CHAPTER III

RESEARCH METHODOLOGY
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The tribal demographic studies available in India are very negligible. Though a large number of ethnographic studies of the tribals have been carried out among the Indian tribes, demographic studies about them were not given due attention. It is high time to pay attention to the demographic studies. The present tribal demographic study aims at reducing the existing gap.

3.2. Objectives of the study:

The following are the objectives of the present study.

a. To study the composition of the tribe
b. To estimate the level of fertility and to study the differentials of fertility of the tribe.
c. To estimate the level of mortality and to study the mortality differentials.
d. To study migration and differential migration.

3.3. Hypotheses formulated:

The hypotheses formulated are as follows:

1. Mortality:
   a. Child mortality will be lower among the women belonging to the nuclear families.
b. Among the educated women the child mortality will be lower.

c. With the increase of the husbands education the child mortality will decrease.

d. Child mortality will be higher among the working women than among the non working women.

e. If the husbands' occupations are different, the child mortality will also be different.

f. With the increase of land holding the child mortality will decrease.

g. With the increase of the income the child mortality will decrease.

By 'child mortality' we mean the mean loss of children per married woman.

2. Fertility:

a. With the increase of the husbands education the fertility will decrease

b. Fertility of the educated women will be lower than that of the uneducated women

c. Fertility of the women will be different if the occupational categories of their husbands are different.

d. Lower will be the fertility for the working women than the non-working women.
e. The fertility of those women belonging to the joint families will be lower than the fertility of the women from the nuclear families.

f. With the increase of the number of members economically active the fertility will decrease.

g. With the increase of the land holding the fertility will decrease.

h. With the increase of the income the fertility will decrease.

i. Fertility of the women for whom the number of children deceased was one or more will be higher than the women for whom the number of children deceased was zero.

j. With the increase of the age at consummation, the fertility will decrease.

k. With the increase of the marital duration the fertility will increase.

3.4. **Selection of the tribe:**

The scheduled tribe population of Tamil Nadu constitutes 0.76 per cent of the total population of Tamil Nadu. The Nilgiris district is having the highest percentage (4.021) of scheduled tribes in Tamil Nadu. In the Nilgiris district, six primitive tribes, the Kotas, Paniyans, Todas, Irulas, Kattu Naickens, and Kurumbas have been identified. Out of
all these tribes the Kota tribe was selected for the present study. An important reason for the selection of this tribe is that it faces extinction. This drew the attention of the researcher to take up this tribe for the study. Another reason is that, unlike any other tribe, the Kotas are inhabiting in seven traditional villages and few other places which are not traditional. Hence it becomes relatively easier to carry out the fieldwork.

3.5. Introducing the tribe:

3.5.1. Information about the district:

Nilgiris district is located in Tamil Nadu at the juncture of three linguistic and cultural areas of Kerala, Karnataka and Tamil Nadu. The district is spread over an area of 2,549 square kilometers. The Nilgiri plateau is located at an elevation of 2000-2500 meters. Doddabetta peak of the Nilgiris reaches a height of 2633 meters. Average daily temperature of the hills is 15°C. Normal rainfall of the district was 1920.8 milli meters. Ootacamund is the head quarter of the district. Coonoor, Gudalur and Ootacamund are the three taluks of the district.

3.5.2. The Kotas:

The name was invariably spelt as Kota, Kotar, Koter, Kohatur. In Government records and in censuses it is spelt
A Kota woman
as KOTA. Breeks\textsuperscript{2} suggested that Kohata or Gohata means Cow-killer. Dr. Oppert\textsuperscript{3} says that it is wrong to connect the name of the Kotas with cow-slaying and to derive it from the Sanskrit ġo-hatya (Cow-killer). Further he adds that the term Kota is, as clearly indicated, derived from the Gauda - dravidian word Ko(l<jj) mountains, and the Kotas belong to the Gandhian branch.

3.5.3. \textbf{Origin of the Kotas:}

Several views have been expressed regarding the origin of the Kotas but a conclusion is yet to be arrived. Dr. Oppert\textsuperscript{4} is of the opinion that the Todas and Kotas would have lived near each other before settlement of the later on the Nilgiri. Breeks\textsuperscript{5} suggests that the Kotas must have been brought by the Todas from the plains to work for them. Rev. F. Legrand\textsuperscript{6} also feels that the Kotas must have come with the Todas about the same time. He concludes that as the original inhabiance of the Todas is still a mystery it is not possible to fix up the origin of the Kotas.

