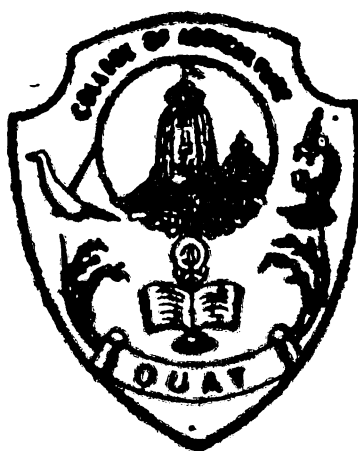


# **A STUDY ON INCOME, CONSUMPTION AND LEVEL OF EMPLOYMENT OF TRIBAL HOUSEHOLDS IN TELIAMURA BLOCK OF WEST TRIPURA DISTRICT (TRIPURA)**

**A THESIS SUBMITTED TO  
THE ORISSA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY,  
BHUBANESHWAR  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
MASTER OF SCIENCE IN AGRICULTURE  
(AGRICULTURAL ECONOMICS)**

**By  
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COLLEGE OF AGRICULTURE  
Orissa University of Agriculture and Technology  
BHUBANESWAR**

**1993**

**THESIS ADVISOR**

**Dr. H. N. ATIBUDHI**

A HEARTFELT TRIBUTE  
TO THE  
*IMMORTAL SOUL*  
OF MY  
BELOVED FATHER.

**Dedicated**

**TO**

**My Beloved**

**CHOLAR SATNI**

*"Jitender Mohindroo"*

THESIS TITLE

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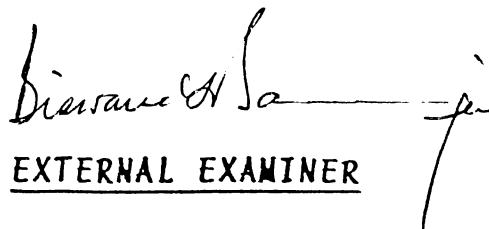
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C E R T I F I C A T E

I hereby Certify that the thesis entitled " A STUDY OF INCOME. CONSUMPTION AND LEVEL OF EMPLOYMENT OF TRIBAL HOUSEHOLD IN TELIAMURA BLOCK OF WEST TRIPURA DISTRICT. TRIPURA " Submitted in Partial fulfilment of the requirements, for the award of the degree of MASTER OF SCIENCE IN AGRICULTURE (AGRICULTURAL ECONOMICS) to the "Orissa University of Agriculture and Technology", Bhubaneswar, is an authentic record of bonafide research work carried out by Sri BIBHAS KANTI DE Under my guidance and supervision. No part of the thesis has been submitted for any other degree or diploma.

I further Certify that, such help or Source of information, as has been availed of, in this connection is duly acknowledged.

Bhubaneswar,  
August <sup>11<sup>th</sup></sup> 1994.

  
( Dr. H.N. Atibudhi )  
Chairman  
Advisory Committee.

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College of Agriculture  
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O.U.A.T.

Bibhas K. Dey  
( BIBHAS K. DEY )

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**CHAPTER-I**  
**INTRODUCTION**

## CHAPTER I

### INTRODUCTION

India has the largest concentration of tribal population any where in the world except perhaps in Africa. According to the 1981 census, the population of scheduled tribe of the country is 5.16 crores<sup>1</sup>, constituting about 7.76% of the total population. Approximately one tribes man per every thirteen Indians. On the whole it is estimated that the predominant tribal areas comprise of about 15 percent of the total geographical area of the country. The various economic programs therefore have been implemented in the tribal areas by union and state government through different agencies. Not only to eliminate the exploitation but also ensure faster growth rate of tribal economy

Tribals in India, geographically and culturally speaking are at widely different stages of social as well as economic development and their problems differ from area to area and even within their own group. The north-eastern region of India which composed of seven hilly states is predominantly inhabited by different tribal communities. Tripura a land of beauty, which has an unique feature of cultural heritage in one of the seven sisters in the north eastern region. It is in the farthest corner of the country and three fourth of this boundary has run



contiguous with Bangladesh. Its total area is 10.486 sq. km.<sup>2</sup>. Tripura is relic of once powerful kingdom of the name mentioned in the great Sanskrit epic Mahabharata and coming down to the historic period in the Ain-i-Akbari.

According to the primary census report 1991. the total number of tribal population in the state is 8.53.345 with a percentage of 30.94. whereas in 1941. the tribal population was 2.56.991 with a percentage of 50.09 percent<sup>3</sup>. Which was marginally higher than non-tribal population.

There are nineteen communities of tribal in Tripura. of whom Tripurians are numerically the largest tribe. The other important tribes are Riang. Jamatia. Halam. Noatia. Kukis. Lushais. and Chakmas etc. There are also some tribals like Munda. Orang. Santal. Bhil. Lepcha. Bhutia. Chaimal who have been migrated from the tribal belts of Orissa. Bihar. Madhya Pradesh and other distant part of the country to work in the tea gardens of Tripura.

Till the country attained independence. the tribal societies were kept in isolation in the guise of non interference with their traditional socio-political system and to preserve their cultural heritage. In pursuance of this policy. no tangible development programmes have been implemented in the tribal areas of the country as well as in the state of Tripura. However with

the advent of independence the policy of isolating tribals was reversed and various measures were initiated in the state to bring them into main stream of the social and economic life of the state while taking enough care to cause minimum disturbance to the balance achieved by the tribals with the nature and to preserve the traditional values of the tribal societies.

Poverty and unemployment have co-existed with tribal communities from centuries. The eradication of poverty necessitates. execution of special action plan in phased manner to reduce the magnitude of unemployment in the economy. Many research studies conducted in other states at national level suggests that unemployment is the cause and consequence of poverty and the magnitude of poverty has been more glaring in backward regions. where skewed distribution of means of productions has made the poor tribals to become poorer day by day. The state of Tripura being one such backward region in the country is no exception to that. Underdeveloped agriculture. small scale cottage industries has accentuated the situation further. Therefore. households devoid of means of production depend largely on either wage employment or on nature. for their existence. This group constitute the down-troddent volunerable section of the society. comprising mainly the scheduled tribes and other economically backward classes.

Amongst these classes, tribals are one of the ignored section of the poverty stricken masses who have taken out arms and also involved in the insurgency activities in the state. The magnitude of the backwardness of the tribals can not simply be imagined without seeing the environment in which the tribals live in, and their socio economic back ground. Most of the tribals have their habitates in hilly isolated and difficult terrains and these areas are still inaccessible such absence of motivation and demonstration effect has not brought about any change in their standard of living. And by & large the tribals manage their existance with living standard much below the poverty line.

Considering the state of Tripura it may be added here that the state is highly deficit in respect of food production even if the main occupation of the people is agriculture. The settled cultivation in the state is over saturated further as a consequence of heavy pressure of immigrants on land, there has been a rising trend in the transfer of land from the tribal to the non tribal farmers. The tribal farmers started depending more on jhum cultivation. According to the jumia survey report the fully Jumia family is 21.677 and partly Jumia family is 33.372 and have the Jumia population of about 2.88.390 numbers in the state. The report shows the little progressive work about resettlement of Jumia family has done by different department of

the state Government. The total number of Jumia families resettled upto the end of seventh five year plan is 17.483 numbers.

The tribal pockets have remained backward inspite of the implementation of various developmental programmes with respect to their economic activity and living standards. Living in an inaccessible area devoid of communications and contacts with the outside world has restricted the outlook of the tribal people and their philosophy did not developed to the required extent. And many of them are not even aware of the rapid economic development taken place in the other parts of the state. Their needs are limited and the means are also limited. leading to the development of a bare subsistence economy. As a result, these tribal areas have become pockets of stagnation and object of poverty within the state and have not been able to keep pace with the development of other non tribal groups in the state. Much has been done and yet, many things needs to be done to the socioeconomic status of tribals in the state.

It is therefore in the fitness of things, desired necessary to make an indepth study on the socio economic status of the tribals of Tripura with particular reference to their level of employment, income and living standards and bring out certain policy issues pertaining to investment decisions of the Government and other national and international organisations.

## OBJECTIVES

1. To study the farm and family structure of different categories of tribal households.
2. To estimate the level of income and consumption of tribal house holds.
3. To study the level of employment among the tribal house holds.
4. To study the marginal propensity to consume and extent of saving or desavings among the tribal house holds.

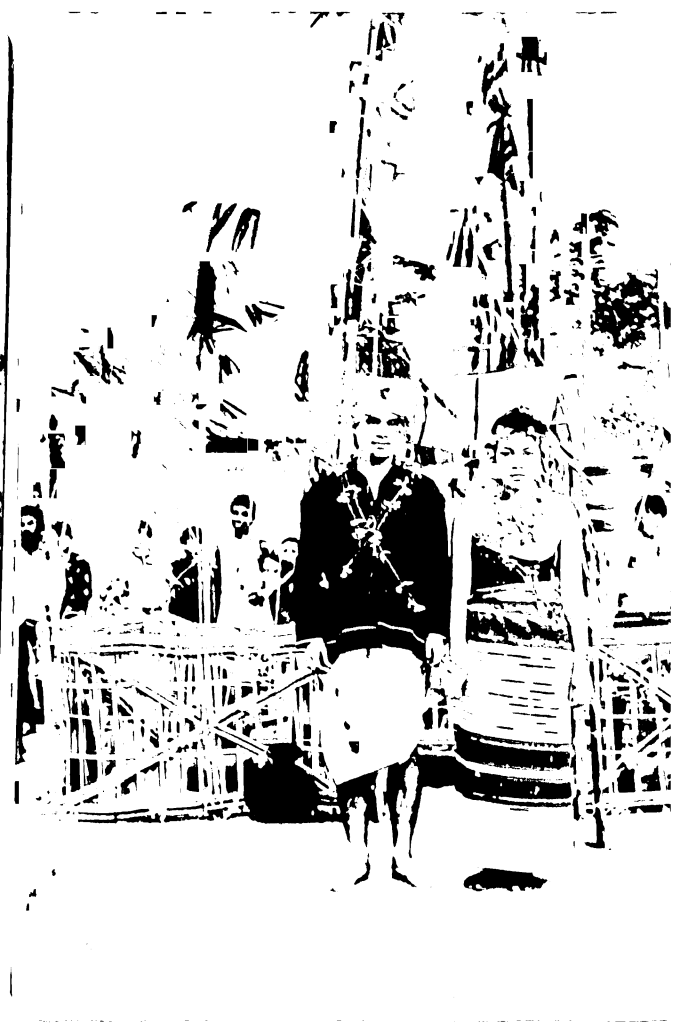
## HYPOTHESIS

1. There exists disparity of income among different categories of tribals.
2. The marginal propensity to consume in case of tribal house holds is very high.
3. There exists unemployment and under employment among the tribal house holds.
4. The income distribution and consequent consumption is the reflection of greater degree of poverty. that is prevalent among the tribal house holds.

- 
1. Primary census report 1981.
  2. Primary census abstract. 1991. National Informatic Centre.
  3. Insurgency in Tripura by S.R. Bhattacharjee.
  4. Jumia Survey report 1987. Govt. of Tripura.



A REANG COUPLE



WEDING OF TRIPURI



GORIA DANCE  
BY  
TRIPURIES



RIANG GIRLS  
WITH  
TRADITIONAL DRESS



GORIA DANCE



DANCING  
HALAM COMMUNITY



TRIBALS WITH TRADITIONAL  
MUSICAL INSTRUMENTS



BAMBOO DANCE OF  
TRIBALS



JAMATIA DANCE



KALASI DANCE OF RIANGS



**CHAPTER-II**

**REVIEW OF LITERATURE**

## CHAPTER II

### REVIEW OF LITERATURE

Review of literature plays a vital role in gleening out information about the works done in the past. the selection of, analytical procedures followed. the strong and week points and findings of such studies provides valuable guidences in formulating the theoritical framework of research at the time of investigation.

In this chapter. some of the recent research works done on various aspects of socio economic characteristics. employment and level of living of tribal households have been reviewed. For the make convenience. studies reviewed have been classified and presented under the following three sub-heads. viz.

- (a) Socioeconomic characteristics
- (b) Employment
- (c) Level of living

(a) Socio economic characteristics.

The social environment is most important in shapping and developing the culture and economy of a society man is subjected to a continious learning process since his childhood. which eventually provides him with certain wage of living to a perticular group of people or society. The tribal society which was very much secluded from out side world is undergoing a radical change which requires periodical review from time to time.

A number of research scholars have attempted to examine the socio economic characteristics on these basis. a review of whose works is given below.

Prakash (1976)<sup>1</sup> is of the view that the massive poverty prevalent in India can be tackled simply by introducing traditional economic measures like public works programme and the similar measures as suggested in the Approach document to the Fifth Plan. Increase in national income and a more equitable distribution of it to the weaker sections of the society supplemented by a comprehensive public distribution system to distribute food, cloth and essential commodities are the solutions to the problem. The Economic Classification Scheme is a programme of action which may be adopted as a practical solution to effect equitable distribution of wealth under the present conditions which would give immediate results. It may be pointed out that if this scheme is implemented, it will be possible to raise the levels of living of all families living below poverty line to above the poverty line within a period of 5 to 10 years. The Economic Classification Scheme shall also provide a base for systematic economic administration and also equitable distribution of wealth to the poor masses and it may also be regarded as the first step towards the achievement of a socialist economy, which is the declared objective of our country.

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1. B.A.Prakash, "Removal of poverty". A New Strategy, Yojana, 1976 (October), pp.11-12.

Adiseshiah (1982)<sup>2</sup> has suggested several measures in fighting poverty in rural India. According to him, the asset distribution in ownership of cattle, equipment and machinery as set forth should be fully and faithfully implemented on co-operative basis and the present loopholes of the land reform legislation through which whole troop of elephants are walking out should be closed. It is important that those who are most destitute, the bottom 20 per cent of the people should be helped first. Absolute priority should be given in pulling up out of poverty those living in destitution.

Borah, P.N and Mishra, B (1984)<sup>3</sup> in their study on the impact of integrated jhumia development project on changing the socio economic situation of hill-tribals of Karbi-Anglong district of Assam concluded that the tribals should have proper education both literally and functionally as to understand the proper education of challenge and to take up the management of the departmental programmes with vigour and enthusiasm. Perfect co-ordination is to be maintained between various development programmes to accelerate the process of development in the backward tribal areas.

- 
2. M.S.Adiseshiah. "Dimensions of War on Poverty". Mainstream. 1982. Vol.XXI. No.17. pp. 14-20.
  3. P.P Borah and B.Mishra (1984). Impact of Integrated jhumia development project on changing the socio economic situation hill tribals of Karbi- Anglong district. Assam. (M.Sc. thesis).

Gangui. J.B. (1985)<sup>4</sup>. He observed entry into diversification of productive activities was vital for the survival of the tribal of the state. not to speak of improving upon their economic conditions. because heavy influx of refugees from East Pakistan in to the state led to tremendous pressure on land and the natural resources to which the tribal so long had easy access. Over and above. such an attempt for diversification of economic activities should be helpful in accelerating the social mobility of the tribesman in the environment of Tripura.

Jahgirdar. M.P. (1986)<sup>5</sup> According to him the north eastern region. being a late entrant in the development field with unique characteristics and abundant resources calls for an innovative approach which could synthesise tradition and modernity for the harmonious development of the two. This means that more and more people should be taken into confidence and development should become peoples priority rather than that of the government. More functional education. transformation of attitudes. motivation programme are the basic needs. Unless a desire for economic and social development is unculcated among the people. schemes will be of less relevance.

- 
4. J.B. Ganguli (1985) "Pattern of occupational structure of the tribal population in Tripura". Parisankhyan Barta. Vol - I. No. - 2. April - Sept.
  5. M.P. Jahagirdan (1986) Problems of Rural development in North East region Kurukshetra Vol -xxxiv. No-8. May-1986.

The schemes should be prepared keeping in view the target groups for whom they are meant. The guidelines of the schemes should be flexible and should not become norms when they reach state or district levels. As far as possible it should be tried to fit the schemes in their social framework rather than designing them to fit in the official framework. The tribal people are like toddlers. Once they learn to walk, they may even run, but we should not make them to walk before they could stand.

Sagar (1987)<sup>6</sup> et al., stated, whether asset redistributive measures or employment schemes are better for poverty alleviation. This also has implication on the redistributive policies. In a state where the land owner operator small farmer earns less than the landless rural labourers distribution of land or assets in small quantity may not be of much help. Such measures would imply diversion to activities, which up to now have shown lower earnings. Furthermore, it would tie up a larger number to land thus affecting their migration to more lucrative areas. Such migration has been a cushion against the inhospitable nature as well as the inhospitable economic environment in a large part of the state.

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6. S.Sagar, Kanta Ahuja and V.Sagar. "Poverty among Identified Weaker Sections in Rajasthan". Economic and political Weekly, 1987 Vol XXII, No. 26. pp. a. 70 A. 11.

Mahalingam (1988)<sup>7</sup> According to him tribal development has reached a critical stage and has assumed an added significance in the context of the high priority accorded to social justice in the new planning effort. Some of the tribal groups have remained completely untouched by the process of economic development and some have even been adversely affected by it. It is therefore to take a fresh work at the tribal situation in the hilly tracts, review the strategy of development and define the total needed national effect with a view of making tribal communities equal partners in all sphere of national life.

Singh(1989)<sup>8</sup> has analysed the impact of employment schemes on poverty. He suggested that more representation of the poor and the implementation of the programme would be positive step to success the programme. It would be more realistic to fix the poverty line limit for IRD programme for a particular five year period with reference to the price level of the year immediately preceding that Five Year Plan. There is an urgent need for making effective steps by the individual banks to ensure speedy implementation of instructions of the Reserve Bank of India. There is also need to impart extension education to the IRDP beneficiaries about the detailed terms and conditions of loans received by them from the banks. It is suggested that due

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7. Mahalingam (1988). Kurukshetra vol xxxvi. No. 4. Jan. 1988).

8. Prahalad Singh."Impact of Employment Schemes on Poverty". Indian Journal of Social Research. 1989. Vol-XXX. No.3, pp.279-303.

importance should be given to the development of infrastructure and environment along with the uplift of an individual.

Sharma (1989)<sup>9</sup> observed a number of factors, which might be responsible for poverty in the sample villages. They are illiteracy, unemployment, sole dependence on agriculture, lack of irrigation facilities, low productivity in the agricultural sector, large family exploitation, indebtedness, dependence on others, domination, laziness, lack of farsightedness and determination and landlessness. Thus, they also say that if poverty is to be removed, the Government must help the poor - through economic aid - and/or give them some employment. As they observe that the benefits of the present schemes are not only part and they do not reach the genuine cases. They suggest that arrangements should be made to help the poor directly or through the panchayat and corruption among officials should be checked. In order to provide employment, the government should establish industries and spread education. Some of them suggest land distribution from absentee landlords to landless workers - efforts to save the poor from debt bondage, family planning and migration as other methods of removing poverty. A few of them talk about the policy of protective discrimination as a part of comprehensive policy to remove poverty.

Bhattacharya, S.R. and Gupta, D.N(1989)<sup>10</sup> Concluded in their study on Tribal insurgency in Tripura Concluded that 31.9 percent

---

9. A.K.Sharma. "What the poor think about their" poverty-A socio-psychological study. The Indian Journal of Social Work. 1989. Vol. 1. No.2. pp. 171-182.



of tribals were employed in the government services to the employment. The % of cultivator, agricultural labourer, household industry, other workers and marginal workers were 23.14, 10.38, 0.08, 2.5, and 5.10 percent to the respective population.

