Review of Literature
Migrants from rural to urban areas may have different fertility norms, desires, and behaviour than the non-migrant urban population. Their fertility level may remain at the pre-migration level or it may become similar to or lower than that of the urban non-migrants after a short time period or after a long time lag. Researchers in demography, sociology, and economics have tried to develop theories to explain the fertility behaviour of migrants. The principal hypotheses are: i) Generation; ii) Socialization; iii) Selection; iv) Disruption; and v) Adaptation (otherwise known as Assimilation). These are first briefly described below (for discussions, see Lee and Farber, 1984 and Campbell, 1989) and the empirical evidence reviewed.

Generation:

This hypothesis proposes that fertility goals are formed during childhood, thereby reflecting environmental conditions of the family. The migrants may have higher fertility even after migration than the non-migrants at the place of destination, but similar to the non-migrants at the place of origin. This model is based on an all-too general picture of the urban\rural fertility differentials.
Socialization:

According to this hypothesis, migrants are not likely to affect changes in their fertility behaviour relative to the non-migrants at the place of destination and this is regardless of migrants' duration of residence at destination area. Fertility reduction is perceived to occur among the offspring of these migrants.

Selection:

This hypothesis says that the fertility differences between the rural to urban migrants and the rural stayers can be accounted for primarily by the selectivity of the migration process, i.e., those who migrate are a selected group with respect to socio-economic and demographic characteristics such as education, occupation, age and marital status compared to the rural population as a whole, and their preferred as well as desired family sizes may also be different.

Disruption:

This hypothesis proposed by Goldstein (1973) and by Goldstein and Tiraswat (1977) emphasizes the tendency of migrants, attributable to disruption caused by migration, to reduce fertility for some time after migration. After a time lag, their fertility would increase unless effective adoption of urban values and contraception takes place.
Adaptation:

This hypothesis considers migrants' adoption of fertility norms in urban area as a function of changing tastes and suggests that even when selection effects are controlled, the fertility of rural to urban migrants after migration will remain lower than that of rural stayers, even after possible disruptive effects. As a result, differences in cumulative fertility between rural to urban migrants and rural stayers will increase as the length of urban residence increases.

The Empirical Evidence:

A number of studies have examined the effect of migration on fertility or simply compared the fertility of migrants with that of non-migrants at the place of destination and in only a few cases with the non-migrants at the place of origin. Some of these studies have examined one or more of the hypotheses mentioned above. However, more often than not the results have been presented without reference to a specific hypothesis. A number of studies relating migration to fertility or simply on fertility of migrants are reviewed below. The possible support of the evidence to one or more of the hypotheses has been mentioned. This does not necessarily mean that the authors had specifically investigated the hypothesis. In fact, some of these studies have preceded the formulation of the various hypotheses.
Since the focus of the present study is on the fertility behaviour of the rural to urban migrants, an effort has been made to cover the empirical work in this area. Besides, a number of studies that have addressed the fertility of migrants in other streams—urban to urban, rural to rural, and international, have also been noted. This is because many of the hypotheses mentioned above are quite relevant to such migrants as well. In particular, there is a wealth of information on the fertility behaviour of immigrants to the United States and Australia. The studies are discussed in a chronological order as far as possible. However, follow-up analyses are mentioned along with the first report whenever appropriate. The number of studies in the area is quite large and obviously, the review can not be claimed to be exhaustive. Yet it is hoped that many of the important studies are covered.

Most of the early empirical investigations on the fertility of migrants have been in Europe and North America. Golzio (1937) examined the fertility of in-migrants and natives in an industrial center in Italy and observed that the in-migrants had higher fertility than the natives. Similarly, in an analysis of data for Switzerland, Manschke (1938) noted that birth rates and marital fertility rates were higher among in-migrants than the native born. These studies do support the generation hypothesis if it is
presumed that the migrants hailed from regions of high fertility.

