TRIBALS, though a naturally scheduled group of people from the society, are the part and parcel of our nation. They also have intellectual, social and academic skills, needs and desires, temperamental traits and the right to have privileges as their non-tribal peers have. Whether the tribal children, are inferior, superior or equal to their non-tribal peers in the above mentioned skills and traits leaves a big question mark. Therefore studying the various developments and achievement of the tribal pre-school children in Kerala is very crucial and should be given due importance. So the investigator is trying to identify the present status of the tribal pre-school children in Kerala in comparison with that of their rural and urban peers in the four proposed areas of psycho-social development namely intellectual development, social development, temperament and achievement.
6.1 **Aim of the study**

The aim of the investigation is to study the psycho-social development of tribal pre-school children in comparison with that of their rural and urban peers.

6.2 **Objectives of the study**

The main objectives of the study are the following:

6.2.1 To study the intellectual and social development, temperament and achievement of tribal pre-school children in comparison with that of their rural and urban peers.

6.2.2 To identify the gender differences in

(i) the intellectual development;

(ii) social development;

(iii) temperament and

(iv) achievement of pre-school children.

6.3 **Definition of concepts**

6.3.1 **Psycho-social development**

This refers to psychological and social aspects of development (Zanden 1989). In this study psycho-social development includes intellectual and social development, temperament and achievement of pre-school children.
(a) **Intellectual development**

It denotes the child’s abilities in doing sensory and perceptual tests in comparison, reasoning, judgement, thinking and memorising (Binet and Simon 1916).

(b) **Social development**

It is the ability of the child to behave sociably, to be autonomous, to show initiative, to adjust and to be responsible in the society (Erikson 1963, Jupe et al. 1985, Craig 1989 and Milon 1990).

(i) **Sociability**

This is the child’s ability to make positive interactions with others (Romanello 1987).

(ii) **Autonomy**

This refers to the child’s ability to perform activities by himself or herself, to be independent and be guided by his or her own principles (Hurlock 1981, Panda 1988).

(iii) **Initiative**

It denotes the child’s ability to start or to begin or to take the first step in performances (Chamber’s Dictionary, Schwarz et al. 1992).

(iv) **Adjustability**

It is the ability of the child to get along with others (Asuri and Krishnamurthy 1976).
(v) **Responsibility**

It is the child’s ability to be trustworthy, to be in charge of his or her own actions and to take one’s full place in the society (Erikson 1963, Jupe *et al.* 1985).

(c) **Temperament or behavioural profile**

It is the characteristic tempo, energy expenditure, mood and rhythmicity typifying the behaviour of the individual child (Thomas *et al.* 1963 and 1971).

(d) **Achievement**

This is the ability of the child to grasp and reproduce what is being taught to the children in the class (Horrocks and Schoonover 1968, Crow and Crow 1968, Craig 1989 and Stella and Purushothaman 1993).

(i) **Practical life skills**

It refers to the child’s abilities in carrying out self-help activities.

(ii) **Sensory skills**

It denotes the ability of the child to select correct responses to visual, auditory and tactile stimulations.

(iii) **Language skills**

This refers to the child’s skills in recognising the letters, in reading and in writing.
(iv) Arithmetic skills

This is the ability of the child in number recognition, in pairing and in addition.

6.3.2 Pre-school children


6.3.3 Tribal pre-school children

The four year old Anganwadi attending children from the ‘Adivasi’ families living in the forests of Kerala (Vidyarthi and Rai 1985, Money 1984) form the tribal sample for the study.

6.3.4 Rural pre-school children

Four year old Anganwadi attending children from places with a population below 10,000 (Bhushan and Sachdeva 1990) are the rural pre-school children for the study.

6.3.5 Urban Pre-school children

Four year old Anganwadi attending children from places with a population of 10,000 (Bhushan and Sachdeva 1990) are considered as the urban pre-school children.
6.4 Hypotheses

The hypotheses formulated for the study are as follows:

6.4.1 The tribal pre-school children are not significantly different from their (a) rural and (b) urban peers in their intellectual development.

6.4.2 There is no significant gender difference in the intellectual development of pre-school children.

6.4.3 The tribal pre-school children are not significantly different from their (a) rural and (b) urban peers in their social development and in its subareas (sociability, autonomy, initiative, adjustability and responsibility).

