

ECONOMIC SETTLEMENT OF TRIBAL YOUTHS IN TRIPURA



Dr. Bibhuti Bhushan Sarkar

**ECONOMIC SETTLEMENT OF TRIBAL
YOUTHS IN TRIPURA**

DR. BIBHUTI BHUSHAN SARKAR
M.Sc.(Agri.), Ph.D(Agri.)
DEPUTY DIRECTOR OF AGRICULTURE
AMBASSA-799289, DHALAI, TRIPURA

TRIBAL RESEARCH INSTITUTE
GOVERNMENT OF TRIPURA
AGARTALA, TRIPURA.

PUBLISHER
TRIBAL RESEARCH INSTITUTE
GOVT. OF TRIPURA
AGARTALA

© TRIBAL RESEARCH INSTITUTE
FIRST EDITION 30th May 2007

COMPUTER SETTING & PRINTING
STAR GRAPHIC
B. K. Road, Opp. Bhutoria, Agartala.

Rs. 36/-

FOREWORD

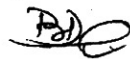
For survival and as a part of Tribal way of life and culture jhuming has been practised by Tribals of Tripura since time immemorable. But at present due to reduction of jhuming cycle "Jhum cultivation" has proved uneconomic. Jhuming is still a total way of life of majority of the Tribes residing in interior areas with varied cultures, but they are yet to adopt the modern science and Technology.

The remoteness of the state, population pressure, mountaneous topography, communication and transport difficulties, power shortage, poverty, insurgency problem, educational backwardness, high rate of school dropouts, unemployment, malnutrition, unhygienic living, inadequate availability of protected drinking water coupled with age-old orthodox ideas etc. are some of the problems in interior tribal areas of Tripura resulting depression and lead to destructive mindset among the tribal youth of Tripura.

Dr. Bibhuti Bhushan Sarkar, Deputy Director of Agriculture, Ambassa, Dhalai, Tripura now the Joint Director of Agriculture a welknown writer and researcher after conducting detailed survey identified the problems and suggested to provide all aspects of modern scientific Agricultural Technology and allied field like Horticultural, Plantation, Animal husbandary, Fishery, Sericulture, Rural cottage industries etc. as per their own choice for economic settlement of Tribal youths in Tripura.

I am thankful to Dr. Sarkar for his painstaking interest, full hearted co-operation, and valuable suggestions along with photographs for the economic settlement of Tribal youths in Tripura.

I hope this book will be useful for all the development agencies, students, researchers, planner and other who are associated for the betterment of tribals to understand the problems and prospects of Tribal youths in Tripura.



(B. Debbarma)

Director

Tribal Research Institute
Government of Tripura
Agartala.

CONTENTS

CHAPTER	TOPICS	PAGES
ONE	Introduction, Geographical background, climate, soil, literacy	6 - 14
TWO	General Information Agriculture, Horticulture, Animal Husbandry, Fishery, Rural Industry, Panchayat, Market, Financial Institution.	15 - 30
THREE	Survey Procedure for Economic Settlement, Methods of recording Preference of occupation for Tribal Youths, Annexure i-vi	31 - 43
FOUR	Related Issues for Economic Settlement of Tribal Youths - Insurgency, Medical, Water Supply, Education, Communication, Electrification, Credit, Shifting Cultivation, Income & Expenditure.	44 - 61
FIVE	Results, Discussion & Suggestion, Preference of Occupation, Horticulture, Plantation Crops, Animal Husbandry, Improved Jhum Cultivation, Forestry, Fishery, Rural Industry, Handloom, Bee keeping, Mushroom cultivation, Sericulture, Small Business, Other Occupation, Fruit & Vegetable preservation, Vedio Show hall, Oil ghani, Rice husking mill, Recommendations.	62 - 94

ACKNOWLEDGEMENT

First of all, I take this great opportunity to express my heartiest sense of gratitude and indebtedness to Dr. Mahadev Chakraborty, Head of the Department, History, Tripura University, Dr. Tapati Chakraborty, Chair person, women's Commission Tripura and Sri Haradhan Malla, Asstt. Professor (SL. Gr.) B.B.M. College, Agartala for their generous valuable suggestions throughout the course of studies on "Economic Settlement of Tribal youths in Tripura " and their pains taking interest in the preparation of the manuscript.

I also express my deep sense of gratitude to Sri S.Sailo, IAS, Secretary, Social Education and Welfare Department, Sri Niranjan Chakma, I.C.A.T, Department and Sri Bhagirath Reang, IAS, Ex-Director and Joint Secretary, Tribal Research Institute, Govt. of Tripura for their continous valuable suggestions during the course of this investigation. My earnest grateute is also to Mr. Bijoy Debbarma, Director, Tribal Research Institute, Tripura, Agartala for his kind initiatives for arranging publication of this research project report. I am also thankful to Sri Ratan Kumar Acharjee, Research Officer, Sri Bidyut Dhar, Sri Amarendra Deb Barma, Librarian, Sri Arun Debbarma, Technical officer, Tribal Research Institute, for their direct and indirect help for this study. My grateful thanks are due to Mr. Sanjib Krishna Debbarma, Mr. Nitya Gopal Chattarjee, Ex-Director of Agriculture, Mr. Jagadish Debbarma, Ex-Joint Director of Agriculture, Mr. Dhabal Krishna Debbarma, Ex-Deputy Director of Marketing, Mr. S. R. Paul, Ex-Horticulturist, Mr. Alok Dhar, Mr. Srinath Baidya, Mr. Namojyot Chakma and Mr. Riza Mohan Banshi, Supdt. of Agariculture, Govt. of Tripura and all other Superintendents of Agriculture, Agril. Sector Officers, V.L.W.s, Chairman of village Council of Dhalai District who have rendered their help and co-operation during my field study. I am also thankful to Sri Bijan Chakraborty, Studio Mitali, Agartala for taking up and supply of Photographs for the purpose of this research project.

Views expressed in the report are, however, exclusively mine and I am also responsible for unwilling errors if any, contained in this report.

Dr. Bibhuti Bhushan Sarkar
Deputy Director of Agriculture,
Ambassa, Dhalai Tripura.

INTRODUCTION

To study the aspects of economic settlement of Tribal youths and its prospects and possibilities, tribal dominating district Dhalai was selected and survey was conducted in all the agricultural sector of three agricultural sub-Divisions. During field survey, problems of Tribal youths have been taken into consideration. The main problems identified are poverty, insurgency, education, communication, sanitation, health hazard, scarcity of water (Drinking and household use), electricity and orthodox superstition of Tribal people residing in interior areas.

The educated tribal youths (above Madhyamik qualification) are interested for Govt. Service or assured job. However, illiterate or under qualified school dropout tribal youths expressed their views for economic settlements mainly on Horticulture, Improved jhum cultivation, Agriculture, Animal husbandary, Fishery and plantation crops etc. The informations presented here are the views of surveyed tribal families and recommendation of local elder public, field staff i.e V.L.W /A.A and Agricultural sector officer of Dhalai District for economic settlement of tribal youths. It is also observed that, although very big list of occupations were presented to the tribal youths to know their choice, but majority of them showed interest on mainly Horticulture, Agriculture, live stock and fishery occupation. However, minimum number showed interest for small business, Carpentry, driving push-cart, Cycle-Rickshaw, Auto-rickshaw etc. A negligible number of youths showed interest for tailoring. But none of them agreed to choice future occupation as wage-earner/labourer/ Servant in the private house, although, at present, a good number of Tribal youths observed to depend on wage earner/seasonal labour under private sector. They are in need of self-employment opportunities. The creative potentiality of tribal youths need to be explored through scientific training and providing them production inputs for sustainable economic settlement as per their choice and need.

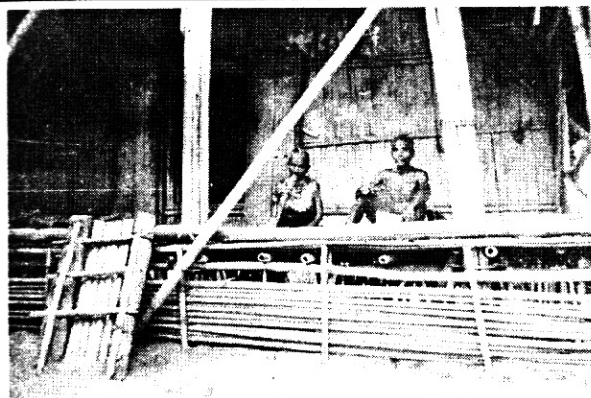
CHAPTER : 1

GEOGRAPHICAL BACKGROUND

The Dhalai District is bounded by North Tripura District in the North, Bangladesh and South Tripura District in the South, Bangladesh and North Tripura District in the East. The Western side is bounded by South Tripura District, West Tripura District and Bangladesh. The Head-quarter of Dhalai District is located at Ambassa. For Administrative convenience the district has been divided in 4 Sub-Divisions namely Ambassa, Kamalpur, Gandacherra and Longtharai Valley.