Mandelbaum\textsuperscript{7} in 1938 wrote that the Kotas were polyandrous. But Thurston is of the opinion that "the Kotas as a rule have only one wife and polyandry is unknown among them. But polygyny is sometimes practiced"\textsuperscript{8}. Kapadia\textsuperscript{9}, Vidyarthi\textsuperscript{10} and Verghese" also donot favour the view of Mandelbaum.
Figure 1  Places where the Kotas live
The Kotas were confined to seven traditional villages namely, Gudalur, Kil Kotagiri, Kollimalai, Kundah Kotagiri, New Kotagiri, Sholur and Trichicadi of the Nilgiris district. Nowadays they are seen living in certain other places like Aruvankadu, Coonoor, Indunagar, Ootacamund, Wellington. Each of their traditional settlements is divided into at least three exogamous Keris.

The Kotas were blacksmiths, silversmiths, carpenters, tanners, rope-makers, pothers, washermen, cultivators and were also musicians at Toda and Badaga funerals. These days many of them have started following modern occupations like clerical, machine operators, teaching, administration etc.

Priesthood of the Kotas is constituted by two categories, Minthkannon or pujari and Terkaran or Devadi of whom the former rank higher than the latter. An important annual festival celebrated by the Kotas is Kamataraya festival.

3.6. Research design:

For the present study a descriptive research design was adopted.

The Kota tribe of Tamil Nadu is concentrated in the Nilgiris district and 99.16 per cent of the Kota population out of the total, live in the Nilgiris district. Some of them
are living outside the Nilgiris district, in places like Mettupalayam, Tirupur, Coimbatore, Mayuram, Pondicherry, Trivandrum and Bangalore. Contacting all of them was not feasible due to the lack of proper addresses and other constraints like money. Hence it was decided to confine the study to the Nilgiris district. The Kota population of the Nilgiris district according to 1971 census was 1178. Because of the small size of the population sampling was not resorted to. By adopting census survey method all the households within the Nilgiris district were studied.

3.7. **Tools of data collection:**

Structured interview schedule was used as the main tool for the data collection. Informal discussions and observation were also made use of in collecting the data.

3.8. **Construction of the schedule:**

The interview schedule was constructed basing on the previous studies available and basing on the earlier study by the author.

3.8.1. **The Schedule:**

The first part of the schedule consists of general information about all the members of the family. Details about age, educational level, occupation, marital status, number of times married are asked.
Part two deals with the number of children born for the previously married women aged 44 years and below.

Part three is the fertility schedule. Questions related to fertility are asked. The pregnancy history of the woman is recorded in the pregnancy record form. Some questions about marriage, fertility record of the preceding whole year (one year reference period), questions regarding pregnancy, pregnancies that did not result in a live-birth during reference period, physiological factors were asked.

Deaths which occurred during the one year reference period were recorded in the part four of the schedule.

Questions regarding migration were included in the part five of the schedule.

Some questions on income, land holding and family planning were asked in the last part of the schedule.

3.9. Selection of respondents:

Depending on the component, i.e., composition, mortality, fertility, migration, data were collected from different people of the same household. While doing so, several considerations were taken into account and are as follows:

For composition: General information like age, educational level etc., were collected for all the members of the household and for this the head of the household was interviewed.
For fertility: For fertility analysis currently married women, married only once aged forty four years and below were alone taken; otherwise the analysis of women married more than once becomes difficult and complicated due to period of broken marriage. Hence the currently married women in the age group 15-44 years and married only once were interviewed.

For mortality: The information regarding the persons who have died during the one-year reference period was asked with the head of the household. Details about the total number of children born and number of children deceased were collected from all married, divorced, separated and widowed women.

For migration: Data on migration were collected from the head of the household and from the married women.

3.10. Variables used:

3.10.1. For the study of differential mortality:

Child mortality was the dependent variable and was measured by one index suggested by Vaidyanathan, K. E., (1972). The index is: mean loss of children per married woman. The independent variables used are: type of family, education of the women, husband's education, working status of the women, husbands occupation, land holding and family income.
3.10.2. **For the study of differential fertility:**

Two approaches namely, cohort approach based on the number of children ever born and the current approach based on the children born during the one year reference period, were used in the study of differential fertility. The average number of children ever born and the number of children born during the one year reference period were used as the dependent variables. The independent variables used were a) educational level of the husband b) educational level of the wife c) occupation of husband d) working status of wife e) type of family f) number of children economically active g) land holding h) family income i) number of children deceased j) age at consummation k) marital duration.