In one of the early studies in the United States, Kiser (1938) found that the wives who were born in rural areas, but had spent their fertile years of married life in cities in the United States had lower fertility than wives who were born in the cities. Further, he said that the impact of urban life on the fertility behaviour of migrants is a factor for low birth rate irrespective of birth in rural areas. This study supports the hypothesis of adaptation. However, Klassen (1938) found only narrow differences between the birth rates of immigrants and native born in the United States.

Hitt and Braford (1940) observed that the mobile group of both White and Negro women of childbearing age had smaller number of children than immobile group in Southern Louisiana. This study suggests the disruption effect. Rose (1942) examined the effect of migration on the birth rate of a selected groups of migrants in the United States, and noted that migration increased fertility at the place of destination. The Italian immigrant women had a larger number of children than their native counterparts at the place of origin. An analysis of the Indianapolis Study data showed that the urban migrant couples had lower birth rates and more effective fertility planning than rural migrants and non-migrants at the place of destination (Kantner and
Whelpton, 1952). Further, migrants from larger cities had lower fertility than migrants from small towns and villages. This study supports the hypotheses of generation and adaptation.

Kitagawa (1953) in a study in Chicago found that foreign born white women had higher socio-economic status and lower total fertility rate than foreign born Negro and native born White women, indicating a selection effect. Negro migrant women from southern rural areas to the city also had lower total fertility rate than foreign born White and native White women, which could possibly be due to selection and disruption, though the hypotheses were not specifically addressed as such.

Farm migrants in Detroit were observed to have larger number of children ever born than two generation urbanites when religion, education, occupation, and income were controlled (Goldberg, 1959). This study supports the generation hypothesis. Hutchinson (1961) obtained an inverse relationship between social mobility (status) and fertility in urban population of rural born in Brazil. The rural migrants had larger families than urban migrants in every status, the evidence favouring the generation hypothesis.

Waterhouse and Brabban (1964) noticed that the average number of live births was higher among Indian/Pakistani and
Irish migrant women than West Indies migrant women and English native women in Sparkbrook in United Kingdom. The age at first birth was observed to be lower for migrant women than native English women. Similarly, Day (1965, 1980, 1986) in a study in Australia found that foreign born women completed their childbearing at earlier ages than the Australian born women; and the fertility trends among immigrant women conform less to the fertility of the native women, but rather to the fertility in their respective countries of births. Further, there was not much difference in age at last birth among Australian born, Britain and Netherlands born women; but migrant women from Yugoslavia and Catholic migrant women had a longer childbearing span. The data support the hypothesis of generation.

Elizaga (1966) observed that migrants in Greater Santiago city (Chile) had lower fertility and lower son preferences than urban natives in spite of living in poor housing conditions, lacking basic amenities and having lower education and lower income than urban natives. It is argued that a greater rate of labour force participation than urban natives led to lower fertility among the migrants. The disruption effect is indicated. Friedlander and Roshier (1966) found that the migrants from village, town, and big city areas were of higher occupational status than the native population in England and Wales. Migrants in manual occupations have higher fertility than non-manual migrants.
and natives, supporting the selection and generation effects. Morris (1966) noted that pre-marital sexual relations and pre-marital pregnancy occur with greater frequency at younger ages among (American) Indian women than among Spanish speaking women in Lima. The reverse was true among Spanish speaking women who had more multiple marital unions in the mountain communities than Indian women.

In a study in Puerto Rico, Myers (1966) found that rural migrants had higher fertility than urban migrants whereas the urban migrants had slightly higher fertility than the urban natives. There is thus some support for the hypothesis of generation. El-Badry (1967) observed that migrants from the southern region of India had considerably higher education, and occupation status and had lower fertility and parity levels than migrants from the northern region. Thus this study supports the hypothesis of generation, though the selection effect is also possible. However, no comparison was made with non-migrants. In Malaysia, Indian migrant women had higher fertility than native Malays and Chinese migrant women (Hock, 1967). The gross reproduction rate was higher among Chinese (5 per cent) and Indian (10 per cent) migrant women than the native Malays. This study supports the generation hypothesis.