6.4.4 Pre-school boys are not significantly different from pre-school girls in their social development and in its subareas.

6.4.5 The tribal pre-school children show no significant differences in their behavioural profile or temperament (intensity of reaction and reaction pattern) from their (a) rural and (b) urban peers.

6.4.6 Pre-school children show no significant gender difference in their intensity of reaction and reaction pattern.

6.4.7 The tribal pre-school children are not significantly different from their (a) rural and (b) urban peers in their achievement and in its subareas (practical life skills, sensory skills, language skills and arithmetic skills).

6.4.8 The pre-school boys and girls show no significant difference in their achievement and in its subareas.
6.5 Sample

Four hundred and fifty 4 year old Anganwadi attending children belonging to the tribal, rural and urban families (50 each consisting of 25 boys and 25 girls) from Waynad, Idukki and Thiruvananthapuram Districts (150 each consisting of 50 tribal, 50 rural and 50 urban children) were selected as the sample using stratified random sampling technique. One part of the data was collected from the mothers of these children and thus they too formed part of the sample.

6.6 Tools

6.6.1 General information sheet was used to collect general information about the children.

6.6.2 Binet-Kameth intelligence test was used to measure the IQ scores.

6.6.3 Observation schedule prepared by the investigator was the tool to assess the social development.

6.6.4 Parent questionnaire constructed by Thomas et al. (1971) was used to identify the temperament or behavioural profile of the children.

6.6.5 The achievement test constructed by the researcher was the tool used to assess the achievement of pre-school children.

6.7 Collection of data

The data collection was carried out in the Anganwadi centre by the investigator herself. She herself filled the general information sheet. The
IQ tests were administered individually. The children's behaviours in the school were observed to assess their social development. Face to face interview with the mothers using the parent questionnaire revealed the temperament of the children. Achievement was assessed individually by noting the time (in seconds) taken by the children in performing the prescribed psycho-motor tasks.

6.8 Treatment of the data

The data were classified and tabulated as per the scores given. Two-way ANOVA was computed to find out the differences shown by the tribal pre-school children from their rural and urban peers in the various areas and subareas of psycho-social development. Critical ratio was applied to find out the inter-group comparisons and group-wise gender difference in the areas and subareas where significant F-ratio was obtained.

6.9 Results

The present study gave the following results. The results concerning the intellectual development are presented below.

(1) The tribal pre-school children were not significantly different (F = 1.76, P > 0.05) from the rural and urban children in their intellectual development.

(2) There was no significant gender difference in the IQ scores (F = 0.97, P > 0.05) of pre-school children.
The analysis on the overall social development gave the following results:

1. There was significant difference in the social development of tribal pre-schoolers ($F = 8.12, P < 0.01$) from that of their rural and urban peers.

2. The tribal children had equal score with the rural children ($CR = 1.82, P > 0.05$) but score higher than the urban children ($CR = 2.78, P < 0.01$) in their social development. No rural - urban difference ($CR = 0.82, P > 0.05$) was found in the same.

3. The gender difference was significant in the social development ($F = 3.79, P < 0.05$) of pre-school children.

4. The tribal pre-school girls scored higher ($CR = 2.40, P < 0.05$) than the tribal boys whereas the rural boys and girls ($CR = 1.89, P > 0.05$) and the urban boys and girls ($CR = 0.68, P > 0.05$) scored almost equally in their social development.

The results on the subareas of social development are as follows.

1. Significant differences were shown by the tribal pre-school children in sociability ($F = 5.05, P < 0.01$), in autonomy ($F = 4.22, P < 0.01$) and in adjustability ($F = 5.55, P < 0.01$) from that of their rural and urban peers. No significant differences were shown in initiative ($F = 2.96, P > 0.05$) and in responsibility ($F = 1.67, P > 0.05$) by the three groups.
(2) The tribal pre-school children scored higher in sociability than the rural (CR = 2.43, P < 0.05) and urban (CR = 2.12, P < 0.05) children.

(3) Better autonomy was shown by the tribal children than their rural (CR = 2.75, P < 0.01) and urban (CR = 2.13, P < 0.05) peers.