Bihari (1989)<sup>11</sup> indicated that in 1984, there was 735.6 million persons in the country, which increases to 796.6 million in 1988. Of those, more than three-fourth (about 77 per cent) lived in rural areas. Per capital national income at 1980-81 prices amounting to Rs. 1786.5 increased to Rs. 1918.1 in 1987-88, but the disparity between rural and urban levels of per capital income had been very wide. As against Rs. 2305 for urban population, per capital income for rural population amounted to Rs. 620. The percentages of population living below the poverty line in different states has been markedly varied from 49.5 per cent in Bihar to 46.2 per cent in Madhya Pradesh and 45.3 per cent in Uttar Pradesh. It was only 13.8 per cent population in Punjab, 16.3 per cent in Jammu & Kashmir and 23.5 per cent in Assam lived below the poverty line.

Biswal, S.K and Kar, L.N (1989)<sup>12</sup> concluded that majority of the tribals are marginal, the average monthly income of whom

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10. S.R.Bhattacharya and D.N.Gupta. (1988). Tribal Insurgency in Tripura.
  11. Bipin Behari. "Alleviation of Rural Poverty (Review of period 1984-89)". Kurukhetra. 1989. Vol. XXXVI. No. 12. PP. 30-36.
  12. B.K.Biswal and L.N.Kar (1989). Impact of extension education on the socio economic development of tribals of Niligiri block of Balasore District of Orissa. M.Sc thesis.

ranges between Rs 300 to Rs 1000. most of the tribals having some size of land holding do not depend on their land for their livelihood. lack of credit facilities and unavailability of inputs in time along with small size of land holding limits the development of tribals particularly in the field of agriculture.

Bose. A. et al. (1990)<sup>13</sup> According to them there were 1.04.771 nos of male cultivators and 30.408 nos of female cultivators in the state. where as 40030 nos of male tribal agriculture labour and 20.586 nos of female agriculture labours. Only 2594 nos of male and 3192 nos of females were engaged in live stock. forestry. fishing. plantation etc. Again only 226 nos of male and 280 nos of female were engaged in house hold industry in the state. During the year 2981.

Ram.V.J (1990)<sup>14</sup> has analysed the causes. which directly or indirectly contributed to the breeding and the perpetuation of poverty. He started that simple failure on the part of the social system to respond the simple socio-economic requirement as exemplified in erroneous projections of crop yield. fuel needs. market behaviour. birth rate etc.. brake down of transpotation. irrationality of social institutions and cultural biases amount numerous others. all of which countributed to poverty. The poverties also often attributable to natural causes such as

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13. Asish Bose. Tiplut Mongbri and Nikkilesh Kumar. "Tribal Demography and development in north east India.1990. P.P 116.

14. Talk by Dr. V.J. Ram. "Chief Social Development Division". United Nations. Thailand at Planary Session on Sum-theme-III. pp. 364-370.

drought. excessive rainfall. earthquake and other natural disasters as well as to certain normal human condition such as extreme youth and aging needs no elaboration. Nor does the fact that perverty can result from certain personal attributes such as low level of intelligence. lack of employment skills. performance of life styles not conducive to financial security etc.

Rao. S.N. and Kar. L.N (1991)<sup>15</sup> Concluded in their study that. to improve the socio economic condition of the tribal people. they must be educated Education must be given priority basis. Modern technology is to be reached to them and interest in the welfare of the tribal community must be raised.

Heggade. O.D (1992)<sup>16</sup> According to him the VSO'S have the potentiality of working catalysh in transforming our tribal areas. Thus sincere efforts should be made to increase their scale of operations by a liberal policy of grant -in-aid and initiating measures for eliminating the problems and difficulties encountered by them. Appropriate intensive schemes should be implemented to increase the number of committed voluntary social workers as well as organisations. Thus it could not be ignored that a revitalized network of VSO's cluld be undessiable assets for implomenting a host of development schemes under the present "Sub-Plan" approach for tribal development and welfare.

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15. S.N.Rao and L.N.Kar (1991) extent of socio economic change the tribals of Mahendragiri region of Ganjam District. Orissa. M.Sc thesis.
  16. Odoyar D.Heggade (1992) Role of VSO in tribal development. Kurukshetra Vol- xxx. No -13. April 1992.

Sahoo. S.C and Dash. B.B (1992)<sup>17</sup> in their study on the "Socio economic analysis of shifting cultivation in Tribal areas of Koraput District in Orissa." suggested that.

(a) The tribal must to be educated to a minimum of primary level. This can be achieved by voluntary participation in residential school.

(b) In formal education of adult tribals through extension personnel should be strengthened.

(c) The knowledge level of the tribal in modern technique of crop production should have to be increased through intensive efforts by government as well as voluntary agencies.

Singh. A. (1994)<sup>18</sup>. Suggested for setting up of a cattle shed. providing better sanitation facility for storage and provision for drinking water. setting up of bio-gas plant. nursery to improve the standard of living of the tribals.

#### (b) Employment

The Second Agricultural Labour Enquiry (1956-57) and the 25th round of the National Sample Survey (1970-71)<sup>19</sup> reports pointed out that among the total male members of the weaker section. only 5.7 per cent of time was spent in unemployment due

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17. S.C Sahoo and B.B Dash (1992). The socio economic analysis of shifting cultivation in Tribal areas of Koraput district in Orissa. M.Sc. thesis.

18. A.Singh (1994) Housing project for a primitive tribe. Jojana. Vol-38. No-6. April-1994.

19. Government of India(1971). "Cabinet Secretariat" The National Sample Survey Report of Employment and Unemployment-25th Round (Manager of Publications. New Delhi).

to the search for work for 12.5 per cent of the time. they were in gainful employment for about 8.2 per cent of their time. In 1970-71. the male labour force was unemployed for about 6.8 per cent of the time as against 14 per cent in 1956-57. National Sample Survey (25th round) prepared data on activity states which shows that the annual labour force participation days per person in case of weaker section are high.

Raji purshit (1974)<sup>20</sup> in his evaluation study of SFDA analysed the impact of the programme in the employment of the beneficiaries

After the implementation of the programme under three major schemes namely. individual wells. dairy development and sheep rearing. The study revealed that the total numnber of days per household increased for periods 1972-73 to 1973-74 were from 649 to 762 for the individual wells category. from 539 to 633 for dairy development and from 974 to 1092 for shop rearing. The number of labour days employed per household increased significantly for male adult workers in the case of all the three categories. The labour days for male non-adults increased in case of the individual wells and seep reaeing categories and slightly declined in the case of dairy development category. The labour days for the female adults increased in the case of the individual well and dairy development and slightly decelined in the case of the sheep rearing and those for the non-adults

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20. A.R.Raje Purshit. "Evaluation of Small Farmers Development Agency". Mysore District. Karnataka State (1972-73 to 1973-74). Gokhle Institute Mimeograph. Series No.19. p.38.

declined in the case of the sheep rearing and those for non-adults declined in the case of individual wells category and increased in the latter two case.

Aiyaswami and Natrajan(1980)<sup>21</sup> in their study on employment pattern of labour force in Coimbatore Taluk have shown the range and the level of employment. unemployment and underemployment among the rural households engaged in agricultural and non-agricultural activities.

The employment status expressed in terms of days of full employment exhibited inter-village differences as could be expected. In all. out of 177 earners in agriculture. only 50 had employment for 200 days and more. Majority in the earner group experienced unemployment and/or underemployment at some point of time in the year. The enquiry had clearly indicated that the extent of unemployment got minimised substantially in villages having fairly stable irrigation facilities. adopting labour intensive crop-mix and successive crop rotations complemented by dairying and possessing industrial centres.

Singh (1981)<sup>22</sup> found that the artisans had the highest employment among different rural workers with 262.88 man-days of

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21. P.K.Aiyaswami and B.Nataranjan."Employment pattern of labour force in Coimbatore Taluk." Centre for Agriculture and Rural Development Studies. Tamilnadu Agriculture University. Coimbatore. 1980. p. 50.
  22. R.P.Singh."Structure of Employment among different Rural Workers in Punjab". Report on Seminar on Structure of Employment among different Rural Workers of Punjab: A Case Study. PAU. Ludhiana. 1981. p. 1-9.

employment per year. They were employed for 73.02 per cent of the days in a year which is very close to our ideal of full time employment of 75 per cent days. But the level of employment of agricultural labourers. marginal farmers was comparatively low with only 50.35 and 52.47 per cent of the days in employment in a year. He has also assessed the impact of SFDA on employment generation of different rural workers. He found that. none of the sampled agricultuural labourers. artisans and marginal farmes got the benifits of various special programmes formulated for their benefits. The various employment generating programmes of SFDA failed to reach the target group because of their lack of knowledge about the programme.

Ggrewal and Sidhu (1981)<sup>23</sup> in their study found that the level of employment of landnless labourers in Sangrur district. Punjab. was quite high for male workers and low for female workers. A male landless labourer gets employment for 270 days in a year as compared to 131 days of emplyment for female labourers. The male labourers got maximum employment in paddy transplantation. harvesting threshing anf other intercultural operations. whereas. female workers got maximum employment in paddy transplantation. harvesting and cotton picking. The second half of the year provided more employment than first half. They have also observed that these landless labourer prefer contract

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23. P.S.Grewal and I.S.Sidhu."A Study into the pattren of employment and wage structure in Punjab Agriculture.":A Case Study. "Report on Seminer on Structure of Employment and Wages in Rural India." PAU. Ludhiana. July. 1981. pp. 1-13.

wages in paddy transplantation. harvesting and threshing because. it provides additional employment opportunities to family members irrespective of age and sex.

Singh et al. (1981)<sup>24</sup> have analysed the time spent on various activities seasonality in work by male and female members of small and large farming households. They found that the males from small farms have gainfully employed for nearly 56 per cent of their time. This figure is slightly higher in the case of large farms. However. in the case of female members. half of their time is utilised for social and family affairs. Further analysis of the time spent on gainful work shows that crop production and tending of cattle are the major activities. October is the most busy month for crop production activity for persons of both the sexes and for both sizes of farms. Other activities of gainful employment are exchanging and/or hiring out labour. The unique feature of hills is that female do not hire out their labour through they do participate in exchanging their labour. Both these activities consume 3 per cent of total time. The most timeconsuming and unproductive but necessary activity performed by female is social and family affairs. The time allocated to this activity by female is the same (about 50 per cent) on all size of farms.

Subramanyam(1984)<sup>25</sup> in his study found that the problem of open unemployment does not appear in its chronic form. The real

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24. D.V.Singh. M.S.Rathore and R.Swarup. "Seasonality of Employment in Hill Agriculture".Report on Saminar on structure of Employment and Wages in Rural Indian. PAU. Ludhiana. July. 1981. pp. 1-15.

25. S.Subramaniyam."Levels and Dimensions of Unemployment. 1984. Vol.3. No.4. pp. 338-344.



problem in the rural and urban areas is underemployment. This is more so in the case of females. The incidence of unemployment is higher among females both in the rural and urban areas. He has found that labour households are subjected to the higher incidence of unemployment. These households account for about 90 per cent of the rural unemployment and 55 per cent of the urban unemployment even though their shares in total workers are much lower. Hence, any employment programme should give top priority to labour households. The pattern of development influences the incidence of unemployment. Mere agricultural development cannot solve the problem of rural unemployment and hence, rural industrialisation should also be emphasised.

Bhuyan and Mohapatra (1984)<sup>26</sup> in their study found that the financial assistance to the tune of Rs. 1500 to each beneficiary household under ERRP programme with 75 per cent subsidy and Rs. 1800 under IRD programme with 33 per cent subsidy with differential rate of interest (4 per cent in case of the former and 12.5 per cent in case of latter) provided employment opportunity to 3.2 units of labour as against 1.26 units per day during pre-investment period, showing thereby an increase of 252 per cent. An indepth analysis of the study showed that despite encouraging achievements in the field of employment, 28 per cent of the excess capacity remained unexploited.

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26. B.Bhuyan and P.Mohapatra."an appraisal of IRD and ERRP programme in Balipu". Nischintakoli and Mahanga Block of Cuttack District". Seminar paper on Rural Development. Orissa. Economic Journal. 1984. p.89.

Sodhi (1987)<sup>27</sup> in a study found that the financial assistance through IRDP had significant changes in the occupational structure of the beneficiaries engaged in agriculture as labourer and therein self-driven camel cart. The decline in the proportion of households employed in the traditional wage paid occupations of agricultural sector was significant contribution of the IRD programme.

Chakraverty and Sharma (1987)<sup>28</sup> have made a critical analysis of the employment pattern of the weaker sections before and after the execution of IRD programme. They found that total employment days in IRD schemes provided additional employment which varied from 90 man-days in case of work bullock scheme to 365 man-days in carpentary scheme. Such a vast employment opportunities created for the landless labourers pushed up the level of total employment days from 314.56 man-days during pre-IRD period to 380.52 man-days in post-IRD period. This change exhibited 20.97 per cent increase. Further, an analysis of the extent of underemployment showed that it varied from 8.5 per cent to 41.5 per cent in case of marginal farmers, whereas, in case of landless labourers, the magnitude of unemployment varied from 7.33 to 66.87 per cent. This indeed, reflects an alarming situation and calls immediate attention of the agencies to create

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27. J.S.Sodhi."IRDP Results of a study of evaluation of the programme". Swai Madhpur district, Rajsthan". 1987.Journal of Rural Development. Vol.6. No.6. p.617.

28. M.L.Chakarverty and B.N.Sharma."Socio-economic Impact of IRD Programme on the level of Employment".Income and Asset of the weaker section in National District of Assam. 1987(Masters Dissertation). Deppt. of Agril. Economics. College of Agriculture. Bhubaneswar.

more productive employment opportunities in the schemes financed under IRD programme.

Bardhan (1987)<sup>29</sup> analysing the from the national sample survey. found that the unemployment rate in general was lower among women than among men. possibly because of the situation of low job prospects. women drop out of the current labour force more readily. He also found that on an average. about 27 per cent of economically active (i.e in the labour force by usual activity status) adult females withdrew from the current labour force in the reference week. In response to a probing question asked in the survey. it was found that even among women who are engaged in household work by usual activity status. about 5 per cent reported that they are so engaged because of non-availability of gainful work and about 19 per cent reported their willingness to accept additional work if work of their choice (like animal husbandry. spinning and weaving. tailoring. small-scale manufacturing and repairing etc.) is made available at the women's household.

Paul(1988)<sup>30</sup> in his study on Unemployment and Underemployment in Rural India. found that the problem of underemployment is more serious than chronic or full employment in rural India. About one-fifth of the rural labour force was

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29. P.Bardhan."Poverty and Employment Characteristics of Urban Household in West Bengal." Economic and Political Weekly. 1987. pp.1496-1502.
30. Satya Paul ."Unemployment and Underemployment in Rural India". Economic and Political Weekly. 1988. Vol.XXII. No.29. pp.1475-83.

underemployed during 1977-78. Severe underemployment was least prevalent and marginal underemployment was most prevalent. The rates of unemployment and underemployment for females are higher than that for males. which shows that the job opportunities for females are limited in rural areas. Over the period 1977-78 to 1983. the usual status of unemployment and underemployment rates have declined considerably in the rural sector as whole. While there is some increase in the rates of moderate and severe underemployment rates of marginal unemployment have declined appreciably. The direction and magnitude of change in rates of unemployment are, however, not uniform across states. The states like Assam, Himachal Pradesh and Punjab show an increase in the unemployment rates whereas, most other states show a decline.

Tilakdar et al. (1989)<sup>31</sup> have analysed the impact of IRDP on employment and income of beneficiaries in Western Maharashtra in the drought-prone area of Manteheill of Southern district. They observed that IRDP increased the employment of beneficiaries by 29.40 days. The non-farm employment was also higher in case of beneficiaries. Employment function revealed that there was positive and significant relationship between total annual family employment and farm size, family size and number of animals and income from non-farm employment of beneficiaries. It was also observed that there was a positive relationship between the total annual family income and expenditure on the crop production

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31. S.N.Tilakdar, P.D.Malikner and N.N.Pathak."Impact of IRDP on Employment and Income of beneficiaries in Western Maharashtra." Financing Agriculture. 1989. pp.21-24.

and livestock. In conclusion, they have found that the IRDP made a positive impact on the employment and income of the beneficiaries.

Singh and Basnet (1990)<sup>32</sup> have examined the relationship between employment and the various factors responsible for change in the level of employment through multiple regression analysis. They found that the regression coefficients for family size was highly significant both in rural and urban areas. The values of regression coefficients indicated that the employment would increase by 37.68 and 52.06 days with one unit increase in adult unit in the case of rural and urban households, respectively. The variable representing number of animals was highly significant in both the areas. The figures showed that supply of one productive animal which raise the level of employment to the extent of 20 to 30 days per annum both in rural and urban areas, respectively were 0.06 and 0.04 for rural and urban areas, respectively, indicating that non-farm employment generated through IBP assistance provided higher income. It also implied that non-farm employment could be generated further through IBP assistance both in rural and urban areas.

Bahadur et al. (1992)<sup>33</sup> have assessed the impact of IRDP on beneficiary's employment generation in the pre and post

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32. J.P.Singh and K.Basnet."Economic Impact of Intensive Banking Programme on the level of Income and Employment of Bank Beneficiaries in Morang District."Nepal. (Masters Dissertation). 1990. Deptt. of Agril. Economic. College of Agriculture. Bhubaneswer.

33. T. Bahadur and Md. A. Kareem." Employment and Income Generation under IRDP : Some Implications."Pigmy Economic Review. 1992. Vol.37. No.6. pp. 1-5.

implementation periods of the programme. He found a definite increase in employment in terms of average man-days per family from the pre to post implementation stages. The average number of man-days per annum for the small farms family before IRDP stood at 339.33 which increased to 566.36 man-days indicating thereby an increase of 66.90 per cent. The average number of man-days per annum for the marginal farms group before the IRDP was 274 man-days which increased to 417 man-days. This constitutes 77 per cent increase in man-days employment in the post-implementation stage. The average number of man-days per annum for the agricultural labourers group was 295. which increased to 429.7 indicating thereby an increase of 45.66 per cent. This was perhaps the lowest as compared to small and marginal farms group.

Singh. J.P. et al. (1993)<sup>34</sup>. According to them Agriculture was the main source of livelihood. but could sustain the sample households for about 9-10 months a year. Forest resource was therefore the last resort in the absence of adequate productive employment. The study further revealed that 71 percent of Juang and 63 percent of the Bhuinyas were below poverty line. Literacy percentage was 10.58 and 25.20 respectively.

#### (c) Level of living

The term level of living is used to denote all elements, material as well as non-material consumption for the well-being of an individual or a group. It includes goods and services as well as

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34. J.p. Singh and T. Mohanty. (1993) "Magnitude of Poverty. Unemployment and living of tribal households (Juang and Bhuinya) in Keonjhar Dist. of Orissa". Ph.D. thesis. Utkal University. Vani Vihar:

non-material benefits such as political security and pleasure of family life. It is, however, difficult to quantify the non-material benefits. Most researchers studied in details the components of food, clothing, housing, medical, education etc.. to examine the levels of living of people in an area. Some of these works have been reviewed in this section.

Siddiqui(1968)<sup>35</sup> in his study concluded that under the conditions prevailing in Kishanpur, Bundelkhand (North India), a consumption of 2220 calories per head per day is sufficient for average health. His another study (Siddiqui, 1966) showed that in a village in U.P., the calorie consumption was 2309 per head per day and the standard of health, there was also good. From these two studies, it follows that in U.P. or North India, the minimum daily requirement for average health is 2220 calories per head. More precisely, it can be said that 2220 calories per capita per day form a general Standard Nutrition Unit (SNU) for North India in order to compare the nutritional standards of people living in other villages of the region. However, it is presumed that the diet providing ISNF consists of the variety of foodstuffs with no adequate quantity of proteins. It is also presumed that the essential quantities of "Protective food" required to maintain average health are also included. If the diet is sufficiently varied, the vitamin intake will also be adequate.