Zarate (1967), in a study in Monterrey, Mexico, observed that the level of completed fertility was higher among rural to urban migrants than natives in Monterrey or in other city.
It was also found that the completed fertility of migrants who married after moving to the city was substantially lower than that of migrants who had married before leaving. Migrants who had arrived in Monterrey at younger ages (before the age of 15) regardless of community of origin achieved higher socio-economic status and had fewer children than those who had arrived at older ages. This study supports the generation and adaptation hypotheses.

Macisco et al. (1969) observed that migrants from non-metropolitan areas to San Juan in Puerto Rico had lower fertility than non-migrants at destination. Further, younger migrants had relatively lower fertility than older migrants and non-migrant counterparts even when controlling for education. This study suggests disruption effect. However, further analysis (Macisco et al., 1970) showed that a greater proportion of the migrant women's husbands were engaged in professional and managerial occupations than the native women's husbands in San Juan. The fertility difference could therefore be attributable to the selection factor. In Taiwan, rural to urban migrants were found to have slightly lower fertility than rural natives after controlling for duration of marriage (Speare, 1969) suggesting either disruption or adaptation effects.

A study in the United States and Canada revealed that the foreign born migrants had lower fertility than non-migrants at both places of origin and destination (Long,
Among the ever married women of age 25-54 years those who were born in Canada but living in the United States had lower fertility than the native born population of either countries. The migrants to the United States had greater exposure to urban life and presumably this was responsible for their lower fertility according to the hypothesis of adaptation.

Powers and Charlene (1970) observed that movers had lower fertility than long-term residents in New York. The inverse relation between education and fertility held for both recent movers and long-term residents. Mobility tended to be associated with lower fertility at each educational level. In another study in the United States, Wilber (1970) found that the probabilities of having three or more children are lower for immigrants than for intra-country movers and lower for movers than for non-movers.

In a series of studies that examined the migration-fertility linkage in Thailand quite systematically, it was observed that the recent migrants (less than five years of duration) to urban areas had lower fertility than life-time migrants and non-migrants (Goldstein, 1971, 1973, 1978; Goldstein and Tirasawat, 1977; Goldstein and Goldstein, 1981). The life-time migrants had fertility levels similar to the non-migrants at destination. Further, the fertility of the migrants of rural origin was higher than that of urban
origin, but lower than that of rural non-migrants. This study does support the hypotheses of disruption and adaptation. The disruption effect gets support from another study in Thailand (Pernia, 1981).

In Philippines, Hendershot (1971) noticed that migrants were more likely to possess upward social mobility, high levels of education, higher income, and aspirations for better education and better jobs. Thus, migrants have lower fertility than non-migrants both at the places of origin and destination. This study supports the hypothesis of selection. Iutaka et al. (1971) noted that migrants had higher fertility than urban natives in Brazil regardless of age at marriage, socio-economic background. This was true both for Whites and non-Whites. The evidence appears to support the generation hypothesis. However, data on the fertility at the place of origin were not presented.

In a study in the United States, Ritchey and Stokes (1971) found that urban in-migrants had lower overall fertility than rural in-migrants and rural natives in rural areas in all income and educational levels. In urban areas also, the rural in-migrants had larger number of children ever born than urban in-migrants and urban natives in all income and occupational classes. However, the rural in-migrants with higher education had lesser number of children ever born than urban in-migrants and urban natives. This study supports the generation and selection hypotheses.
Further analysis showed that urban migrants from large cities had smaller number of children ever born than those from other small cities and farms (Ritchey and Stokes, 1972; Ritchey, 1973).

Hooper and Huntsman (1973) found that migrants in New Zealand had higher cumulative fertility than their non-migrant counterparts at the place of destination for a number of generations. This study supports the hypothesis of generation. Sabagh (1973) in a study in Morocco, noted that the women who moved from rural areas to cities before the independence of Morocco had the highest fertility of any group. By contrast, migrants of either rural and urban origin who moved after the independence had the lowest fertility of any group. Further analysis (Sabagh and Yim, 1980) showed that the recent urban migrants had a higher educational and income level than rural migrants and earlier migrants and had lower fertility than both the latter groups. Controlling for age at marriage and various socio-economic factors reduced the fertility differentials, but the direction is almost the same. It was felt that the recent migrants were more oriented toward social mobility than earlier migrants and hence had lower fertility.