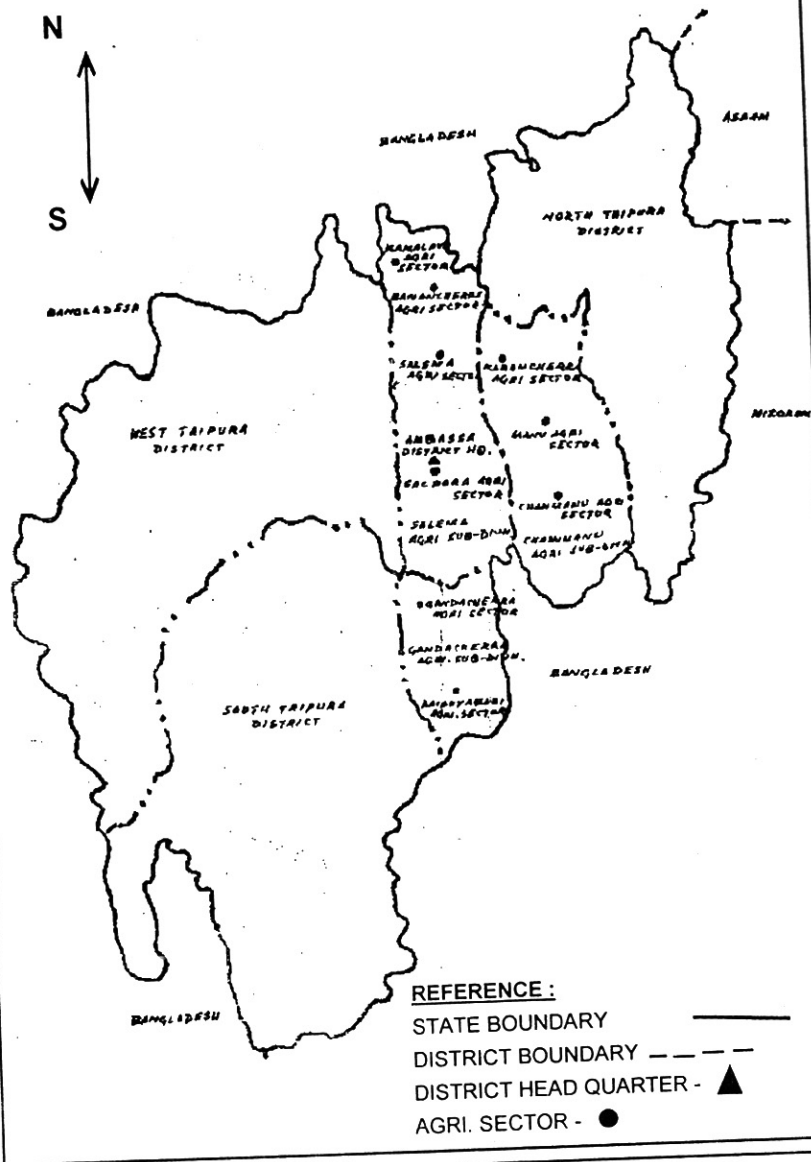
Agri. Sub-Divisions, Revenue Sub-Divisions and Blocks of Dhalai District are presented below :

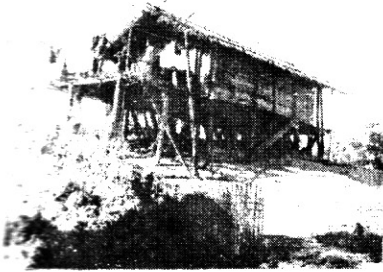
SL. NO.	Name of Agri. Sub-Division	Name of Revenue Sub-Division	Name of Block
1	Salema	a) Kamalpur b) Ambassa	i) Salema
2	Chawmanu	Longtharai Valley	i) Manu ii) Chawmanu
3	Gandacherra	Gandacherra	i) Damburnagar



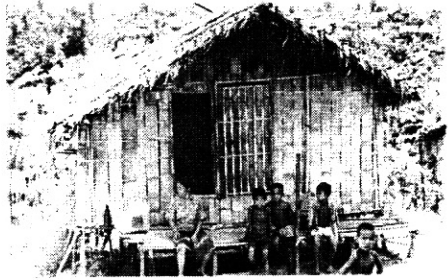
A Tribal Family of Dhalai District

MAP OF TRIPURA SHOWING THE DIFFERENT AGRI. SUB-DIVISION & AGRI. SECTORS UNDER DHALAI DISTRICT





Tribal House



Tribal House



Tribal Para



Tribal Village

CLIMATE :

The climate of Dhalai District is Characterised by a hot and humid summer with a good number of rainy days in between June and September. The weather is dry and cold during winter months in between December and February. During the months of March - April pre-monsoon rain is also common phenomena.

The climate of Dhalai exhibits a strong seasonal rhythm and can be divided into four characteristic seasons

- | | | |
|-----------------|---|----------------------|
| 1) Winter | : | December - February. |
| 2) Pre-Monsoon | : | March - April. |
| 3) Monsoon | : | May - September. |
| 4) Post-Monsoon | : | October - November. |

Normal Annual Rainfall presented below :-

- | | | |
|--------------|---|------------|
| 1) January | : | 17.3 m.m. |
| 2) February | : | 30.8 m.m. |
| 3) March | : | 94.5 m.m. |
| 4) April | : | 205.6 m.m. |
| 5) May | : | 291.5 m.m. |
| 6) June | : | 467.0 m.m. |
| 7) July | : | 413.9 m.m. |
| 8) August | : | 262.6 m.m. |
| 9) September | : | 199.7 m.m. |
| 10) October | : | 198.6 m.m. |
| 11) November | : | 29.3 m.m. |
| 12) December | : | 8.9 m.m. |

Total : 2218.7 m.m.



A Tribal Family



Collection of wild fruits



A Tribal Dance



Household use of river's water

AREA, POPULATION AND DENSITY OF POPULATION IN DHALAI DISTRICT (1991) :-

Name of Agril Sub-Div.	Area (Sq. Km)	Total Population	Scheduled Tribes	% of Scheduled Tribes	Population per sq. Km
Salema	649.79	1,44,721	43,637	30.20	222.70
Chawmanu	840.74	86,948	59,361	68.3	103.40
Gandacherra	829.65	46,578	37,891	81.3	56.10
Total	2320.18	2,78,247	1,40,889	50.6	119.90

In this connection it may be mentioned here that as per 2001 census, information on population of Dhalai District are (a) Total Population-307,868 (b) Male-159,095 (c) Female-148,773 (d) Urban-18,867 (e) Rural - 289,001 (f) Schedule Tribe-166,326 (g) Female ratio against males (per thousand)-935 (h) Percentage of schedule tribe population-54.03 and (i) Total Population per sq. km-132.69.

SOIL :

The soil of Dhalai District are broadly classified into two categories :

- 1) Soils of upland.
- 2) Soils of low-land.

But Sub-group level area bases on soil classification are as follows :

- 1) Hill zone with forest cover.
- 2) Low lying mounds with undulating to rolling plains with narrow valleys.
- 3) Valleys and flood prone area.
- 4) River bed areas.

Again on the basis of origin, soils of Dhalai District can be classified into two groups.

- 1) Residual soils.
- 2) Transported soil or alluvial soils.

SOIL FERTILITY STATUS :

The pH value of soil vary from 4.05 to 6.05 and more than 90% of the soils of Dhalai District pH is below 5.6 Viz moderately to stongly Acidic in reaction. Soil fertility status presented in Table No. 1.

Table : 1 :- SOIL FERTILITY STATUS OF DHALAI DISTRICT.

Name of Agril Sub-Div.	No. of soil sample analysed	Percentage of sample showed in Low, medium & high									Nutrient Index		
		Nitrogen (Organic carbon)			Phosphorous available			Potash available					
		L	M	H	L	M	H	L	M	H	N	P	K
Salema	1649	12.4	64.2	23.5	61.7	23.0	9.2	50.0	36.9	13.1	2.1	1.47	1.62
Chawmanu	1292	17.8	43.8	38.4	60.5	31.9	7.6	66.8	23.9	9.3	2.21	1.47	1.42
Gandacherra	268	22.8	61.9	15.3	41.0	36.2	22.8	37.3	49.6	13.1	1.93	1.82	1.76

L= Low , M=Medium, H=High, N=Nitrogen, P=Phosphorous, K=Potash.

LITERACY :

The Dhalai district is backward in respect of education as per 1991 census, literacy rate was 40.3% where state literacy rate was 60.4%. But average tribal literacy of Dhalai District was 25.62% only. Agril Sub-Division wise literacy of tribals are presented in Table 2(a).

Table 2(a).

LITERACY OF SCHEDULED TRIBES POPULATIONS OF DHALAI DISTRICT (1991 CENSUS)

Name of Agril Sub-Division.	Literate Population			% of Literacy
	Male	Female	Total	
Chawmanu	10706	4250	14,956	32.00
Gandacherra	4940	1286	6,226	19.40
Salema	9631	5294	14,925	44.84

As per census of 2001, literacy rate among the tribal population was 36.99 in Dhalai District, Agril. Sub-Division wise literacy of Tribals are presented in Table 2(b)

Table: 2(b)

LITERACY OF SCHEDULED TRIBES POPULATIONS OF DHALAI DISTRICT (2001 CENSUS)

Name of Agril. Sub-Division	Literate population			% of literacy
	Male	Female	Total	
Chawmanu	16707	8659	25366	36.16
Gandachera	6121	2530	8651	26.02
Salema	16657	10854	27511	43.71

In this connection it may be mentioned here that progress of literacy rate of the scheduled tribes population is slow as because literacy rate(2001 census) of the State of Tripura is 73.21% and total literacy of in general of Dhalai is 60.90% but total literacy among scheduled tribes population of Dhalai District is 36.99%.