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35. M.F.Siddiqui."Studies on Calories Consumption in Village. Kishanpur, Bundelkhand."Man and India, 1968. Vol.48. pp. 174-180.

Drewnowski (1970)<sup>36</sup> in his study "Studies in the measurement of levels of living and welfare". Introduced general distinction between levels of living and levels of welfare. The former are measured by indication of the flow of goods and services to the individuals of a society over a period of time, affecting their welfare such as food, health, services, education, housing etc.. The level of living index was designed as a unitary index combining the several indicators of the flow. Population has recurrent needs and such needs are satisfied with the flow of goods and services obtained by the population at the rate of so much per unit of time. As satisfying needs are receiving welfare, therefore, the flow of goods and services brings in flow of welfare to the population. This size of flow or satisfies needs is measured per unit of time. It is that flow of welfare, which is called level of living. Thus, level of living is the instrument to measure. It expresses the monetary value of goods and services, which are supposed to generate the level of living.

Santra (1970)<sup>37</sup> examined "Inter-Regional and Intra-Regional inequalities in Household Expenditure in India". Regional variation has examined with the help of Lorenz curve and Gini coefficient. He also used funds of expenditure approach for studying the levels of living variation. It was found that a high inequality in an economy with large per capita consumer

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36. Jan Drewnowski "Measuring Social Variables in Real Terms : Survey of Issues and Possible Solutions - Studies in the Measurement of Levels of living and Welfare". United Nation Research Institute for Social Development". Report No. 70. 3. 1970. p.23.
37. B.Santre. "Inter-Regional and Intra-Regional inequalities in Household Expenditure in India". Indian Journal of Agricultural Economic 1970. Vol.XXV. No.3. pp.92-99.



expenditure implies less human hardship than the same level of inequality with low per capita expenditure. The people of Punjab with lower inequality and higher average per capita expenditure and certainly better off than those of Rajasthan and Mysore with higher inequality but lower per capita expenditure. Similarly in Maharashtra and West Bengal through inequality is the same, yet the level of living in West Bengal is higher than that of Maharashtra.

Ojha(1970)<sup>38</sup> studied "Configuration of Indian Poverty. Inequality and levels of living". He focussed attention on the linkage of inequality in income with levels of living in a society. He found that income inequality is an insufficient measure of level of poverty in a society. Furthermore, it gives a relative position which is also in an affluent society like USA. To measure index of absolute poverty, he used indicator of level of living i.e., food consumption which is measured by average calories intake per person. He examined levels of living in rural and urban India based on average calorie intake.

Ganguli and Gupta (1970)<sup>39</sup> examined the levels of living in India based on consumer expenditure approach. They used National Sample Survey data for the purpose and found that usually a high proportion of expenditure on total food indicates the relatively

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38. P.D.Ojha. " A Configuration of Indian Poverty. Inequality and Levels of living". Reserve Bank of India Bulletin. 1970.p.27.

39. B.N.Ganguli and D.B.Gupta. "Levels of living in India - An Inter-state Profile". S.Chand & Co. Ltd., New delhi, 1970.

low levels of living. Similarly. for higher levels of living smaller proportion is spent on food and within the food group. a smaller proportion of expenditure on cereal products.

Rath (1973)<sup>40</sup> examined the levels of living in rural areas of various states in India. by using only per capita consumption expenditure. He observed that prices of various commodities entering into consumption estimates are not the same in every state. He attempt the same after making due allowances for difference in the price level of commodities entering into consumption. He used the Lespper's Quantity Index expressed as estimated per capita expenditure for any state as percentage expenditure of Andhra Pradesh. If the index is lower than Andhra Pradesh. the levels of living is low and vice-versa.

Reddy et al.(1975)<sup>41</sup> found that family budget and the level of living was high in case of the agricultural labourers. who depend on wages. Agricultural labourer-cum-milk producer spends more on all food and other items except on litigation. When percentages of expenditure is calculated. they spend more on recreation. housing. travelling. education. and miscellaneous items. Agricultural labourers. who depend on wages spend more on litigation and lead a hard life. They concluded that agricultural labourers. who maintain dairy farming as a subsidiary occupation are better of than those who depend only on wages.

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40. Nilakantha Rath. "Regional Variation in Level and Cost of living in India". Artha Vijnana. 1973. Vol.IV. No.4. pp.337-353.

41. V.B.Reddy. Y.V.R.Reddy and N.R.Reddy. "Socio-economic Conditions and Standard of living of Labours". Rural India. 1975. April-May. pp. 102-104.

Muthaya (1977)<sup>42</sup> studied the indicator of rural levels of living and suggested that while determining the level of living, a distinction should be made between basic human needs or necessities and higher needs or comforts. He also argued that in case of rural areas, basic needs like, food, clothing and shelter are major. He also suggested that caste, landholding value of assets, material possession, health and nutritional status, family size and children attending school as indicators of rural levels of living.

Commerce Research Bureau (1981)<sup>43</sup> studied levels of living in India as a whole and for states like Gujarat, Bihar and Assam. They used various indicators such as literacy, urbanisation, proportion of workers, population below the poverty line in rural and urban areas, unemployment, per capita income, health, per capita availability of cereals, pulses, milk etc., proportion of expenditure on food, fuel, light and water etc. They found that though literacy has increased, yet their quality is poor, real income of agricultural labour has fallen, asset holding of poor was very low. The per capita availability of pulses, milk, cotton cloth declined, whereas, there was substantial increase in the availability of man made fibre, sugar and tea. The use of luxury items increased though population suffered from protein deficiency. Similarly, in Assam and Bihar through the economy

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42. B.C.Muthaya. "Indicators of Rural levels of living and Methodological Issues.Community Development and Panchayat Raj Digest". 1977. Vol.IX.No.1. pp. 1-13.

43. Commerce Research Bureau. "Levels of living :Wide spread poverty and Illiteracy. commerce". 1981. Vol.CXXXXI. No.3661. pp. 1-20.

has picked up and the capita income have shown rising trend. there has been no significant impact on living standard of the people. In Gujrat. they found improvement in the quality of life both in rural and urban areas. Large number of people have been able to afford better food intake. The vast growing network of health and social services along with the development in other spheres. have yet more money in the pockets of people and improved the coverage and quality of services.

Sepecial Correspondent of Commerce Research Bureau (1981)<sup>44</sup> of Shimla has studied the level of living in Himachal Pradesh with the help of male and female literacy. rural urban literacy. proportion of workers population below poverty line. rural and urban unemployment. per capita income. structure of state domestic product. health and per capita availability of cereals. pulses. milk etc. He found that Himachal Pradesh is comparatively better in terms of population of people below the poverty line. The net domestic product (at current prices ) of Himachal Pradesh between 1970-71 and 1979-80 increased. During this decade. there has not been much change in the degree of urbanisation and the state continues to be predominantly rural. A bulk of the total work force in Himachal Pradesh continues to live on agriculture. Unlike many other states in Himachal Pradesh small landholders is

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44. Special Correspondent Small Landholders Predominants : Himachal Pradesh Commerce. Special Supplement. 1981. Vol. CXXXXIII. No.3661. pp. 24-25.

a dominant class both in terms of number and the area. During the past several years education facilities have improved to a large extent. The medical facilities in the state over the years have shown improvement. The number of medical institutions have gone up.

Mukherjee (1981)<sup>45</sup> studied the level of living in Uttar Pradesh for rural and urban areas with the help of various indicators such as. population below poverty line. unemployment. structure of state domestic products. proportion of workers. literacy. facilities of health. availability of cereals etc. He found that growing poverty coupled with unemployment is the main drawback on economy of Uttar Pradesh. In fact, the spiralling prices and fall in the state's per capita income have considerably reduced the purchasing power and the living standard of the people except those of the well-to-do section. The per capital monthly expenditure in urban areas is as much as 27 times that in the rural areas. There is a visible disparity between the consumption of rural and urban areas. The diet of people are below the standard of nutrition. Those below the subsistence level are compelled to take up any type of job even if it fetches a nominal return. Unemployment continues to grow among the educated.

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45. K.L.Mukherjee."Wide Disparities in Urban and Rural Consumption in UP". Commerce. 1981. Vol.CXXXXIII. No.3661. pp. 66-67.

Ballal (1982)<sup>46</sup> examined the determinates of levels of living in general. He argued that the levels of living is generally evaluated in terms of real income of the people. working conditions of the labourers in industry, agriculture and tertiary sectors and facilities available to them. While judging the levels of living of rural masses, the factors like, population pressure on agriculture and the magnitude of disguised unemployment became very important factors as they affect the level of economic affluence of rural regions. The pattern of expenditure of the people on necessities and other consumer items also reflects the levels of living of a particular area. As the level of living rises, the proportion of the real income that would be spent on basic necessities and civic amenities tend to diminish. Extending the basic needs like food, clothing, shelter, water, health, sanitation, education etc. even to the people in the lowest ring of society becomes a most crucial factor in measuring the levels of living. The other important factors, which testify the rising levels of living are declining in both mortality and birth rates, increase in literacy rate, decrease in the gap between the rich and the poor, life expectancy, the extent of eradication of dreadful diseases, the availability of drinking water in both rural and urban areas, transport facilities, energy consumption etc.

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46. N.Murari Ballal. "Determinates of levels of living". Pigmy Economic Review. Vol. XXVII. No.9. April. 1982. pp.

Lal et al.(1983)<sup>47</sup> in their study on pattern of consumption. investment. saving and expenditure among tribals. found that about 90 per cent of the total family expenditure is on necessities. while about 5 per cent is on recreation and other items such as liquor consumption etc. According to them. the Engel's law of consumption states that the proportion of expenditure spent on necessities declines with the increase in income of the family. whereas that spent on comforts and luxuries exhibit positive relation with the income. Their findings also indicates that proportion of expenditure by tribals on necessities such as food declines. whereas the proportion of expenditure on comforts and luxuries. education. recreation etc. increases with rise in income. thereby confirming the conclusions of the Engel's law.

Prasad (1984)<sup>48</sup> analysed the consumption expenditure distribution of the SC/ST and the non-SC/ST groups in Karnataka. He found that the SC/ST have a lower standard of living than the non-SC/ST. There has been a fall in the standard of living in

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47. S.K.Lal. M.M.Bhalerao and S.B.L.Gupta. "Pattern of Consumption.investment. Saving and Expenditure among Tribals".Rural India. Feb-March. 1983. pp. 47- 49.

48. Shailaja Prasad."On levels of living of Scheduled Castes and Scheduled Tribes". Economic and Political Weekly. 1984. Vol.XIX. No.30. pp. 1205-1213.

real terms for both the SC/ST and non-SC/ST over the period 1973-74 to 1977-78. The decrease has been greater for the SC/ST leading to a widening of the disparity. With respect to inequality, there is generally less inequality within the SC/ST group as compared to the non-SC/ST. Over the period of study, the inequality within the group has increased. The increase in the inequality for the SC/ST has been of a higher magnitude than that for the non-SC/ST. On closer examination, it was found that a small percentage of the SC/ST in the urban sector have fared extremely well in comparison to their non-SC/ST counterparts. While the majority of the SC/ST suffered relatively more. He found that only a minor proportion of the poor are SC/ST.

Khan et al.(1988)<sup>49</sup> in their study have shown that throughout the entire life cycle, men are relatively more privileged than women as regards individual food intake and care during sickness. The reason can be traced to the higher participation in the labour market and the greater visibility of the economic contribution of men as compared to women. Although all household members observed in this study ate the same basic meals, males (adults and children) received the lion's share of nutritious food such as ghee, milk and butter milk that was

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49. M.E.Khan. R.Auker. S.K.ghose and Sashi Bairathi." Inequalities Between Men and Women in Nutrition and Family Welfare Services: An Indepth Enquiry in an Indian village." Social Action. 1988. Vol.38. No.4. pp. 398-417.



available to the family as they were considered to be the "bread winners" (present or future). Indeed, it was found that daughters were often purposely denied these nourishing foods in order to arrest their physical growth and thus prevent them from becoming eligible for marriage at a young age, as this would entail great expense for the family. An adult married woman does not face this particular restriction, but she is usually the last member of the family to eat, what remains for her is often leftovers and these are often inadequate for her nourishment. Even if nourishing food, such as ghee and milk is available, the engrained spirit of self-sacrifice makes a woman leave it for her children especially her sons and her husband on whom she feels the future of the family rests.

Chakraverty et al. (1989)<sup>50</sup> in their study indicated that absence of attitudinal change and attachment of the tribals towards traditional heritage, culture and scenic environment in which they live in failed to influence the sample households in generating increased level of employment, income and standard of living. Their preference towards independent and free life with leisure, relaxation and enjoyment induced them to be contented

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50. M.L.Chakraverty, J.P.Singh and H.N.Atibudhi. "Economic Analysis of Employment, Income and Consumption Pattern of Tribals". Journal of Rural Development, 1989. Vol.8(1). pp. 97-108.

with two square meals and bare necessities of life rather than improving the level of income and standard of living. They have suggested that there was an urgent need to bring about a change in the outlook of the tribals towards economic content of life through motivation and spread of education. Their marginal propensity to consume and consequently their saving aspect present a sorry state of affairs. which calls for initiating steps to boost up per capita income through provision of other employment and income generating assets.

Rani et al. (1990)<sup>51</sup> have analysed the factors affecting employment of women in agriculture. The multiple regression analysis was used to identify the factors. which affect the employment of women. They observed that among the variables considered. total income of the family. age of the the respondent and type of the family were found to significantly influence the levels of employment the regression coefficient of -0.002409 for total income implied that one rupee increase in total income of the family would decrease employment by 0.002409 days keeping other variables constant. Thus increased family income had a negative influence over the lavelas of employment. The regression coefficient for the age of the respoindrnt was -0.00299. This indicated that if the age of the respondent increased by one year. it would decrease the levels of employment by 0.00299 days.

The regression coefficient of -6.1927 for operational land holding implied that one hectare increase in the size of operational holding would decrease the employment by 6.1027 days. Thus, increased operational holding had a negative influence over the levels of employment. The education was also found to have significantly influenced the level of employment opportunities should be provided to rural women. The large size group educated women should also take up subsidiary enterprise with scientific improvements without spending their time in finding at home.

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51. P.S.Rani. V.I.Raju. P.R.Ram and G.M.Naidu. "Wage Differentials and Factors Governing Employment of Women in Agriculture". Agricultural Situation in India. 1990. Vol. XLV. No.4. pp.249-252.

### **CHAPTER-III**

# **MATERIALS AND METHODS**

## CHAPTER III.

### MATERIALS AND METHOD

A brief account on background situation of the study area along with the sampling technique and analytical procedure used for the study is provided in this chapter.

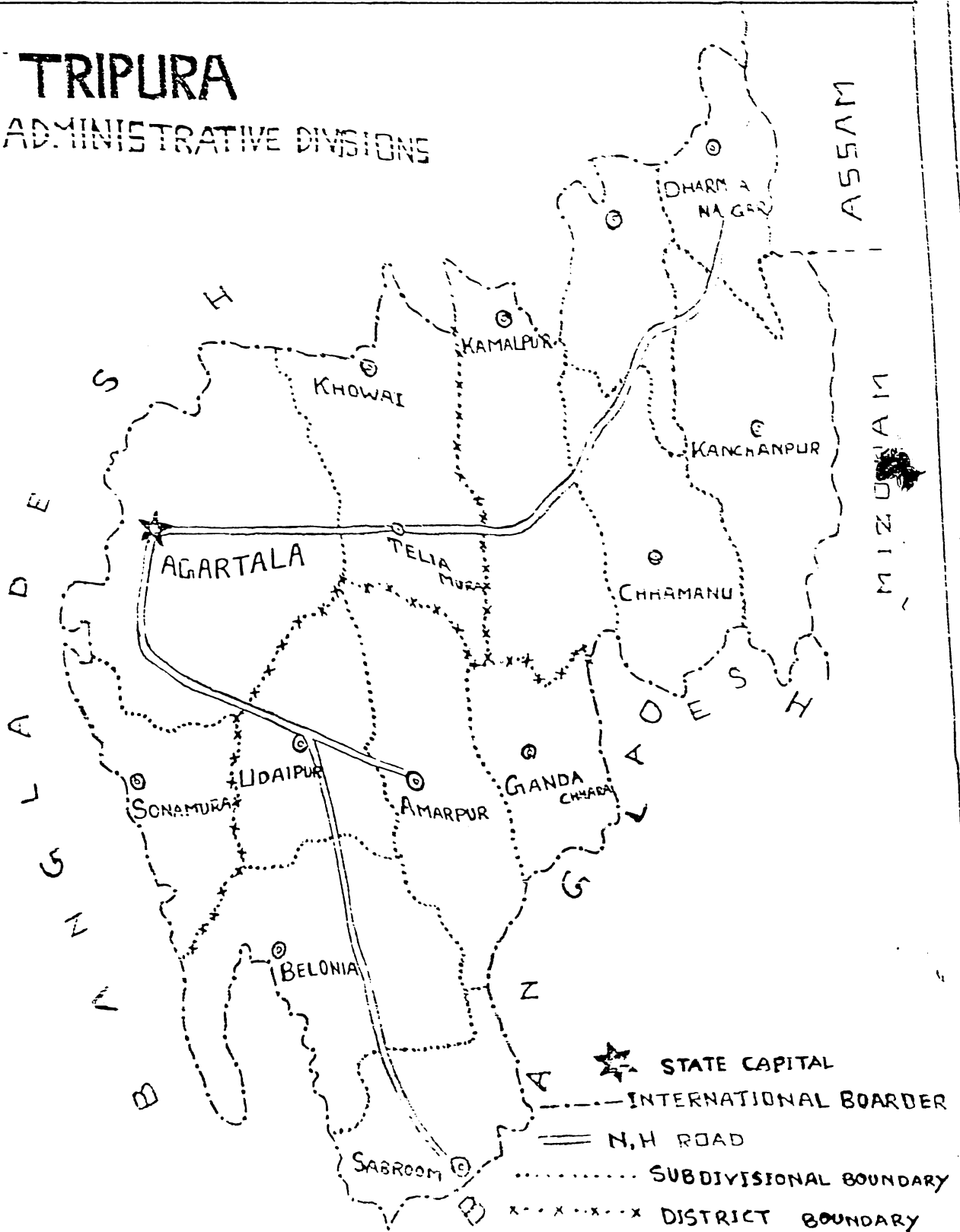
#### Description of the area studied

##### The State

The state Tripura is located in the north eastern corner of India and lies between 22° 51 N and 24° 32 N latitude and between 90° 10 E and 92° 21 E longitude with an extreme length of 183.5 Km. and extreme width of 112.7 Km. having three districts i.e. North. South and West Tripura district. Three fourth of its boundary is surrounded by Bangladesh and only in north eastern parts it is connected with Assam and Mizoram. There are thirteen subdivisions and the has total geographical area of 10.486 Sq.Km. There are 17 blocks. The total population of the state is 27.44.827 as per the 1991 census with a density of 196 per Sq.Km. The percentage of literacy was 60.39 percent. Another important feature on the economy of the state is predominance of small and marginal land holdings. According to the state report on agricultural census 1980-81 Vol-1. page -51. the average size of holding in the state was 1.07 ha. with and average schedule tribe holding of 1.30 ha.

