definition of 'Status of Women'. However, it is generally agreed that indices relating to educational attainment and labour force participation are particularly important for studying 'status of women'.

In the present analysis also, status of women has been examined. Initially 35 variables having bearing on the status of women and socio-economic development were selected for this study, and later on it was decided to reduce to 28 variables after some modifications. All these variables have been grouped under seven heads, namely, Social Status of Women, Economic status of Women, Health, Fertility, Development, Crime and Communication. Inter-state variations in these variables were analysed. The socio-

economic indicators revealed the following trends - rapidly growing population with slow falling birth-rate and fast declining death-rate; large variations in level of urbanisation; a large proportion residing in rural areas; unequal income distribution; large proportion of children, and a rising but low life expectancy. The indicators for status of women depicted a slowly rising female literacy rate with an overwhelming proportion of female population being illiterate, males outnumbering females, low but rising average age at marriage and very low female work-force participation rate. Over-all, barring few states, it brings out a very sad picture of women in India.

Since the number of variables is quite large, separate composite indices were generated using 'Principle Component Analysis' which is a method of factor analysis. This method synthesises a myriad variables to a fewer number of factors which retain the maximum amount of descriptive ability. Since, crime and communication were included as single variables, their impact on status of women was studied with the help of regression analysis.

The first step in factor analysis is to generate a correlation matrix. Relationship among variables under

different heads was examined through correlation matrix separately. Among the development variables it was expected that the correlation obtained should be positive in value. since all the variables show development of various states. Results confirmed theoretical expectations except few exceptions. unexpected signs appeared but these were not statistically significant. Similarly, all the variables included in fertility were found to be positively correlated because they are all measures of fertility. Among the health indicators, the mortality variables, CDR and IMR exhibited a significant negative correlation with hospital beds per 1000 population which thereby means that where medical facilities are more CDR and IMR are low. As expected, life expectancy showed a positive relationship with hospital beds per 1000 population. Since both crude death rate and infant mortality rate are measures of mortality they have positive correlation. Significant negative correlation was found between life expectancy and crude death rate. Thus the type of association among the health variables is, therefore, in the expected direction. Among the variables reflecting social status of Women, female literacy rate exhibited a significant positive correlation with female age at marriage. Thus, it can be

said that female education helps in increasing female age at marriage and thus having a depressing effect on fertility. Sex ratio had significant positive correlation with female literacy rate. This result shows that female education tends to improve their status in the family and can make them aware of their role in the society. It may also create conditions conducive for the balanced development of the child (without any sex bias) as an individual and as a social being, and this may have positive effect on the sex ratio (number of females per 1000 males). The variables used for Economic status of women are related to female workers in three sectors and their work participation rates. As the process of development takes place one would expect a shift in the share of workers from primary sector to the secondary and tertiary sectors. In the present study, the share of female workers in the primary sector has significant negative correlation with share of female workers in secondary and tertiary sectors. Where as secondary sector and tertiary sector ~~and~~ exhibit a significant positive correlation which indicates that secundarisation and tertiarisation takes place simultaneously and they grow in complement with each other with the process of development. ~~Since~~ Employment of

females in secondary and tertiary sector is low because in these sectors employment depend on technical skill and higher educational qualifications which has been found to be lacking with female workers and on the other hand, primary sector which is subsistence in nature, female employment is very high. So, it was quite obvious that female work participation has significant positive correlation with primary sector and negatively correlated with secondary and tertiary sectors.

Factorial investigations brought out the explanatory variables i.e., variables which explained maximum variance, in each Index. This made the task of analysing relationship among different indices quite clear and easy. A change in the dominant variables of an index resulted in an change in the relationship of the particular index with other indices. Analysing the correlation among these indices in the light of the hypothesis that had been set out earlier in this study reveals that Fertility index has significant negative correlation with social status of women index in all three time periods. This shows that a high social status of women and fertility are inversely related. Fertility index have a negative relationship with

economic status of women index but in all three time periods the correlation was not found to be significant. Since this relationship is too weak so one cannot infer that higher economic status would definitely result in lowering the fertility or vice versa. As already mentioned the exact nature of this relationship has not been attempted in this study. so one cannot infer whether women who have smaller number of children tend to take paid jobs outside their homes. or is it that those who have already paid jobs restrict their family size to the very minimum. Thus one can only say that higher the social status of women lower would be fertility or higher the fertility and lower the status. This proves the first hypothesis of this study 'higher the social and economic status of women. lower the fertility' to be partially true.