Abelson et al. (1974) compared the fertility of migrants and non-migrants in high and low altitude areas of Peru. Though the fertility of non-migrants in high altitude areas was lower than that of non-migrants in low altitude areas,
migrants from high to low altitude areas experienced an increase in fertility. Though migration may be one of factors causing the rise in fertility of downward migrants, the authors suggested that altitude itself appeared to be the most significant factor. From a study conducted in Iran, Paydarfar (1974) observed that the urban migrants represent a modern life-style and had a smaller number of children ever born than traditional rural to urban migrants and urban non-migrants. Both husbands and wives of urban migrants had higher educational attainment and occupational status and ultimately had lower fertility than the urban non-migrants and rural to urban migrants. The evidence favours the selection effect. Rele and Kanitkar (1974) in a study in Bombay found that the wives and husbands of urban migrants had the highest educational attainment and lowest fertility level than that of wives and husbands of urban non-migrants and rural to urban migrants. The younger migrant women had lower fertility than non-migrant women in all age groups. This study supports the hypotheses of selection and disruption. In one of the few studies that compared the fertility of emigrants with non-migrants, Ebanks et al. (1975) found that the non-migrant residents in Barbados had experienced higher fertility decline than the emigrants from Barbados. The crude birth rates for residents declined from 31.5 to 20.5 and crude birth rates for residents plus emigrants declined from 30.8 to 22.4 in between 1956-1970. Adamchak and Wozniak (1976) noted that migrants in Mexico
city were mainly from rural areas, less educated and had larger family size than natives in Mexico town. Migrants' fertility was higher in the younger age group and lower in the older age group than the natives of the town. Thus, both the selection and adaptation effects are observed.

Card (1978) in a study observed that with increasing number of years lived in the United States, the Filipino migrants' knowledge, attitude, and desires related to fertility became increasingly similar to those of native Caucasian group. By far, the most predominant reason given by the Filipino respondents for changing fertility pattern in United States was the difficulty of obtaining child care in the new environment. Thus, immigrants had lower fertility than their counterparts at the place of origin. This study supports the hypothesis of disruption and adaptation. Friedlander and Goldscheider (1978) in a study in Israel found that the migrants have lower socio-economic status and education and thus, have higher fertility than the native population. In a subsequent study on the immigrants in Israel, Friedlander et al. (1980) found that a larger number of children were born to Asian and African women who married before immigration than those who married after immigration. The more educated women who married subsequent to immigration, limit their families through both stopping and spacing, whereas the less educated women who married before migration limit their families only through spacing. It is
not clear whether the fertility difference is due to selection or adaptation or both.

Hiday (1978) in a study in Philippines noticed that Age at marriage and education were positively associated with distance from the home communities and negatively associated with fertility. Urbanization exerts its major impact after the peak fertility years of ages 20-29, influencing urban migrants to bring their fertility under voluntary control. This study thus supports the hypotheses of selection and adaptation.

In a series of studies on the fertility of immigrants in Australia (Yusuf and Eckstein, 1980; Yusuf and Rockett, 1981; and Yusuf, 1986), it was found that the crude birth rate of immigrants was higher (by 33 percent) than that of native born in Australia. Within the immigrant groups, the Arab women had the highest fertility, the south European immigrants had fertility close to Australian born, and many others had lower fertility. The Polish immigrants had lower fertility than natives at the place of origin and destination. The evidence supports the generation hypothesis and for the Polish migrants, disruption also appears to have played a role.