The number of educational Institutions in Dhalai District are College - 1, Higher Secondary School -19, High School-33, Senior Basic School -153 and Primary School -56 only.



A jhumia Family

CHAPTER : 2 GENERAL INFORMATION

AGRICULTURE :

The Dhalai Agricultural District has started functioning since 12th August'1997 at Ambassa with the following Agricultural Sub-Divisions namely Salema Agril. Sub-Division Headquarter at Kamalpur, Chawmanu Agril. Sub-Division Headquarter at Chailengta and Gandacherra Agril. Sub-Division Headquarter at Gandacherra.

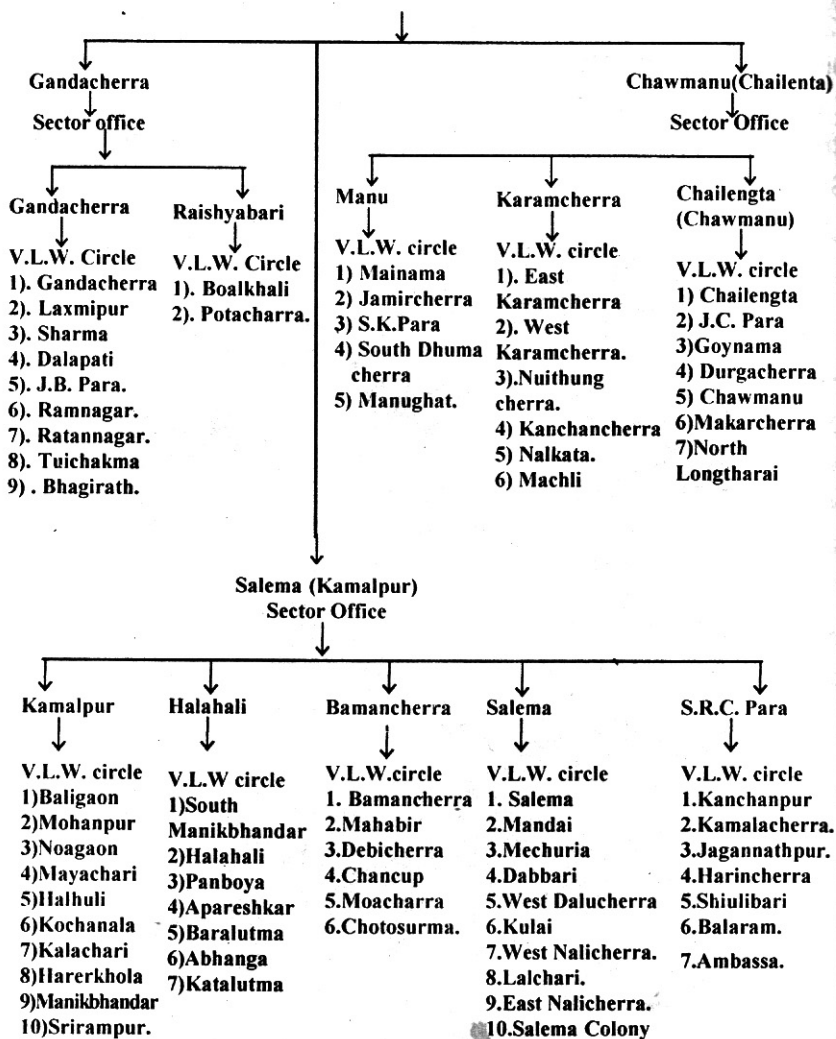


Agricultural activities

ADMINISTRATIVE SETUP OF DHALAI AGRICULTURE DISTRICT.

Office of the Deputy Director of Agriculture, Dhalai, Ambassa.

Office of the Superintendent of Agriculture (Sub-Division)



AGRICULTURAL INFORMATION OF DHALAI DISTRICT AT A GLANCE.

1) Total geographical Area	=	2,34,811 Ha.
2) Total cultivable land	=	26,321 Ha.
3) Net cultivable land	=	25,190 Ha.
4) Gross cultivable land	=	42,255 Ha.
5) Total irrigated land	=	3,182 Ha.
6) Cropping intensity	=	167%
7) Total Jhum Area	=	5,589 Ha.
8) Jhumia family :		
(a) Hardcore Jhumia	=	6,155 Nos.
(b) Partial Jhumia	=	3,932 Nos.
9) Total Jhumia family	=	10,087 Nos
10) Total cultivator family	=	35,078 Nos.

AREA, PRODUCTION AND PRODUCTIVITY OF DIFFERENT AGRICULTURAL CROPS UNDER DHALAI DISTRICT DURING THE YEAR 2000-2001.

Sl. No.	Name of crop	Area (Ha.)	Production (M.T)	Productivity (MT/Ha)
1.	Aush Paddy			
	i) Local	1188	1457	1.56
	ii) H.Y.V.	5649	13143	2.32
	Total	6877	14600	2.12
2.	Amon Paddy			
	i) Local	1860	2324	1.25
	ii) H.Y.V	11245	21876	1.95
	Total	13105	24200	1.85

SL. NO	Name of Crop	Area (Ha)	Production (M.T)	Productivity (M.T/Ha.)
3.	Boro Paddy			
	Local	125	187	1.00
	H.Y.V	965	3178	3.29
	Hybrid	80	308	3.40
	Total	1170	3655	3.12
4.	Jhum Paddy			
	Traditional	4212	2946	0.70
	Improved	80	120	1.50
	Total	4292	3066	0.71
5.	Wheat	300	600	2.00
6.	Jute	82	656(Bail)	8.00
7.	Mesta	360	2639	7.30
8.	Cotton	1181	1311	1.10
9.	Oilseed (Sesamum, Mustard, Groundnut etc.)	1490	969	0.65
10.	Pulses (Moong, Blackgram, Pegionpea, Pea etc.)	701	385	0.54
11.	Sugarcane	335	14405	43

INFRA STRUCTURE OF AGRICULTURE DEPTT. AT DHALAI DISTRICT.

Agril. Sub-Division	Chawmanu	Salema	Gandachera	Total
Agril Sector Office	3	5	2	10
V.L.W. Circle	23	40	11	74
Main seed store	1	1	1	3
Sub seed store	13	20	5	38
Regulated Market	1	1	1	3
Agril. Implement haring centre	1	5	-	6
Government Farm	4	1	1	6
Government orchard	4	4	4	12

HORTICULTURE :

The Tribals of Dhalai District are lovers of fruits, vegetables and flowers. The Agro-climatic condition of Dhalai District is most congenial for production of a number of tropical and Sub-tropical fruits and vegetables. Moreover tribal growers are producing a wide range of fruits, nuts, vegetables and spices. At present, Pineapple, Orange, Papaya, Banana, Litchi, Mango, Jack-fruit, Cashew nut, Arecanut, Coconut, Black pepper, Ginger, Green chilli, vegetables, Betelvine etc. horticultural crops are also grown by the Tribal people of Dhalai District. There are hardly any scope for expansion of area under Agricultural crops due to paucity of plain land, best fertile hilly terrain and hillocks of Dhalai District offers immense potential for expansion of area under different horticultural crops. For economic settlement of Tribal youths horticulture may play a key role in Dhalai District if farmers expertise of growing selected horticultural crops, relative higher productivity, return, market demand, storage, transportation, post harvest management and strengthening of marketing facilities assured and properly utilized. Area, production and productivity of different Horticultural crops are presented in table No.3.

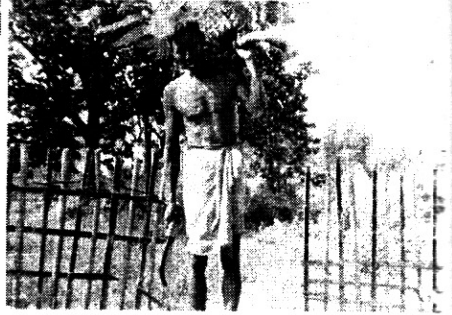
Table : 3

AREA, PRODUCTION & PRODUCTIVITY OF HORTICULTURAL CROPS IN DHALAI DISTRICT (2000-2001).

Name of crop	Area(Ha.)	Production(MT)	Productivity(MT/Ha.)
Pineapple	296.60	9381.25	31.63
Banana	564.50	6077.05	10.77
Orange	666.00	4520.00	6.79
Litchi	162.67	743.08	4.56
Mango	399.77	693.00	1.73
Cashewnut	480.00	218.00	0.45
Coconut	437.20	21.07	4819
Arecanut	569.50	(lakh nos. nut) 951.08	(Nos of nut/Ha.) 1.69



Harvesting of Banana



Carrying Banana for sale



Harvesting of Jack Fruits



Interculture in pineapple plot

But when productivity is considered on the basis of bearing area the yield is much higher and presented in Table No. 4.