Taking up the second hypothesis 'higher the social and economic status of women. lower the mortality'. it was found to be true. In health index the explanatory variables in 1971 and 1981 were infant mortality rate and crude death rate and it exhibits a negative correlation with the social and economic status of women. The former is correlated at 1 per cent level of significance and the latter at 5 per cent level of significance in 1981. Many studies have shown an

inverse relationship between mortality levels and status of women, which is confirmed in this study also. Thus, educated women as well as the employed women in secondary and tertiary sectors would experience low mortality levels. Higher economic status may influence death rate by providing economic independence and raising her standard of living. Both income and occupation may in turn influence her diet, her housing conditions and habits.

It has been hypothesised in this study that higher the economic development, lower the economic status of women and vice-versa. This hypothesis did not prove to be true. In all three time periods 1961, 1971 and 1981 a positive relationship existed between economic development and economic status of women. But the relationship was significant and positive correlation was found only in 1981. Since the economic status of women index is explained by percentage of female workers in secondary sector and percentage of female workers in tertiary sector, it can be said that with a steady progress in development, there has to be an increase in the proportion of female workers in secondary and tertiary sectors.

Since, data for crimes committed against women especially dowry deaths was not available, overall crime figures were included. The impact of crime is studied through cognizable crimes reported per 1000 population. It has been hypothesised in this study that crime rate has a depressing effect on the social status of women. Results drawn from regression analysis reveal that cognizable crimes per 1000 population has a negative impact on the social status of women. A negative value was found for all the three time periods but significant values were found only for 1961 and 1981. Thus, one can infer that a higher crime rate reflects low social status of women.

Finally, it has been hypothesised that availability of wide network of communication results in the enhancement of social status of women, or in other words - higher the communication level, higher the social status of women. Communication through mass media creates an awareness among the masses about the positive role of women and makes women aware of their rights. The communication impact is studied through one variable viz. newspaper circulation per 1000 population. Its relationship with status of women has been analysed through regression

analysis. It gives a positive regression coefficient of communication which thereby means that as the communication (measured as newspapers per thousand population) increases it results in increasing the social status of women. Thus, it can be said that spread of mass media has helped in enhancing the social status of women.

After analysing the relationship among various socio-economic parameters and status of women, ranking of the various states according to value to composite indices was examined. Kerala has high social status of women compared to other states. Other states where social status of women was found to be high are Tamil Nadu, Karnataka, Orissa, Himachal Pradesh and Andhra Pradesh. The states where social status of women is low are Madhya Pradesh, Haryana, Jammu and Kashmir, Uttar Pradesh and Rajasthan. Barring Himachal Pradesh, social status of women in the northern India is generally found to be very low while in the southern states is very high. The states which exhibited high economic status of women are Punjab, Kerala, West Bengal, Tamil Nadu and Haryana. The low economic status of women was found in Bihar, Rajasthan, Maharashtra, Madhya Pradesh and Himachal Pradesh. Among other indices, states that were found to be ranked high in Development

index were ranked low in the fertility index ~~and low in the fertility index~~ and low in the health index (the explanatory variables being IMR and CDR) and high in health index ~~was~~ (explanatory variables being life expectancy and hospital beds per 1000 population). Kerala was found to be an exceptional case where levels of mortality and fertility is low, and high life expectancy and high social and economic status of women despite its comparatively low level of development. Kerala could succeed perhaps largely because of the higher level of investment made in the sectors of social development, particularly in the fields of education and health. Over the years more than 50 per cent of her annual investment has been made in these sectors ¹.

To conclude one can safely opine that the status of Women is found to be low in the north and high in the south of India.

1 Mahadevan K. and M. Sumangala "Social Development, Cultural Change and Fertility Decline" - A Study of fertility change in Kerala (Sage Publication, New Delhi, 1987, p. 161)

RECOMMENDATIONS OF THE STUDY

Any study based on evaluation of the socio-economic situation remains incomplete unless certain solutions are also offered to improve the situation.

Raising the status of Women is generally a tough task because the diversity exhibited in different states not only limits the areas of change but also the directions and the speed of change.

To start with, as education is the pre-requisite for any type of development among women, every possible step should be undertaken to bring all women including female children within the fold of compulsory education. Enrolment should be 100 per cent and there after measures should be taken to see that no female child drops out. The spread of education amongst females may not only help clear the mist of ignorance but will also develop employment opportunities for them which may lead to a shift from indoor house-hold activities to outdoor engagements. Government should give special attention to the quality of education, because large number of female literates have only primary education particularly lower primary education. This will have a

considerable influence on fertility behaviour and raise the status of women in our society.

At present women's share in various areas of activity has been totally disproportionate to their numerical strength. Serious efforts are required to integrate them in the development process. Successful development cannot be pursued without their participation. The under-utilization of the potential of approximate half of the country's population is a serious obstacle to social and economic development. Increased gainful employment outside the home can be expected to contribute to needed changes in fertility level. It would also provide them necessary economic base and improve their social status.

