

# Culture, Religion and Reproductive Behaviour in Two Indigenous Communities of Northeastern India: A Discussion of Some Preliminary Findings

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**Abstract:** *In spite of enjoying a higher level of female autonomy in a strong matrilineal kinship system, women in matrilineal societies in northeast India have the highest fertility in the country. This direct association of high female autonomy and high fertility challenges the most commonly observed inverse relationship between these two variables in other populations. Preliminary findings from a comparative analysis of the Khasis and the Karbis - two tribal communities with two different kinship systems, highlight the fact that in traditional tribal societies decisions regarding reproduction are not only influenced by individual level factors. Instead, this paper argues that the perceptions and the behaviour related to reproduction are strongly, even predominantly, determined by prevailing cultural and religious values, that form the basis of socially-sanctioned realities in these communities. It is also argued that reproductive behaviour in these communities is strongly influenced by the insecurities associated with minority-group status. This paper highlights the reality of reproductive norms among these tribal groups and hypothesizes that the perception of minority status and the adoption of a more defensive position vis-à-vis outside groups has impacted on fertility outcomes in these communities. This phenomenon calls for further development and refinement of India's National Population Policy.*

## Introduction

The research question that is the focus of this paper is: To what extent have cultural and religious factors influenced the significant fertility differentials between and within the Khasi and the Karbi tribal communities in northeastern India? Data from the recently concluded National Family Health Survey (NFHS 1999) show that the state of Meghalaya, which is the homeland of three matrilineal tribes namely the Khasi, Jaintia and Garo which constitute 86% of the total population of the state, has the highest fertility in India with a total fertility rate (TFR) of 4.57. The TFR of Meghalaya has in fact increased by 23% during the period 1990-99. In spite of enjoying higher female autonomy compared to other tribes, the three tribes mentioned above, especially the Khasis, have higher fertility compared to other patriarchal tribal communities of northeast India. This direct positive association of high female autonomy and high fertility challenges the most commonly observed inverse relationship between these two variables in other populations. On the other hand the total fertility rate of the patriarchal tribes, which constitute 25% of the total population of the neighboring state of Assam, has declined during 1990-99 to a level of 3.0 (NFHS 1999). These tribal communities (known as scheduled tribes<sup>1</sup>) of Assam follow a strong patriarchal kinship system where women's status is traditionally low.

A careful analysis of the institutional settings of these tribes can provide explanations of the fertility differentials existing between them. But identifying the institutional settings and distinguishing those that generate high fertility from those that generate low fertility is a task that researchers have not given proper attention to. An essential feature of the institutions referred to above is that they persist, generating a society's distinctive patterns of social organization and the texture of social life. Reproduction, whether at

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<sup>1</sup> 'Scheduled tribe' can be defined as a particular group that:

- is geographically isolated from the main stream;
- exhibit ethnic distinctiveness and linguistic differences from the national society;
- has a strong sense of ethnic solidarity and an absence of the caste system;
- is minimally involved in the market economy and its subsistence needs guide their production decisions rather than market signals and they have a sustained-yield economic system;
- uses primitive (ancestral) technology that is suitable to the needs of their immediate environment (Goswami 1990).

high or low levels, is so important to the family and the society everywhere that its level is more or less controlled by the cultural and religious norms about family size and related behaviours such as age at marriage, timing of first intercourse, use of contraception, and abortion. As described by Freedman (1963), in each society the norms about these vital matters are consistent with social institutions in which they are deeply embedded. In a traditional, closely-knit society changes in fertility are unlikely to occur without prior or, at least, simultaneous changes in the institutions. In view of the special importance attached to kinship ties in the ethnic groups under consideration, it is argued that differentials in fertility levels can largely be attributed to the differentials in normative values set by local and religious institutions. Several authors (Dyson and Moore, 1983; Basu, 1992) have carried out studies to search for the factors responsible for regional variations in fertility in India. These authors have concluded that differentials in female autonomy, which in turn are outcomes of the differentials in kinship systems, are at the root of regional variations in demographic behaviour. But the differential in kinship structures is not the only aspect of social organization relevant to an understanding of regional fertility differential in India. Kinship systems exist in connection with other fundamental bases of social structure, which have played an important role in the fertility differential between north and south India (Malhotra 1995). When we wish to relate female autonomy to fertility, we need to move from a broad and bundled concept of kinship/female autonomy to a more detailed consideration of the elements that comprise it (Malhotra 1995). Even within a specific culture, gender inequality and kinship structures are not monolithic. Rather, the multi-dimensional nature of these concepts means that a situation favourable to women in one domain need not favour them in another (Mason 1989). In their effect on fertility, therefore, the various dimensions of kinship and female autonomy may not be equally relevant and may not even affect fertility in the same direction in different contexts (Malhotra 1995).

Like the cultural factors, religion deserves increased attention as a variable affecting fertility levels in a society. Differences in the ideal or desired number of children and in the willingness and ability to control fertility have been considered as the two main sources of fertility differentials among religious groups (Population Council 1968, Adegbola 1988, Goldscheider and Mosher 1991). Though many researchers have suggested the existence of differentials in fertility levels among different religious groups in India, very few attempts have been made to study the dynamics of the relationship between religion and fertility. It is still highly debatable whether it is differentials in religious practices and ideologies per se or differentials in socio-economic conditions between different religious groups, that are responsible for the differential in fertility behaviours and fertility levels in India. A study conducted among the 'Atyap' community in Nigeria (Avong, 1998) suggests that fundamentalist Christianity has replaced the traditional religion and most of the cultural practices that influence fertility. This study has found that 'Catholic' and 'Other Protestants' (Anglican and Baptist) have higher fertility than members of the 'Evangelical Churches of West Africa' (Avong 1998).

In addition, it is argued in many studies (Goldscheider & Uhlenberg, 1969; Robert, Roberts & Lee, 1974; Sly, 1970) that in a traditional ethnic group, social norms and behaviors tend to be guided by the relative position of a particular community in the social stratification system. This viewpoint first achieved popularity some years ago, but then fell out of favour and is only now re-emerging as a major research issue.