Table No. 4.

Name of crop	Area (Ha.)		Production (MT)	Productivity (MT/Ha)
	Non-bearing	Bearing		
Litchi	76.14	86.49	743.08	8.59
Orange	297.00	369.00	5267.20	14.27
Mango	168.72	231.00	693.00	3.00
Cashewnut	89.67	390.33	218.00	0.56
Coconut	119.00	318.20	21.07	6621
			(Lakh nos nut)	(Nos. of nut/ha)
Areca nut	317.00	252.50	961.08	3.80

Table No: 5

AREA, PRODUCTION AND PRODUCTIVITY OF VEGETABLES AND POTATO CROPS UNDER DHALAI DISTRICT(2000 -2001)

Type of vegetable	Area(Ha.)	Production(MT)	Productivity(MT/Ha.)
Summer	922.00	3517.90	3.81
Winter	649.00	5141.94	7.92
Potato	445.00	8310.00	18.67

At present horticultural infrastructure are very poor in Dhalai District & only one District Horticulturist and one Deputy project Officer's Offices are located at Ambassa and all the horticultural schemes are being looked by the Superintendent of Agriculture at Sub-Division level and Agril. Sector Officer at Sector level and V.L.W. / A.A. at Goan Panchayat level. For proper implementation of different horticultural schemes in Dhalai District, it is essential to establish separate horticulture office at Sub-Division, Sector and grassroot level as this Tribal dominating District is very much potential for horticultural crops than agricultural crops.

ANIMAL HUSBANDRY :

There are two veterinary Hospitals, 5 nos of dispensaries and 12 nos of stockman Sub-centre at Dhalai District. Total 75,407 animals were treated and 45,849 animals were vaccinated under the District during the year 2000-2001. In addition there are one piggery Farm in the District with 694 nos of pigs in 2000-2001.

FISHERY :

Fish is an important item of daily diet of people of Tripura. The State has deficit in fish production and internal demand of fish is fulfilled from the outside state of Andra pradesh and neighbouring Country Bangladesh. So there is no problem of marketing fish in Tripura. Thereafter pisciculture has ample scope for economic settlement of Tribal youths in Tripura. They are in need of capital for reclamation of low laying area available plenty in between two hill-slopes, proper training, demonstration and supply of inputs like fish-fry/fingerlings, lime, fertilizers, fishing nets etc. need to be ensured.

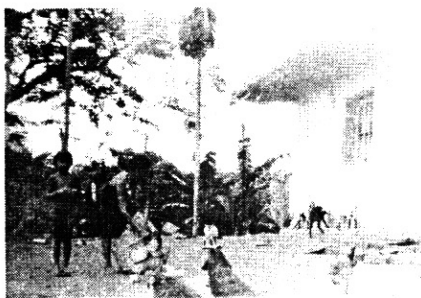
The lunga land in between hill slopes are abundantly available in Tribal dominating Dhalai Distirct. These lunga or low lying areas can be easily converted into fishery water area, with reclamation and construction of bunds in one side.

These type of water areas are popularly known as "mini barrage". The barrage areas receive rain water/seepage water from wide catchments and retain water round the year. These water areas are very rich in organic matter and conducive for pisciculture. During rainy season precution should be taken to protect the fish with proper drainage system against overflow.

The Gomati reservoir which is the single biggest source of fish in the state with a water - spread area of 4500 hectares are near the Gandacherra Sub-Division of Dhalai District. In addition a fish farm/fish breeding farm is located at Abanga under Kamalpur



Traditional poultry farm



Household animal husbandry activities



Household poultry cage



Poultry bird sacrifice to god

Sub-Division. There is also scope for creation of new mini barrage under Dhalai District specially in the Tribal dominating interior area. For encouraging pisciculture among the Tribals of Dhalai District, it is suggested to arrange cultivation of tortoises, crabs, kuchia, prawn etc. also, as local Tribals are very much fond of these fishery items and at present they collect these from natural sources.

FOREST :

The important forest plantation of Dhalai District are Segun, Sal, Garjan, Gamair etc. Natural forest vegetation of Bamboo, sungrass, cane etc. are also very common in Dhalai District.

There are two Corporations working in Dhalai District for producing Rubber namely T.F.D.P.C Ltd and T.R.P.C Ltd. The T.R.P.C. Ltd is working mainly with Rehabilitation of Tribal people on rubber plantation.

Area and production of Rubber in Dhalai District under T.R.P.C. Ltd. during the year 2000-2001 are as follows :

Name of the Block	Total Area(Ha.)	Tapping Area(Ha)	Production in Kg
Salema	285.92	54.37	46,775.25
Manu	249.68	81.64	64,709.84
Total	535.60	136.01	1,11,485.09

The natural vegetation of Dhalai District is governed by a complex of environmental factors. Forest mostly covers the elevated flat land and hillocks and forests are particularly absent in the low lands due to frequent land use for agricultural purpose. Bamboo is one of the major vegetation associated with "CHHAN" and "KASH" grass. The principal deciduous plants like "Segun", "Karai" Hargaja, Gamair are common. The medicinal trees like Amalaki, Haritaki, Bahera, Arjun etc. also grows well in Dhalai District. Some uplands of District are occupied by Sal and Chamal plantation. Wild banana, a native plant grows abundantly in the hilly area of Dhalai District.

Preservation of existing bamboo forest and area expansion programme for bamboo plantation may be taken up for economic settlement of Tribal youth. Dhalai District is rich in different species of bamboo. The common bamboo species are:

- 1) Muli (*Melocanna baccifera*)
- 2) Barak (*Bambusa balcooa*)
- 3) Kali (*B. nutans*)
- 4) Makal (*B. pallida*)
- 5) Mritinga (*B. tulda*)
- 6) Dalu (*Neobouzeaua dullooa*)
- 7) Pecha (*Dendrocalamas hamiltonii*)

Gamair (*Gamelina arborea*), Jack-fruit (*Artocarpus heterophyllus*) may be planted for timber and fodder in Dhalai District.

Again fruit trees like jujube, pomelo, mango, guava etc. are most popular to the Tribals of Dhalai District. These fruits are consumed locally. The fruits will supply food and nutrients to the poor Tribal who mainly eat cereals and suffer from malnutrition.

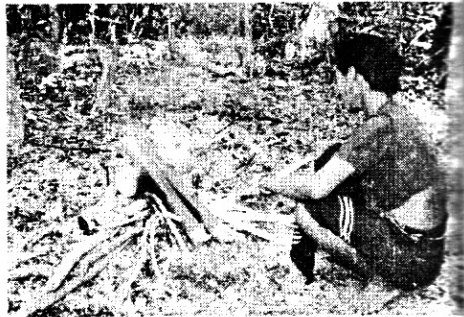
At present forest area of Dhalai is decreasing due to indiscriminant way of collection of timber, fire wood, supply of bamboo and also for unscientific primitive type of shifting cultivation. So it is also essential for conservation and maintenance of old forest plantation, bamboo and cane forest alongwith creation of new forest for improving the economy of the State.

RURAL INDUSTRY :

There are no heavy and medium scale Industries in Dhalai District. During the year 2000-2001 there were 10 (ten) nos of Brick kilns in the Dhalai District having total seasonal workers 862.



Warming up during winter



Preparation of traditional food item



Household activities



A tribal girl playing with a baby

The information related to small scale Industries under Dhalai District during the year 2000-2001 is as follows :

S. NO	Item	Name of Sub-Division				Total Dist.
		Longtho- rai Valley	Ambassa	Ganda- cherra	Kamal- pur	
1.	Nos of small scale Industries	12	12	1	25	50
2.	Nos. of person employed	533	596	7	722	1858
3.	Nos of Registered Industries	12	12	1	25	50

PANCHAYAT :

There are total 118 nos of goan panchayats under Dhalai Districts, out of which 87 nos gaon panchayats are located in TTAADC area and only 31 gaon panchayats under Salema Agril. Sub-Division are outside TTAADC area.

List of gaon panchayat under different Agril. Sub-Division of Dhalai District :

A) CHAWMANU AGRIL. SUB-DIVISION (40 Nos) :

1) Jamircherra (2) Purba Machli (3) Mainama (4) Nalkata (5) Battala (6) Naimangcherra (7) Chailengta (8) Purba Karamcherra (9) Ganama (10) Deo R.F. (11) Dalucherra (12) Labancherra (13) S.K.Para (14) Demcherra (15) Demrai R.F. (16) Karaticherra (17) Pachim Karamcherra (18) Jalcherra (19) Kanchancherra (20) Chichingcherra (21) Purba Kathalcherra (22) Uttar Dhumacherra (23) Pachim Machli (24) Pachim Kathalcherra (25) Manu (26) Dhakshin Dumacherra (27) Chiltacherra (28) Debacherra (29) Durgacherra (30) Purba Chawmanu (31) Purba Gobindabari (32) Purba malidhar (33) Mokorcherra (34) Manikpur (35) Natinmanu (36) Uttar Longtharai (37) Rajdhar (38) Pachim Chawmanu (39) Pachim Gobindabari (40) Pachim Malidhar.