In a study in Philippines, Sembrano (1980) found no significant relationship between migration status and fertility behaviour, regardless of places of birth and
destination. He argued that fertility differentials between migrants and non-migrants are due to differences in social characters, thus supporting the selection hypothesis. From an analysis of data from Colombia, Ribe and Schultz (1980) noted that migrants have distinct unobserved preferences for family size, quite in addition to other differentiating characteristics, so much so that, it is fertility propensities which determine the choice of destination area, rather than the choice of area which determines fertility behaviour. Thus, migrants with a preference for smaller families are expected to migrate to low-fertility areas where the environment and relative costs or benefits are conducive to smaller families, while the high fertility areas should be expected to attract migrants who prefer large families. This is one of the few studies that have found a reverse causation - from fertility preference to migration (place of destination).

Harbison and Weishaar (1981), from a study in Samon, noted that migrants to traditional communities had higher fertility than migrants to less traditional communities and a considerable amount of lower fertility (migrants to less traditional) was due to the fact that migrants to less traditional communities were selected for low-age-specific fertility before migration.

Each (1981) in a study in Peninsular Malaysia, noted that migrant women living in rural areas before marriage and
living in urban areas after marriage had significantly lower fertility than rural non-migrants. Urban to urban migrants had lower fertility than women who remained in urban areas. This study supports the hypotheses of disruption and adaptation. In a study in Taiwan, Chang (1981) found that exposure to an urban environment led to lower fertility among migrants of rural origin than that of non-migrants at the place of origin or destination after controlling for age and education. Further, in a later analysis, it was found that the citywards migrants from semi-rural and rural areas are younger and higher educated and have lower actual fertility than that of non-migrants at the place of origin, but similar or higher fertility than that of urban non-migrants at the place of destination (Chang, 1987). The migrants' annual income is substantially higher than that of both urban and rural non-migrants. The migrants had a greater say in choice of spouse and outside activities, higher exposure to mass media, more modern durables, and higher aspirations for children's education than their non-migrant counterparts in semi-rural and in rural areas. Thus the effects of selection, adaptation and disruption appear to have played a role.

Tuladhar and Stoeckel (1981, 1982) in a study in Nepal suggested that higher fertility among Indian migrants may be a reflection of their landholding. It was evident that fertility was directly related to landholding. Further,
they observed that the migrant women were more educated than non-migrant women. The migrant women reached their peak in age specific fertility at older ages (30-34 years) than non-migrant women. This study supports the hypotheses of generation and selection.

De Albuquerque and Mc Elroy (1982) in a study in the United States found that migrants from countries with high fertility continued to exhibit high fertility behaviour. This study supports the generation hypothesis. Similarly, Guest (1982) found that foreign born women had higher fertility than native whites in urban areas of the United States, whereas migrants in rural communities achieved lower fertility than native white. On the other hand, in Liberia, Kollehlon (1982, 1986) noted that fertility differentials by residence background and migration status are not evident. This study has not compared the fertility of migrants and non-migrants.

Goldstein and Goldstein (1982) found that even with several controls on rural/urban residence, and separation of spouses, the birth interval interrupted by migration is in most instances significantly longer among migrants than that of non-migrants at similar parities in Malaysia. This study supports the disruption and adaptation hypotheses.

In a study in Ecuador, Helen (1983) found that there are differences in migrants' fertility by status grouping, the
assimilation of new norm is of greater import than mobility, thus supporting the adaptation hypothesis. However, no data were presented on the fertility of non-migrants. Narain and Gotpagar (1983) and Gotpagar (1989) found that migrant women were more educated and had high work participation and also had high incidence of child labour than non-migrant women in Bombay, India. In each age group, migrant women revealed a distinctly higher fertility than non-migrant women. This study also supports the hypothesis of generation. However, the fertility differentials by place of residence showed that the migrant women residing in extended sub-urban areas, have lower parity than the migrant women in the inner-city and sub-urban areas. This is suggestive of a selection effect since women in extended suburbs may belong to families with higher education engaged in white collar occupations.