Most studies conducted so far in India, that have focused on the issues mentioned above, have concentrated on non-tribal communities. The 461 tribal communities, which comprise around 9% of India's population (Census 1991), have been largely ignored by demographers. Little attention has been given to understanding the population dynamics of these communities which traditionally have high fertility compared to non-tribal communities in India (Gangadharam 1999). The term 'scheduled tribe' is of recent origin, which came into existence with the birth of the Constitution of India on January 26, 1950. Prior to that scheduled tribes were variably termed 'aboriginals', 'adivasis', 'forest tribes', 'hill tribes' and 'primitive tribes'. Article 342 of the constitution provides for the scheduling of tribes for a state as a whole, or any part thereof. Article 244 empowers the President to declare any area, where there is a substantial population of tribal people, as a scheduled area (Srivastava 2000). Though most of these tribal communities have been broadly classified under the one category 'scheduled tribes', each tribal group possesses a unique cultural identity. North-East India, comprising seven states namely, Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura has the unique distinction of having more than one hundred tribal communities which dominate the total population of this region.

This paper reports preliminary findings from a comparative study of the two tribal communities - the Khasis and the Karbis in northeastern India. The main objective of the paper is to examine the relationship between culture, religion and fertility with a particular focus on female autonomy. A major theme of the paper is the impact of cultural and ethnic revival on fertility behaviour.

## Research Setting

Khasi is one of the three matrilineal tribal groups inhabiting the northeastern state of Meghalaya in India. There are an estimated 800,000 Khasis which comprise 45% of the total population of state. The 'Khasis' of Meghalaya follow a matrilineal social structure that ensures the woman not only a position of authority, but also protection against any possible exploitation. In the Khasi kinship system, the custody of property and succession of the family position runs through the female line, passing from the mother to the youngest daughter, instead of through the male line as is common elsewhere in the country. According to the renowned writer Hipson Roy (re-quoted Langstieh 2000) – "the daughters are married according to seniority and each is given a separate house within the ancestral land. By this process of elimination, the youngest daughter is naturally the last to remain in the house. Therefore she is put in charge of property". Khasi women want at least one girl child to maintain this matrilineal system for the next generation. The most remarkable feature of Khasi marriage is that it is usual for the husband to live with his wife in his mother-in-law's house and not for him to take his bride to his family home, as is the case in other communities. A man can only rarely possess ancestral land or property except that which is self-acquired. The status of Khasi women appears to be high, mainly because of the inheritance rules and their comparative freedom in establishing a home. Khasi women enjoy a much greater share of liberty in the household decision-making compared to women in other societies in India. They manage household expenditure, contribute to the family income and make their own decisions. Socially Khasi women are considered equal to Khasi men. But Khasi women do not participate in any public council or village durbars (a local decision-making body). The customary democratic norms of the Khasis, which have been hailed for years have gone without female representation possibly because in a matrilineal society the interests of women are already well protected (Langstieh 2000).

'Karbis' popularly known as 'Mikirs', constitute one of the important tribes of northeast India. At present Karbis are found mostly in the Karbi-Anlong district of Assam. Karbis follow the 'Patriarchal System' and the line of descent is traced through male family members. After the death of the father, the sons inherit the property and the daughters have no rights to it (Stack 1997). The eldest son inherits the major share. Likewise succession of the family position as the head of the household also goes to the eldest son. Among Karbis, the women are not allowed to participate in village council proceedings or in religious performances. The birth of a child is a matter of joy for them as it is supposed to be the rebirth and return of the soul of dead family members to the living world.

Over the years Christian Missionaries have been very successful in converting tribal people of Northeast India (who were originally of other religious persuasions) to Christianity. In pre-independent India, the British wanted to complete the subjugation of the tribal people by a process of slow and steady cultural changes best suited for their purpose. In 1866, the American Baptist Mission was brought in and entrusted with the task of 'rescuing' the tribal from their traditional beliefs. Tribal people of different areas and classes were brought to mission centres, educated, converted and sent to Mission managed schools as teacher-pastors. The Government gave some attention to the morals of pupils, but the Missionaries wanted to make the development of 'Christian Character' as their main aim. To achieve this, the Missionaries converted the tribal people to Christianity and the Missionary schools had a major role in this task. The percentage distribution of different religious groups in Meghalaya indicates that there has been a rapid increase in the Christian population, mainly due to conversion.

Over the last three decades the percentage of Christians in the population has increased almost two fold (Table 1). On the other hand, except for an increase in the Muslim community there have been declines in the relative size of the other religious categories, namely Hindus and others. The majority of the Khasi population has been converted to Christianity. The non-Christians continue to practice traditional religious beliefs. But the role of out-migration of the Hindus due to ethnic conflict and illegal in-migration of Muslims from the neighbouring country of Bangladesh can not be ignored in changing the religious composition of the

population of Meghalaya. According to the 1991 census (Census of India, 1991), 65% of Meghalaya's population is Christian.

**Table 1: Religious Affiliation of the Population of Meghalaya State, 1961 to 1991 (%)**

Religion	1961	1971	1981	1991
Christian	35.21	46.98	52.62	64.58
Hindu	18.26	18.5	18.03	14.67
Other <sup>2</sup>	42.93	31.45	25.77	16.82
Muslim	2.99	2.60	3.10	3.46

*Source: Census of India (various years from 1961 to 1991).*

Among the Karbis, the traditional religion is animism though the influence of Hinduism is evident. Though the converted Christians have abandoned many of their indigenous practices, they still retain many traditional cultural practices. Conversion of the Karbis was made easier by the lure of free education, which was limited to the minimum education required to read the Bible. Apart from that, free food and lodging as well as gainful employment were sufficient to motivate the people to change their religion. Christianity also brought modern medical facilities to their homelands. The social consequences of the introduction of Christianity to the tribal groups in northeastern India has not been studied in depth (Snaitang, 1993). On the other hand, those few scholars (Chaube 1973, Down 1983, Natarajan 1977, Snaitang 1993) who have given attention to the role of Christianity in social change have reached divergent conclusions on the outcome of such changes.

## Research Methodology

This paper is based on primary data collected from the Khasi and Karbi indigenous communities in northeastern India during January - June 2000. Information on household characteristics and reproduction was collected through a structured questionnaire. Quantitative data were collected on ethnicity, age, sex, education, marital status, religion, attitude towards family planning and family size, the proximate determinants of fertility, children ever born and their survival status, live births in the last five years, sex preference and female autonomy. Qualitative data were collected through in-depth interviews with village heads and other persons and through several focus group discussions. Around 800 ever-married women (400 in each community) and household-heads were interviewed.