# TRIPURA

## ADMINISTRATIVE DIVISIONS



## District

The west Tripura district is located in between North Tripura and South Tripura district. In the western side it has an international boarder with Bangladesh. The district has an area of 3.047.78 Sq. Kms. with a population of 12.93.861 nos. out of which schedule tribe population is 3.25.845 nos.. It has 6 nos. of blocks and 54.20 percent of literacy. Another important feature is the district has predominance of small and marginal land holdings. According to the state report on agricultural census. Vol-1. page-51. 1980-81. the average size of holding in the district was 1.05 ha. and average schedule tribe holding is 1.36 ha.

## Climate and Rainfall

The amount of rainfall and its distribution greatly influences the farming system of the region. Generally the rainy season in the state starts from the month of MAY and continues upto middle of the month OCTOBER. The average rainfall received in the state is 296.4 mm. and the average rainy day was 99.2. During the year 1991 the amount of rainfall was 3399.1 and the average no. of rainy days was 125.6. The highest amount of rain

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### Source :

1. Agricultural Dairy 1993. Govt. of Tripura.
2. A guide to Tripura Agriculture 1988. Dept. of Agriculture.
3. Primary census abstract. National Informatic Centre. Bhubaneswar.

Table 3.1

District ( West Tripura ) at a glance<sup>a</sup>

Sl.No.	Particular	Total	Males	Females
1.	Area in Sq. Km.	3.047.78		
2.	No. of occupied Residential Houses	2.41.954		
3.	No. of House Holds	2.43.067		
4.	Population	12.93.861	6.65.576	6.28.285
5.	S.C. Population	2.40.201	1.23.318	1.16.883
6.	S.T. Population	3.25.845	1.65.554	1.60.291
7.	Population below age 7 years	2.28.594	1.16.369	1.12.229
8.	Literates	7.01.286	4.16.677	2.84.609
9.	Total workers	3.74.615	3.16.919	57.696
10.	Cultivators	1.14.873	98.683	16.190
11.	Agricultural Labourers	83.317	65.748	17.569
12.	Workers: Livestock. Forestry etc.	6.449	4.684	1.765
13.	Workers: Mining & quarrying	1.806	1.773	33
14.	Workers: MAF & Pro. in H.H. INO	6.660	4.907	1.753
15.	Workers: MAF & Pro. other than H.H.I	16.939	15.455	1.484
16.	Construction workers	6.598	6.221	377
17.	Transport storage common workers	13.843	13.638	205
18.	Trade & commerce workers	34.705	33.870	835
19.	Workers in other services	89.425	71.948	17.485
20.	Marginal workers	17.344	2.675	14.669
21.	Non workers	9.01.902	3.45.982	5.55.920



fall receiving month is MAY and JUNE. It has a long rainy season starts from APRIL and continues upto OCTOBER. 80 percent of total amount of rainfall occurs during that period. It has a maximum summer temperature of 36°C and minimum summer temperature of 24°C. and maximum winter temperature of 31°C and minimum winter temperature of 8°C.

#### HUMIDITY

Tripura is located in the north eastern part of the country with dense forest. the relative humidity is generally moderate through out the year.

#### Soil

The state is mainly rich in the following two types of soils they are

1. Alluvial or Indo-Gangetic soil
2. Red and yellow soil

The soils of Tripura have developed under the influence of forest vegetation and high rainfall acting on sand stone or shale. conditioned by undulating topography. The soils are mostly sandy loam in texture. Structures are granular to subangular blocky. The soils are mostly acidic.  $P^H$  varying from 4.0 to 6.0. Organic matter content is low. Kaolinite and Illite are the dominant clay minerals. cation exchange capacity (CEC) cohesion. expansion and plasticity are very low. The moisture retention capacity is also very less. Activity of Fe and Al ions are quite high due to low  $P^H$ .

Low land soils are characterized by high degree of aggregation. high clay content. organic matters and free ions.

## LAND UTILIZATION

The land utilization pattern in the state gives a wide picture of land use. scope to understand the potentialities of the area and nature of the economy. Hence the land utilization particulars are presented in the Table 3.2 . From the data it is revealed that the gross sown area was 4.16.000 ha. which constitutes 39.70 percent of the total geographical area of the state.

Table 3.2

Land Utilization pattern of Tripura 83-84 (\*)

Sl. No.	Categories	Area ( in ha. )	Percentage to total geographical area
1.	Geographical area	10.47.700	100.00
2.	Reported area for land utilization	10.47.700	100.00
3.	Forest Area	5.69.000	54.31
4.	Area not available for cultivation		
	a. Area under non agricultural use.	1.28.600	12.27
	b. Barren and unculturable land.		
5.	Other uncultivated land excluding following land :		
	a. Permanent Pasture and grazing land		
	b. Land under miscellaneous tree crops and groves not included in net area	89.900	8.58
6.	Culturable waste land	2.200	0.21
7.	Fallow land :		
	a. Current fallow	4.700	0.45
	b. Other fallow	1.800	0.17
8.	Net sown area	2.51.500	24.00
9.	Gross cropped area	4.16.000	39.70

\* Statistics of land use in Tripura 1983-84. A guide to Tripura Agriculture

The net sown area during the year 1983-84 was 24 percent as against 39.70 percent of gross cropped area. The state has a forest area of about 54.31 percent of total geographical area.

#### IRRIGATION

The state agriculture is fully dependent on rainfall. In addition to that there are two numbers of minor irrigation projects. lift irrigation and filter points. some dug wells and few numbers of other irrigation sources like tanks. cross bonds to cater irrigation need of the farming community.

#### CROPPING PATTERN

As regards to the cropping pattern of the state relevant data revealed that the food dominate the cropping pattern of the state. The principal crops of the state are paddy. sugar cane. oil seeds. jute and vegetables. Among different vegetables potato is the most important crop. after that Ridgegourd. Bringal. Vindi. Chilli. Spine gourd and other winter vegetables are also grown through out the state.

Table 3.3

Productivity of different crops of the state at a glance 1992-93(\*)

Crop	Productivity ( Kg./ha. )
Jhum (Rice)	548
Aus	1667
Aman	1968
Boro	1837
Maize	611

Sesamum	379
Chilli (dried)	547
Jute	8.50 bells (1 bell = 180 Kg.)

Table 3.4

Area and Production of major horticultural crops (93-94) ( \* \* )

Crop	Area ( ha. )	Production (M.T.)
Potato	3.200	60.000
Vegetable (Kharif)	12.900	37.52.000
Vegatble (Rabi)	14.700	165.23.000

Table 3.5

Family and Population distribution of research area. ( \* \* \* )

Name of the Gaon Sabha	Family				Population			
	SC	ST	Other	Total	SC	ST	Other	Total
Sardukarkari	55	446	23	524	289	2900	213	3402
North Gokul Nagar	09	528	167	704	43	2618	466	3427
South Gokul Nagar	-	503	45	548	-	2450	240	2701
Rupachara	65	101	79	325	323	900	400	1623
Khasiamangal	08	208	139	355	52	1139	782	1973

Table 3.6

Percentage Distribution of SC and ST population  
to the Total population [ \* \* \* \* ]

Name of the block	Percentage of SC population	Percentage of ST population	Total SC Population	Total ST Population	Total Population
TELIAMURA	19.52	50.05	26.522	68.004	1.35.876

Table 3.7

Percentage of workers ( Block at a glance ) ( \* \* \* \* )

Name of the block	Percentage of workers	Main workers	Marginal workers	Total Population
TELIAMURA	31.96	40.075	3.352	1.35.876

Table 3.8

TELIAMURA BLOCK AT A GLANCE

Particulars	Information
1. Total Geographical Area	68.634 ha.
2. Forest Area	47.560 ha.
3. Distance of the block district head quarter	45 Km.
4. Total Population	1.44.738 nos.
(i) S.C population	28.200
(ii) S.T population	70.197
(iii) Others population	46.341
5. No. of Gaon Sabha	49 nos.
6. Number of cooperative Bank	1 no.
7. Number of nationalised Bank	5 nos.
8. Number of Cooperative society	7 nos.
9. Regional Rural Bank	2 nos.
10. Total cultivated area	14.747 ha.
(a) High land	10.323 ha.
(b) Medium land	1.022 ha.
(c) Low land	3.402 ha.
11. Total number of farm families	31.657
12. Total number of SC farm families	5.599

- \* Dept. of Agricultural statistics. Govt. of Tripura.  
 \*\* Horticultural information. Dept. of Horticulture & Soil conser  
 \*\*\* Block office. Panchyat records.  
 \*\*\*\* Primary census abstract. 1991. national Informatic Centre.  
 \*\*\*\*\* Primary census abstract. 1991. national Informatic Centre.

POSITION  
OF  
TELIAMURA BLOCK  
UNDER  
KHOWAI SUBDIVISION  
Scale 1"=2 Miles



13. Total number of ST farm families	9.497
14. Total number of V.A.W. circles	49 nos.
15. Total number of A.O. circles	4 nos.
16. Communication	78 Km.
(a) P.W.D. Road (in Km.)	150 Km.
(b) P.S. Road (in Km.)	48 Km.
(c) C.P. Road (in Km.)	
17. Number of Educational Institutions	Nil
(a) College	20 nos.
(b) High School	14 nos.
(c) M.E. School	33 nos.
(d) Primary School	
18. Literacy	99.112
(a) Number	68.47
(b) Percentage	
19. Number of Agril. Worker	59.474
20. Major crop grown	
(a) Rabi	Paddy. Wheat. Winter vegetables. Oil seeds. pulses etc.
(b) Kharif	Paddy. Jute. Mesta. Oil seeds Pulses. Summer vegetables.
21. Cropping Intensity	
(a) Kharif	9.432 ha.
(b) Rabi	10.378 ha.
(c) Percentage	134.33

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## SAMPLING TECHNIQUE

West Tripura district of Tripura state was purposively selected for the study as there is highest concentration of tribal population in the district. Teliamura block was also selected purposively for the study as it was having maximum percentage of tribal population in comparison to other five

blocks in the district. Stratified two stage random sampling method was adopted for selecting the ultimate respondents. A list of Gaon Sabha's having concentration of tribal population was prepared taking the census data from the block office. There were in total 49 gaon Sabha's in the block from which five gaon Sabha's namely Sardukarkari. North GokulNagar. South Gokul Nagar. Rupacherra. Khasiamangal were selected at random as primary sample. All the tribal house holds of the Gaon Sabha's were listed along with their subtribe naming and with the size of the operational holding in case of cultivators.

From this list of different subtribes ten percent of the respondents are selected randomly. Thus in all sixty nine respondents comprising of 30 from Tripuri community. 13 from Jamatia community. 14 from Halam community and 12 from Riang community were selected.

#### STATISTICAL LAYOUT & DESIGN

- (a) Location of the study - Teliamura block
- (b) Design - Stratified two stage random sampling.
- (c) Number of primary sample selected at random - five.
- (d) Number of strata - four
- (e) Number of respondents of each stratum - ten percent
- (f) Total number of respondents covered in the study - sixty nine

#### PREPARATION of QUESTIONNAIRES and SCHEDULES

The questionnaires and schedules were prepared according to



the objectives laid down in the introductory chapter of this study. these were pretested with some residents of the same locality and were modified as required.

#### METHOD of INVESTIGATION

The general information regarding the sample areas were collected from secondary sources. such as block office. panchayat office. VAW centres and census report etc. but all other informations were obtained from the respondents. by visiting homes and fields of the indivisual respondents.

A family or house hold was adopted as the unit of investigation in this study. The head of the house hold was interviewed in two to three sittings during their leisure period. Cross examination and varification with the data available from other sources were felt necessary since the rural house holds do not generally maintain any record and we had to depend solely on their memory. The data pertained to the agricultural year 1993-94.

#### ANALYTICAL PROCEDURE USED

##### Estimation of assets

The value of assets was estimated without taking land under consideration. as many of the sample house holds have acquired govt. land for farming practices. The other major factor, which include livestock. dwellings. implements and other equipments. were

assessed. The value of the livestock was evaluated on the basis of its market price. which means that the price which farmers was willing to pay for similar livestock taken as its value. The dwelling were evaluated at market price prevailing at the time of enquiry. The farm equipments were evaluted at cost minus depreciation charges. On the base of these estimation procedure. per house hold value of assets were worked out for different categories of sample tribal house holds.

#### ESTIMATION OF HOUSE HOLD INCOME AND DISPOSABLE INCOME

In the present study. House hold income is obtained by adding all the incomes from Farm. non farm sources. Farm income included value of crops and live stock products. sale of farm assets. receipts of Land rent. custom hire service. wage etc. Non farm income consisted of the amounts recieved from services. non farm employment resorces. Sale of non agricultural assets. gifts. wages. forest collections etc.

The disposable income was compiled by deducting non-tax liabilities from the gross annual income.

#### ESTIMATION OF CONSUMPTION EXPENDITURE

The sum of expenditure on all food items and non food items during the reference period is taken as the total consumption expenditure. Food items cover expenditure on rice. wheet. all other cereals. pulses. milk and milk products. sugar .gur.

vegetables & fruits. meat & fish. dry fish. eggs. oils. spices. pan. cigarettes. beverages. intoxicants etc.. The non food items include fuel & lighting. House rent. clothing. education. medicines. conveyance services. entertainment & social ceremonies. litigation and other miscellaneous items.

If a house hold has consumed during the reference period. some quantity of items such as food grains produced by the house hold or received by house holds in kind. that quantity is valued at the prevailing price and if some quantity is purchased for consumption in the market than that quantity consumed is valued at the prevailing return price which the house hold has paid.

#### LEVEL AND CONCENTRATION OF INCOME

The pattern of distribution of personal income that have been proposed in the economic literatures can be measured by various measures of inequalities. They are :-

- a) Range.
- b) Measure of skewness.
- c) Relative mean deviation.
- d) Variance.
- e) Co-efficient of variation.
- f) Gini Co-efficient.

In present study. inequalities of income during the period were measured in terms of the Gini co-efficient and compared with the LORENZ CURVE obtained for the distribution of income among rural tribal house holds.

### Gini Coefficient

It is defined as the area between the LORENZ CURVE and the diagonal to the total area under the diagonal. It is an increasing function of inequality and equals to Zero when the distribution is perfectly equal.

$$G = 1 + \frac{1}{n} - \frac{2}{n^2 Z} \sum_{i=1}^n (n+1-i) Y^i$$

Where G = Gini co-efficient of the (income) distribution of all house holds.

n = Population Size.

Z = Mean income

$Y^i$  = Income from the ith person

Gini coefficient is more opaque since it measures the distance between the diagonal and the LORENZ CURVE.

Unlike LORENZ CURVE comparisions. the Gini coeffericient comparisions are always conclusive since one real number must be greater than. equal to or less than another.

### Marginal Propensity to Consume

Marginal propensities to consume and save measure the relationship between income, consumption and saving. The marginal propensity to consume measure the incremental change in consumption as a result of a given increment in income. In other

words. the marginal propensity to consume (MPC) is the ratio of change in consumption to the change in income. Thus where C stands for consumption and Y for income.

$$MPC = \frac{\Delta C}{\Delta Y}$$

$\Delta C$  = Is the incremental changes in consumption.  
 $\Delta Y$  = Is the incremental changes in income.

The relationship between consumption and disposable income was estimated by linear consumption function based on Keynesian hypothesis. The specific linear relationship used was :

$$C = a + by$$

Where C = Total Consumption per house hold (in rupees)  
b = Marginal propensity to consume  
y = Total disposable income per house hold (in rupees)  
a = Intercept i.e. Level of consumption at zero level of disposable income

### Employment Function

In order to make a quantitative estimation of the relative factors influencing employment generation. the functional analysis was carried out. Linear function was used for the regression analysis. The equation developed for the present analysis was as follows :

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$$

Y = Total annual family employment (in mandays)

X<sub>1</sub> = Farm size (in hactares)

X<sub>2</sub> = Intensity of Cropping

X<sub>3</sub> = Non farm income

X<sub>4</sub> = Education ( dummy variable )

'a' = constant

The above analysis was carried out for Tripuri, Jamatia, Riang and Halam communities of house holds separately. Zero order correlation matrices were worked out to test multicollinearity. Results of the regression analysis are presented and discussed in the respective chapter.

#### **CHAPTER-IV**

# **RESULTS AND DISCUSSION**

## CHAPTER IV

# RESULTS AND DISCUSSION

The chapter "Results and Discussion" has been divided into two parts. The findings of the study covering various aspects of the general characteristics of the rural households, namely value and assets owned, land inventory, cropping pattern, average yield of major crops, live stocks, employment pattern etc. have been included in the first part. The income, consumption, employment and savings of the tribal household have been examined in the second part.

### PART - I

#### General Characteristics of the Tribal households

The factor included in this part are community wise classification, occupation, family consumption and the level of education in the respondent's family which exert considerable influence on their socio economic condition and consequently on their income, consumption, employment and savings.

#### Community wise distribution of tribal (sample) household.

Community wise distribution of sample tribal households is given in the Table No.1. The majority of tribal households belongs to Tripuri community (43.48 percent) followed by Halam (20.29 percent), Jamatia (18.84 percent), Riang (17.39 percent).



Table - 1.

DEMOGRAPHIC FEATURE OF SAMPLE HOUSEHOLDS

Category of Households	Number of Household	Distribution of Population			Average size of family Household
		Male	Female	Total	
TRIPURI	30 (43.48)	94 (52.17)	77 (47.83)	161 (100.00)	5.36
RIANG	12 (17.39)	50 (53.76)	43 (46.24)	93 (100.00)	7.75
JAMATIA	13 (18.84)	38 (53.52)	33 (46.48)	71 (100.00)	5.46
HALAM	14 (20.29)	53 (51.46)	50 (48.54)	103 (100.00)	7.35
TOTAL	69 (100.00)	225 (52.57)	203 (47.43)	428 (100.00)	6.20

Figures in parenthesis indicate the percentage to the total.

Among the tribals the percentage of male population was reported little bit higher than the percentage of female population in all the communities. Taking the whole tribal sample households in to consideration. the male. female ration was 52.57:47.43. The average size of the tribal family was reported as 6.20. The largest family size was reported for Reang (7.75) followed by Halam. Jamatia and Tripuri with 7.35. 5.46 and 5.36. respectively.

Family composition of the sample household :

The details of the family members of the sample households and percentage of working family members with average number of adult male. female and children to their respective population have been presented in Table No - 2.

The average numbers of adult male per family was highest in Riangs(3.08 nos. per family) followed by Halams(3.07 nos. per family). Tripuri(1.96 nos. per family) and Jamatia(1.69 nos. per family). The percenatge of working male is highest in Halam community (90.73 percent) followed by Riangs(86.58 percent). Jamatia(86.39 perecnt) and Tripuri(85.03 percent) communities.

The average numbers of adult female was highest in case of Halam community(2.85 nos. per family) followed by Riang(2.58 nos. per family). Tripuri(2.58 nos. per family) and Jamatia(1.38 nos. per family) community. The percentage of working female per family was highest in Tripuri community(94.41 percent) followed

Table - 2

FAMILY COMPOSITION AND THE PERCENTAGE OF WORKING FAMILY MEMBERS  
TO THEIR RESPECTIVE POPULATION

PATICULARS	TRIPURI	REANGS	JAMATIA	HALAMS
AVERAGE FAMILY SIZE NO.	5.36	7.75	5.46	7.35
AVERAGE NO. OF ADULT MALE	1.96	3.08	1.69	3.07
PERCENTAGE OF WORKING MALE	85.03	86.58	86.39	90.73
AVERAGE NO. OF ADULT FEMALE	1.73	2.58	1.38	2.85
PERCENTAGE OF WORKING FEMALE	94.41	80.74	83.61	90.22
AVERAGE NO. OF CHILDREN	1.66	2.88	2.58	1.42
PERCENTAGE OF WORKING CHILDREN	28.11	40.61	45.21	75.45

by Halam(90.22 percent). Jamatia(83.61 percent) and Rieng(80.74 percent) community.