B) GANDACHERRA AGRIL. SUB-DIVISION (19 Nos) :

1) Boalkhali (2) Bhagirath (3) Dalapati (4) Dhalajari (5) Gandacherra (6) Jagabandhupara (7) Kalajari (8) Kalyanshing (9) Laxmipur (10) Pancharatan (11) Purba Potacherra (12) Pachim Potacherra (13) Raima (14) Ramnagar (15) Ratannagar-1 (16) Sarma (17) Tuichakma (18) Thakurcherra (19) Ultacherra.

C) SALEMA AGRIL. SUB-DIVISION (59 Nos)

(1) Ambassa (2) Uttar Nalicherra (3) Kanchanpur (4) Kulai (5) Purba Nalicherra (6) Bagmara (7) Balaram (8) Harimangal (9) Gurudhanpara (10) Jagannathpur (11) Jeolcherra (12) Kamalacherra (13) Parchim Nalicherra (14) kathalbari (15) Kula R.F. Extension, (16) Lalcharri, (17) Shikaribari, (18) Chakmapara. (19) Ganganagar, (20) Karampara, (21) Rahdarambari, (22) karnamani, (23) Sidhipara, (24) Tetuiya, (25) Mohanpur, (26) Bilashcherra, (27) Noagaon, (28) Mayachari, (29) Kalacherri. (30) Harerkhola, (31) Halhuli, (32) Chotosurma (33) Maracherra (34) Bamancherra, (35) Mahabir, (36) Manik Bhandar, (37) Lambucherra, (38) Baralutma, (39) Debicherra, (40) Dubaicherra. (41) Parchim Dalucherra, (42) Salema (43), Mechuriya, (44) Dabbari. (45) Purba Dalucherra, (46) Kuchainala, (47) Chulubari, (48) Halahali, (49) Abhanga, (50) Chancup, (51) Apareshkar, (52) Jamthunbari, (53) Kata Lutma, (54) Mendi, (55) Uttar Kachucherra. (56) Panbua, (57) Setrai, (58) Dakhin Kachucherra, (59) Sreerampur.

MARKET :

There are 45 nos of market under Dhalai District. Most of the markets are located in interior area and these are weekly fixed day markets. The list of markets are furnished below :

A) CHAWMANU AGRIL. SUB-DIVISION :

(1) Battala, (2) Chailengta, (3) Chawmanu, (4) Dhumacherra (5) Birashimile, (6) Jamircherra, (7) Karamcherra (New market), (8)

Karamcherra (Old market) (9) Manughat, (10) Maracherra, (11) Manikpur, (12) Nepaltilla, (13) Shibbari, (15) Machli, (16) Lalcherra, (17) Sindhukumar, (18) Chowmuni, (19) Mainama.

B) SALEMA AGRIL. SUB-DIVISION:

(1) Ambassa, (2) Balaram, (3) Chancup, (4) Durgachowmuhani (Bamancherra), (5) Ganganagar, (6) Halahali, (7) Harincherra, (8) Jayantibazar, (9) Kachucherra, (10) Kulai, (11) Maracherra, (12) Manik Bhandar, (13) Mahadeb Chowmuni, (14) Panbua, (15) Salema, (16) Setrai, (17) Shikaribari, (18) Shantirbazar, (19) Kamalpur.

C) GANDACHERRA AGRIL. SUB-DIVISION :

(1) Gandacherra, (2) Jagabandhupara, (3) Kalajhari (Ramnagar), (4) Pancharatan, (5) Raishyabari, (6) Ratannagar, (7) Boalkhali (Shibnagar).

FINANCIAL INSTITUTION :

The following Banks are working in different places of Dhalai District as appended below :

A) STATE BANK OF INDIA :

(1) Kamalpur, (2) Manik Bhandar, (3) Kanchancherra.

B) UNITED BANK OF INDIA :

(1) Kamalpur, (2) Halahali, (3) Ambassa, (4) Shikaribari (Ambassa)
(5) Manu, (6) Chawmanu.

C) TRIPURA GRAMIN BANK :

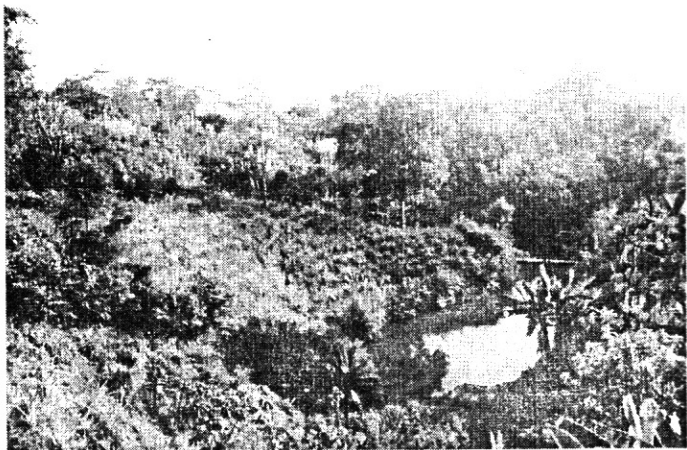
(1) Kamalpur, (2) Salema, (3) Kulai, (4) Ambassa, (5) Gandacherra, (6) Jagabandhupara, (7) Raishyabari, (8) Chailengta, (9) Machli, (10) Dhumacherra.

D) TRIPURA STATE CO-OPETATIVE BANK :

(1) Ambassa, (2) Chailengta, (3) Kamalpur.

As most of the Tribals are living on Khas land/Forest area they have no proper record of land. Again Jhumia families are migratory in habit so there is a great difficulty to get Bank loan on the plea of security. So, most of the Tribal people of Dhalai District approach the local mahajan for loan at higher rate of interest instead of Bank/financial institution. During discussion with Tribal youth, they expressed that they are unable to settle for want of adequate capital investment. So, for economic settlement of Tribal youths it is necessary to assure adequate financial assistance in time. For the said purpose bank should come forward to sanction productive loan on easy terms to the Tribal youths.

Mini barrage in Tribal area - suitable for pisciculture.



Harvest from mini barrage.

CHAPTER : 3

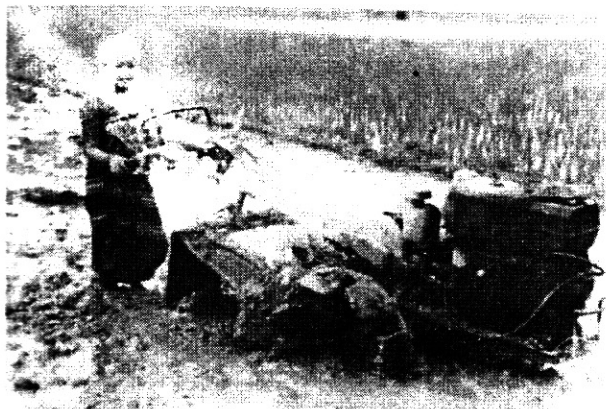
SURVEY PROCEDURE FOR ECONOMIC SETTLEMENT

METHODS:

To study on "Economic Settlement of Tribal youths-prospect and possibilities" Tribal dominating Dhalai District was selected. Detailed information on population, Area, Climate, Topography, Land, Cultivation practice for Agricultural and Horticultural crops, Forestry, Animal husbandary, Industry, Markets, Gaon panchayat, VLW. circle, Agricultural Sector, etc. were collected agricultural Sub-Division wise of Dhalai Agril. District. In this connection it may be mentioned here that area and boundary of Dhalai district is same for Revenue Department and Agriculture Department. A standard questionnaires was prepared and random sampling procedure was followed to collect house hold wise information from each Agricultural Sector of Dhalai Agril. District. Special emphasis also given to collect information from tribal youths of each house hold to identify their preference of occupation and requirement for economic settlement.

To study "Economic settlement of Tribal youth-prospects and possibilities" questionnaires for unemployed tribal youth(Boys/Girls) were prepared with an aim to collect preference of occupation.

A trained tribal girl adopting modern Agro-Technology



The field work for the study was conducted between January 2000 to April-2001 and data on prescribed format were compiled. During field study observation of the V.L.W. and Agril Sector officer (Gazetted) for each tribal house hold specially for Economic Settlement also taken into consideration.

A sample of 700 tribal house holds was drawn on random sampling basis i.e. 70 Tribal families and youths per Agriculture sector. The author also discussed with the different tribal groups & incorporated the openions in this report.

Methods for recording preference of occupation for Tribal youths in Dhalai District:-

To know the preference of occupation for the Tribal youth of Dhalai District the questionnaires administered to the unemployed (Boys/Girls) and asked them to rank desire occupation in order of their preference. Although total 42 nos of occupations offered in front of them but most of them have expresed preference only for 3 to 5 occupations, none of youth ranked more than ten alternative occupations. While integrating the different individual ordering into a single one, construed to represent the preference patterns of Tribal youths in general, simple procedure for assigning points to the different preference, have been followed. As for example, if a Tribal youth gives his "First preference" rank to say improved Jhum then improved Jhum scores 10 points. If he/she gives "Second preference" rank to, say Horticulture, scores 9 points.