The overall theoretical framework used in this paper was derived from Freedman's (1963) concept that normative values have a key role in explaining differentials in fertility between two groups. The framework portrays the hypothetical relationship between fertility and other variables that influence fertility outcome. The relationship between the variables is conceptualised by first making a distinction between the proximate variables (Bongaarts 1982) and the contextual factors determining fertility. The contextual factors such as cultural and traditional beliefs, female autonomy, socio-economic status and infant mortality are assumed to affect fertility only through their role in modifying the proximate factors. Keeping in mind the current movements for cultural revival among many indigenous groups in northeastern India, 'minority group status' (Goldscheider and Uhlenberg 1969; Robert, Roberts & Lee 1973; Johnson 1970; Sly 1970) is included as an important contextual variable in this framework. The first part of the paper focuses on the comparative levels of fertility, female autonomy and the four proximate determinants of fertility, namely age at marriage, contraception and induced abortion, and birth interval, in the two ethnic communities. The possible influence of contextual factors on intermediate variables and their role in creating fertility differentials between the two communities is discussed in the later part of the paper.

<sup>2</sup>'Other Religions' includes all other religious affiliations except Jains, Sikhs and Buddhists.

## Results

### *Female Autonomy*

Indicators, which depict the comparative level of female autonomy, are shown in Table 2. The overall comparison clearly shows that Khasi women enjoy a higher level of autonomy and higher status in their society than do Karbi women.

Figures in Table 2 indicate that Khasi women enjoy higher autonomy than Karbi women in all the main aspects of life, such as decisions about health care, having access to money, staying with parents, purchasing jewelry and going to the market or visiting friends of their own accord.

While almost all (97%- Table 2) Khasi women are involved in decisions regarding their own health care, 50% of these Khasi women make these decisions on their own without involving husbands or other members of their households. On the other hand it was found that out of 75% of Karbi women involved in decision-making about their own health care, only 10% of them make such decisions solely by themselves.

For the 25% of Karbi women who are not at all involved in making decisions regarding their own health care, these decisions are made entirely by their husbands (or in a few cases by other members of the household). Khasi women also enjoy a comparatively higher freedom of movement as shown in the category “who do not need permission to go to the market and visit friends and relatives”.

**Table 2. Indicators of Female Autonomy: Decision-Making, Freedom of Movement, Access to Money and Treatment from Household Members**

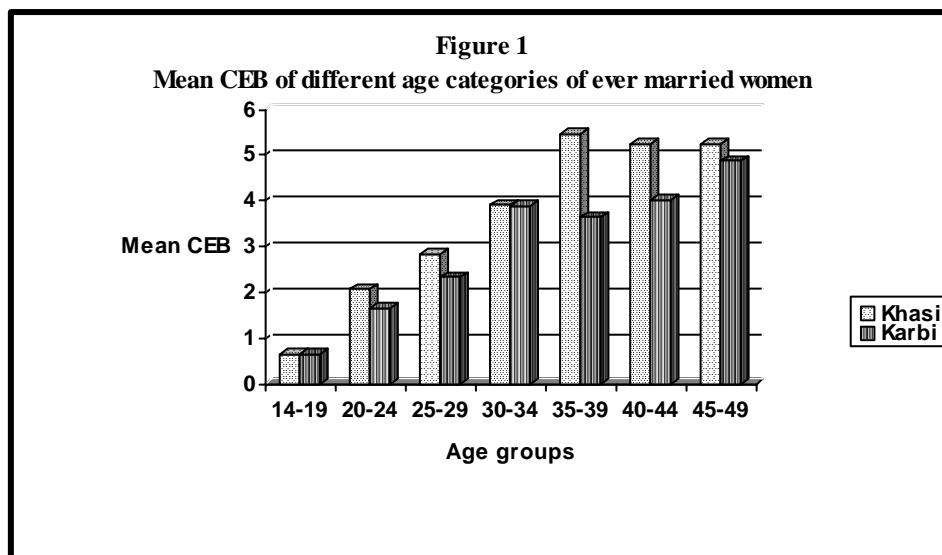
Percentage of ever-married women									
Community	Involved in decision making about				Do not need permission to		Have access to money	Mistreated if	
	Cooking	Own health	Purchase of jewelry	Staying with parents	Go to the market	Visit friends and relatives		Go to the market without permission	Spend money without permission (earned herself)
Khasi	96	97	88	80	35	31	93	14	10
Karbi	96	75	66	45	11	7	52	64	43

*Source: Fieldwork 2000*

In comparison to Khasi women, a higher percentage of Karbi women not only suffer from a curtailment of their freedom in decision-making and freedom of movement, but proportionately more Karbi women are subjected to mistreatment either by their husbands or by other household members if they carry out certain acts without permission.

### *Children Ever Born (CEB)*

As shown in Figure 1, the mean number of children ever born is higher for Khasi women in almost each age group. Mean CEB for Khasi women is more than five in all the last three age groups, whereas only the last age cohort of Karbi women has a mean CEB of more than four.



*Source: Fieldwork 2000*

The mean CEB for all women in the reproductive age group is 3.8 for the Khasis and 3.0 for the Karbis. ‘Children ever born’ reflects a more accurate picture of the fertility performance of a population as children who died are also considered in this estimate. An interesting finding from children ever born data is that within each community, there is no difference between the converted and non-converted groups.