The average number of children per family was highest in case of Rieng community(2.88 nos. per family) followed by Jamatia(2.58 nos. per family). Tripuri(1.66 nos. per family) and Halam(1.42 nos. per family) community. The percentage of working children was highest in Halam community(75.45 percent) followed by Jamatia(45.21 percent). Rieng(40.61 percent) and Tripuri(28.11 percent) communities. The table indicated higher percentage of female workers in all the tribal communities. which further revealed the central position of tribal females in their household.

#### EDUCATIONAL STATUS

The analysis of the highest level of education among the family members OF the selected tribals house hold has been given in the Table no. 3. The level of illiteracy was found to be 59.81 percent. the maximum number of illiterate were in Halam community (63.11 percent) followed by Tripuri. Reang and Jamatia with 60.25. 59.14 and 54.93 percent. respectively.

Among the illiterates female illiteracy is higher i.e. 57.42 percent of the total illiterate mass. The total literacy percentage among the tribals was 40.19 percent and no great variation indicated in the literacy level of male population of different tribal communities in the selected households.

Table - 3

## LITERACY AMONG SAMPLE HOUSE HOLDS

CATEGORY OF HOUSEHOLDS	E D U C A T I O N L E V E L									TOTAL LITERATES			TOTAL ILLITERATES			TOTAL POPULATION		
	P R I M A R Y			M I D D L E			S E C O N D A R Y			MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL									
TRIPURI	25 (30.06)	15 (23.44)	40 (62.50)	12 (18.75)	6 (9.37)	18 (28.12)	6 (9.37)	-	6 (9.37)	43 (67.19)	21 (32.81)	64 (100) (39.75)	41 (42.27)	56 (57.73)	97 (100) (60.25)	84 (52.17)	77 (47.83)	161 (100.00)
RIANG	12 (31.58)	10 (26.32)	22 (57.90)	7 (18.42)	3 (7.89)	10 (26.32)	6 (15.79)	-	6 (15.79)	25 (65.79)	13 (34.21)	38 (100) (40.86)	25 (45.45)	30 (54.55)	55 (100) (59.14)	50 (53.76)	43 (46.24)	93 (100.00)
JAMATIA	12 (37.5)	8 (25.00)	20 (62.50)	4 (12.5)	2 (6.25)	6 (18.75)	5 (15.62)	1 (3.12)	6 (18.75)	21 (65.63)	11 (34.37)	32 (100) (45.07)	17 (43.59)	22 (56.41)	39 (100) (54.93)	38 (53.52)	33 (46.48)	71 (100.00)
HALAM	10 (26.31)	6 (15.79)	16 (42.11)	7 (18.42)	4 (10.52)	11 (28.95)	10 (26.31)	1 (2.63)	11 (28.95)	27 (71.05)	11 (28.95)	38 (100) (36.89)	26 (40.00)	39 (60.00)	65 (100) (63.11)	53 (51.46)	50 (48.54)	103 (100.00)
TOTAL	59 (34.30)	39 (22.67)	98 (56.98)	30 (17.44)	15 (8.72)	45 (26.16)	27 (15.70)	2 (1.16)	29 (16.86)	116 (67.44)	56 (32.56)	172 (100) (40.19)	109 (42.58)	147 (57.42)	256 (100) (59.81)	225 (52.57)	203 (47.43)	428 (100.00)

Figures in the parenthesis indicate percentage to the total.

Underlined figures indicate percentage of literacy to the total population.

The no. of family members having educational status of primary level was 62.5 percent for Tripuri. and Jamatia followed by Reang and Halam with 57.90 and 42.11 percent. respectively. There has been considerable decrease in the percentage of middle and secondary education in case of the family members of all the communities. This might be attributed to the fact that there exists a large scale dropout of students in different level of higher education.

The Halam community emerged as the most educationally backward community with 36.89 percent of the literate population and Jamatia community was the most forward community as regard to education with 45.07 percent literate people.

#### ECONOMIC STATUS

A particular depicting economic status of the tribal households are presented in Table No. 4.

Of all the tribals. the Halams and Tripurians are too much hard working communities engaged in some economic pursuits through out the year to eke out their livelihood level through supplementing their subsistence economy.

The contents in the table revealed that 72.66 percent of the total tribal population were found to be earners while 27.37 percent of them were dependents.

#### OCCUPATIONAL DISTRIBUTION

Though man and women equally share the burden of the

Table - 4.

ECONOMIC STATUS OF SAMPLE HOUSEHOLDS

CATEGORIES OF HOUSEHOLDS	POPULATION	EARNERS	DEPENDENTS	EARNERS PER FAMILY
TRIPURI	161 (100.00)	113 (70.19)	48 (29.81)	3.36
RIANG	93 (100.00)	64 (68.82)	29 (31.18)	5.33
JAMATIA	71 (100.00)	44 (61.97)	27 (38.03)	3.38
HALAM	103 (100.00)	90 (87.38)	13 (12.62)	6.42
TOTAL	428 (100.00)	311 (72.66)	117 (27.37)	

Figures in parenthesis indicate the percentage to the total.

family. the adult female was found to be the principal earner in the family in case of all the tribal communities. In tribal economy. the main economic activities is providing job oppertunities to the work force are mainly in the spheres of agriculture. forestry. cottage industries and non agricultural activities. Among the non agricultural activities wage labour in road laying and construction activities constituted important source of income for tribal households. Forestry activities also contributed in considerable proportions to the economy of the households. In the present analysis of occupational pattern. main occupation was taken as that which contributed maximum income in relation to the other occupation taken up by the sample households. The occupational distribution of the sample household is presented in Table No. 5.

As could be seen from the Table No. 4. 45.46 percent of Jamatia community followed by Halam. Riang and Tripuri 43.43. 32.81 and 30.98 percent respectively had reported agriculture as their main occupation. while 28.12. 27.27. 23.33 and 20.35 percent of the Riang. Jamatia. Halam and Tripuri respectively had reorted agricultural labour work in others field. which was their main occupation of earning. The other main occupation on which the tribal households of west Tripura district mostly depend were forestry and non agrucultural labour work.



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TABLE No - 5.

OCCUPATIONAL DISTRIBUTION OF THE SAMPLE HOUSEHOLDS

NAME OF THE OCCUPATION	CATEGORIES OF HOUSE HOLDS							
	TRIPURI		RIANG		JAMATIA		HALAM	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
AGRICULTURE	35	30.98	21	32.81	20	45.46	39	43.34
AGRIL-LABOUR	23	20.35	18	28.12	12	27.27	21	23.33
NON-AGRIL LABOUR	29	25.66	8	12.5	-	-	7	7.78
FORESTRY	12	10.62	12	18.75	9	20.45	19	21.11
SALARISED SERVICES	6	5.31	2	3.13	2	4.55	1	1.11
BUSINESS	4	3.54	2	3.13	-	-	1	1.11
OTHERS	4	3.54	1	1.56	1	2.27	2	2.22
TOTAL	113	100	64	100	44	100	90	100

TABLE No. - 6

DISTRIBUTION OF SAMPLE HOUSEHOLDS AS PER CULTIVATION PRACTICES

COMMUNITY	HOUSEHOLD ONLY ENGAGED IN JHUM CULTIVATION	HOUSEHOLDS HAVING ONLY TILLA LAND WITH JHUM LAND	HOUSEHOLDS HAVING ONLY TILLA LAND WITHOUT JHUM LAND	HOUSEHOLDS HAVING ONLY LUNGA LAND WITH JHUM LAND	HOUSEHOLDS HAVING ONLY LUNGA LAND WITHOUT JHUM LAND	HOUSEHOLDS HAVING BOTH TYPES OF LAND WITH JHUM	HOUSEHOLDS HAVING BOTH TYPES OF LAND WITHOUT JHUM	TOTAL
TRIPURI	4 (13.33)	5 (15.67)	2 (6.67)	2 (6.67)	-	13 (43.33)	4 (13.33)	30 (100.00)
RIANG	5 (41.67)	3 (25.00)	1 (8.33)	-	-	-	3 (25.00)	12 (100.00)
JAMATIA	2 (15.38)	2 (15.38)	-	3 (23.08)	1 (7.69)	4 (30.78)	1 (7.69)	13 (100.00)
HALAM	1 (7.14)	1 (7.14)	2 (14.29)	-	-	-	10 (71.43)	14 (100.00)
TOTAL	12 (17.39)	11 (15.94)	5 (7.25)	5 (7.25)	1 (1.45)	17 (24.64)	18 (26.08)	69 (100.00)

Figures in parenthesis indicate the percentage to the total.

### Agricultural Activities :

The tribal economy in general, is predominantly agro-forest based and as such, the tribals of west Tripura district are no exception to it. As is evident from the findings agriculture and agricultural labourer was the main stay in the study area inspite of their community classes. Land is an important source for raising food and commercial crops for sustenance irrespective of their fertility. Various types of lands are used for cultivation by the tribals. Due to heavy pressure of immigrants on plain lands and transfer of fertile land from the tribals to non tribal farmers, the tribals in the districts have been forced to take up jhum cultivation in the high hills.

Jhuming is a system of cultivation which represents the indigeneous form of agriculture. it is also known as shifting cultivation which involves cutting, clearing and burning of weed cover or even forest, growing of mixture of different crops, viz. paddy, maize, cotton, minets and vegetables etc. by adopting simple technology under rainfed condition and shifting to the new sites when soils get exhausted.

Table No. 6 indicates distribution of sample households as per cultivation practices. Out of the sixty nine tribal households selected in the study area 17.39 percent were engaged purely in Jhum cultivation. Almost all the tribal classes were engaged in Jhuming practices but wuth in the tribal group Rieng community was having highest percentage of households i.e. 41.67

percent engaged in Jhuming practices. It was further observed that 15.94 percent of the total households were engaged in both Tilla and Jhum cultivation and 7.25 percent cultivated only Tilla land, 26.08 percent cultivated only Lunga land and 24.64 percent both type of lands and Jhum land. As is evident from the above table the Jhum cultivation was regarded as one of the important cultivation practices by the tribal community of the region.

#### Land Holding :

The distribution land holding among sample households is presented in Table No. 7. As is evinced from the table, the average size of operational holding were worked out to 1.37 ha. for Rieng followed by Tripuri, Halam and Jamatia communities with 1.34, 1.18, and 1.11 ha. respectively. The average operational holding of the selected tribal households were worked out to be 1.28 ha. The lands can be further classified as Lunga (low land between the hills), Tilla land (hill slopes), Jhum land (used for shifting cultivation). It was further observed from the table that the average size of the Lunga land for the tribal community was 0.61 ha. followed by Tilla land with 0.39 ha. and Jhum land 0.26 ha. Within the tribal community the Halam community possessed 0.7 ha. of lunga land followed Tripuri, Rieng and Jamatia with 0.55, 0.61 and 0.43 ha. of lunga land. The average irrigated area of the tribal communities was worked out at 0.23 ha. which was 18.27 percent of the total area. The percentage of area under irrigation was highest 20.89 for Tripuri followed by

Table No. - 7

DISTRIBUTION OF LAND AMONG SAMPLE HOUSEHOLDS (in ha.)

CATEGORIES OF HOUSEHOLD	TOTAL OPERATIONAL AREA (IN ha.)	AREA UNDER IRRIGATION	PERCENTAGE OF AREA IRRIGATED	VARIETIES OF LAND OPERATED		
				TILLA LAND	JHUM LAND	LUNGA LAND
TRIPURI	1.34	0.28	20.89	0.45	0.24	0.65
RIANG	1.37	0.24	17.51	0.40	0.36	0.61
JAMATIA	1.11	0.18	6.16	0.34	0.34	0.43
HALAM	1.18	0.18	15.25	0.32	0.16	0.70
POOLED	1.28	0.23	18.27	0.39	0.26	0.61

Riang. Halam and Jamatia with 17.51. 15.25 and 6.16 percent respectively. This implies that most of the tribal households were dependent largely on rainfed agriculture in the study area.

#### CROPPING PATTREN AND INTENSITY OF CROPPING :

As the data revealed, paddy is the most important crop in the district. There were also other crops like millets, sesamum, mustard, maize, and vegetables grown by the sample tribal households in the area. It is observed from the Table No. 8. that the average cropping intensity in the area is only 125.38 percent. There is no much variation in the cropping intensity among different tribal groups. The low cropping intensity might be due to lower percentage of area under irrigation and uneven topography of the hilly tracts. On an average paddy and mixed paddy with millets occupy 75 percent of the gross cropped area. Pure paddy occupy 54.43 percent followed by 20.25.11.40. 7.59. 3.79 and 2.54 percent for mixed paddy with millets, vegetables, maize, mustard and sesamum respectively. There is no great variation among different tribal households with regards to adoption of cropping pattren. The findings of the study established the overwhelming importance of paddy cultivation followed by the sample households in the study area.

Paddy is the stable food crop traditionally raised by the tribals in lunga lands and also on either side of the hill streams utilising stream water in case of Tilla land. It is also raised in the unirrigated tilla and lunga lands and jhums as a

TABLE No. - 8

CROPPING PATTERN FOLLOWED BY SAMPLE HOUSEHOLDS (IN ha.)

CATEGORIES OF HOUSEHOLD	GROSS CROPPED AREA	PADDY	MIXED PADDY. JOWER. MILLETS	SESAMUM	MUSTARD	MAIZE	VEGE-TABLES	CROPPING INTENSITY (PERCENTAG
TRIPURI	1.66 (100.00)	0.94 (56.62)	0.32 (19.28)	0.08 (4.82)	0.06 (3.62)	0.08 (4.81)	0.18 (10.85)	123.88
RIANG	1.69 (100.00)	0.88 (52.07)	0.44 (26.04)	0.04 (2.37)	0.04 (2.37)	0.16 (9.47)	0.13 (7.68)	123.36
JAMATIA	1.43 (100.00)	0.68 (47.55)	0.32 (22.38)	0.08 (5.59)	0.11 (7.70)	0.12 (8.39)	0.12 (8.39)	128.82
HALAM	1.50 (100.00)	0.84 (56.00)	0.24 (16.00)	0.03 (2.00)	0.03 (2.00)	0.16 (10.67)	0.20 (13.33)	127.12
PCOLED	1.58 (100.00)	0.86 (54.43)	0.32 (20.25)	0.04 (2.54)	0.06 (3.79)	0.12 (7.59)	0.18 (11.40)	125.38

Figure in parenthesis indicate the percentage to the total.

TABLE No. - 8

CROPPING PATTERN FOLLOWED BY SAMPLE HOUSEHOLDS (IN ha.)

CATEGORIES OF HOUSEHOLD	GROSS CROPPED AREA	PADDY	MIXED PADDY. JOWER. MILLETS	SESAMUM	MUSTARD	MAIZE	VEGE-TABLES	CROPPING INTENSITY (PERCENTAGE)
TRIPURI	1.66 (100.00)	0.94 (56.62)	0.32 (19.28)	0.08 (4.82)	0.06 (3.62)	0.08 (4.81)	0.18 (10.85)	123.88
RIANG	1.69 (100.00)	0.88 (52.07)	0.44 (26.04)	0.04 (2.37)	0.04 (2.37)	0.16 (9.47)	0.13 (7.68)	123.36
JAMATIA	1.43 (100.00)	0.68 (47.55)	0.32 (22.38)	0.08 (5.59)	0.11 (7.70)	0.12 (8.39)	0.12 (8.39)	128.82
HALAM	1.50 (100.00)	0.84 (56.00)	0.24 (16.00)	0.03 (2.00)	0.03 (2.00)	0.16 (10.67)	0.20 (13.33)	127.12
PCOLED	1.58 (100.00)	0.86 (54.43)	0.32 (20.25)	0.04 (2.54)	0.06 (3.79)	0.12 (7.59)	0.18 (11.40)	125.38

Figure in parenthesis indicate the percentage to the total.



TABLE No. - 8

CROPPING PATTERN FOLLOWED BY SAMPLE HOUSEHOLDS (IN ha.)

REGIONS OF HOUSEHOLD	GROSS CROPPED AREA	PADDY	MIXED PADDY. JOWAR. MILLET	SESAMUM	MUSTARD	MAIZE	VEGE- TABLES	CROPPING INTENSITY (PERCENTAGE)
RIPUR	1.66 (100.00)	0.94 (56.62)	0.32 (19.28)	0.08 (4.82)	0.06 (3.62)	0.08 (4.81)	0.18 (10.85)	123.88
ANG	1.69 (100.00)	0.88 (52.07)	0.44 (26.04)	0.04 (2.37)	0.04 (2.37)	0.16 (9.47)	0.13 (7.68)	123.36
AMATIA	1.43 (100.00)	0.68 (47.55)	0.32 (22.38)	0.08 (5.59)	0.11 (7.70)	0.12 (8.39)	0.12 (8.39)	128.82
ALAM	1.50 (100.00)	0.84 (56.00)	0.24 (16.00)	0.03 (2.00)	0.03 (2.00)	0.16 (10.67)	0.20 (13.33)	127.12
DOLED	1.58 (100.00)	0.86 (54.43)	0.32 (20.25)	0.04 (2.54)	0.06 (3.79)	0.12 (7.59)	0.18 (11.40)	125.38

Figure in parenthesis indicate the percentage to the total.

mixed crop with millets. Some tribals have started growing vegetables and oil seed crops. where there is facility for irrigation.

#### PER HECTARE COST AND RETURN ON CULTIVATION

The details of expenditure on farm inputs are presented in Table No. 9. The tribals subsides on crop for a substantial part of the year raised on small amount of land using traditional agricultural method. How ever. they have recently adopted modern techniques like transplantation of crop for paddy in lunga lands by raising nurseries. by the sides of hill streams. Though more of organic manures are apllied for paddy crop. the chemical fertilizer is scarcely used for the crop. The table revealed that the average cost of cultivation per ha was Rs 1842.42 for Riangu followed by Rs 1831.03 Rs 1754.83 Rs 1726.92 for Tripuri. Jamatia and Halam Communities respectively.

#### Farm Income

It is evident from the table that the per ha. net income earned by the Tripuri community was highest Rs 2573.69 followed by Rs 2552.1. Rs 2549.25. Rs 2271.79 for Jamatia. Halam and Riangu communities respectively. There is no much difference in the net income of Tripuri. Jamatia and Halam communities. But the net income for Riangu is lowest among all the tribal communities because of maximum area under Jhum cultivation.