(4) The tribal children had equal score along with the rural children (CR = 0.95, P > 0.05) but scored higher than the urban children (CR = 3.28, P < 0.001) in their adjustability.

(5) The rural and urban children were not significantly different in sociability (CR = 0.56, P > 0.05) and in autonomy (CR = 0.78, P > 0.05) whereas the rural children scored higher in adjustability (CR = 2.22, P < 0.05) than the urban children.

The results concerning the gender difference in the subareas of social development are given below.

(1) Significant boy-girl difference was observed in sociability (F = 5.53, P < 0.05), initiative (F = 7.75, P < 0.01), adjustability (F = 7.10, P < 0.01) and in responsibility (F = 11.91, P < 0.01) but not in the autonomy (F = 2.26, P > 0.05) of pre-school children.

(2) Tribal pre-school girls scored higher in sociability (CR = 2.22, P < 0.05), in adjustability (CR = 3.15, P < 0.01) and in responsibility (CR = 2.58, P < 0.05) than the tribal boys. The tribal boys and girls scored equally in initiative (CR = 1.67, P > 0.05).

(3) The rural pre-school girls secured higher scores in initiative (CR = 2.34, P < 0.05) and in responsibility (CR = 3.09, P < 0.01) than the
respective boys. But for sociability (CR = 0.93, P > 0.05) and adjustability (CR = 1.64, P > 0.05) they secured equal scores.

4) No boy-girl difference was shown by the urban pre-schoolers in their sociability, autonomy, initiative, adjustability and responsibility.

The analysis on the temperament (intensity of reaction and reaction pattern) yielded the following results.

1) The tribal, rural and urban pre-school children were not significantly different in their intensity of reaction (F = 1.97, P > 0.05) and reaction pattern (F = 2.54, P > 0.05).

2) There was no significant gender difference in the intensity of reaction (F = 2.98, P > 0.05) and reaction pattern (F = 0.76, P > 0.05) of pre-school children.

The results concerning the overall achievement are the following.

1) In achievement, the tribal pre-school children were significantly different (F = 14.49, P < 0.01) from their rural and urban peers.

2) The tribal children achieved higher than their rural (CR = 5.19, P < 0.001) and urban (CR = 3.92, P < 0.001) peers. The rural and urban children had same level (CR = 1.86, P > 0.05) of achievement.

3) The pre-school boys and girls showed no difference (F = 1.27, P > 0.05) in their overall achievement.

The analysis on the subareas of achievement gave the following results.
(1) The tribal pre-school children were significantly different from their rural and urban peers in the sensory ($F = 3.72, P < 0.05$), Language ($F = 12.77, P < 0.01$) and arithmetic skills ($F = 25.75, P < 0.01$) but not in the practical life skills ($F = 2.39, P > 0.05$).

(2) The tribal pre-schoolers were found to be superior to the rural children in achieving the sensory ($CR = 2.29, P < 0.05$) and language ($CR = 4.46, P < 0.001$) skills.

(3) The tribal pre-school children achieved the sensory ($CR = 0.08, P > 0.05$) and language ($CR = 1.29, P > 0.05$) skills equally with their urban peers.

(4) In the arithmetic skills, the tribal pre-schoolers had higher achievement than their rural ($CR = 6.29, P < 0.001$) and urban ($CR = 7.49, P < 0.001$) peers.

(5) The urban pre-school children had better achievement in sensory ($CR = 2.30, P < 0.05$) and language skills ($CR = 3.58, P < 0.001$) than their rural peers. No rural-urban difference was observed ($CR = 1.31, P > 0.05$) in achieving the arithmetic skills.

The results concerning the gender difference in the subareas of achievement are presented below.

(1) Significant gender difference was shown by the pre-school children in their practical life skills ($F = 3.77, P < 0.05$) and in sensory skills ($F = 5.57, P < 0.05$) whereas no gender difference was observed in their language ($F = 0.58, P > 0.05$) and arithmetic skills ($F = 2.01, P > 0.05$).
(2) The tribal pre-school boys and girls had equal achievement in all the psycho-motor skills except in sensory skills for which the tribal boys had better achievement (CR = 2.50, P < 0.05) than the tribal girls.