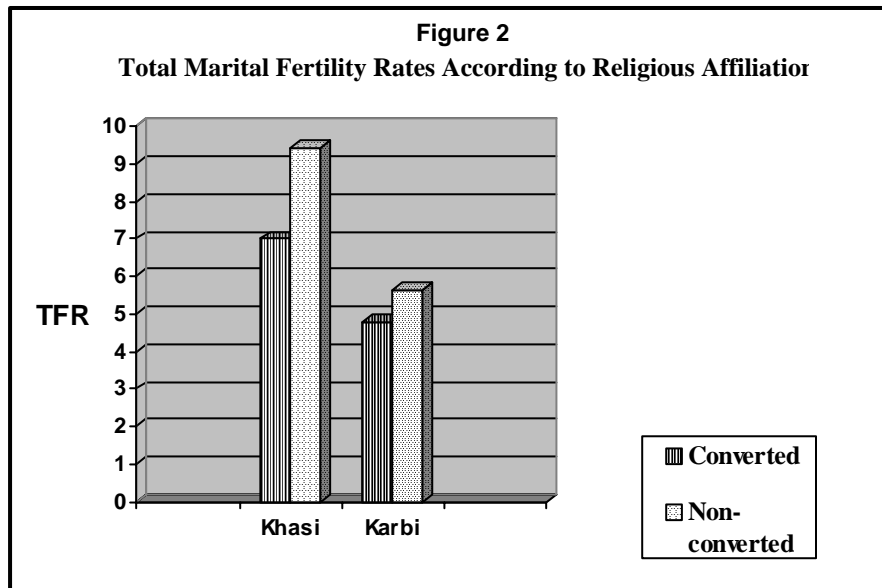
#### ***General Marital Fertility Rate***

The present study found that 112 and 79 babies were born to Khasi and Karbi women respectively, in the year preceding the survey. Based on these data the general fertility rates of the Khasis and the Karbis were estimated to be 280 and 207 per thousand women respectively. The GFR for non-converted Khasis (351 per thousand) was much higher than the GFR for converted Khasis (265 per thousand). Among the Karbis, the converted had a higher GFR.

#### ***Total Marital Fertility Rates***

The total marital fertility rates (TMFR<sup>3</sup>) of the two communities calculated for the year 1999 were 8.9 for all Khasi women and 5.6 for all Karbi women. The differential between the two communities is very significant. The age specific marital fertility rate (ASMFR) was higher for Khasi women in each age group. In both the tribes (Figure 2), fertility of the converted is lower than that of the non-converted. Khasi women have higher fertility than Karbi women, whether they have been converted to Christianity or not. The highest TMFR of 9.4 is exhibited by the Khasi non-converted women, followed by the Khasi converted women (TMFR 7.0), Karbi non-converted women (TMFR 5.6) and Karbi converted women (TMFR 4.8).

<sup>3</sup> TMFR has been estimated instead of the TFR (total fertility rate) because only ever-married women were interviewed in the survey.

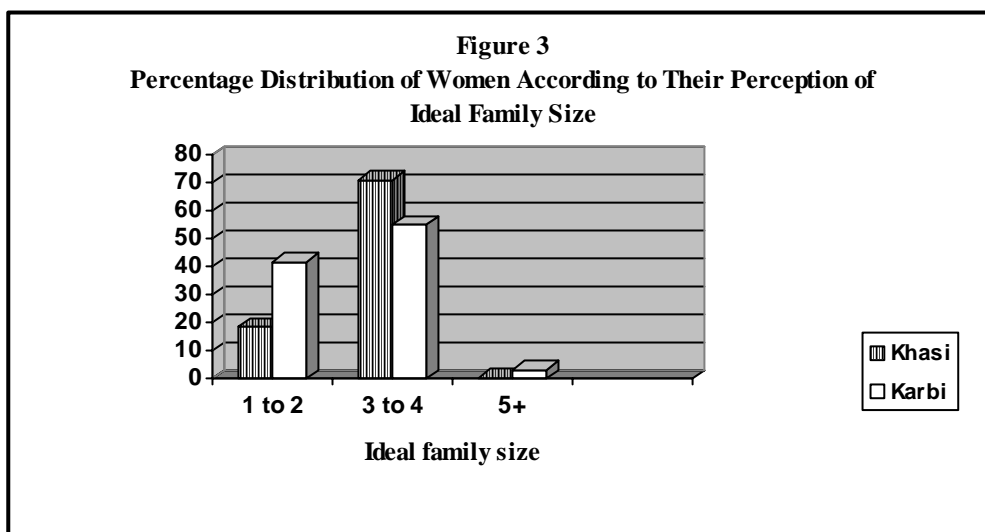


*Source: Fieldwork 2000*

The above information establishes the fact that a large-scale and consistent fertility differential existed between the two communities. Further, contrary to general observation and expectation, Khasi women, in spite of enjoying higher autonomy than Karbi women exhibit higher fertility. The current fertility estimates also showed a significant differential in fertility levels according to religious affiliations within each community, with the converted members consistently exhibiting lower fertility, however the differential by religious affiliation was more pronounced among the Khasis.

### Differentials in Ideal Family Size

Ideal family size is an indicator of fertility preference. In the survey, women respondents were asked a question on ‘ideal family size’. The answer to this reveals that Khasi women on average wanted one child more than the Karbi women. As shown in Figure 3, almost 42% of the Karbi women preferred one or two children whereas around 82% of the Khasi women wanted more than two children.



*Source: Fieldwork 2000*

Though in both communities more than 50% of women aged 40 years and above had more children than their ideal family size, this percentage was higher for the Karbis. It was also found that approximately 21% of the Khasi women who had completed their child bearing had a fertility outcome that matched desired family size, whereas only 9% of Karbi women were in this position.

Data on sex composition of the ideal family size show opposite findings in these two communities - a strong preference for sons among the Karbis and a strong preference for daughters among the Khasis. One interesting finding is that when the ideal family size is an even number (2 or 4), a majority of the women in both communities wanted an equal numbers of sons and daughters. But when the ideal family size was an odd number, the Karbi women preferred to have a larger number of sons than daughters, and the Khasi women preferred to have a larger number of daughters than sons in their family. Data also show that the ideal family size was higher for the converted groups in both communities, though the difference (between converted and the non-converted or traditional) was marginal in the Khasi community.

## Proximate Determinants

### *Age at Marriage*

The ‘mean age at first marriage for females’ is a crucial proximate determinant of the fertility level in any population (Bongaarts 1982). The estimated mean age at marriage was 20.8 for Khasi women, which was 2.5 years greater than the mean age at marriage of Karbi women (Table 3).

An important observation from Table 3 was that, except for the age-cohorts of 15-19 and 45-49 years, in both the communities, the mean age at marriage has remained remarkably stable for the different age-cohorts. The exception was the youngest cohort (15-19) possibly due to very small numbers of women in this category in the two communities. Similarly, the inconsistency of the oldest cohort (45-49) in the two communities was possibly due to the effect of faulty recall in reporting their age at marriage.