The health care market has increased and so have health care costs, but where the health status of the Women, the more vulnerable section of society is concerned, it has continued to be a sad story, maternal mortality in India is 500 per 100,000 live births, which is much more than even countries like Tunisia, Ecuador and Kenya (310,210 and 190 respectively). It is as low as 11, 10 and 1 per 100,000 in UK, USA and Sweden respectively. It should not be forgotten that the ultimate end of development is to achieve a better

quality of life for all, which means not only the development of economic and other material resources but also the physical, moral, intellectual growth of the person.

There seems to be a good deal of appreciation of the role of communication in enhancing status of women. Efforts should be made to cover every nook and corner of the country through communication network. It is an undeniable fact that communication media can play a significant role if they project a dynamic image of women and not reinforce traditional attitudes. This could remove prejudices and stereo-types, accelerating the acceptance of Women's new and expanding roles in the society, and promoting their integration into the development process as equal partners. It will also create an awareness amongst the women about their rights.

Finally, efforts should be made to strictly enforce the various legislative measures enacted to safeguard the interests of women. Though status of an Indian women in law is much higher than her counterpart in other countries, but in actual practice, it is seldom realised. Formulating laws is not enough, effective steps are required to strictly enforce them.

APPENDIX - I

Table: A-1

YEAR OF FOCUS : 1961 SOCIAL AND ECONOMIC INDICATORS FOR STATES

	SOCIAL STATUS OF WOMEN INDEX			ECONOMIC STATUS OF WOMEN INDEX				HEALTH INDEX			FERTILITY INDEX		
	Sex Ratio	Female Literacy rate	Female age at marriage	Female work participation rates	Percent of female workers in primary sector	Percent of Female workers in Secondary sector	Percent of female workers in tertiary sector	Life expectancy	Infant mortality rate	Hospital beds per 1000 pop.	Crude death rate	Child woman ratio	Crude birth rate
	1	2	3	4	5	6	7	8	9	10	11	12	13
Andhra Pradesh	981	12.07	15.70	41.32	87.93	1.82	10.25	36.9	75.0	0.56	25.2	589	39.7
Bihar	994	6.98	15.10	27.12	93.1	0.79	6.11	37.6	87.0	0.18	26.1	661	43.4
Gujarat	940	19.10	14.60	27.89	90.21	1.89	7.9	40.0	73.0	0.39	23.5	699	45.7
Haryana	868	9.21	15.5	21.51	91.6	1.15	7.25	48.3	88.0	0.68	19.0	830	44.3
Himachal Pradesh	938	9.49	14.80	55.83	98.86	0.31	0.83	42.6	65.0	1.0	19.4	606	41.0
Jammu & Kashmir	878	4.26	16.8	25.64	97.60	0.57	1.84	46.8	51.0	0.87	16.9	646	38.9
Karnataka	959	14.19	18.0	32.02	88.75	2.68	8.57	40.2	62.0	0.65	22.2	660	41.6
Kerala	1022	38.90	20.3	19.71	66.76	8.29	24.95	48.3	42.0	0.72	16.1	638	38.9
Madhya Pradesh	953	6.73	14.8	43.99	93.81	0.93	5.26	40.6	95.0	0.43	23.2	704	43.2
Maharashtra	936	16.76	15.96	38.10	92.29	2.07	5.64	45.2	90.0	0.68	19.8	651	41.2
Orissa	1001	8.65	16.60	26.58	83.47	0.64	15.89	40.9	124.0	0.31	22.9	588	40.4
Punjab	854	17.41	18.10	5.5	75.06	3.18	21.76	47.5	92.0	0.65	18.9	732	44.7
Rajasthan	908	5.84	14.80	35.89	94.78	0.95	4.26	46.8	103.0	0.57	19.4	727	42.7
Tamil Nadu	992	18.77	18.5	31.28	80.82	2.42	16.76	39.8	89.0	0.71	22.5	547	34.9
Uttar Pradesh	909	7.02	15.6	18.14	91.98	0.53	7.49	38.9	90.0	0.36	24.9	663	41.59
West Bengal	878	16.98	17.0	9.43	79.13	5.21	15.67	44.3	64.0	0.84	20.5	697	42.9
Coefficient of variation	5.36	61.93	11.96	43.17	9.59	97.59	68.14	8.94	31.49	35.59	13.52	9.93	6.23
INDIA	94.0	12.88	16.60	27.96	89.43	1.74	8.83	41.2	154.0	0.53	22.80	659.0	41.7