(3) The rural pre-school boys and girls showed no gender difference in achieving the practical life, sensory, language and arithmetic skills.

(4) The urban pre-school boys and girls had equal achievement in all the psycho-motor skills except in practical life skills for which the urban boys had better achievement (CR = 2.73, P < 0.01) than the urban girls.

6.10 Conclusions

The results of the study leads to the following conclusions:

6.10.1 The tribal pre-school children are as intelligent as their rural and urban peers.

6.10.2 The tribal pre-school children have better social development than their rural and urban peers. Detailed analysis shows that the tribal pre-schoolers are in line with their rural peers in social development but are superior to their urban peers in the same. The rural and urban children are equal in their social development.

6.10.3 The tribal pre-school children are more sociable, and autonomous than the rural and urban children and are as initiative and responsible as their rural and urban peers. The tribal children are equal to the rural children in adjustability but are superior to the urban children in the same.
6.10.4 The rural and urban pre-school children are equally sociable, autonomous, initiative and responsible whereas the rural children are found to be better adjusted than the urban children.

6.10.5 The tribal pre-schoolers are as intense and positive as their rural and urban peers in their temperament or behavioural profile.

6.10.6 The tribal pre-school children are high achievers than their rural and urban peers whereas the rural and urban children show same level of achievement.

6.10.7 The tribal pre-schoolers are as efficient as their rural and urban peers in the practical life skills and have highly superior arithmetic skills than their rural and urban peers. The tribal children are found to be superior to the rural children in sensory and language skills but are equal to the urban children in the same.

6.10.8 The urban pre-school children have better sensory and language skills than their rural peers whereas they are equal in arithmetic and practical life skills.

6.10.9 Pre-school boys and girls have same IQ, temperament or behavioural profile (intensity of reaction and reaction pattern) and overall achievement whereas the pre-school girls have better social development than the pre-school boys.

6.10.10 Pre-school girls are highly sociable, initiative, adjustable and responsible than the pre-school boys whereas the pre-school boys and girls are equally autonomous.
6.10.11 The tribal pre-school girls have better social development than the tribal boys whereas the pre-school boys and girls in the rural and urban sectors have same level of social development.

6.10.12 The tribal pre-school girls are more sociable, adjustable and responsible than the tribal boys but these boys and girls are equally initiative and autonomous in their life.

6.10.13 The rural pre-school girls are more initiative and responsible than the rural boys whereas these boys and girls are equally sociable, autonomous and adjustable in life.

6.10.14 The pre-school boys and girls in the urban sector are equal in their sociability, autonomy, initiative adjustability and responsibility.

6.10.15 The pre-school boys have better practical life skills and sensory skills than the pre-school girls whereas the pre-school boys and girls are equally efficient in their language and arithmetic skills.

6.10.16 The tribal pre-school boys and girls are equal in their practical life, language and arithmetic skills whereas the tribal boys have better sensory skills than the tribal girls.

6.10.17 The pre-school boys and girls in the rural sector are equal in their practical life, sensory, language and arithmetic skills.

6.10.18 In the urban sector, pre-school boys have better practical life skills than the urban girls whereas these pre-school boys and girls are equally efficient in their sensory, language and arithmetic skills.
6.11 Additional findings

The close contact with the subjects while conducting the research enabled the researcher to observe the following facts.

6.11.1 The tribal pre-school children are found to be more skillful, motivated, practical-oriented, goal directed, comprehensive and sensitive than the rural and urban children.

6.11.2 The rural and urban children are found to be less concentrated and less attentive in their class.

6.11.3 The tribal children are not at all dependant on their teachers and parents and need no support from them in doing their personal activities and in taking decisions in life. The rural and urban children on the other hand, are dependent on their parents and teachers. They are in need of constant and continuous support from them in their day to day activities and in taking a decision.

6.11.4 The tribal children use a lot of tips and practical clues for problem solving.

6.11.5 The tribal children who are not at all assisted by their parents achieve more than the rural and urban children who are always assisted by their parents for academic excellence. The tribal children are skillful in using their own intelligence whereas rural and urban children are neither encouraged to use their intellectual skills nor get opportunities to use their own intelligence due to the over-indulgence of the parents. This makes it clear that triggering for academic
excellence is in vain unless it stimulates the intellectual curiosity of the child.