Further, calculations based on fieldwork (not shown here) reveals that almost 60% of the Karbi women in the survey married either before or on reaching the age of 18, the minimum legal age at marriage for females in India. In contrast, only 28% of Khasi women married either before or on reaching the minimum legal age at marriage. The mean age at first marriage of all mothers was appreciably higher among the Khasi women than among the Karbi women, a finding contrary to that expected if mean age at first marriage was an important proximate determinant of the higher fertility outcome among Khasi women. Age at marriage did not show any significant difference according to religious affiliation in both communities.

**Table 3. Mean Age at First Marriage of Mothers According to Present Age**

Present Age	Number of Women		Mean Age at Marriage <sup>4</sup>	
	Khasi	Karbi	Khasi	Karbi
15-19	6	18	16.00	15.80
20-24	80	72	19.47	18.00
25-29	84	82	20.82	19.00
30-34	89	71	21.65	18.50
35-39	67	62	21.36	19.90
40-44	40	41	21.00	18.83
45-49	27	26	25.60	15.85
All ages	393	372	20.83	18.24

*Source: Fieldwork 2000*

<sup>4</sup> Life table techniques were used to derive these estimates (Table3), WFS 1985.



### *Use of Contraception*

Ever use of contraception was very low and almost equal in both communities (28.3% and 25.2% for Khasi and Karbi respectively). However there was a clear difference in the use of contraception by the two communities. Among the contraceptive users more than 70% of the Khasi women had ever used temporary methods, while only 17% of the Karbi women had done so. By religious conversion status, more than 40% of the non-converted women in both communities had ever used contraception, whereas very low percentages of women in the converted group in both communities have ever used contraception (19% among the Khasi converted and 9% among the Karbi converted).

### *Induced Abortion*

Abortion was quite frequent among the Karbis, but almost absent among the Khasi women. A total of 88 cases of abortion (both induced and spontaneous) were recorded among the Karbi women whereas only 11 cases were recorded among the Khasi women. More than one half of the total abortions among Karbi women were induced abortions. Around 23% of the Karbi women in the survey had experienced either induced or spontaneous abortions. Seventy seven percent of the total number of induced abortions occurred among mothers aged below 30 years. The differential in the incidence of abortion according to religious conversion status in the Karbi community was found to be negligible.

### **Length of Reproduction**

Although age at first marriage indicates the age of entry into a marital union, it does not necessarily reflect the age of entry into a sexual union within marriage. For example, in the North Indian kinship system the practice of Gona (a cultural taboo where by the newly wedded have to remain separated for a period of time immediately after marriage) delays the first birth, even though the age at marriage may be low. In this context it is more appropriate to consider age at first birth as the starting point of family formation. The average age at which women gave birth to their first child in the Khasi community was 21.5 years (Table 4), exactly one year above that of women in the Karbi community.

Table 4 reveals that both the Khasi and Karbi women have started child bearing at younger ages in recent times as indicated by an increased age at first child birth among older woman. However, compared to the Karbi women, the mean age at first birth of the Khasi women showed a more pronounced trend to younger ages at first birth. A comparison of Table 3 and 4 reveals that though the mean age at marriage for the Khasi women was higher than that of the Karbi women, the Khasi women started childbearing almost immediately after entering into marital union. The average interval between marriage and first childbirth was less than 1 year for the Khasis and slightly more than 2 years for the Karbis.

**Table 4. Mean Age at First Birth According to Current Age (Ever-married Women in Reproductive Age Group)**

Present Age	Mean Age at First Birth <sup>5</sup>	
	Khasi	Karbi
15-19	17.7	18.5
20-24	19.9	19.5
25-29	21.3	20.4
30-34	21.9	20.4
35-39	23.1	21.4
40-44	22.3	21.3
45-49	23.3	21.9
All ages	21.5	20.5

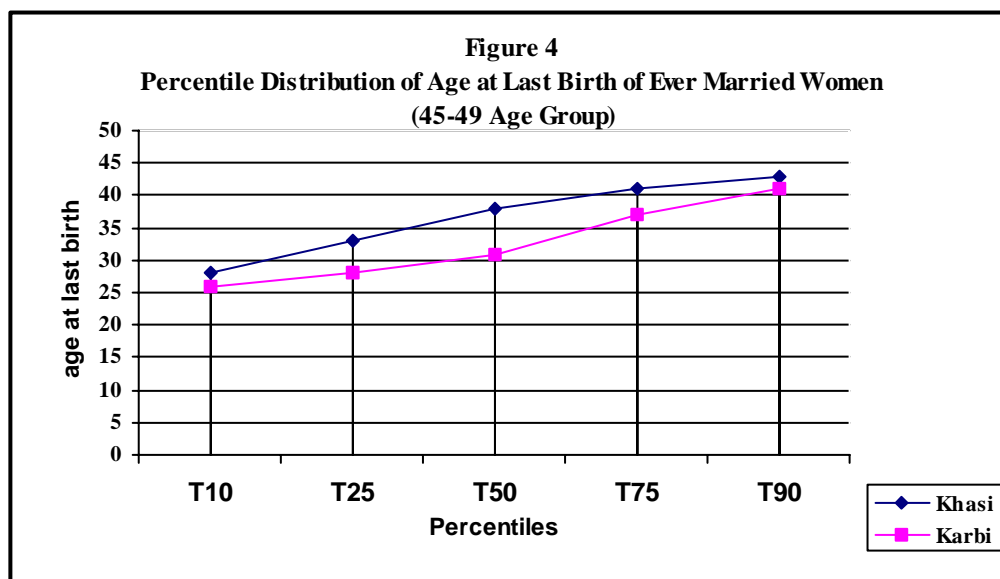
*Source: Fieldwork 2000*

<sup>5</sup> Life table techniques were used to derive these estimates (Table 4), WFS 1985

An analysis of stopping of behaviour can provide crucial information about the differential fertility between the two groups under study. Stopping of childbearing is determined by the loss of fecundity or a cessation of sexual intercourse if the woman is still fecund. Women may cease to be fecund as a result of either sterilization or natural causes, i.e. through the definitive cessation of ovulation. Fecund women may stop having sexual relations either because of the termination of marriage as a result of widowhood, divorce or separation, not followed by remarriage or reconciliation, or through complete cessation of sexual relations ('terminal' abstinence) although still in a marital union. The practices of contraception and abortion also have the effect of preventing subsequent births. In this study, the analysis of stopping behaviour is restricted largely to older women aged 45 years or more, who have almost reached the end of their reproductive span.