Table A-1

YEAR OF FOCUS : 1961 SOCIAL AND ECONOMIC INDICATORS FOR STATES

2

	DEVELOPMENT INDEX							CRIME	COMMUNICATION
	Percent urban pop. to total pop.	Surfaced roads per 100 sq. km.	Motor vehicle per 10,000 pop.	Inhabitants per post office	Electricity consumption per capita	Percentage of villages electrified	Per capita income (current price)	Cognizable crimes reported per 1000 pop.	Daily newspaper circulation per 1000 pop.
	14	15	16	17	18	19	20	21	22
Andhra Pradesh	17.44	1.5	0.98	47360	20.48	8.98	273.0	0.92	6.67
Bihar	8.42	1.74	0.56	12126	23.42	3.41	215	1.27	3.29
Gujarat	25.77	1.19	2.15	8028	55.44	3.65	362	1.48	14.39
Haryana	17.26	1.25	0.98	4736	24.30	15.98	366	0.85	2.8
Himachal Pradesh	6.34	1.25	0.66	1729	48.0	2.08	285	0.9	2.13
Jammu & Kashmir	16.66	2.95	1.34	4341	14.32	3.15	269	1.25	3.92
Karnataka	22.33	2.65	1.67	8173	40.66	11.07	286	1.1	10.64
Kerala	15.11	1.16	1.26	7729	38.85	55.44	259	0.99	40.35
Madhya Pradesh	14.29	1.16	1.23	10016	16.03	0.53	260	2.25	4.57
Maharashtra	28.22	1.29	2.71	11155	78.25	2.08	409	1.62	30.16
Orissa	6.32	1.78	8.66	9256	32.54	0.25	216	1.22	4.22
Punjab	20.13	1.49	1.12	4699	32.54	14.33	366	0.05	7.68
Rajasthan	16.28	2.05	1.65	12709	5.46	0.41	284	1.05	2.13
Tamil Nadu	26.69	1.39	1.64	5845	58.18	41.91	334	1.74	29.80
Uttar Pradesh	12.85	1.34	0.67	8911	14.35	0.96	252	1.36	4.67
West Bengal	24.45	1.86	8.3	10473	75.36	2.39	390	1.84	18.09
Coefficient of variation	42.0	73.86	147.41	39.21	58.56	146.21	19.55	-	-
INDIA	7.97	7.19	15.10	8779	38.20	12.95	305.6	1.42	0.58

Table: A-2

YEAR OF FOCUS : 1971 SOCIAL AND ECONOMIC INDICATORS FOR STATES

	SOCIAL STATUS OF WOMEN INDEX							ECONOMIC STATUS OF WOMEN INDEX				HEALTH INDEX			
	Sex Ratio	Female Literary rate	Female age at marriage	Different educational levels of Fem. (in per cent)				Female work participation rates	Percent of female workers in prim. sector	Percent of fem. workers in sec. sector	Percent of fem. workers in Tertiary sector	Life expectancy rate	Infant mortality rate	Hospital beds per 1000 pop.	Crude death rate
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Andhra Pradesh	977	15.75	16.20	46.46	13.62	6.02	0.73	24.16	83.8	7.38	8.8	44.37	114.0	0.71	14.6
Bihar	954	8.72	15.30	24.15	22.27	5.09	1.03	8.88	92.38	3.52	4.10	41.04	103.0	0.28	14.2
Gujarat	934	24.75	18.40	27.61	7.19	8.37	1.06	10.26	83.38	6.28	10.35	53.66	151.0	0.75	16.4
Haryana	867	14.89	16.60	37.30	17.66	7.91	1.88	2.41	64.87	12.34	22.79	50.6	78.0	0.75	9.9
Himachal Prad.	958	20.23	17.70	34.93	10.27	6.77	1.22	20.79	94.57	1.97	3.46	48.0	146.0	0.70	15.0
Jammu & Kashmir	878	9.26	17.8	31.78	19.1	14.67	2.75	3.86	79.44	8.38	12.18	50.69	84.0	1.10	10.5
Karnataka	957	20.97	17.8	47.75	19.19	10.12	0.89	14.2	77.4	11.32	11.28	44.59	94.0	0.87	12.1
Kerala	1016	54.31	21.0	42.87	16.46	6.61	0.73	13.49	59.26	20.75	19.99	48.8	53.0	0.96	9.0
Madhya Pradesh	941	10.92	15.0	30.25	10.66	8.14	1.78	10.65	90.79	4.87	4.33	54.38	145.0	1.08	15.6
Maharashtra	930	26.43	17.5	35.62	19.68	7.34	1.41	19.68	86.13	6.26	7.6	54.38	97.0	0.41	12.3
Orissa	988	13.92	17.3	63.43	13.51	2.34	0.52	6.81	76.29	10.35	13.36	44.7	187.0	0.73	15.5
Punjab	865	25.9	20.2	41.44	12.41	10.52	1.57	1.18	17.18	17.23	65.59	43.03	100.0	0.50	10.4
Rajasthan	911	8.46	15.1	29.38	11.35	8.63	1.71	8.34	88.42	4.81	6.77	49.4	141.0	0.74	15.6
Tamil Nadu	978	26.86	19.6	35.84	15.35	7.64	0.62	15.09	76.09	11.35	11.66	49.57	121.0	0.70	14.4
Uttar Pradesh	879	10.55	15.5	40.25	12.14	8.81	1.88	6.71	87.64	5.85	7.3	42.97	158.0	0.68	20.1
West Bengal	891	22.42	17.9	38.63	17.70	9.23	2.20	4.43	69.03	9.86	21.11	44.93	100.0	0.97	12.4
Coefficient of variation	4.85	56.45	9.99	24.13	26.93	32.25	44.52	60.71	31.5	80.2	99.5	8.68	28.89	30.55	20.58
INDIA	931	18.70	17.10	38.24	15.83	7.82	1.33	11.85	82.97	7.67	9.36	47.70	129.0	0.66	14.9