In this way, from each unemployed Tribal youth, each alternative preference gets a certain number of points. Although Tribal youths were asked to rank all the mentioned alternative choice, none of them ranked more than ten alternatives. After each preferent ranks are taken into consideration and total scores of the difference alternative choice are counted. The ranking derived from these total scores is the over all ranking and expressed in percentage. In the process of self employment planning for Tribal youths, the choice/preference constitute one of the most important element, as under self employment programme he/she would be the ultimate beneficiary. However, for checking practical intension, the views of the local V.L.W.'s, Agricultural Sector Officer and local leaders also given due importance. The results were presented for



Discussion with Tribal youths at Jagabandhupara



Discussion at Salema



Group discussion at Gandacherra

seven dominant Tribal communities of Dhalai District i.e Reang, Tripuri, Chakma, Halam, Kuki(Darlong), Garo, Mag and also sum of total average figures.

During the field study due importance were also given on:

- 1) To identify the economic, social, cultural, rituals related to jhum cultivation, jhum cycle etc.
- 2) Dependence on forest.
- 3) Reasons for reversion to jhum after settlement.
- 4) Reasons for shifting from one place to another place.
- 5) Literacy.
- 6) Income and expenditure of house hold.
- 7) Credit facilities.
- 8) Govt. assistance facilities.
- 9) Source of income and pattern of expenditure.
- 10) Debts/savings.
- 11) Preference of occupation for unemployed Tribal youth(Boys Girls).
- 12) Requirement for chosen occupation.
- 13) Observation and opinion of local village level worker and Agricultural Sector Officer for economic settlement of Tribal youth.

The formats used for field survey report presented vide Annexure - I to VI

ANNEXURE - I

SURVEY REPORT FOR ECONOMIC SETTLEMENT OF TRIBAL YOUTHS OF TRIPURA.

A) Identification

- | | |
|------------------------------|----|
| 1) Name of Head of house | :- |
| 2) Holding no. | :- |
| 3) Tribe | :- |
| 4) Para. | :- |
| 5) Gaon Panchayet | :- |
| 6) Mauza | :- |
| 7) V.L.W. Circle | :- |
| 8) Block | :- |
| 9) Sub-Division | :- |
| 10) Agri. Sector. | :- |
| 11) Agriculture Sub-Division | :- |
| 12) District. | :- |

ANNEXURE - II

(B) FAMILY PARTICULARS :-

Name start with the Head of the family	Relation	Sex 'Male' 'Female'	Age	Marital status	Education	Source of Income		Month during which is unemployed	Training or skill if any.	preference of occupation.	Expected income /annum.
						(Primary)	(Secondary)				
1	2	3	4	5	6	7	8	9	10	11	12

ANNEXURE- III

(C) Income and value of out put sold by the House hold.

SL. NO.	Source	Income		Output sold	
		Primary	Secondary	Quantity	Value(Rs)
1	2	3	4	5	6
1.	Jhum cultivation				
2.	Settled cultivation.				
3.	Horticulture				
4.	Plantation				
5.	Animal Husbandry				
6.	Pisciculture				
7.	Cottage & Rural Industries				
8.	Collection of Forest produce				
9.	Wages				
10.	Other Source (Specify).				
	Total				

A tribal dance





Group discussion at Chawmanu



**Interaction with tribal youths
at Gandacherra**



Interaction with tribal youths at Halahali

ANNEXURE- IV

(D) Item wise expenditure of house hold per annum

SL. NO.	Item	Market goods (Value Rs.)	Non market goods(Value Rs.)	Total
1	2	3	4	5
(a)	Rice			
(b)	Dal			
(c)	Vegetable			
(d)	Dry fish			
(e)	Fish			
(f)	Meat			
(g)	Mustard Oil			
(h)	Wine			
(i)	Spices			
(j)	Cloths			
(i)	Salt			
(ii)				
(iii)				
(iv)	Kerosine oil			
(v)				
(vi)				
(vii)				
(viii)				
(k)	Utensil			
(i)				
(ii)				
(iii)				
(iv)				
(v)				
(l)	Soap			
(i)	Washing Powder, Tooth Paste			
(m)	Others (specify)			

ANNEXURE - V

(E) Questionnaires for unemployed Tribal youths(Boys/Girls)

1. Name :-
2. Father/Husband Name :-
3. Tribal group :-
4. Address. :-
5. Educational qualification :-
6. Preference of occupation :-

Occupation	Ranking	Details	Requirements for chosen occupation				
			Input	Credit	Train- ing	Marke- ting	Others
1	2	3	4	5	6	7	8
1. Traditional Jhum. 2. Improved Jhum. 3. Settled cultivation. 4. Horticulture a) Fruits. b) Vegetable. 5. Plantation. a) Rubber. b) Tea. c) Coffee. d) Coconut. e) Arecanut. f) Other. (specify). 6. Animal Husbandary. a) Piggary. b) Goatery.							

1	2	3	4	5	6	7	8
c) Dairy. d) Poultry. e) Duckary. f) Others (specify) 7. Pisciculture. 8. Cottage and Rural Industry. a) Pottery. b) Bamboo. c) Other (Specify) 9. Collection of forest produce. 10. Earning wages a) Agriculture. b) Horticulture. c) Plantation. d) Road. e) Other (Specify) 11. Other Occupation (Specify) 12. Handloom Weaver. 13. Brick kiln. 14. Auto or light vehicle driving.							
(40)							

1	2	3	4	5	6	7	8
15. Cycle Rickshaw.							
16. Push Cart.							
17. Bidi making.							
18. Hiring Centre/sprayer/ Duster etc.							
19. Selling of Agril. inputs Ferti & PPC.							
20. Candle making.							
21. Mushroom Cultivation.							
22. Bee keeping.							
23. Sericulture.							
24. Small scale fruits & vegetable preservation.							
25. Cane/Wood/ Bamboo craft.							
26. Oil Ghani.							
27. Grocery shop.							
28. Tea stall.							
29. Wine shop.							
30. Repairing of Radio/ Tape recorder, T.V. etc.							
31. Contractor for constraction works.							
32. Barber.							
33. Washerman/ Ironing of cloth.							

1	2	3	4	5	6	7	8
34. Any other small business(specify).							
35. Cobbler/Sweeper							
36. Black smith.							
37. Drum beating & musical party.							
38. Rice mill.							
39. Vedio/Cinema Hall.							
40. Repairing of Agril. implements.							
41. Tailoring.							
42. Chira, Muri frying.							

ANNEXURE - VI.

F) Savings :-

- (a) Total savings of family :-
 (b) Form in which savings are kept.

G) Debts of the house hold :

Source of loan	Rate of interest	Amount of out-standing debts	Purpose of loan
1. Private Money lender.			
2. Commercial Banks			
3. Co-Operative			
4. Relatives.			
5. Others (Specify)			
Total			

- H) (i) Have you remained in the present location for the last 5 (five) years :- Yes / No.
 (ii) Give detail reasons for your answer :-
 (I) Do you like to settled in the present location:- yes/No.
 Give details reasons for your Answer if "Yes" what facilities you would require in the present location.

3) Observation of the V.L.W. on economic settlement :-

Signature of V.L.W.

4) Detailed observation of the Agricultural Sector officer on economic settlement of Tribal Youths.

Signature of Agricultural Sector Officer.

A tribal dance



A tribal dance

CHAPTER :- 4 **RELATED ISSUES FOR ECONOMIC SETTLEMENT OF TRIBAL YOUTHS**

Problems for Economic settlement :-

The remoteness of the Dhalai District, mountainous topography, communication and transport difficulties, power-shortage, illiteracy, health hazards, inadequate drinking water facilities, poverty, lack of credit facilities, lack of technical know-how & insurgency etc. are some of the problems for economic settlement of Tribal youths in Dhalai District of Tripura.

INSURGENCY :-

Insurgency is the main problem in Dhalai District for economic settlement of Tribal youths. In general, Tribal youths are innocent, simple and hard workers. They are susceptible to sentiment. At present, evil forces are very active to mislead the creative potentialities of Tribal youths towards destructive insurgency. Their creative activities are being spoiled through continuous brain washing in the name of religious and communal activities. The teenager Tribal youths are the main target of evil forces. Once they come out from the society towards the extremist line and start to move in aimless jungle life, they are, generally, not acceptable by the Tribal



Hampering of tribal development
due to insurgency problem.

society. As a result, they are unable to come back in normal life. They also then start to create more number of extremist group. The leaders of the extremist groups enjoy full benefit of their family life keeping liason with politics. But the innocent tribal youths suffer a lot for their life security when they join in the extremist activities or even after surrender to the government. So some of them even after surrendering again bound to go back in jungle life and try to make new extremist group with the help of new innocent tribal youths. Sometimes inter' extremist group conflict also creates problems for settlement of Tribal youths in interior Tribal area of Dhalai District. Activities of evil force in the Tribal area need to be stopped. There should not be any external religious, political interference in the normal way of life of Tribal people. They should be free to perform their own religious and social customs. They should not be pressed to change their religion, proper education, awareness campaign need to be strengthen in Tribal areas along with strong action against the evil force must be enforced to stop anti national activities. Until insurgency problems are uprooted, smooth implementation of development programme for economic settlement of Tribal youths may not be possible and innocent poor tribal people living in the interior area may be forced to be ruined in future.