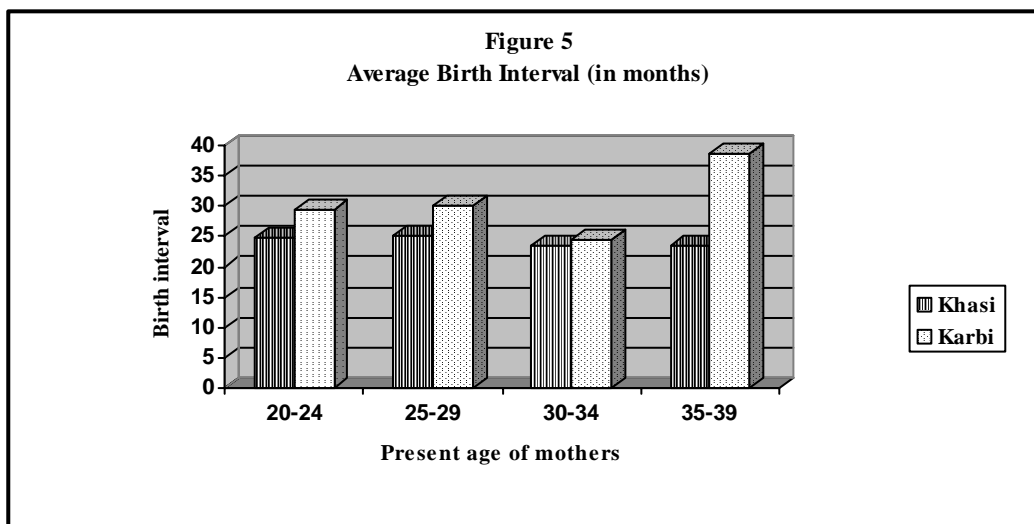
The age at the most recent birth was recorded for all ever-married women in the survey. As most of the women aged 45 and over were approaching the end of their reproductive period, their most recent birth would in fact be their final birth with very few going on to have another child. The estimated mean age at last birth of the oldest cohort of Khasi women of reproductive age (i.e. 45-49 age group) was 38.4 years, which was almost seven years higher than that of Karbi women (31.8 years) of the same cohort. As the mean age at first birth for Khasi women was only one year higher than that of Karbi women, the considerable difference in the mean age at last birth between these two groups indicates that the observed average length of reproduction for the Khasi women was much longer than that for the Karbi women.

The percentile distribution of mean age at last birth (Figure 4) for the oldest cohort of women shows the ages at which the 50th percentile was reached. This was almost seven years higher for the Khasi women compared to the Karbi women. Khasi women maintained a relatively higher age in each percentile.



Source: Fieldwork 2000

Family formation can be thought of as a series of stages where a woman moves successfully from one event (e.g. first birth) to the next (e.g. second birth) and so on until she reaches her completed family size. In this section we examine the length of the inter-birth intervals of the births that occurred in five years preceding the survey. The numbers of births that occurred to Khasi and Karbi women in the five years preceding the survey date were 518 and 324 respectively. Based on the information collected on these births, the mean inter-birth interval for the Khasi women was around 24 months, which was 4.5 months less than that the Karbi women. Figure 5 gives the comparative picture of the birth intervals of mothers in each community by age of women.



*Source: Fieldwork 2000*

The youngest (15-19) and two oldest age cohorts (40-44 and 45-49) of mothers were not considered in estimating the birth intervals, as the numbers of births that occurred to mothers in these groups in the last five years preceding the survey date was very small. Figure 4.5 shows that the average birth interval was shorter for Khasi women than Karbi women in each age cohort.

### **Impact of Proximate Variables on Children Ever Born**

Considering the number of children ever born (CEB) as the dependent variable, a statistical analysis was carried out to identify the impact of the three proximate variables, namely use of contraception, age at first marriage and abortion on the CEB in the two communities treated together. The results of the analysis of variance (ANOVA) are shown in Table 5.

The variable 'community' was included in the analysis to examine whether or not the significance levels of the proximate determinants differed according to which community the respondent belonged to. The variables contraceptive use ( $p < 0.000$ ) and abortion ( $p < 0.05$ ) appear to have a statistically significant impact on the dependent variable children ever born. The variable contraceptive use was considered here in three different categories: 'never used', 'ever used (temporary methods)' and 'ever used (permanent methods)'. The other proximate variable age at marriage (considered in four different categories - below 15 years, 16 to 20 years, 21 to 25 years and 26 years & above), does not appear to have any significant impact on fertility ( $p > 0.05$ ). The result also shows the presence of a strong inter-relationship between the variables contraceptive use and community, age at marriage and community, which indicates that the impact of use of contraception and age at marriage on CEB varies significantly across the two communities.

A similar analysis was done for each community individually to examine the impact of the proximate variables on fertility within that community. All three proximate determinants appeared highly significant in the Karbi community. For the Khasi community, the abortion variable was not considered in the analysis as abortion was found to be non-existent in that community. The other two proximate variables (age at marriage and contraception) appear to have no significant impact on the number of children ever born among the Khasis. Data on breast-feeding, which is an important proximate determinant of fertility, were not available. But qualitative data supports the fact that the pattern of breast-feeding was very similar in the two communities for the first six months of the baby's life. It was also observed that supplementary diets were introduced earlier to the baby in the Khasi community, compared to the Karbis.

**Table 5. Determinants of Number of Children Ever Born to Married Women Aged 15-49**

Source	Type III Sum of Squares	D.F	Mean Square	F	Significance level
Corrected Model	536.569	12	44.714	10.319	.000
Intercept	1664.683	1	1664.683	384.158	.000
Use of contraception (never used, used permanent method, used temporary method)	129.330	2	64.665	14.923	.000
Abortion (no abortion, had at least one abortion)	17.700	1	17.700	4.085	.044
Age at marriage	2.780	3	.927	.214	.887
Community grouping (Khasi and Karbi)	45.687	1	45.687	10.543	.001
Use of contraception * Community	28.954	2	14.477	3.341	.036
Age at marriage * Community	63.493	3	21.164	4.884	.002
Error	3041.999	702	4.333		
Total	12063.000	715			
Corrected model	3578.568	714			

a. R Squared = .150 (adjusted R Squared = .135)

Source: Fieldwork 2000

As mentioned earlier in the discussion on research methodology, contextual factors were assumed to affect fertility only through their role in modifying the proximate determinants. In the discussion above two proximate determinants – contraceptive use and abortion were found to have a significant influence on fertility in the two communities. The impact of different contextual factors on use of contraception will be examined in the next section by performing a logistic regression analysis. As abortion was almost absent in the Khasi community, the analysis will be restricted to the use of contraception variable only.