Table: A-2

YEAR OF FOCUS: 1971 SOCIAL AND ECONOMIC INDICATORS FOR STATES

2

	FERTILITY INDEX			DEVELOPMENT INDEX								CRIME	COMMUNICATION
	General Fertility Rate	Total Fertility Rate	Child-woman rate	Crude birth rate	Percent urban pop. to total pop.	Surfaced roads per 100 sq. km.	Motor vehicles per 10000 pop.	Inhabi- tants per post office	Electri- city consump. per capita	Perce- ntage of villages electrif.	Per capita income (current price)	Cognizable crimes reported for 1000 pop.	Daily newspaper circulation per 1000 pop.
	16	17	18	19	20	21	22	23	24	25	26	27	28
Andhra Pradesh	148.55	4.65	599	34.80	19.31	15.10	24.0	3886.6	48.03	34.20	585.0	1.14	8.52
Bihar	159.5	4.5	643	32.8	10.0	16.4	12.80	8205.6	46.43	12.80	426	1.58	3.31
Gujarat	163.9	5.25	651	40.0	28.0	11.30	47.6	5613.1	105.0	25.3	842	1.62	20.6
Haryana	175.5	5.75	781	42.1	17.66	30.0	19.3	4925	128.55	100.0	845	0.9	2.9
Himachal Prad.	120.65	3.75	627	37.3	6.99	5.31	11.4	1642	57.0	23.8	664	0.95	3.3
Jammu & Kashmir	128.0	4.15	667	32.9	18.59	2.5	2.6	3926	43.0	10.8	524	1.38	5.02
Karnataka	139.65	4.0	652	31.7	24.33	28.6	17.6	5876	121.0	38.0	682	1.46	18.19
Kerala	120.95	3.9	550	31.1	16.24	111.8	36.7	6464.5	74.91	80.5	584	1.88	32.85
Madhya Pradesh	166.75	5.3	747	39.1	16.29	3.2	19.0	15805.3	52.77	12.8	490	2.54	1.82
Maharashtra	135.5	4.3	643	32.2	31.17	15.1	55.2	8301.1	167.66	38.2	803	2.45	34.27
Orissa	143.0	4.35	636	34.6	8.41	7.0	14.6	6633.8	72.57	5.80	493	1.37	4.11
Punjab	143.15	4.90	611	34.2	23.73	29.4	26.6	2658.6	162.37	25.32	1016	0.89	15.96
Rajasthan	184.0	5.90	728	42.4	17.63	6.9	27.8	7589.1	46.76	12.50	623	1.64	4.55
Tamil Nadu	120.7	3.70	531	31.4	30.20	40.6	28.7	4974.7	125.42	89.5	588	1.69	30.42
Uttar Pradesh	194.0	5.85	685	44.9	14.82	12.4	12.2	8330.6	51.27	20.0	504	2.42	5.94
West Bengal	180.0	4.65	700	38.0	24.75	23.0	36.5	9461.9	113.24	8.58	737	1.78	23.58
Coefficient of variation	15.32	15.30	9.80	11.77	40.19	114.58	34.84	50.08	46.93	87.60	24.10	-	-
INDIA	152.7	4.85	655	36.9	9.91	19.35	34.09	5025.0	89.88	25.80	532.80	1.76	14.37