6.11.6 The tribal children who are in constant touch with the nature are found to have better psycho-social development. The unfolding of skills and potentialities are found to be more in the natural environment than in the adult induced environment.

6.12 Problems and limitations

It is very difficult to get rid of problems in the field of human research. Along with this, a pioneer effort to study the psycho-social development of tribal pre-school children in Kerala is not an easy task.

The spoken language of the mannan tribes which is not understandable to the researcher was the major problem encountered in the study.

Finding out the correct chronological age of the tribal children was another problem faced during the study. Since the tribal parents are ignorant about the birth dates of their children she had to collect the same from the nearby health centres.

The researcher also faced an initial difficulty in bringing the tribal children to the Anganwadi centres and in keeping them within the class rooms.

More over the researcher had to adjust a lot to the limited physical facilities in the Anganwadi centres and had to consider even the climatic conditions to conduct the study.
The study also has some limitations. The non-availability of time, inaccessible and scattered tribal areas and part-time research work all stood on the way in selecting the sample from each and every districts of Kerala. So she selected only three districts from the northern, central and southern part to represent the whole Kerala.

The absence of urban areas according to the definition give by the social welfare board forced the researcher to avoid Palaghat and Kasargod districts with higher tribal populations than the Thiruvananthapuram district.

6.13 Suggestions for further research

The present study gives room for a number of related research on the Kerala tribal children.

6.12.1 The same study can be conducted on the tribal infants, toddlers, school going children, and adolescents in Kerala.

6.12.2 Similar studies can be done including samples from all the districts of Kerala and comprising children from all the tribal communities.

6.12.3 The children in the different tribal communities can be compared to assess the difference in their psycho-social development.

6.12.4 Same type of comparative studies can be undertaken without fixing the socio-economic status of the family.

6.12.5 Instead of the four variable under the present study, other variables like physical and motor development, emotional development and moral development can be studied further. Thus the present study
leaves a lot of opportunities to analyse the tribal children from various angles.

6.14 Implications of the study

Even on the eve of twenty first century, the tribal pre-school children from Kerala are kept aloof from the scientific investigations. So the present study can be considered as the first scientific report about the tribal pre-schoolers in Kerala.

The major advantage of this study is that it reveals the present status of the tribal pre-school children in the modern world. The results of the study help to understand the developments, behavioural profile and the achievement of the tribal children in comparison with that of their rural and urban peers. This gives a scientific proof to say that the tribal children are no longer inferior but superior or equal to their non-tribal peers.

The findings of the study help to correct the mis-concepts about the tribals and to bridge the gap between the tribals and non-tribals in Kerala. It also help to change the attitude of teachers towards the tribal children and their under-estimation about the abilities of tribal children.

The higher achievement of tribal children who are not at all encouraged to have academic excellence may call the attention of the rural and urban parents who always demand high educational achievement from their children who not always succeed to attain the same. This may be a warning to the rural and urban parents about the consequences of their over-stimulation and over-indulgence. The study may also help them to realise the need for self initiated learning among the pre-school children.
The educationists can use these informations in restructuring the pre-school curriculum. As an outcome of the study, the investigator herself formulated a pre-school curriculum based on the play-way method using the test materials in the achievement test.

The child guidance experts and family counsellors can use these insights in guiding the parents as well as the children. This study may provide useful suggestions to the social workers to improve the lot of tribal children in Kerala.

The study also partially satisfies the NIPCCD proposal to study all aspects of development of the children from urban, rural and tribal settings.

Further, the study clearly shows the need for the enrichment of the environment and experience particularly in the early childhood years in order to enable each child to develop to the full whatever potentials he or she has. Therefore the parents and the child development workers can use these insights with which they can nurture and sustain creativity in the pre-school children.

Finally the information on the behavioural pattern of the children and differential level of performance among the pre-school children from the various sectors help the planners and administrators to form effective programmes to enhance their development. The tribals also have a role to play in the national reconstruction. If their talents and skills are properly utilised they can also participate actively in the acceleration of national development. So as Jesus Christ said, forbid them not, to come unto the forefront.