3.10.3. **For the study of differential migration:**

The differences between the migrants and non-migrants were studied with respect to age, sex, marital status, educational level and occupation.

3.11. **Data collection and Field work:**

Since early 1978 onwards contacts were established with the tribal people. In the initial stages the researcher met the educated tribal people and through them his contacts were widened; the researcher was introduced to the village leaders, elders and chiefs of the priest hood. Through these
people the researcher was made known to all other Kotas. In few of the tribal villages the researcher stayed in the tribal villages itself. In case of other villages, he stayed in places very close to the tribal villages so that the problem of transport did not arise. The researcher participated in many of their activities, for example, in playing, attending their feasts and festivals, naming ceremonies, marriages, funerals etc., This enabled the researcher to win the confidence of the tribals. In addition to this the researcher learnt the Kota dialect and used to converse with them in their own dialect.

The interviews were carried out in the mornings and late evenings. Most of the interviews were conducted when both husband and wife were present. The interviews were conducted only when 'others' were not present and the respondent's privacy was maintained. All the Kotas speak Tamil and hence there was no difficulty in interviewing in Tamil. Some of the questions were asked in the Kota dialect to elicit better response. The data collection was started in May, 1980 and a period of eight months was spent in the field for this purpose.

The Kotas do keep records of their birth dates. The Kota men and women in the younger age groups were able to give their exact age because of their records. But many of the
old people did not know their exact ages. They were able to give an approximate age. The ages of such persons which are close to the exact ages were arrived at by comparing with the ages of those persons who know their exact ages. The recall lapse was overcome by adopting certain techniques. For example, instead of asking the currently married women as to how many children were ever born to them, the number of living children and the number of children died were asked and then summed up to give the total number of children ever born.

3.12. **Difficulties faced:**

Finding an accommodation within the tribal village was a problem. In some of the villages the researcher could stay and in the case of other villages he had to stay in villages next to tribal villages.

Some of the people were convinced about the purpose of the study with great difficulty. Several visits were repeatedly made in order to convince them.

While interviewing in one household, the neighbours of that household used to gather around. Hence, the privacy of the respondent may be affected. Others were asked not to be present while interviewing and this also posed some difficulties.
3.13. **Earlier study:**

For the M.Phil degree, a study entitled "A demographic survey of the Kota tribe of the Nilgiris district, Tamil Nadu", was carried out by the author. It was an explorative study. Since the study was to be carried out in a tribal setting, the author had considerable doubts about enlisting the participation of the tribals and eliciting the responses. On the contrary, the extent of participation and the nature of response were very much encouraging. This instituted confidence in the researcher for carrying out a further study among the Kotas. Some of the results of the M.Phil study were very interesting and also needed a deep probe. Hence, the same problem was taken up for the present work. In the earlier study the fertility was assessed and differential fertility was also studied. Crude death rate, infant death rate and the causes of death were covered in the mortality chapter. An attempt was made to find out whether migration was prevalent among the Kotas.

In the present study, demographic components like nuptiality and growth have also been studied. In the study of fertility, Brass technique of estimation of total fertility rate has been applied. Two approaches, namely, cohort and current approaches, have been followed in the study of differential fertility. The infant and child mortality have
been estimated by Brass, Trussell, and Sullivan methods. Differential mortality has been newly included. Three approaches, namely, place of birth, duration of residence, and place of last residence have been made use of in the study of migration. Differential migration has also been included.

3.14. Analysis of the data:

Each and every schedule was scrutinized and edited immediately after the data collection. The punching of cards and processing of the data were carried out in the Tata Institute of Social Sciences, Bombay. To test the hypotheses, analysis of variance and chi-square test were applied. Standardization technique was also used in the study of differential fertility.

3.15. The chapter scheme:

The first, second and third chapters deal with introduction, review of literature and research methodology respectively. The fourth chapter is about the composition of the tribe. Mortality of the Kota tribe is dealt in the fifth chapter. In the sixth chapter nuptiality, levels of fertility and differential fertility are discussed. Migration and differential migration constitutes the content of the seventh chapter. Growth of the Kota tribe is analysed in the eighth chapter. Summary and conclusions form the ninth and last chapter.
1. Indian Express, 9th November, 1976.
4. Ibid., p.3.