Table : A-3

YEAR OF FOCUS : 1981 SOCIAL AND ECONOMIC INDICATORS FOR STATES

	SOCIAL STATUS OF WOMEN INDEX						ECONOMIC STATUS OF WOMEN INDEX					HEALTH INDEX			
	Sex Ratio	Female Literary rate	Female age at marriage	Different educational levels of Fem. (in per cent)			Female work participation rates	Percent of female workers in prim. sector	Percent of fem. workers in sec. sector	Percent of fem. workers in Tertiary sector	Life expectancy rate	Infant mortality rate	Hospital beds per 1000 pop.	Crude death rate	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Andhra Pradesh	975	20.39	17.3	41.25	17.81	11.09	1.97	27.02	83.77	8.22	8.01	55.7	95.0	0.69	11.1
Bihar	946	13.62	16.6	21.92	22.0	10.86	1.6	9.05	90.27	4.72	5.01	52.3	118.0	0.4	13.9
Gujarat	942	32.5	19.5	28.1	8.22	14.03	2.67	11.03	81.07	6.93	11.99	54.5	117.0	1.03	12.0
Haryana	870	22.27	17.8	31.94	13.09	12.94	3.75	4.68	71.84	8.51	19.64	58.6	101.0	0.7	11.30
Himachal Prad.	973	31.46	19.1	39.03	10.12	8.75	1.85	18.71	92.17	2.82	5.01	56.6	82	1.17	11.1
Jammu & Kashmir	892	15.88	19.6	27.98	19.0	18.35	4.76	5.91	68.66	16.6	14.84	56.8	73	0.83	9.0
Karnataka	963	27.71	19.2	32.83	20.92	13.71	2.24	18.95	78.46	12.95	8.59	58.5	74	0.94	9.10
Kerala	1032	65.73	21.8	33.57	24.44	10.83	1.59	12.77	55.23	20.96	23.01	66.5	40	1.96	6.6
Madhya Pradesh	941	15.53	16.6	22.48	9.77	7.85	3.01	22.35	89.07	6.45	4.48	50.2	142	0.38	16.6
Maharashtra	937	34.79	18.8	30.95	12.04	13.14	2.93	23.94	85.04	6.85	8.11	58.1	80	1.40	9.6
Orissa	981	21.12	19.1	30.85	17.58	5.32	1.05	10.70	81.54	8.89	9.57	50.8	142	0.53	13.1
Punjab	879	33.69	21.1	35.77	14.41	16.07	3.73	2.27	32.25	14.77	52.98	62.8	87	1.25	9.4
Rajasthan	919	11.42	16.1	30.39	1.42	11.51	3.9	9.32	86.64	6.53	6.93	52.5	107	0.61	14.3
Tamil Nadu	977	34.99	20.2	35.62	14.19	14.82	1.78	22.36	78.76	12.25	8.99	55.9	91	0.97	11.8
Uttar Pradesh	885	14.04	16.7	31.83	12.5	12.61	4.55	5.39	83.42	7.64	8.94	46.8	157	0.49	16.3
West Bengal	911	30.25	19.2	40.68	14.32	11.12	3.49	5.81	63.67	16.31	20.02	55.1	91	1.06	11.0
Coefficient of variation	4.68	48.02	8.69	16.79	38.44	25.41	38.79	58.15	19.57	48.35	87.52	8.39	29.09	44.94	22.43
INDIA	934.0	24.82	18.30	32.70	16.73	12.42	2.91	13.99	81.57	9.06	9.37	54.4	115.0	0.83	12.5