Weller (1983) noted that immigrants have lower fertility rates than the receiving population in Arab Middle East. The emigrants tend to have lower fertility than stayers at the place of destination. Edlefsen and Lee (1983) in a study observed that the fertility of rural migrants tends to be lower than that of rural non-migrants in Mexico. This observed differences could reflect the fact that migrants’ fertility adapts to the new circumstances and is lower than it would be in the absence of migration. Nagi and Nigim (1983) observed higher fertility declines among immigrants than natives in Kuwait and Israel. Further, the recent
immigrants had lower fertility than lifetime immigrants and natives, which suggests adaptation of migrants from low fertility areas to a higher fertility regime at destination.

Farber and Lee (1984), found that rural to urban migrants (men and women) in Korea had higher education than rural non-migrants, but lower than urban natives. The migrants had lower fertility than the rural stayers, but have higher fertility than urban natives. The younger migrants had smaller families than older migrants and urban natives, as well as rural stayers suggesting disruption. The fertility rates of migrants after migration to an urban area were significantly lower than that of rural stayers. Further analysis by Lee and Farber (1984) showed that migration slows down the pace of childbearing. Further, earlier migrants have lower fertility than later migrants, consistent with the adaptation hypothesis. The authors also tried to see if the degree of adaptation depends on individual characteristics, and found that wives' educational level did not influence estimated adaptation effects.

On the basis of an analysis of the fertility of Mexican migrants to the United States, Bean et al. (1984) observed that the age pattern of current and cumulative fertility differences seem more consistent with the idea that Mexican immigrants disrupt fertility temporarily rather than with the idea that migration selects women disposed toward lower fertility, or that migration is associated with leaving some
children behind in Mexico. Slesinger and Okada (1984) also examined the fertility of Hispanic migrant women in the United States and noted that they had larger number of children than native women. The younger migrant women were more educated than the older migrant women. A higher percentage of migrant women had never used any contraceptive method and a smaller proportion of migrant women were sterile as compared to American women. This supports the hypotheses of generation and selection. A later analysis of the data on the fertility of Latino women in the United States also found slightly lower median ages at first marriage and higher fertility at younger ages among U.S. Latino groups than among non-Latino Whites in the United States (Bean and Tienda, 1987). Further analysis showed that the immigrants' fertility declined with the greater length of familial exposure to the United States indicating an adaptation effect (Stephen and Bean, 1989).

Carlson (1985) from a study conducted in Melbourne, Australia, noted that the immigrants who arrived at destination at younger age (16) but before marriage; and who arrived after marriage but before first birth delayed marriages and first births. Age at marriage is observed to be higher among foreign men than native men and it is lower for foreign women than native women in education and fathers' occupational categories. Immigrants had longer birth interval at higher order parities (2,3, and 4). It appears
that disruption has led to delays of marriages and postponement of births. Hervitz (1985) observed that migrants to the modern urban region of Brazil, who had a low education appear to experience partial adaptation to lower fertility levels prevalent at destination. But migration to less modern and frontier urban areas appeared to have no significant fertility impact. Better educated migrants moving from traditional to modern urban areas did appear to be subject to have experienced short-term disruption effects in fertility, but hardly any permanent reduction in fertility. The younger migrants and better educated migrants with overall lower fertility levels are less likely to experience significant fertility reduction to bridge the fertility gap between the places of origin and destination. This study finds support for the generation, selection, disruption and adaptation effects.

In a study in England and Wales, Grundy (1986) found that those living in rented accommodation in 1971 were more likely to have moved between the 1971 census and the first subsequent birth than own house owners. Similarly, the wives of non-manual workers were more likely to have moved and delayed their first birth in between 1973 and 1974 than wives of manual workers. The women who have larger family size (2 against 1; 3 against 2 etc.,) and living in three or four rooms and shared accommodation were more likely to have moved. Johnson and Keppel (1986) in a study in United
States found that overall the migrant women had higher fertility than non-migrant women, but the migrant women who moved within non-metro counties had lower fertility than non-metro non-movers. It was also noted that the older migrant women have similar fertility level as non-migrant women. This study supports the hypotheses of generation, and adaptation.