### **Impact of Contextual Factors on Contraceptive Use**

The results of the binomial logistic regression revealed that among the contextual factors, religion, ideal family size, level of education of mothers, and economic status of the household had a statistically significant impact on the use of contraception among women in the two communities.

**Table 6. Determinants of Contraceptive Use Among Women in Both Communities: Results of Logistic Regression (Dependent Variable: Never Used=0, Ever Used Contraception=1)**

Variable	Coefficient	Odds ratio	Significance level
Religion (Non-converted / Traditional=0, Converted=1)	1.826	6.207	0.000
Ideal family size (in absolute numbers of children)	0.397	1.487	0.000
Educational level of the Woman (on grade completed)	-0.058	0.944	0.030
Economic Status of the Household (low to high score corresponds low to high status)	0.064	1.066	0.039
Sex preference (no preference=0, strong sex preference=1)	0.250	1.284	0.183
Infant died (no infant ever died=0, at least one infant died=1)	-0.506	0.603	0.092
Employment Status (employed=0, not employed=1)	0.191	1.211	0.364
Kinship (patriarchal=0, matrilineal=1)	-0.204	0.816	0.348
Female autonomy (score on a continuous scale: low to high score corresponds low to high autonomy)	-0.003	0.997	0.997
Constant	-3.240	0.039	0.000

Source: Fieldwork 2000

Logistic regression is used here as the response variable, ever used contraception, is dichotomous. The odds-ratio, an exponential of the  $\beta$  coefficient in logistic regression, is relative to the reference categories. Odds ratio values of less or more than unity indicate a lower or higher likelihood of the predicted behaviour occurring due to a change in the value of the independent variable, while an odds ratio value of unity indicates no effect on the dependent variable. For each variable, the category with value 1 was considered as the reference category. Religious conversion status was found to have a statistically significant influence on contraceptive use. The odds of a woman ever having used contraception were 6.2 times higher if she belonged to the non-converted group than if she belonged to the converted group. The variable ideal family size also appears to have a significant influence on contraceptive use. The Chi-squared test (not shown here) also shows a statistically significant relationship between contraceptive use and ideal family size. Ideal family size was used here as a quantitative (not categorical) variable. Two interesting observations from Table 6 are that although ideal family size and educational level of women had a significant influence on contraceptive use, these two variables showed unexpected relationships with contraceptive use in our analysis. With an increase of one child in ideal family size, the odds of a women ever using contraception increased by a factor of 1.49 (around 49%). The major reason behind this unexpected relationship is that most of the women who used contraception have already reached the high parity and most likely to support a higher ideal family size. Around 65% of the women who ever used contraception had more than three children.

Similarly the educational levels of women had a significant influence on contraceptive use ( $p < 0.05$ ). Improvement in the educational level of women by one unit decreased the odds of contraceptive use by a factor of 0.944 (around 5.6 per cent, Table 6). This was particularly observed among the Khasis. The role of

recent movement of cultural revival, might provide a partial answer to this unexpected finding as educated Khasi women were more culture sensitive and were found to be strictly following the cultural taboos and norms.

Improvement of household economic status by one unit increased the odds of contraceptive use by a factor of 1.066 (around 7%, Table 6).

## Discussion

Preliminary findings based on an analysis of survey data reveal a considerable difference in fertility level between the two tribal communities, Khasi and Karbi. Women in the Khasi matrilineal society had a much high fertility than their counterparts in the Karbi society. This is in spite of the fact that Khasi women enjoyed a comparatively higher level of female autonomy in decision-making, a higher degree of freedom of movement, and a greater access to finances. Descriptive statistics from household and rural communities suggest that the two groups have very similar levels of economic status, women's educational attainment, use of and access to health services, and community infrastructure. The similar level of socio-economic status in both communities is also confirmed by the fact that both the communities have been broadly classified under the category of scheduled tribe (as they have been included in the schedules to the Indian Presidential Order of 1950). This implies that both of these two communities are below a standard level of economic development. But each of these two communities possesses a unique cultural identity, and it is this uniqueness (as described below), which appears to act as a strong explanatory variable for the large difference in fertility level.

The initial findings establish the fact that a high level of female autonomy does empower women in making decisions, especially decisions regarding reproduction and health, but it does not necessarily mean that these decisions will be anti-natalist. The higher level of female autonomy has allowed Khasi women to delay their marriage to the age of 21, but once they are married they do not want to delay the start of child bearing or to control the number of their births. This is because compared to the Karbi women, Khasi women are culturally more aware and are stronger followers of traditional beliefs and practices (fieldwork observation). According to Khasi traditional belief or thought, the intrinsic value of the family is considered not only in terms of possessions, wealth and well being, but also in the numbers of children born and reared. The qualitative data from the focus group discussions and from in-depth interviews indicate that most Khasi women are still of the view that *"that every child that comes into the world, comes with two hands and a bag of rice"*. The symbol of 'two hands' offers a pragmatic and utilitarian image relating directly to its inherent ability to enhance production. This traditional view means that God the Creator will always provide, and that in a short time a child will cater not only for his/her own needs, but also for the needs of others around him or her. A majority of the Khasi women who participated in the focus-group discussion expressed their strong support of this particular belief. This tradition has encouraged Khasi women to produce children without much fear about the survival of the newborn. Family planning methods like vasectomy and tubectomy are considered anathema by the Khasis. This explains the very low use of permanent methods of family planning among the Khasis. Abortion is deemed equivalent to murder. One participant (a Khasi married woman of age 30 years) in the focus-group discussion mentioned - *"those, who for no great and weighty health reason indulge in abortion, will invite the fury, and curse of God"* (source: fieldwork 2000). This is one of the major reasons why the incidence of induced abortion is negligible among the Khasi community.