contd...2

Table : A-3

YEAR OF FOCUS : 1981 SOCIAL AND ECONOMIC INDICATORS FOR STATES

	FERTILITY INDEX			DEVELOPMENT INDEX ²							CRIME	COMMUNICATION	
	General Fertility Rate	Total Fertility Rate	Child-woman rate	Crude birth rate	Percent urban pop. to total pop.	Surfaced roads per 100 sq. km.	Motor vehicles per 10000 pop.	Inhabi- tants per post office	Electri- city consump. per capita	Perce- ntage of villages electrif.	Per capita income (current price)	Cognizable crimes reported for 1000 pop.	Daily newspaper circulation per 1000 pop.
	16	17	18	19	20	21	22	23	24	25	26	27	28
Andhra Pradesh	127.10	4.0	513	31.7	23.25	42.0	53.4	3255.7	101.8	65.5	1313	1.40	13 01
Bihar	171.20	5.7	599	39.1	12.46	49.0	25.1	6423.4	74.1	31.8	795	1.53	7.13
Gujarat	140.6	4.3	519	34.5	31.08	28.0	130.6	3958.6	238.8	68.5	1896	2.31	26.14
Haryana	147.1	5.0	613	36.5	21.96	49.0	61.8	5240.9	209.5	100.0	2335	1.29	2.64
Himachal Prad.	129.2	3.8	544	31.5	7.72	34.0	53.5	1742.4	66.4	59.4	1458	0.99	4.67
Jammu & Kashmir	131.8	4.5	578	31.6	21.05	5.0	49.1	4142.3	74.8	72.6	1439	2.67	7.18
Karnataka	113.9	3.6	536	28.3	28.92	57.0	125.5	3872.8	146.0	62.6	1352	2.14	20.19
Kerala	94.7	2.88	406	25.6	18.78	242.0	81.8	5366.1	112.0	100.0	1091	1.89	58.89
Madhya Pradesh	161.6	5.2	609	37.6	20.31	25.0	26.7	4970.1	100.3	35.8	1177	3.24	12.41
Maharashtra	115.8	3.6	510	28.5	35.03	56.0	148.7	5333.3	244.5	77.2	2294	2.75	37.62
Orissa	131.2	4.3	504	33.1	11.82	76.0	28.3	3571.5	114.0	40.0	1147	1.81	8.79
Punjab	126.4	4.0	513	30.3	27.72	90.0	232.2	4419.3	303.6	100.0	2642	0.81	35.51
Rajasthan	160.8	5.2	658	37.1	20.93	20.0	80.8	3543.1	99.4	45.4	1227	1.96	15.30
Tamil Nadu	187.0	3.4	434	28.0	32.98	87.0	66.6	4053.1	186.0	99.1	1269	2.45	23.39
Uttar Pradesh	173.7	5.0	627	59.6	18.01	54.0	44.9	6114.6	83.1	37.6	1272	1.67	11.71
West Bengal	138.4	4.2	501	33.2	26.49	160.0	46.1	6713.35	117.0	37.5	1330	1.63	33.07
Coefficient of variation	16.24	18.98	12.17	22.09	33.40	87.0	68.73	27.64	49.49	39.03	33.01	-	-
INDIA	136.65	4.2	545	33.9	23.73	47.0	74.9	4725.38	132.3	47.3	1571	2.02	21.71

DATA SOURCE FOR SOCIAL AND ECONOMIC INDICATORS FOR STATES
(1961 - 1981)

- a) Data for development, crime, communication and medical facilities has been compiled from CSO publications.
- b) Data for fertility variables has been obtained from Family Planning Year Books & SRS, ORG.
- c) Mortality data and life expectancy data has been collected from SRS Bulletin, Registrar General of India (Vital Statistics of India.)
- d) Education data and worker data has been derived from census of India (Social & Cultural tables and economic tables.)

APPENDIX - II

APPENDIX - II

FEMALE - AN UNPREFERRED SEX

'She is an unwelcome intrusion. The cause of sorrow when she is born. A burden for parents who have to amass a dowry. She is also the convenient workhorse. The one who has to be fed less than her male counterparts and an easy prey to sexual exploitation.

She is the girl child. In a society where women and children have few rights, she, by virtue of being both, has none'¹.

These statements very aptly summarize the position of women in our society. Modern Indian woman holds a very contradictory and ambiguous position in the society. On the one hand she is revered and worshipped as Lakshimi, the goddess of wealth and prosperity, and on the other, burnt at the stake as the erring daughter-in-law, who fails to bring in the required amount of dowry. Tribute is paid to women in our holy books but the probability of it being lip-service is more creditable. It depicts the double standards of our society.

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1. Karkaria, Bachi J. - 'Prisoner of Gender' (The Illustrated Weekly of India, Feb. 1990)

society.

In India, especially in rural areas, the girl child lives in an environment of victimisation. The birth of a boy in the family prompts merriment whereas a girl brings tears of sorrow.

The little girl is born into a world in which she is probably a disappointment, especially to her father. We know that historically infanticide or neglect has had more female victims than male, resulting in some times and places in extremely high ratios of males to females (De Mause.² 1976, 16-22)

Bachi J. Karkaria in an recent article³ states that though female infanticide was stamped out by Bentick's boot in 1870, and a century and a score years later, there are still some Rajput villages in Rajasthan that haven't witnessed the arrival of a baraat for decades, and some tribes like Kallurs of Madurai who feed the poisonous juice of a berry to a day old female babies.

2. Quoted in Jessie Bernard - 'The Female World' (The Free Press, New York), p. 130

3. Karkaria, Bachi, J. op. cit. p. 40

In our crime ridden society, such crimes have ceased to shock us. Instead of bringing to an end such ghastly acts, now advance medical technologies too are being misused to maintain a gender bias against women. The tests devised to detect genital deformities are now used for sex determination of an unborn baby. The practice of pre-natal sex determination tests often leading to the abortion of the female foetus, can in some sense be viewed as a technological update on the older practice of female infanticide. Yet, this is only one of innumerable practices, traditions and circumstances leading to a sex-ratio that is most unfavourable to women.