MEDICAL :-

The major health problems among the tribals of Dhalai District are malnutrition, unhygienic living condition and inadequate availability of protected drinking water coupled with age old beliefs and traditions. Again due to orthodox ideas and magic religious faith, the tribal communities of interior Tripura do not attend hospital and health centres for treatment and mostly depend on the indigenous method of their own treatment. The common diseases of tribals of interior Tripura are diarrhoea, gastroenteritis, leprosy, tuberculosis and various kinds of skin diseases. Ulcerous wounds, perforation of stomach and colic pains are commonly found among

the tribals who are habituated to country liquor. Children often suffer from protein and vitamin deficiencies. Milk, egg, and vegetables are not so popular among tribals in general and mostly fed on rice resulting deficiency symptoms of colour blindness and malnutrition.

MEDICAL FACILITIES IN DHALAI DISTRICT :

A) Allopathic :		B) Homeopathic :	
Rural hospital	= 1	Dispensaries	=2
Rural P.H.C	= 8	C) Arurvedic :	
Rural Dispensaries	= 46	Dispensaries	=3
Total	= 55		
Urban Hospital	= 02		

D) Nos of Beds in Medical Institution :

a) (i) Hospital	= 100	1) Rural area	=58
(ii) P.H.C	= 28	2) Urban area	=70
Total	=128	Total	=128

E) Nos. of patients treated in all type of Medical Institution:

i) Indoor	= 586
ii) Outdoor	=40,629
Total	=41,215

F) Registered Medical and para medical personnel :

a) Graduate Doctor	= 42
b) Mid wives/Trained Dais	= 07
c) Nurse	= 44
d) Pharmacists	= 22

WATER SUPPLY :-

In Dhalai district a large number of Tribal hamlets are still without drinking water facilities. The tribals mainly depend on stream water for drinking purpose, resulting serious health hazards arising out of water borne disease.

Problem of water scarcity :-

Most of the Tribal hamlets are located in the hilly area where water is scarce. They mainly depend on near by cherra, river or springlet for collection of drinking water, bath, washing of utensil, cloths and supply of household requirements for domestic birds, animals too. The tribal people face great difficulties during dry spell generally from December to April when water become scarce in the locally available water sources. So for economic settlement of Tribal youths it is necessary to arrange assured supply of water in the locality round the year.

EDUCATION :-

Education promotes awareness and encourages people of different groups of tribals to take up right actions for better living. A very low rate of literacy prevails in the tribal society of Dhalai District in comparison to the tribals of other districts of Tripura.

Generally, tribal population living in interior areas of Dhalai are so poor that they cannot send their children to schools. Due to poverty and high rate of illiteracy of tribals guardians of Dhalai, tribal students hardly find any way to continue studies, resulting high rate of school drop-out students. The large scale drop-out of tribal students are affecting the socio-economic and political environment of the state.

Large scale school drop-out :-

During the study it was observed that there are large scale school drop-outs due to lack of education of the tribal parents, when discussed the matter with the parents, 95% parents of Tribal students expressed that due to poor economic condition they encourage their ward to extend necessary help for household works, even in cultivation and collection of forest product etc. for running the family smoothly, so the tribal students hardly get time for their

home study. They also added that in the interior tribal area there are problems in regular study in the school due to absence of teachers. The students also face problems to get coaching at home for better result in the school examination. So the Tribal students who failed to pass the school/Board examination several times they automatically stop to go to school and resulting large scale school drop-out Tribal students. During the study it was observed that percentage of school drop-out students are more for girls than the boys. Again among the different Tribal communities higher percentage of School drop-out students recorded in Reang community and lowest percentage in Kuki(Darlong) community.

PERCENTAGE OF SCHOOL DROP-OUT STUDENTS IN DIFFERENT TRIBAL COMMUNITIES OF DHALAI DISTRICT.

Table :-6

Name of Community	% of School dropout students.	
	Boys	Girls
Reang	45	60
Tripuri	42	48
Chakma	40	45
Halam	35	40
Garos	37	42
Kuki	32	32
Mog	33	35

COMMUNICATION :-

Tripura is a most disadvantageous state in respect of its communication links with the rest of the country. Much of the potentialities of development of resources could not be exploited to a desirable extent for want of good communication system.

Most of the interior Tribal hamlets suffer from miserable communication. Due to hilly nature and undulating topography there are in general lack of good road communication. Most of the zigzag



Poor tract in hilly area



On the way to market



Poor road communication



Carrying water from distant place

hilly foot tracts are kacha, narrow and both sides are full of wild creepers, shrubs, etc. During rainy season these muddy paths are so slippery that people face a lot of problems to walk. Again during winter months Tribal people use the natural charras as tracts for long distance even a few kilometre. But during rainy season water overflow for several hours together resulting disruption of communication.

Again it was also noticed during field journey that the waterlets locally known as charras are situated in and around tribal paras. During heavy rains the charras are full of water for several hours. But it is observed that most of these charras get back their original form after few hours when the Tribal people can cross those charras on foot as usual. Some of the Tribal hamlets situated on the hilly tops and Tribal women collect water from low land or charras or hill water point with great difficulty from a distance of about a kilometre or more.

ELECTRIFICATION :-

Power is an important economic input for initiating development process of Tripura State. It is felt essential to develop rural electrification infrastructure as an effective tool to fight against poverty and unemployment. A dynamic and self sustaining economy must have adequate support from the power sector which should be linked closely with day to day activities of tribals of Dhalai District in Tripura.

CREDIT :

The role of credit institution in a backward area does not need any explanation particularly in a District like Dhalai, specially for the economic settlement of Tribal youths. So far as the source of the loans were concerned four categories viz. the village money lenders, commercial banks, co-operatives and others (friends relatives etc) and the purpose of loan is mainly for agricultural

operation, consumption and for performing social rituals and customs.

SHIFTING CULTIVATION :

Shifting cultivation is popularly known as "Jhum" or "Hook" by the local Tribal people of Dhalai District in Tripura. It is a very old system of Agriculture prevalent throughout the District in hilly areas inhabited by the Tribal population.

Jhum cultivation also is known as shifting cultivation as because the jhumia cultivators have to go on shifting their field in cyclic rotation after cropping normally for one year or two years, if soil fertility sustains. It is also known as slash and burn or Rotation Farming.

The important characteristic of jhum cultivation are :

- 1) Mostly confined in hilly areas.
- 2) Rotation of field rather than crops.
- 3) Mixed cropping of rice with a wide range of other indigenous crops.
- 4) Minimum tillage operation or zero tillage as seeds are dibbled.
- 5) No farm mechanization except utilisation of manual labour.
- 6) Production process helps to develop co-operation among family members and neighbours.
- 7) Jhumias are living on food and mouth in lieu of their hard labour.
- 8) No savings or accumulation of wealth.
- 9) If any surplus produce, mainly utilized through community feasts or gifts.
- 10) Right of individual ownership only on crops but not on land after shifting.
- 11) Slash, burn and dibbling of seeds.
- 12) Upland paddy is main crop.
- 13) Production depends on length of jhum cycle and soil fertility.
- 14) No irrigation, crop grows as rainfed farming system.



Preparation for Jhum
Cultivation



Jhum Plot after burning



Sowing of Jhum Seeds



Harvesting Jhum Vegetables.

- 15) No use of plough, spade or improved implements, simple traditional implements "takka" is widely used.
- 16) No use of animal or mechanical power in jhum farming system.
- 17) Normally chemical fertilizers are not used.
- 18) Jhum cultivation is closely associated with socio-economic cultural tradition of jhumia.
- 19) Selected crops can satisfy most of the basic needs of the jhumia.
- 20) Harvesting of crops in sequence round the year.
- 21) Complete economic system and main source of income and labour engagement for hill tribes of Tripura.
- 22) Basis of subsistence, livelihood security and survival strategies of the interior tribal communities.
- 23) All requirements of food crops like cereals, pulses, oilseeds, vegetables, spices, fibre and cash crops etc. can be met from one piece of land.
- 24) After burning of cut forests and bushes in situ provide ash serve as a good source of plant nutrients particularly potash and micronutrients.

ILL EFFECTS OF JHUM CULTIVATION :

- 1) Ecologically harmful and destructive to environment.
- 2) Responsible for deforestation.
- 3) Encourage soil erosion.
- 4) Reduce water holding capacity of soil.
- 5) Loss of plant nutrients.
- 6) Encourage occurrence of flood and drought.
- 7) Threat to wild animal and valuable plant germplasm.
- 8) Crop susceptible to insect-pests and diseases.
- 9) Due to lack of communication in jhum area surplus product faces difficulty for proper marketing.
- 10) Reduced jhum cycle induce low production and productivity

of jhum crops.

- 11) Long term ill effect increased poverty among hard-core jhumia farmers as production and productivity is declining due to old traditional farming system.
- 12) Shifting in different places year after year is one of the reasons for the socio-economic undevelopment of Jhumia Tribals of Tripura.