#### Forest Activities

The entire tribal area is situated on elevated hilly region

Table No. - 9

PER ha. COSTS AND RETURNS ON CULTIVATION

CATEGORIES OF HOUSEHOLD	SEED	FERT.	MANURE	PESTI- CIDES	BULLOCK LABOUR	HIRED CASUAL LABOUR	LAND REVENUE & WATER TAXES	TOTAL COSTS	VALUE OF OUTPUT	NET PROFIT
TRIPURI	250.64	497.59	232.50	30.50	216.80	577.08	25.92	1831.03	4414.72	2573.69
RIANG	407.49	414.35	135.06	28.50	211.20	718.18	27.30	1842.02	4113.81	2271.79
JAMATIA	265.87	423.96	252.50	29.75	213.00	537.25	32.50	1754.83	4316.93	2552.1
BALAM	246.33	457.59	243.50	23.25	209.00	517.75	29.50	1726.92	4251.17	2549.25

Table No. - 10

PARTICIPATION IN FORESTRY

CATEGORIES OF HOUSEHOLD	PARTICIPATION IN FORESTRY (AMONG WORKING MEMBERS)					
	MALE		FEMALE		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
TRIPURI	18 (23.68)	15.93	11 (22.92)	9.73	29 (23.58)	25.66
RIANG	14 (18.42)	21.87	12 (25.00)	18.75	26 (21.13)	40.62
JAMATIA	16 (21.05)	36.36	6 (12.50)	13.63	22 (17.88)	50.00
HALAM	28 (36.85)	31.11	19 (39.58)	21.11	47 (38.21)	52.22
TOTAL	76 (100.00)		48 (100.00)		123 (100.00)	

Figure in paranthesis indicate the percentage to the total

interspersed by deep valleys and ravines. The hill slopes are usually covered with thick jungles. The jungles at the top of the hills are virgin while those on the slopes are regenerated because of incessant slash and burn cultivation practised by the tribals. The thick forest around the villages were a variable source of tubers, roots, leaves, and edible fruits which formed a part of the diet of the tribals. The most important forest product in Tripura is bamboo on which the dependence of tribals is enormous. The other minor forest produce like broom sticks, canes, medicinal bulbs, resins, flowers, and seed of Mohua, channa, etc. In spite of continuous depletion of forest resources the tribals of the study area, continue to depend on forest mainly for collection of fuel wood, timber wood, bamboo and other minor forest produce. Table No. 10 presents the extent of peoples participation in forest activities. As can be seen from the table, 52.22 percent people of the Halam community followed by 50.00, 40.62 and 25.66 percents people from Jamatia, Rieng and Tripuri communities respectively dependent upon forestry activities. As regards to male population 36.36 per cent of Jamatia community followed by Halan and Rieng and Tripuri with 36.36, 21.87 and 15.23 per cent respectively of the total male population dependent upon forestry. As regards to female 21.11 per cent of Halan followed by 18.75, 13.63 and 9.73 of Jamatia, Rieng and Tripuri communities respectively engaged in on forest activities. This indicates the closeness and participation of the entire tribal community on the surrounding forest.

## VALUE OF ASSETS

The distribution of assets per households for different tribals communities is given in Table No. 11. It may be noted here that while assessing the total value of assets of sample house hold. Land value was excluded from the analysis. Though land is a prized possession and owned by all the sample tribal households and most of the land is under shifting cultivation, no value could be fixed to the land. The settled irrigated and non irrigated land have not yet fully been surveyed and title to land is not settled in the name of tribals. It was felt that any imaginary value assigned to it may not be rational. that is why value of land was not included in the assets structures. At the overall level the average value of assets was worked out to be Rs 16664.04. The average value of assets for Tripuri community was reported to be highest with Rs 18055.6 followed by Rs 17246.7. Rs 14861.2. Rs 14334.0 for Jamatia Riang and Halam communities respectively. With regards to the composition of assets, the pooled average indicates the live stock and residential houses constituted more than 80 per cent of the total value of asstes. and non Agril assets constitute 10.43 per cent and farm implements only 1.3 percent.

Thus the assets structure of the sample tribal households is true reflection of their status which indicates the superiority of Tripuri and Jamtia community over the others. It is also disheartening to report that the tribals posses vary few

Table No. - 11

AVERAGE VALUE OF ASSETS OWNED BY SAMPLE HOUSEHOLDS EXCEPT LAND

CATEGORIES OF HOUSEHOLD	LIVESTOCK	DWELLING HOUSE	FARM IMPLEMENTS	NON AGRICL ASSETS	TOTAL ASSETS
TRIPURI	4660.7 (25.81)	11000.00 (60.92)	266.10 ( 1.47)	2128.8 (11.79)	18055.6 (100)
RIANG	4167.4 (28.04)	9000.00 (60.56)	188.20 (1.27)	1505.6 (10.13)	14861.2 (100)
JAMATIA	3372.4 (19.55)	12500.00 (72.48)	152.7 (0.8)	1221.6 ( 7.08)	17246.7 (100)
HALAM	3653.8 (25.49)	8900.00 (60.09)	197.8 (1.38)	1582.4 (11.04)	14334.0 (100)
POOLED	4127.38 (24.77)	10508.7 (63.49)	217.33 (1.30)	1738.6 (10.43)	16664.04 (100)

Figures in the paranthesis indicate the percentage to the total

Table No. - 12

AVERAGE NUMBER OF LIVE STOCK OWNED BY THE SAMPLE HOUSEHOLDS

CATEGORIES OF HOUSEHOLD	DRAFT ANIMAL	MILCH ANIMAL	POULTRY	PIG	OTHERS (SHEEP, GOAT ETC)	TOTAL
TRIPURI	0.12 (1.77)	0.83 (12.22)	3.86 (56.84)	0.93 (13.69)	1.05 (15.46)	6.79 (100.00)
RIANG	0.40 (6.53)	0.83 (13.54)	2.85 (46.49)	0.75 (12.23)	1.30 (21.20)	6.13 (100.00)
JAMATIA	0.48 (9.28)	0.98 (18.95)	1.98 (38.29)	0.97 (18.76)	0.76 (14.70)	5.17 (100.00)
HALAM	0.92 (12.46)	1.28 (17.34)	2.91 (39.43)	1.23 (16.67)	1.04 (14.09)	7.38 (100.00)
POOLED	0.39 (6.05)	0.94 (14.57)	3.13 (48.53)	0.96 (14.88)	1.03 (15.97)	6.45 (100.00)

Figures in the paranthesis indicate the percentage to the total



agricultural implements resulting most traditional nature of agricultural practices followed by them.

### Live stock

The data relating to number of Live stock owned by the sample households are given in table no 12 . Live stock owned by the sample tribal households included draft animals. milch animals. sheep. goats. pig and poulmy birds. As may be seen from the table that the pooled average of the live stock for the tribal community was 6.45. The community wise live stock population indicates the highest number of live stock ie 7.38 for Halam community followed by 6.79. 6.13 and 5.17 for Tripuri. Riang and Jamatia communities respectively. In the total live stock ouned by respondents. the number of poultry was maximum (48.53 percent) followed by sheeps and goats with 15.97 percent. pigs 14.88 percent. Milch animals 14.57 percent and draft animal 6.05 percent. This indicates that all the tribal communities depends to a large extent on rearing poultry birds. sheep. goats. pigs and milch animal.

### Part - II

In this section the income. consumption. employment pattern. and savings of the households have been examined in details. Household income influences investment in agriculture & allied activities and determines the level of employment and

additional income that could be generated from the investment of available income.

#### INCOME FROM DIFFERENT ACTIVITIES.

Household income constitute income from farm and off farm income. Farm income includes income from crop production and live stock enterprises. Off farm income includes wages, earnings from business and other sources.

Income from forestry includes collection and sale of fuel wood, timber wood, and minor forest produce. Table No. 13, presents the households income of different categories of sample households from different economic activities. On analysing the households income of different categories of tribes, it was found that the per household income at the overall level amounted to Rs 13386.78. While it was highest Rs 14922.1 for Rieng followed by Rs 13506.96, Rs 13196.83 and Rs 12278.49 for Halam, Tripuri and Jamatia communities respectively. Income received from agriculture and allied activities formed 60.83 percent, while the income from non agricultural activities and forestry contributed 23.47 and 15.73 percent of the total income respectively. Since the tribal economy of west Tripura district is predominantly agriculture oriented, major income appear to accrue from cultivation. The other income which contributed to the household economy were the wage earnings by the tribals from the construction activities and salaries in case of employed tribals.

Table No. - 13

AVERAGE ANNUAL INCOME OF TRIBAL (by sources) OF DIFFERENT COMMUNITIES.

Particulars	TRIPURI	RIANG	JAMATIA	HALDM	POOLED AVERAGE
1. Income from Agriculture	7786.83 (59.01)	9009.32 (60.38)	7319.26 (59.61)	8910.53 (65.97)	8139.34 (60.80)
2. Income from Forestry	2256.00 (17.09)	1891.66 (12.67)	2070.00 (16.86)	2000.00 (14.81)	2105.65 (15.73)
3. Income from non Agriculture	3154.00 (23.90)	4021.12 (26.95)	2889.23 (23.53)	2596.43 (19.22)	3141.79 (23.47)
Total	13196.83 (100.00)	14922.10 (100.00)	12278.49 (100.00)	13506.96 (100.00)	13386.78 (100.00)

Figures in parenthesis indicate the percentages to the total.

Though forestry adds considerable proportion to the total household employment of tribals. the income was not that significant in proportion to their involvement in forestry because of the low price paid for the forest produce. and exploitation of the tribals by the traders.

#### Income from Forest

Forest added considerable proportion to the total household income of the tribals in west Tripura district. Table No. 14. represents the households income for different categories of tribal communities from forest activities. Selling of fire wood. timber wood and minor forest produce in the nearby markets and co-operative Societies are the main sources of income of the tribal households from forestry. From the total forest income 54.45 percent was obtained by selling fire wood followed by 28.84 and 16.71 percent by selling timber wood and minor forest produce respectively.

The income from forest was highest for Tripuri community with Rs 2256.00 followed Rs 2070.00. Rs 2000.00 and Rs 1891.66 for Jamatia. Halam and Riang communities. The highest income by Tripuri community might be due to access and proximity of their villages to the nearby market.

#### Per Capita Disposable Income

Table No. 15. presents the household disposable income which is derived after deducting the non tax liability from the total

Table No.- 14

INCOME OF THE SAMPLE HOUSEHOLD FROM FORESTRY ACTIVITIES.

CATEGORIES OF HOUSEHOLD	INCOME OF HOUSEHOLDS IN COLLECTION OF			
	FIRE WOOD	TIMBER WOOD	MINOR FOREST PRODUCE	TOTAL
TRIPURI	1255.50 (55.65)	674.75 (19.91)	325.75 (14.44)	2256.00 (100)
RIANG	1133.41 (59.92)	529.5 (27.99)	228.70 (12.09)	1891.66 (100)
JAMATIA	1108.20 (53.54)	540.42 (26.11)	421.38 (20.35)	2070.00 (100)
HALAM	959.89 (47.99)	591.41 (29.58)	448.70 (22.43)	2000.00 (100)
POOLED	1146.53 (54.45)	607.27 (28.84)	351.83 (16.71)	2105.63 (100)

Figure in paranthesis indicates the percentage to the total.

Table No. - 15

Distribution of Disposable Income and per Capita Disposable Income among different categories of sample Household.

CATEGORIES OF HOUSEHOLD	GROSS ANNUAL INCOME	NON TAX LIABILITY	DISPOSABLE INCOME	PER CAPITA DISPOSABLE INCOME.
TRIPURI	13196.83	148.50	13048.33	2462.09
RIANG	14922.10	152.75	14769.35	1905.72
JAMATIA	12278.49	139.50	12138.99	2223.26
HALAM	13506.96	132.25	13374.71	1819.69
POOLED	13386.78	144.25	13242.53	2189.99

disposable income. As the non tax liability is miser ammount of on an average Rs 144.25, the pooled average of disposable income of tribal household has been determined as Rs 13,242.53.

Taking the total family members, the per capita disposable income was found Rs 2139.99 for the pooled average of the tribals households. The community wise per capita disposable income was found to be highest Rs 2462.09 for Tripuri community followed by Rs 2223.26, Rs 1905.72 and Rs 1819.69 for Jamatia, Riang and Halam communities respectively.

#### INCOME AND MAGNITUDE OF POVERTY

Distribution of sample households into different income groups based on the annual family income is presented in Table No. 16. As per the 8th plan poverty line estimated . people below an average monthly expenditure of Rs 181.5 in rural and 209.5 in urban to be considered as below poverty line. On annual basis families below income of Rs 11.060 in rural and Rs 11.850 in urban area would be considered as below poverty line. There fore it is evident from the table that, about 65 percent of the total tribal families were below poverty line. The magnitude of poverty was highest with 71.43 per cent familes below poverty line in Halam community followed by 69.23, 66.67 and 60 percent for Jamatia, Riang and Tripuri communities, respectively. Thus the finding presents the extent of absolute poverty incase of tribal communities as a whole for the west Tripura district. Only

Table No. - 16

CLASSIFICATION OF TRIBLE HOUSEHOLDS ACCORDING TO DIFFERENT LEVELS OF INCOME

INCOME OF THE HOUSEHOLD	TRIPURI	RIANG	JAMATIA	HALAM	TOTAL
UPTO 11.060/-	18 (60.00)	8 (66.67)	9 (69.23)	10 (71.43)	45 (65.22)
ABOVE 11.060/-	12 (40.00)	4 (33.33)	4 (30.77)	4 (28.57)	24 (34.78)
TOTAL	30 (100.00)	12 (100.00)	13 (100.00)	14 (100.00)	69 (100.00)

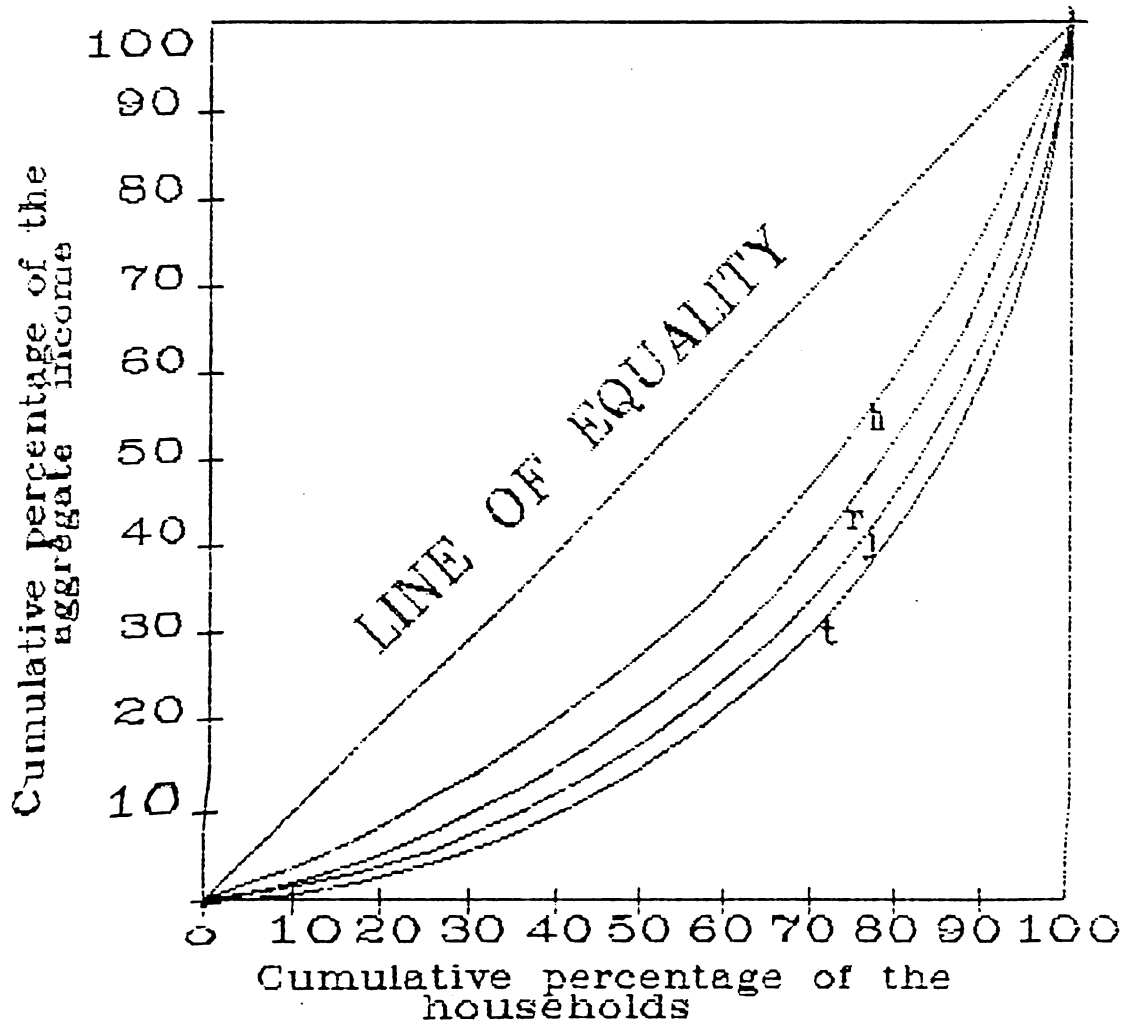
Figure in paranthesis indicate the percentages to the total.

Table No. - 17

GINI CONCENTRATION RATIO (Income) FOR DIFFERENT TRIBAL COMMUNITIES.

Item	Tripuri	Riang	Jamatia	Halam	Pooled
Gini Concentration Ratio	0.64	0.58	0.61	0.54	0.63





t=Tripuri (0.64), r=Riang(0.58), j=Jamatia(0.61), h=Halam(0.54)

about 35 percent of the total families were above a poverty line. " Level and concentration of income ". With a view to examining the pattern of income distribution. Lorenz Curves were drawn. to illustrate the inequalities of income distribution among defferent categories of households. The degree of income concentration was also examined by calculating Gini concentration ratios (Gini Co-efficient).

The drawn Lorenz Curve showed that that inequatities were maximum incase of Tripuri followed by Jamatia. Riang and Halam communities respectively. Incase of all the tribal communities the Gini Co-efficient was found to be more than 0.5 indicating higher degree of disparities in income distribution within the communities. The disparities in income distribution within different tribal communities might be due to some of the families income from government jobs by them by the government. Which has been provided for rehablitating the surrendered nil guided youths.

#### CONSUMPTION

Consumption expenditure is a very important indicator to reflect the socio economic status of a household. When the patten of expenditure on varius items of consumption were analysed for the sample tribal households in Table No. 18. it was found that on the whole Rs 13,708.90 were being spent on consumption items for the tribals households. Among different communities, maximum level of consumption expenditure was found. incase of Riang with

Average Annual Expenditure Among different categories of sample Household (in Rupees).

Category of Households	Family consumption Expenditure															
	Food items								Non Food items							
	Cereals	Pulse	Veg.	Fat	Dry Fish	Fresh Fish & Meat	Fuel	Total Food	Cloth	Educa-tion	Never-ages	Social function & entertain.	Exp. on Live Stock	Other (Medicine etc.)	Total Non-Food	Total
TRIPURI	6905.94 (50.42)	110.00 (1.008)	767.33 (5.60)	101.33 (1.007)	1911.13 (13.95)	520 (3.79)	-	10315.73 (75.32)	671.89 (4.91)	629.41 (4.60)	1330.71 (9.72)	423.33 (3.09)	183.33 (1.33)	141.66 (1.03)	3380.33 (24.68)	13696.06 (100.00)
RIANG	7292.48 (48.51)	85.00 (1.005)	962.5 (6.40)	118.33 (1.007)	952.5 (6.34)	621.5 (4.13)	-	10032.31 (66.74)	1054.17 (7.01)	593.33 (3.95)	2075.00 (13.80)	401.66 (3.20)	491.45 (3.27)	345.00 (2.29)	4999.75 (33.26)	15032.06 (100.00)
JAMATIA	6037.18 (48.67)	90.62 (1.007)	530.77 (4.28)	176.15 (1.42)	975.38 (7.86)	730.76 (5.89)	-	8540.86 (68.85)	1149.19 (9.26)	455.00 (3.67)	896.15 (7.22)	634.61 (5.11)	532.96 (4.30)	196.46 (1.58)	3864.37 (31.15)	12405.23 (100.00)
HALAM	6914.63 (50.19)	105.25 (1.007)	600.00 (4.35)	207.14 (1.50)	1031.42 (7.49)	880.71 (6.39)	-	9739.15 (70.68)	1351.12 (9.80)	610.00 (4.43)	796.42 (5.78)	617.85 (4.48)	472.88 (3.43)	190.5 (1.38)	4030.77 (29.32)	13777.92 (100.00)
POOLED	6811.25 (49.68)	101.03 (1.007)	722.75 (5.27)	139.85 (1.02)	1389.61 (10.14)	650.54 (4.75)	-	9815.03 (71.60)	966.11 (7.04)	586.34 (4.28)	1269.87 (9.26)	512.75 (3.74)	361.54 (2.64)	197.26 (1.44)	3893.87 (28.40)	13708.90 (100.00)

Figures in Paranthesis indicate the percentage to the total.