Female problems in India, thus begin in the womb. Various techniques of sex-determination and sex-preselection have been in use for a number of years now, namely, ultra-sonography, fetoscopy, needling, amniocentesis (an examination of the amniotic fluid) and chorion Villus Biopsy (CVB) method. Chorion Villus Biopsy (CVB) can be done after eight weeks of pregnancy. This makes abortion safer than in the case of amniocentesis, which can only be done after 16 weeks. According to a newspaper report, some doctors determined sex solely by ultrasonography, which they

claimed was reliable at four months, though many gynaecologists would dispute that.

No information is available on how many abortions are performed in India each year but a survey conducted before the tests were banned in Maharashtra, indicated who is aborted : of 8,000 cases of abortion in Bombay, precisely 7,999⁴ involved a female foetus . This astounding figure is just an indication of the widespread misuse of medical technology. Sturdy measures should be taken to check this ill-practice. Here the Indian government should follow the footsteps of China. where medical authorities have been especially stringent in limiting people's access to amniocentesis technology. At Peking hospitals, prenatal screening is done only infrequently and never without a doctor's authorization⁵ . This test is primarily designed to detect genital deformities and it should be put to use only for this end.

It would be wrong to think that this high tech sex-selection is an exclusively urban phenomenon, because

4. Puri, Anjali - Amniocentesis : Invitation to murder' (Indian Express, Jan. 7. 1988)
5. Meyer, Michael; Sudip Mazumdar; David Schlesinger, Carol Bogert - 'Abortions for Sex Selection' (Newsweek, April 6. 1987)

women from the countryside too, are coming to cities after knowing about its (mis) use. According to Dr. Mira Shiva⁶, they (sex selection tests) will continue to find a market in a social set up where women's contribution to society is underestimated and where even health planning does not give due importance to their health needs.

⁷
Vibhuti Patel in an article has very rightly refuted the arguments offered in favour of these tests. To think that it is better to kill female foetus than give birth to unwanted female child, is very fatalistic. By this logic it is better to kill the poor people or third world masses rather than let them suffer poverty and deprivation.

Another argument is that in cases where women have one or more daughters, they should be allowed to have amniocentesis done so that they can plan a balanced family by having a son. Instead of going on producing female children in the hope of getting a male child, it is better for the family's and country's welfare that they can abort

6. Shiva, Dr. Mira - 'We have failed them all' (Sunday Observer, Sept. 17, 1989)

7. Patel, Vibhuti - 'Sex Determination and Sex Preselection Tests : Abuse of Advanced Technologies' in Rehana Ghadially (ed.) Women in Indian Society - A Reader (Sage Publications, New Delhi, 1988) p. 178

the female foetus and have small and balanced family with daughters and sons. This concept of balanced family also has a sexist bias. Would couples with one or more sons undergo amniocentesis to get rid of male foetus and to have a daughter for balancing their family? Never. What is the cost of having a balanced family? How many abortions during 16 to 18 weeks can a woman bear without jeopardizing her health?

'According to section 3 of the Medical Termination of Pregnancy Act 1971. a registered medical practitioner would no longer be held guilty under the law for bringing about an abortion if it is done in good faith and in accordance with the provision of this Act. A pregnancy can at present be legally terminated on the following grounds:

- (a) When the continuance of pregnancy would involve a risk to the life of the pregnant woman or a grave injury to her physical and mental health;
- (b) Where there is substantial risk that the child, if born, would suffer from such physical and mental abnormalities as to be seriously handicapped;
- (c) When the pregnant woman's actual or reasonably foreseeable environments are such that the continuance of

pregnancy would involve risk of injury to her health;
and

(d) When pregnancy occurs as a result of failure of a
contraceptive device.

The Act has a direct effect on the population
policy of the Government even though its avowed object was
for health reasons and for raising the status of women'⁸.

No law prohibits the carrying out of the test, but
an abortion based exclusively on the sex of the foetus is a
cognisable offence under the IPC, since the Medical
Termination of Pregnancy Act does not recognise sex-
determination as a ground for abortion.⁹

Maharashtra is the country's first and the only
state to ban sex-determination tests in private clinics. If
Maharashtra can have legislation to prevent such abuse of
both medical and ethical norms, why can't the Central
government make the same resolution for the entire nation?
Banning is not sufficient, awakening a man's sense of

8. Economic and Social Commission for Asia and the Pacific
- Country Monograph Series No. 10 - Population of India

9. Puri Anjali. op. cit.

social responsibility and conscience is equally necessary.
His inherent prejudice and bias has to be nullified and
shaped into a more positive attitude.

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