Overall, the Khasis have a strong fear of losing their identity in the world (SATP 1999). Currently there is a strong revivalist movement in Khasi society. This is due to the combination of several factors such as a perceived social, political and economic injustice arising out of the short-sighted policies of different regional and national-level political parties aggressively competing for power. Another reason is that some tribal communities including the Khasis in northeast India, feel increasingly threatened by the influx of illegal migrants which has the potential to reduce them to a minority status in their own land (this view was observed during the fieldwork). Khasi tribal elders are worried that their fragile hold on ancient tradition is slipping. They blame the outside influence of non-tribal migration, and most of all, the administration imposed by democratic India (Ganguly 2000). Criticising the Government policies Ganguly (2000) writes: *"Northeast India is largely cut off from mainland India and in these remote pockets, unhappy youngsters are easily prone to feeling persecuted. They feel their community is singled out because they belong to a*

*different ethnic stock. The resentment, if not addressed, can easily be fanned into violence.*” One response has been for the community to attempt to preserve control over their own land by restricting land rights and inheritance only to Khasi community members. Another response that appears to have occurred is the development of a larger family size norm than existed previously. This particular aspect supports the hypothesis that the perception of minority status and the adoption of a more defensive position vis-à-vis outside groups have impacted on fertility outcomes. Data on ideal family size show that almost 52% of the Khasi women want either four or more children. In contrast, 75% of the Karbi women do not want more than three children. Informal interviews with the village heads in the Khasi community revealed that they strongly encouraged the concept of a large family size in the face of the threat of becoming a minority. Khasi women, who enjoy a high level of autonomy in decision-making, appear to support very strongly the ongoing resurgence movement. One respondent (married Khasi woman with 6 children) mentioned during the focus group discussion: *“we are proud of our culture and matrilineal system which we want to protect at any cost. But if we do not produce more children, the outsiders will outnumber us and in this process we will not only lose our culture but also our land too”* (source: fieldwork 2000). One Khasi lady (a School Principal), who strongly supported the Khasi matrilineal system said, *“Look around and you will find women working in offices, running businesses or as successful professionals. But they keep the home fires burning too. We have excelled in our fields, despite our being overburdened with excess power simply because our traditions have ensured our dignity and independence... Can you imagine this kind of output from women in patriarchal set up?”* (Source: *The Telegraph*). During the fieldwork it was found that a majority of the Khasis consider any non-tribal member as an outsider irrespective of whether the non-tribal member is an Indian national or an illegal migrant. One high school educated Khasi woman (a participant in the focus-group discussion) expressed her justification for a bigger family size in these words: *“I kept producing babies till I got a girl child. I am a very happy and proud mother now, because I will be able to keep our family system (matrilineal) alive through my daughter. I knew the God would listen to my pray one day and now He had blessed me with four warrior sons to protect my daughter and protect our community”* (source: fieldwork 2000).

As far as the Karbis are concerned, over the years they have assimilated both socially and culturally to a large extent to the majority non-tribal communities, which live within the same geographical area – the state of Assam. This is also evident from the fact that a majority of the Karbis can speak Assamese (official language spoken by the non-tribal habitants of Assam) though their own dialect is still dominant in everyday life. The downward trend of the fertility level among the Karbis can be explained by the ‘characteristics hypothesis’ (Peterson 1961, Lee 1952, 1959) which argues that when minority groups share the social characteristics of the dominant group in society they tend to ‘share the same fertility values’. The non-tribal communities in Assam, which constitute the majority of the state’s population, have lower fertility levels as compared to other tribal communities in northeast India. Qualitative data from the survey show that members of the Karbi community are less aware (as compared to the Khasi community) of their cultural and ethnic identity.

It is assumed that religion has a considerable impact on contraceptive use. This highlights the issue that religion does play an important role in determining reproductive norms. Unfortunately, due to the sensitivity of the ongoing controversy on religious conversion issues in these areas, data on religiosity related to reproduction could not be collected. But why, in spite of the low use of contraception, do the converted groups in both the communities have lower fertility? This question – remains to be answered. The Karbi converted women informed us that the Christian Missionaries conducted a few programmes to impart knowledge of periodic abstinence and withdrawal methods as an alternative to modern contraceptive methods. The women who were trained in those programmes, were later successful in spreading the knowledge among other converted Karbi women.

## **Conclusion**

This paper has discussed the preliminary findings from a survey of fertility behaviour among two tribes in northeastern India and has shown that the proximate determinants are crucial in understanding differentials in fertility levels in these two communities. This paper also attempts to highlight the importance of contextual factors in influencing the proximate determinants of fertility.

Based on these preliminary findings this study suggests that social norms and values in the traditional tribal societies wield a stronger influence than individual values in determining the fertility behaviour in those societies. High female autonomy does empower women to take decisions on their own, especially decisions regarding their own health care and reproduction, but this does not necessarily mean that these decisions will be to reduce family size. In an environment with pro-natalist social and cultural norms and a strong traditional society, high female autonomy may encourage women to produce more children. This paper has highlighted the reality of reproductive norms among these tribal groups in an attempt to emphasize the hypothesis that the perception of minority status and the adoption of a more defensive position vis-à-vis outside groups have impacted on fertility outcomes. Proof of this hypothesis would make a most relevant contribution to the Indian Government's attempt to develop population policies more responsive to the needs and aspirations of local ethnic communities.

It is beyond the scope of this paper to review the policy implications of the impact of cultural and religious values on demographic outcomes. But the general awareness of the important role of population factors in the ultimate process of socio-economic development of the northeastern region calls for a change in opinion about the National Population Policy (Gogoi 1981, Goswami 1990). Development of a regional population policy for northeast India requires immediate attention from scholars and policy makers. In the wake of a cultural revival amidst the threat of an impending loss of ethnic identity, effective measures to ensure the economic and political future of the tribal inhabitants of this region and to preserve and protect their socio-cultural identity is essential. Further development and refinement of India's National Population Policy (Gogoi 1981) and possible integration of Tribal Development Programmes (TDP) within a regional population policy is urgently called for. Such policy measures and their effective implementation will largely determine the future socio-economic and political development of the entire northeast (Royburman 1990).



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