Rs 15032.06 followed by Rs 13777.92. Rs 13696.06 and Rs 12405.23 for Halam. Tripuri and Jamatia communities. respectively. The other redeeming feature was that an average tribal family spends Rs 9815.03 on food. Rs 966.11 for clothing. Rs 586.34 for education. Rs 1269.82 for Beverages. Rs 512.75 for social functions and ceremonies. Thus expenditure on food articles was as high as 71.6 percent of the total annual expenditure followed by 9.26. 7.04. 4.28 and 3.74 percent for beverages. clothing. education and social fuctions. respectively. Total non food item accounted 28.40 percent of the total expenditure. The expenditure on items like intoxicants and socio relegious ceremonies accounted major chunk of the expenditures under non food items. There was no much difference among the different communities of the tribals with regard to level of consumption.

#### Pattern of Consumption Expenditure on food Items

Table No 19 indicates the break up of the food items for different categories of tribal households in west Tripura district. A close look at the expenditure for the food of the tribals of the region under study revealed the fact that 69.4 per cent of their expenditure on food was spent for cereals only. followed by 14.16. 7.36. 6.63. 1.42. and 1.03 for dry fish. vegetable. fresh fish and meet. fat & oil and pulses respectively. The consumption of pulses. fat & oil was reported to be neglegible amounting Rs 101.03 and Rs 139.85. respectively.

Table No.- 19

Break Up of Food Items for Different Categories of Household.

Catrgories of Household	F O O D I T E M S							Total Food
	Cereals	Pulse	Veg	Fat & Oil	Dry Fissh	Fresh Fish & Meat	Fuel	
TRIPURI	6905.00 (66.93)	110.00 (1.07)	767.33 (7.44)	101.33 (1.009)	1911.13 (18.53)	520.00 (5.04)	-	10315.73 (100.00)
RIANG	7292.48 (72.68)	85.00 (1.008)	962.5 (9.59)	118.33 (1.18)	952.5 (9.49)	621.5 (6.19)	-	10032.31 (100.00)
JAMATIA	6037.18 (70.68)	90.62 (1.06)	530.76 (6.21)	176.15 (2.06)	975.38 (11.42)	730.77 (8.56)	-	8540.86 (100.00)
HALAM	6914.63 (71.00)	105.25 (1.08)	600.00 (6.16)	207.14 (2.13)	1031.42 (10.59)	880.71 (9.04)	-	9739.15 (100.00)
POOLED	6811.25 (69.40)	101.03 (1.03)	722.75 (7.36)	139.85 (1.42)	1389.61 (14.16)	650.54 (6.63)	-	9815.03 (100.00)

Figure in Parenthesis indicate the percentage to the total

### Dimension of inequalities in the level of living

Levels of living are a manifestation as well as the end result of structural character of any economy. It represents an integrate view of the structural balance or imbalance of an economy. In this section, an attempt has been made to study the dimension of inequalities by analysing the expenditure on food, clothing, education, etc. of different tribal communities. Conventional measures such as standard deviation and Co-efficient of variation have been used. Table 20, 21, 22 & 23 presents the required details to this effect.

#### TRIPURI

The expenditure incase of food indicates higher dispersion level. The average expediture of the community for food items was Rs 10.415.73. The range of expenditure on food items incurred by Tripuri community was between Rs 5374 to Rs 15.924. The Co-efficient of variation for the total food expenditure was 29.43 and there was large variation in the use of fresh fish & meat, fats & oils, dry fish, and vegetables as indicated from the Co-effecient of variations. The total non food expenditure also exhibited higher level of variation with in the Tripuri community. The Co-efficient of variation for total non food expenditure was found to be 53.24 per cent. Higher levels of variation in expenditure is also marked for the items like education, clothing, beverages and social functions & entertainment.

Table No. - 20

Dimension of Disparities in case of TRIPURI Communities

Particulars	RANGE			Standard Deviation	Co-efficient of Variation
	Min	Max	Average		
TOTAL EXPENDITURE	6974	26098	13696.062	4482.602	32.729
EXPENDITURE ON FOOD.					
Cereals	3285	13140	7081.00	2394.578	33.816
Pulses	40	168	110.00	47.031	42.756
Vegetables	250	1200	767.33	388.766	50.664
Fats & Oils	20	480	101.10	89.733	88.756
Dry Fish	400	3840	1911.13	1079.174	56.467
Fresh Fish & Meat	200	2400	520.00	468.750	90.144
Fuel	-	-	-	-	-
Total Food Expenditure	5374	15924	10415.73	3065.734	29.433
NON FOOD EXPENDITURE					
Clothing	400	3000	838.33	530.358	63.263
Education	300	2400	829.41	604.653	72.901
Beverages	300	3600	1330.71	817.076	61.401
Social functions and Entertainment	200	1000	423.33	240.046	56.703
Expenditure on Live Stock	100	300	179.62	65.629	36.536
Other (Medicine etc) Expenditure.	50	300	141.66	78.616	55.494
TOTAL Non Food Expend	900	10300	3280.33	1741.668	53.241

Table No. - 21.

Dimension of disparities in case of Rieng communities

Particulars	Riang			Standard Deviation	Co-efficient of Variation
	Min	Max	Average		
TOTAL EXPENDITURE	11203	18032	15032.06	2466.776	16.410
EXPENDITURE ON FOOD					
Cereals	4550	10.000	7322.81	1554.456	21.227
Purse	50	150	85.00	33.333	39.215
Vegetables	200	2000	962.50	477.024	49.560
Fats & Oils	40	250	118.33	79.039	66.793
Dry fish	500	1500	952.50	318.436	33.431
Fresh Fish and Meat	200	1500	621.50	379.761	62.001
Fuel					
Total Expenditure on Food	6400	13200	10032.22	1904.744	18.986
NON FOOD EXPENDITURE					
Clothing	500	2000	1054.17	461.635	43.791
Education	250	1200	593.33	319.740	53.890
Beverages	500	3200	2075.00	822.724	39.649
Social functions and Entertainments	200	800	481.66	195.654	40.620
Expenditure on Live stock	240	560	345.00	96.040	27.830
Other (Medicine etc.) Expenditure	79	1632	491.45	421.503	85.766
Total Non Food Expend:	2520	7552	4999.75	1455.418	29.109



Table No. - 22

Dimension of disparities in case of JAMATIA Communities

PARTICULARS	RANGE			STANDARD DEVIATION	CO-EFFICIENT OF VARIATION
	MIN	MAX	AVERAGE		
TOTAL EXPENDITURE	6715	20220	12405.23	4192.252	33.294
EXPENDITURE ON FOOD					
Cereals	2320	12520	6099.307	2443.180	40.056
Pulses	50	200	90.625	52.940	58.4170
Vegetables	200	1200	530.769	272.833	51.403
Fat & Oils	80	400	176.153	106.809	60.634
Dry Fish	480	1440	975.384	429.178	44.00
Fresh Fish and Meat	250	1500	730.769	383.575	52.489
Fuel	-	-	-	-	-
TOTAL EXPENDITURE ON FOOD	3400	15480	8568.538	3191.492	37.246
NON FOOD EXPENDITURE					
Clothing	200	3000	1119.230	823.112	73.542
Education	250	1000	455	235	51.648
Beverage	500	1200	896.153	240.56	26.843
Social functions and Entertainment	200	1500	634.615	396.321	62.450
Expenditure on Live Stock	215	950	532.922	264.108	49.550
Others (Medicine etc.) Expenditure	45	520	196.461	120.965	61.654
TOTAL NON FOOD EXPEND:	1920	6367.5	3864.376	1370.904	35.475

Table No. - 23

Dimension of disparities in case of HALAM communities.

PARTICULARS	R A N G E			STANDARD DEVIATION	CO-EFFICIENT OF VARIATION
	MIN	MAX	AVERAGE		
TOTAL EXPENDITURE	6715	21686	13777.92	4408.114	31.994
EXPENDITURE ON FOOD					
Cereals	2320	12520	6959.36	2348.536	33.746
Pulses	50	200	105.25	61.991	58.899
Vegetables	200	1200	600.00	320.710	53.452
Fat & Oils	100	400	207.14	108.326	52.295
Dry Fish	480	1920	1031.42	369.146	35.789
Fresh Fish and Meat	300	2400	880.71	551.860	62.660
Fuel	-	-	-	-	-
TOTAL EXPENDITURE ON FOOD	3400	15480	9735.21	3058.879	31.418
NON FOOD EXPENDITURE					
Clothing	500	3750	1528.57	941.638	61.602
Education	250	1500	610.00	361.109	59.198
Beverages	400	1200	796.42	272.858	34.260
Social functions and Entertainment	200	1500	617.85	446.657	72.291
Expenditure on live stock	215	742.5	472.88	235.035	49.702
Others (Medicine etc.) Expenditure	30	520	190.50	149.487	78.471
TOTAL NON FOOD EXPENSE	1920	8774	4038.77	1944.384	48.142

### RIANG

The expenditure for food items for the Rieng community ranged between Rs 6400 to Rs 13200. The average being Rs 10.032.22. The Co-efficient of variation was found to be 18.98 per cent. Higher level of variation was also marked for the items like Fresh fish & Meat and Fats & Oils. The expenditure for non foods items ranged between Rs 2520 to Rs 7552. The average being Rs 4999.75. The Co-efficient of variation for the non food expenditure was found to be 29.10 percent. Higher level of Co-efficient of variation was also reported for the items like medicines. education. clothings etc.

### JAMATIA

A close look at the expenditure pattern of the Jamatia community for food items indicated the higher level of variation within the community. The expenditure for food ranged between Rs 3400 to Rs 15480. The Co-efficient of variation was found to be 37.24 percent. Under the expenditure for food items like fat & oils. pulses. fresh fish and meat and vegetables exhibited higher level of Co-efficient of variation. Expenditure for non food items ranged between Rs 1920 to Rs 6367. The Co-efficient of variation was found to be 35.47. The Co-efficient of variation was also reported for expenditures under the items like clothing. social functions & entertainment. education and other expenditures which includes expenditure on medicines etc.

### HALAM

The total expenditure of Halam community, ranged from Rs 6715 to Rs 21,586 and the Co-efficient of variation was found to be 31.99 percent. Considering the expenditure on different food items higher level of disparities was observed for Fresh fish & Meat followed by pulses, vegetables, and Fat & Oils respectively. The Co-efficient of variation for total expenditure on food was found to be 31.41 percent. The total expenditure on non food items ranged between Rs 1920 to Rs 8774. The Co-efficient of variation was found to be 48.14 percent. Higher level of Co-efficient of variation was also observed for other items like social functions & entertainment, clothing, education etc.

After having discussed dimensions of inequalities, an attempt has been made here to study the inequalities in the level of living taking the expenditure level of different sample tribal households within the community. The Gini concentration ratios worked out for this purpose and are presented in Table No. 24.

The Gini concentration ratio for consumption expenditures was found to be more than 0.5 in all the tribal communities, but the highest inequality was marked on consumption expenditure for Jamatia community with G.C. ratio 0.67 followed by 0.62, 0.57 and 0.51 for Tripuri, Halam and Riang communities respectively.

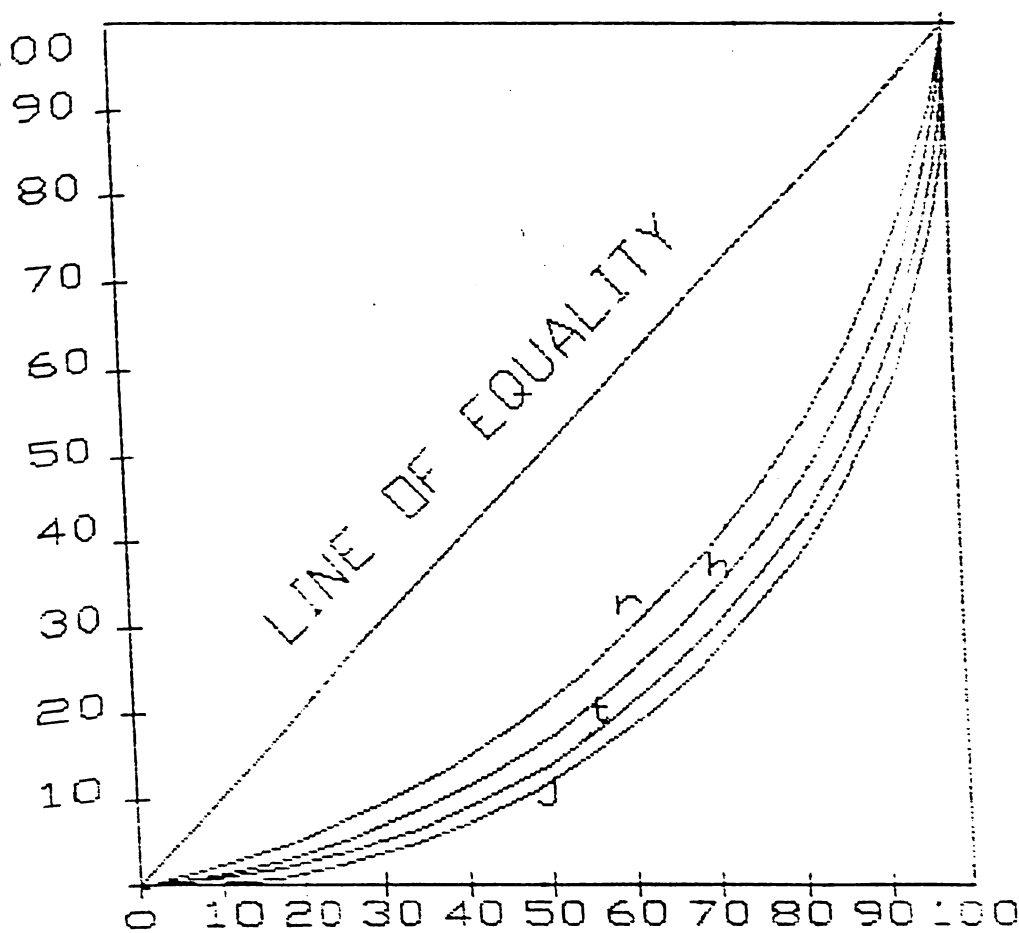
### Marginal Propensity to Consume

The relationship between income and consumption is generally measured by marginal propensity to consume. It measures the change in consumption as a result of a given

Table No.- 24

Gini Concentration Ratios (Consumption Expenditure)  
for differnt Tribal communities.

Item	TRIPURI	RIANG	JAMATIA	HALAM	POOLED
Gini Concentration Ratio	0.62	0.51	0.67	0.57	0.60



CUMULATIVE PERCENTAGE OF THE HOUSEHOLDS

t=Tripuri(0.62), r=Riang(0.51), j=Jamatia(0.67), h=Halam(0.57)

incremental change in income. In other words the marginal propensity to consume is the ratio of change in consumption to change in income.

In order to estimate the relationship between consumption and disposable income, linear consumption function based on Keynesian hypothesis was fitted to the data, the results of which are presented and discussed below

$$C = a + bY$$

Where

C = Total Consumption per household (in rupees).

b = Marginal propensity to consume.

Y = Total disposable income per household (in rupees).

a = Intercept, i.e. level of consumption at zero level of disposable income.

The relationship between consumption expenditure and income estimated by using Keynesian hypothesis implies, that consumption was a linear function of disposable income. The Co-efficient of income variable of linear consumption function directly provides a measure of marginal propensity to consume.

The estimates of regression Co-efficient, their standard errors and Co-efficient of multiple determination ( $R^2$ ) for fitted functions are presented and discussed separately for each category of sample households.

ie Marginal Propensity to Consume for Different Tribal Community

Tripuri :-	**
C = 2158.07 + 0.874Y	
R <sup>2</sup> = 0.78	
Riang :-	**
C = 2692.18 + 0.827Y	
R <sup>2</sup> = 0.89	
Jamatia :-	**
C = 1514.70 + 0.887Y	
R <sup>2</sup> = 0.81	
Halam :-	**
C = 1243.13 + 0.928Y	
R <sup>2</sup> = 0.84	
Pooled :-	**
C = 1944.10 + 0.879Y	
R <sup>2</sup> = 0.81	

- \* \* - Significant at one percent level.
- \* - Significant at 5 percent level

It may be observed from the estimated equation that the variation in the per capita consumption of tribals households accounted for 78 to 89 percent. was explained by the variation in per capita disposable income Y. The regression Co-efficient and Co-efficient of determination was significant at one per cent level.

The marginal propensity to consume was highest ie 0.928 for Halam community followed by 0.887. 0.874 and 0.827 for Jamatia, Tripuri and Rieng communities, respectively. The minimum per capita consumption even when the per capita income was zero (autonomous consumption) was highest for Rieng with Rs 2692.18 followed by Rs 2158.07. Rs 1514.70 and Rs 1243.13 for Tripuri, Jamatia and Halam communities respectively.

On the whole, it may be said that, the marginal propensity to



Table No. - 25

INCOME. CONSUMPTION AND SAVINGS OF DIFFERENT CATEGORIES  
OF SAMPLE HOUSEHOLDS

Categories of Household	Total Gross Income	Household Consumption	Gross Dissaving	Gross Dissavings Gross income ratio
TRIPURI	13196.83	13696.06	-499.23	0.0378
RIANG	14922.10	15032.06	-109.96	0.0073
JAMATIA	12278.49	12405.23	-126.74	0.0103
HALAM	13506.96	13777.92	-270.96	0.0200

consume of the sample tribal households was quite high among the different categories of household. Again the study therefore supports the hypothesis that the marginal propensity to consume in case of tribal household is very high.

### SAVINGS

The concept of saving is much difficult to define and more so to measure in case of Tribal household. According to AIRCS\* the only way to measure saving of a household as distinct from business enterprise is to have estimates of current household income and its total expenditure on current consumption account. The difference between the two would represent the magnitude of the savings of the households. Distribution of income consumption expenditure & the extent of saving among different categories of tribal household are present in Table No. 25.

As may be seen from the table, that expenditure exceeded the income in all the categories of Tribal households but the difference was maximum Rs 499.23 for Tripuri followed by Rs 270.96, Rs 126.74 and Rs 109.96 for Halam, Jamatia and Rieng respectively. These showed that, there was disaving among all the communities of tribal households.

### EMPLOYMENT STATUS

With the present level of agricultural development, farming is not the main stay of the economy of the people in tribal areas. Since the Contribution of agricultural sector accounts

nearly fifty percent of the total income of the rural community. the prominence of non agricultural avenues in the sphere of supplementing both household income and employment becomes very much clear in this region. In the present section an attempt has been made to examine the existing pattern of labour employment. the characteristics of available labour force and factors affecting labour employment pattern of the tribal households in the region.