Matin (1986) in a study in Chittagong (Bangladesh), found that the mean number of children ever born is higher for non-migrant women than migrant women and the difference is statistically significant. The mean desired family size is also found to be higher among non-migrant women than migrant women and the difference is statistically significant. The differences persist even when controlled for socio-economic status group. Weller et al. (1986) found that selectivity is becoming less of a factor with respect to migration from and into Puerto Rico. When age is controlled, inmigrants tend to have lowest fertility than non-migrants except in younger age group (15-19).

Pool et al. (1987) noted that the conception delays are shorter for Tokelan non-migrant women than migrant women in New Zealand. The older migrant women had delayed their pregnancies at each parity and have lower parity achievement than younger migrant and non-migrant women. This study supports the hypothesis of adaptation. Sarribile (1987) observed that female migration tends to delay marriage and
child birth after such a move in Barcelona, indicating the disruption effect.

Shlomowitz (1987) found that the fertility rate of indentured Indian females in Fiji exceeds the fertility rate of women in contemporary England and Wales. This study supports the hypothesis of generation. Results from Costa Rica showed that migrants in urban areas eventually reduce their fertility once assimilation takes place (Trovato, 1987).

Khan (1988) noted that selectivity conditioned the effects of fertility level in the sending countries on immigrants' fertility in the United States. Positively selected immigrants have not much generation effect on their fertility. In a study in India, Rastogi (1988) observed that a higher percentage of migrants had married after their migration to the city. The migrants who mostly hailed from rural areas adopted the marriage pattern prevailing in the cities. Perhaps, there was some disruption effect as well, but this has not been discussed by the author.

Analysis of the United States 1990 Public Use sample survey data showed that the second generation foreign born women had delayed their marriages and had fewer children than the native born women of native parentage in the United States. The evidence supports socialization (Ruggles, 1988 and King and Ruggles, 1990). Gorwaney et al. (1989, 1990)
found that the fertility of all immigrant groups declines with greater length of residence in the United States, strongly supporting the adaptation hypothesis. In the case of younger immigrant women, it fell even below the level of United States born women, possibly due to disruption. Similar inferences can be drawn from other studies in the United States (Ford, 1990); and in Canada (Ram and George, 1990).

Campbell (1989) analysed family size desires of migrants and non-migrants in Western Area of Sierra Leone. It was found that migrants desired a higher family size than non-migrants. Further, as duration of residence increased, a rise was noted in the desired family size. The place of origin also showed an effect. Thus, the study supports generation, socialization and disruption theories, but not adaptation. In a study in Italy, Clerici (1989) observed that the migrant women who recently obtained a new job touched the lowest level of fertility, while those who left their jobs reached the highest fertility level in Italy. The disruption effect is evident in this study.

Morgan et al. (1990) in a study in the United States found that the British and German immigrants had fertility rates very similar to natives at the place of destination, whereas the Poles, Italian and Central and Eastern European immigrants had higher fertility than natives. Thus, fertility of migrants seems to be influenced by the place of
origin (generation effect). In a study in Netherlands, Schoorl (1990) found that the immigrants are from selected groups and have lower fertility than natives at origin. Further, he observed that the immigrant women who spent most of their marital and reproductive life at the place of origin have less scope for an adaptation of fertility behaviour and attitudes than women who immigrated at the time of their marriage and spent most of their reproductive life at the place of destination. This study shows the evidence of selection and adaptation effects. On the other hand, Young (1991) in a study in Australia observed that the immigrants who arrived at younger ages had higher fertility than other immigrants and natives. It is possible that those who migrated at young ages differed from the other migrants with respect to socio-economic background; but no evidence is available to support this conjecture. It is noted from a study by Coleman (1994), that the fertility decline of many immigrant populations in Europe is due to delays in age at marriage and the substantial and rising level of inter-marriage, that integration and assimilation of European immigrant population with the host population is proceeding fast particularly among the younger generation who were brought up in the host country. This study supports the hypotheses of socialization and adaptation.
The Effect of Migration on Fertility of an Area:

A few studies have been done on the effect of migration on fertility of an area, both the place of destination and the place of origin. Some studies have argued that due to out-migration, the birth rate of the sending region has declined (Keppel and Hamphrey, 1977; Myers and Muschin, 1984; Mc Elroy and de Albuquerque, 1990; Anderson and Morse, 1993). On the other hand, some studies have argued that due to in-migration, the birth rate of the receiving region has increased (Jenlik, 1955; La Sorha, 1974; Ringkade and Fulton, 1980; Erik, 1985). But in some urban areas, in-migrants caused a fall in fertility (Halli, 1976; Surak, 1989; Bhatia and Sabagh, 1980; Goldstein and Goldstein, 1984).

Research Gaps:

The review indicates that there has been considerable research on the fertility behaviour of migrants. It has been found in many studies that migrants who move from a high fertility region such as rural areas within a country and immigrants from high fertility populations, to a low fertility region such as an urban area or a developed country have a higher fertility as compared to the receiving population. Some studies do, however, show that such migrants experience an amount of fertility decline. But results differ on the extent and timing of such decline.
Further, in many studies no such decline has been established since information on the fertility of stayers at the place of origin was not available. It must be admitted that collection of data on non-migrants at origin is much more difficult than that on non-migrants at destination. As a result, many studies have compared the fertility of migrants with that of non-migrants at destination, found the migrants' fertility to be higher and, on the assumption that they hailed from a high fertility region, attributed it to childhood influences (the generation effect).

Another difficulty with many of the studies, especially the earlier ones, is that fertility comparisons were made without controlling for socio-economic factors. Since it has been found that generally the rural to urban migrants come from a higher socio-economic status (as compared to the rural stayers) associated with low fertility, it is possible that a selection effect has been interpreted as fertility reduction due to adaptation. However, a few of the recent studies have accounted for such factors and yet found some adaptation influences.

A large number of studies reviewed have examined the fertility of international migrants. Such migrants generally move from one cultural setting to another substantially different setting. Adaptation for them may be a slow process, because of the difficulties in language, tendency to settle into enclaves of similar migrants etc..
Short distance rural to urban migrants may not face many of the problems faced by the immigrants. Short distance migrants may already have friends or relatives at the place of destination, may not be much different from the population at destination in terms of cultural practices, and may have no language difficulty at all. Thus, they may find it easy to adapt to the urban settings. On the other hand, precisely because of the short distance, they may be able to maintain good links with the population at origin. This could have a counter influence of continuing with rural fertility behaviour. For a clear understanding of such effects, data on links with the place of origin and aspects of assimilation at the place of destination are required. These have not been presented in most of the studies.

The disruption effect has been considered in only a few of the recent studies. Otherwise, it was confounded with the adaptation effect. For a clear assessment of the disruption effect, details on the timing of fertility are required. Such information was not available in most situations. Moreover, very few of the studies have examined specific aspects of disruption, mainly, living arrangement after migration, separation of spouses, financial difficulties in the immediate post-migration period etc. As a result, disruption has often been presumed but not established.

Most of the studies have looked at fertility variables such as children ever born at the individual level or an
appropriate indicator at the aggregate level. Only a few have specifically examined important proximate determinants like age at marriage and contraceptive practice.

The normal practice in fertility studies is to treat the woman as the unit of analysis. This is certainly appropriate in most situations. As a result, almost all the analyses, the migration status of the woman has been considered. However, in a male dominant society, the husband plays a bigger role in taking decisions on family building. It would be appropriate to examine, therefore, the migration status of the husband. Moreover, in countries like India, where village exogamy is widely prevalent, the migration of married women is often incidental to marriage and this is clearly distinct in character from the migration of women for other purposes. This aspect has been highlighted by Campbell (1989). Therefore, it makes sense to treat the couple as the unit of analysis and focus on the migration of the husband in societies like the Indian. Very few of the studies have done so.

The proposed research cannot overcome the various difficulties noted above. However, the review provides a general direction to the development of an appropriate research design. The proposed research design is presented in the next Chapter.