Analysis of the employment status of the earners of Tripuri community revealed that out of 113 earners 30.98 percent were engaged exclusively in agriculture followed by 20.65, 20.35, 12.39 and 10.62 for agricultural and nonagricultural activities ; excluding for non agriculture activities. Agriculture, non agriculture forest activities and exclusively for forest activities. respectively. The Table No. 26. also indicates that maximum number of man days per worker was from agriculture and non agricultural activities which was 167 man days and minimum of .70 man days per worker exclusively in agriculture. On an average a Tripuri worker gets employment for 115.11 man days in an year. Incase of Riang community maximum 32.81 percent of the earners exclusively in agriculture and minimum of 12.5 percent of the earners exclusively engaged in non agricultural activities. The average man days per worker was estimated to be 104.34 days. The highest of 141 man days per worker was for agriculture and non agriculture activities and only 82 man days per worker exclusively for agriculture.

Table No. - 26

## EMPLOYMENT STRUCTURE OF SAMPLE HOUSEHOLDS

Name of the Occupation	Location/Categories of House holds												T O T A L		
	TRIPURI			RIANG			JAMATIA			ITALAN					
	No of earners	Mandays Employed	No of Mandays per Worker	No of earners	Mandays Employed	No of mandays per Worker	No of earners	Mandays Employed	No of Mandays per Worker	No of earners	Mandays Employed	No of Mandays per Worker	No of earners	Mandays Employed	No of Mandays per Worker
Exclusively in Agriculture	35 (30.98)	2730	78	21 (32.81)	1722	82	20 (45.45)	1680	84	39 (43.33)	3022	98	115 (36.98)	9954	86.56
Agriculture and non agricultural activities.	23 (20.35)	3841	167	12 (18.75)	1692	141	2 (4.55)	306	153	17 (18.09)	2431	143	54 (17.36)	8270	153.16
Exclusively non Agricultural activities.	29 (25.66)	3683	127	8 (12.50)	984	123	2 (4.55)	220	110	7 (7.78)	679	97	46 (14.79)	5566	121.00
Agriculture, Non Agriculture & Forest activities	14 (12.39)	1302	93	11 (17.19)	924	84	11 (25.00)	1573	143	8 (8.89)	440	56	44 (14.14)	4247	96.52
Exclusively in Forestry	12 (10.62)	1452	121	12 (18.75)	1356	113	9 (20.45)	981	109	19 (21.11)	1957	103	52 (16.72)	5746	110.5
Total	113 (100)	13008	115.11	64 (100)	6678	104.34	44 (100)	4760	108.18	90 (100)	9337	103.4	311 (100)	13783	108.63

Figures in Paranthesis indicate the percentage to the total.

In case Jamatia community 45.45 per cent of the total earners were engaged exclusively in agriculture followed by 25 and 20.45 percent for agriculture, non agriculture and forest activities and exclusively in forest activities. Only 4.55 percent of the total earners in the community were engaged in agriculture & non agricultural activities or exclusively for non agricultural activities.

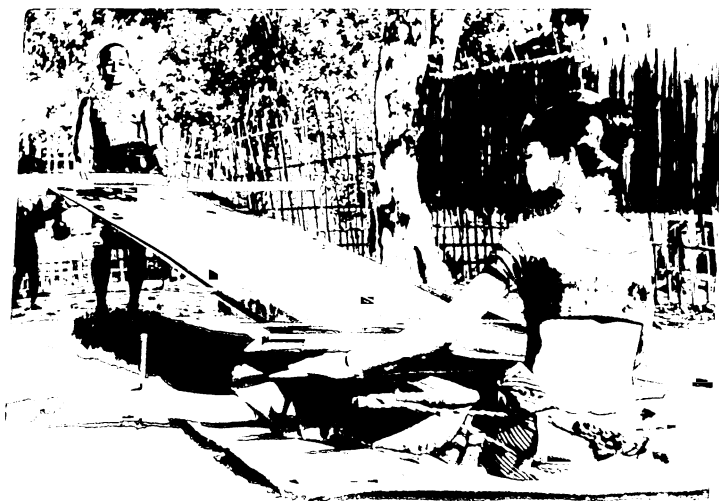
The average number of man days per worker was found to be 108.18 days. In case of Halam Community, maximum of 43.33 percent of the total earners engaged exclusively in agriculture followed by 20.11 and 18.89 exclusively for Foresty and agriculture & non agricultural activities, respectively.

The average number of mandays per worker was found to be 103.74 days. The employment in agriculture and non agricultural activities was maximum 143 days and agriculture, non agriculture & forest activities was minimum for 56 days.

Thus as is evident from the Table that the most dominant sources of employment as per the number of earners from the total earning population was exclusively Agriculture for the entire tribal community. But taking the number of man days per worker in to consideration agriculture does not provide enough employment opportunities for all the communities of tribal household in the study area. The average employment per worker varies from 103.74 to 115.11 man days. The findings therefore clearly indicates the inadequacy of avenues of employment whether in the farm or on



AGRICULTURAL EMPLOYMENT



NON AGRICULTURAL EMPLOYMENT  
(HANDLOOM)

other allied activities in the region. This might be the cause of growing insurgency in west Tripura district and Tripura state as a whole.

### Employment Function

The tabular analysis in Table no - 27 showed only static effect of various factors on employment generation. To know the effect of different factors influencing the level of employment at a time, the functional approach was adopted. The analysis was carried out for individual tribal communities separately and pooled together. Zero order correlation matrices indicate absence of multicollinearity. Result of regression analysis from the table showed that, variations in dependent variable expressed jointly by the four independent variables were to the extent of 72 to 81 percent.

The regression Co-efficient associated with the farm size, were positive and significant for all the tribal communities, which indicated that the employment would increase 131.5836 days for every unit increase in the size of operational area incase of Mlam community followed by 129.8252, 118.4265, 112.5729 for Tripuri, Riang and Jamatia communities, respectively. The regression Co-efficient for size of holding was also found positive and significant for all the tribals pooled together. In case of Tripuri community regression Co-efficient of all other variables were found positive but not significant except education which was significant at five per cent level.

Table No. - 27

Regression Co-efficient and other related statistics regarding employment of different Tribal communities.

Categories household	Estimated Equation
TRIPURI	$Y=39.3538+129.8252X_1+0.8146X_2+12.6246X_3+0.6845X_4$ $R^2=0.76$
RIANG	$Y=51.3126+118.4265X_1+0.7624X_2+11.5672X_3+0.8234X_4$ $R^2=0.81$
JAMATIA	$Y=48.1468+112.5729X_1+0.4325X_2+8.1683X_3+0.4894X_4$ $R^2=0.72$
HALAM	$Y=61.3842+131.5836X_1+0.9123X_2+15.2384X_3+0.2145X_4$ $R^2=0.79$
POOLED	$Y=47.3264+124.2578X_1+0.7623X_2+10.9274X_3+0.3947X_4$

Y = Dependent variable represents total annual family employment.  
 $X_1, X_2, X_3, X_4$  (independent variable) represent.

\* Significant at 5 percent level  
 \*\* Significant at 1 percent level



In case of Riang community in addition to size of holding regression Co-efficient for non farm income was found positive and significant while regression Co-efficient of two other variables were positive but not significant. In case of Jamatia community in addition to size of holding regression Co-efficient for non farm income and education was found significant at five per cent level.

In case of Halam community in addition to size of holding regression Co-efficient for non farm income was worked out to be positive and significant at five per cent level.

The regression Co-efficient for all the tribals pooled together indicated that in addition to farm size, non farm income was also found to be positive and significant while regression Co-efficient for other variable like intensity of cropping and dummy variable education was found positive but not significant. Thus it can be inferred from the regression analysis that factors like farm size, non farm income have got positive and significant contribution for employment generation in the tribal areas of West Tripura district of Tripura state. The contribution of dummy variable education was found to be limited for Tripuri and Jamatia communities only in the study area. While the contribution of intensity of cropping was not found significant in any category of tribal communities.

## **CHAPTER-V**

# **SUMMARY, AND CONCLUSION POLICY OPTIONS**

In the context of principles, the knowledge regarding socio economic back ground, living standard and employment conditions of different tribal communities can help planners to identify the problem area and to solve by taking appropriate measures for the development of these weaker sections of the society.

Therefore, an attempt has been made to make an indepth study on Income, consumption and levels of employment of different tribal communities in Teliamura block of west Tripura district. The specific objective of the study are :-

- (a) To study the farm and family structure of different categories of tribal house holds.
- (b) To estimate the level of income and consumption of tribal households.
- (c) To study the level of employment among the tribal households.
- (d) To study the marginal propensity to consume among the tribal households.

#### Methodology

West Tripura district of Tripura State was purposively selected for the study as there is highest concentration of tribal population in the district. Teliamura block was also selected purposively for the study as it was having maximum Percentage of tribal population in comparison to other five blocks in the district.

Stratified two stage random sampling method was adopted for selecting the ultimate respondents. A list of gaon sabha's having concentration of tribal population was prepared taking the census data from the block office. There were in total 49 Gaon sabha's in the block from which five Gaon sabha's namely Sardukarkari, North Gokulnagar, South Gokulnagar, Rupacherra, Khasia mangal were selected at random as primary sample. All the tribal households of Gaon sabha's were listed along with their subtribe naming and with the size of the operational holding in case of cultivators.

From this list of different subtribe ten percent of the respondents were selected randomly from each category. Thus in all sixty nine respondents comprising of 30 from Tripuri community, 13 from Jamatia community, 12 from Riang and 14 from Halam community respectively.

#### Collection of Data

The general information regarding the sample areas were collected from secondary sources, such as block office, panchyat office, VAW centers and census report etc. but all other informations were obtained from the respondents, by visiting homes and fields of the individual respondents. A family or household was adopted as the unit of investigation in this study. The head of the household was interviewed in two or three sittings

during their leisure period. Cross examination and varification with the data available from other sources were felt necessary since the tribals household do not generally maintain any record and we had to depend solely on their memory. The data pertained to the agricultural year 1993-94.

### General Characteristics

Community wise distribution of sample tribal households indicate that the majority of tribal households belong to Tripuri community (43.48 percent) followed by Halam (20.29 percent). Jamatia (18.84 percent) and Riang (17.39 percent). The male female ratio of the tribal communities as a whole was reported to be 52.57:47.43. The average size of the tribal family was 6.20. There were higher percentage of female workers in all the tribal communities which emphasises the central position of tribal females in their households.

The level of literacy was found to be 40.19 percent which was much below than the district average of 54.20 (state average is 49.54). The level of illiteracy was found to be higher in case of Halam community. (63.11 percent) followed by Tripuri, Riang and Jamatia with 60.25, 59.14, and 54.93 percent, respectively. Among the illiterates female illiteracy was higher ie 57.42 percent of the total illiterate mass. The number of family members having educational status of primary level was highest for

Tripuri and Jamatia followed by Riang and Halam with 57.9 and 42.11 percent respectively. There has been considerable decrease in middle and secondary education in case of family members of all the communities. This might be attributed to the fact that there exists a large scale drop out of students in different level of higher education.

#### ECONOMIC STATUS

Though men and women equally share the burden of the family, the adult female was found to be principal earner in the family in case of all the tribal communities. The main occupation of the tribals in West Tripura District is agriculture. the other occupations include forestry activities and non agricultural labour work.

#### Agricultural activities

The tribal economy in the study area is predominantly agro forest based. Agriculture and agricultural labour was the main stay irrespective of their community classes. The heavy pressure of immigrants on plain lands and transfer of the fertile lands from the tribals to non tribal farmers has resulted to take up jhum cultivation in the high hills by the tribal farmers. Out of the sixty nine tribal households selected for the study, 17.39 percent were engaged purely on jhum cultivation. Almost all the

tribals classes were engaged in jhuming practices but with in the tribal groups Riang communities were having highest percent of household under jhuming practices. Jhum cultivation was regarded as one of the important cultivation practices by the tribal community of the region.

The average size of operational holding was worked out to be 1.28 ha for the entire tribal community. The operational size of holding was worked out to 1.37 ha for Riang, followed by 1.34, 1.18 and 1.11 ha for Tripuri, Halam and Jamatia respectively. The percentage of area under irrigation was 18.27 percent which implied that most of the tribal household is dependent on rainfed agriculture.

Paddy was the main crop in the study area. Other crops like millets, sesamum, mustard, maize and vegetables were also grown by the tribal households. The average cropping intensity was only 125.38 percent. The paddy and mixed paddy occupy 75 percent of the cropped area. The findings of the study established the overwhelming importance of paddy cultivation followed by the tribals of the region.

There was no much difference in the net income realised by Tripuri, Jamatia and Halam communities for one hectare of crop, except Riang community whose net income from one hectare of crop was lowest. It might be due to maximum percentage of land under jhum cultivation by the community.

### Forest activities

The most important forest product is bamboo, on which the tribal dependence is enormous. Both male and female population of different communities were engaged in forest activities. They collect minor forest produce, broom sticks, canes, medicinal bulbs, resins, channa mohua seeds and flowers, etc. from the forest. The closeness and participation of the entire tribal community on the surrounding forest is maximum.

### VALUE OF ASSETS

Though land is a prized possession and owned by all the sample households. A considerable proportion of the land was under shifting cultivation, no value could be fixed for the land. The other important assets includes dwelling house, followed by live stock, agricultural implements and non agricultural assets. Of the total live stock owned by the sample households, the number of poultry was maximum at 48.53 percent followed by sheep and goats, pigs and milch animal. This indicates the dependence of tribal communities on live stock rearing. The maximum number of poultry birds kept by the tribals might be for the purpose of performing pujas in different occasions through out the year.

### INCOME

Income includes income from farm and off farm income.



Incomes received from agriculture and allied activities form 49.70 per cent. where as income from non agricultural activities and forestry contributed 23.04 and 17.26 percent of the total income respectively. Though forestry adds considerable proportion to the total household employment. the income was not that significant in proportion to their involvement in forestry because of the low price paid for the forest produce and exploitation by the traders. The per capita disposable income was calculated as Rs 2175.86 per year. The community wise per capita disposable income was found to be highest for Tripuri followed by Jamatia. Ring and Halam communities respectively.

#### MAGNITUDE OF POVERTY

About 65 percent of the total tribal families were below poverty line. Community wise. the magnitude of poverty was highest with 71.43 percent families below poverty line in Halam communities followed by 69.23. 66.67 and 60 percent for Jamatia. Rieng and Tripuri communities respectively. Thus the findings present the extent of absolute poverty incase of tribal communities as a whole for the West Tripura district. The Gini concentration ratio was calculated to find out extent of inequality of income distribution among different categories of tribal households. The Gini Co-efficient was found to be more than 0.5 in case of all the tribal communities indicating higher degree of disparities in income distribution within the families of different communities.

## CONSUMPTION

Expenditure on food articles was highest for all the communities followed by expenditure for beverages, clothing, education and social functions respectively. Total non food items accounted only 28.40 percent of the total expenditure. The expenditure on items like intoxicants and socio-religious ceremonies accounted major chunk of the expenditure under non food items.

The dimension of inequalities in consumption expenditure was marked for mostly non food items in all categories of tribal communities. The higher Gini concentration ratio confirmed the inequalities in the level of living within the communities.

The marginal propensity to consume was highest for Tripuri community followed by Jamatia, Riang and Halam communities. Thus the study support the hypothesis that the marginal propensity to consume in case of tribal households is very high.

## SAVINGS

The concept of savings is much difficult to define and more so to measure in case of tribal households. The expenditure exceeded the income in case of all the categories of tribal households, indicating dissaving in all the cases. the dissaving was highest for Tripuri community followed by Halam, Jamatia and Riang communities respectively. These dissavings most probably

are made by borrowings from traders and money lenders in the area. Thus the findings supports the hypothesis that there is dissaving among all the tribal communities.

## EMPLOYMENT

The main sources of employment in the selected area were engagement exclusively in agriculture, agriculture and non-agricultural activities, exclusively non agricultural activities, agriculture non agriculture and forest activities, and exclusively in forest activities. The most dominant sources of employment as per the number of earners from total earning population was exclusively agriculture for all the tribal communities. But taking number of man days per worker into consideration agriculture do not provide enough employment opportunities for all the communities of tribal household in the study area. The average employment per worker varies from 103.74 to 115.11 mandays. The findings therefore clearly indicates the inadequacy of avenues of employment whether on the farm or on other allied activities within the region. This might be the cause of growing insurgency in west Tripura district and Tripura state as a whole.

### The Factors Influencing Employment

The regression co-efficient indicated that farm size and non farm income were the most important factors contributing increase in employment. Regression coefficient for other variable like

intensity of cropping and Dummy variable education were found positive but not significant. Thus it can be inferred from the regression analysis that factors like farm size, non farm income have got positive and significant contribution for employment generation in the tribal areas of West Tripura district in Tripura state. The contribution of Dummy variable education was found to be limited for Tripuri and Jamatia communities in the study area while the contribution for intensity of cropping was not found significant in any categories of tribal households.

#### CONCLUSIONS AND POLICY IMPLICATIONS

Based on the findings of the study the following conclusions emerged for taking appropriate policy measures for improving the living conditions of the tribals in study area.

1. Development of Land for agricultural purposes is generally very costly in the hilly tracts of West Tripura district. This has limited the scope for increase in area of settled agriculture with individual farmers. Moreover the resource framework is not generally strong enough for developing any sizeable area for cultivation and opportunity costs are not favourable to developmental investment. Therefore increase in productivity from the unit area by watershed management, improved technology and supply of credit can improve their income from agriculture in the study area.

2. High investment in settled agriculture has forced the tribals to follow the old tradition of jhuming practices. As the shifting cultivation has become a way of life, the tribals may be advised scientifically to increase the productivity from the jhum land and may be supplied with some seedlings of plantation crops freely to plant in the jhums. Shifting cultivation coupled with high rainfall in the region have been responsible for heavy floods and soil erosion causing enormous losses. This can be checked by contour cultivation practices which also can provide employment to the tribals in the area.

3. The transfer of lands from tribals to non tribals is to be checked forth-with and the transferred land from the tribals to non tribals may be refunded by legislative measures to provide an economic holding size to each farmer.

4. Results of different developmental activities are not being realised by the tribal beneficiaries because of illiteracy. There fore co-ordinated effort should be made to increase the literacy levels and level of education in the area. Basic school with boarding facilities (Ashram type) and when ever required mid day meals should be provided to attract tribal youth and children for formal education.

5. Human resource development and strategy for man power planning is very much important to reduce the growing insurgency in the area. The high unemployment and less opportunities for

employment has caused frustration among the youth and they have indulged in subversive activities with out any ideological inclination. There fore proper training and education with adequate employment opportunities can positively reduce the tension in the region.

6. The vast forest resources which supply considerable amount of employment and earnings. must be protected for sustainable use of forest resources. A comprehensive survey of the forest resources is required besides a big afforestation programme should be launched to stabilise its fragile ecosystem and present loss of valuable soils with people's participation. Forest produces should be collected from the tribals by co-operatives. which can minimise the exploitation of tribals from the traders and money lenders.

7. The regional economy is agrarian in character with majority of population depending on agriculture and allied activities. Therefore special efforts are needed to generate the pace for rapid industrialization which can provide enough employment opportunities to the tribals without disturbing their heritage and culture. Small scale industries based on locally available natural resources may be promoted in the area.

8. The social inequalities and discrimination were

identified in various areas of social life like income and consumption expenditure within and between different tribal groups. There fore an equitable distribution of income by providing employment opportunities either in private. public sector or by self employment schemes. at least for one member in each family can improve the living conditions of tribal households in the state.

9. The experience of the tribals for maintaining live stock population may be exploited. They may be provided with improved breed of poultry. goats. sheeps. pigs and milch cattles. which can be maintained profitably because of availability of vast grazing land nearby.

10. Last but not the least. the emphasis on horticultural and plantation crops to produce sufficient quantities of fruits. essential oils. rubber and vegetables. which can ultimately create scope for agro-processed industry in the area and improve the economic conditions of the tribal households and can provide effective employment opportunities to them.

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