The poor jhumias are ignorant of the ill effects of shifting cultivation and are yet to test the benefit of modern science and Technology. They are very conservative and are not enthusiastic to change the old tradition. They think their father's and grand father's ways are the best. During discussion jhumias expressed that if they find a lot of bamboo forest, their hearts become full of joy as they will be able to continue jhum cultivation for a few years more to earn their livelihood. This attitude need to be changed. For this education may play a vital role. Moreover economic condition of jhumia do not permit them to take up any innovative venture. Poor jumias generally live from hand to mouth and have practically nothing, except their physical labour.

STUDIES ON JHUM CYCLE :

One of the reason for declining productivity of jhum crop in Tripura is reduction of jhuming cycle. During field survey, reports on jhum cycle also are collected and presented Agril. sector wise as follows :

Name of Agril. Sub-Division.	Name of the Agril. sector	Jhuming cycle (Years)
Chawmanu	Chilengta	9.2
	Manu	5.5
	Karamcherra	8.7
		7.8
Salema	Bamancherra	6.3
	Kamalpur	3.2



Harvesting of Jhum Paddy



Threshing of Jhum Paddy



Husking of Jhum Paddy

	Halahali	5.9
	Salema	5.5
	S.R.C.Para (Ambassa)	6.1
		5.4
Gandacherra	Gandacherra	6.8
	Raishyabari	7.6
		7.2
Dhalai District.		6.8

The cutting of forest, burning and rainfed jhum cultivation practices cause loss of soil and plant nutrients. Large scale loss may also occur before and after jhum sowing through blown away of ash by wind if the weather is dry enough. Soil carbon and nitrogen losses may also occur through volatilization during jhum burning process. Again when a forest is cut and burnt for jhum cultivation the physical and chemical properties of soil are drastically altered. The maintenance of soil fertility in jhum area is a serious problem in places where jhum cycle is very short. These result in declining jhum productivity. So ten years jhum fallow or 10 years cycle is vital for bamboo forest rejuvenate and helps to accumulate sufficient plant nutrients in the field. So a minimum 10 years jhum cycle maintenance is most important for recovery of forest eco-system. But studies revealed that at present, under Dhalai District, average jhumming cycle is around 6.8 years, resulting declining of soil fertility in jhum area and thereby declining trend of production and productivity of jhum crops year after year in the traditional jhum cropping area is a burning problems to the jhumias.

WINE :

The customary habit of drinking liquor and use of the same in huge quantity during Socio-religious activities are also a reason for increasing the degree of poverty of the Tribals. The local country liquor commonly known as "langi", "Chauk" are prepared by

fermentation and indigenous distillation of rice mixed with some leaves, bark and roots etc. of wild local plants. One kilogram of rice yields one bottle of fermented liquor. One family of jhumia needs on an average about 400 bottles of liquor in a year in normal situation that means without any community feast for marriage, death and birth etc. Normally to celebrate rites and rituals of a marriage or death etc. of Tribal jhumia family minimum 500 bottles of liquor is utilized. So, for preparation of country liquor each jhumia family may utilize minimum 400 Kgs of rice per year for normal family consumption and for community feast of marriage, death etc. No limitation exists. So wine is also one of the factors for economic crisis of Tribal households.

INTER TRIBE CONFLICT :

The problem of inter tribe conflict in Tripura also hampered the production of Agricultural commodities. Because, due to such conflicts, the Tribal jhumia farmers failed to move from one place to another for fertile jhum land. For obtaining high yield of jhum crop, the land needs be allowed to lie fallow at least for ten years. The poor jhumias of Dhalai District, unfortunately could not do this because the fear of powerful rival Tribal group/extremist group.





Wine Preparation



Wine Utilization



Jhumia Training Programme at Gandacherra

Name of the Tribal Community	Jhum or shifting cultivation	Fishery	Animal Husbandry.	Horticulture		Plantation Crop.	Collection of forest produce	Settled cultivation Agril. crops.	Wages daily labour
				Fruit, vegetable					
Reang	40	02	08	05	01	14	05	25	
Tripuri	25	05	15	07	03	12	18	15	
Chakma	30	07	05	20	01	05	25	07	
Halam	28	02	09	19	03	09	24	06	
Garó	15	03	12	15	15	07	21	12	
Kuki(Darlong)	08	02	11	55	08	04	09	03	
Mog	12	06	03	27	12	08	28	04	
Total	158 (22.57)	27 (3.85)	63 (9)	148 (21.14)	43 (6.14)	59 (8.42)	130 (18.57)	72 (10.28)	

* Figures in the parenthesis show percentage of income from different source

Analysis on present source of Income :

It is observed that present source of Income of Tribals of Dhalai District is mainly derived from Jhum cultivation 22.57% and from settled cultivation of Agril. crops 18.57%, Horticulture -21.14%. Wages/daily labour-10.28%, Livestock-9%, Collection and selling of Forest products-8.42%, Plantation Crops-6.14% and Fishery-3.85%.

AVERAGE PERCENTAGE OF INCOME DISTRIBUTION AGAINST EXPENDITURE OF TRIBALS OF DHALAI DISTRICT.

ITEM OF EXPENDITURE	% OF AVERAGE EXPENDITURE
1) Rice	42
2) Dal	4.0
3) Vegetable	2.17
4) Dry fish	6.5
5) Wine	8.86
6) Kerosine Oil	2
7) Soap/Washing powder Cosmatic.	2.1
8) Cloth/winter bedding	10.5
9) Meat	2.5
10) Fish	1.17
11) Spices	1.5
12) Utensil	1.2
13) Salt/Mustard oil	2
14) Medicine	1.3
15) Smooking	3.5
16) Social custom & ritual	3.2
17) Others	5.5
Total	100

Analysis on present expenditure :

At present Tribals of Dhalai District incur their expenditure for procurement of main food item i.e Rice. The other items of expenditure are clothes including winter bedding 10.5%, Dry fish -6.5 %, Wine 8.86%, Smoking -3.5%, Kerosine Oil-2%, Vegetable-2.17%, Soap/washing powder/cosmetic etc -2.1%, Medical-1.3%, Utensil -1.2%, Spices -1.5%, Dal-4.0%, Meat -2.5%, Fish -1.17 %, Salt/Mustard Oil-2%, Social customs & rituals-3.2% & others -5.5%.



CHAPTER-5

RESULT, DISCUSSION AND SUGGESTION.

PREFERENCE OF OCCUPATION :

During field study preference of occupation for unemployed Tribal youth (Boys and Girls) were collected through the prescribed format and field data after compilation are presented in Table -7.

It may be mentioned here that underqualified Tribal youths expressed their views for economic settlement on different Agricultural allied farming system. But 95% of educated Tribal youth having Madhyamic passed qualification expressed their first priority of occupation as government job.

It is interesting to note that tribal youths showed interest for a good number of other occupations except those of Sweeper, Barbers, Black smith, Washerman, Cobbler and Potter although they use to utilize their services against payment of cash money.



A Tribal old couple made for each other.



Crushing and collection of Sugarcane juice



Preparation of Molasses



Selling Vegetables on road side



Selling Litchi in local market

Table :- 7

PREFERENCE OF OCCUPATION OF TRIBAL YOUTHS IN PERCENTAGE.

Name of the Community	Traditional Jhum	Improved Jhum	Settled cultivation in plain Agriculture	Pisciculture	Horticulture		Plantation		Animal husbandry.					Rural Index		
					Fruits	Vegetable	Coco-nut	Areca nut	Forestry/Tea/Rubber	Piggery	Goatery	Diary	Poultry	Small business	Others	
Reang	18	24	7	3	18	-	2	1	14	8	-	5	-	-	-	-
Tripuri	11	13	20	5	6	-	6	2	12	6	2	5	2	2	2	2
Chakma	5	10	25	6	12	22	8	-	7	1	-	-	1	1	1	1
Halam	6	12	18	3	8	5	16	2	9	1	1	4	2	2	1	1
Garo	3	15	23	8	19	2	-	1	16	-	8	1	1	1	2	2
Kuki	-	7	9	-	45	-	-	2	14	-	-	1	2	2	2	2
Mog	4	9	26	5	12	10	16	-	9	2	2	2	1	1	1	2
Total	47 *(6.71)	90 (12.34)	128 (18.34)	30 (4.28)	120 (17.14)	39 (5.57)	26 (3.71)	64 (9.14)	81 (11.57)	18 (2.57)	13 (1.85)	18 (2.57)	9 (1.28)	9 (1.28)	9 (1.28)	9 (1.28)

* Figures in the parenthesis show percentage of preferred occupation.

RESULTS AND DISCUSSION :

Studies on preference of occupation for Tribal youths of Dhalai District.

During the study through common questionnaire 7 Tribal communities Viz Reang, Tripuri, Chakma, Halam, Garo, Kuki(Darlong) and Mog are presented in Table-7, it appears that youths of Reang community showed interest for adoption of improved jhum and Traditional jhum cultivation 24% and 18% respectively. Again for Horticultural crops specially for growing fruits like banana, pineapple, papaya, litchi etc. 18% youth showed interest only, 14% youths expressed their desire for piggery, 8% for goatery, 5% for poultry and only 7% on settled cultivation through Agricultural crops. None of them showed interest for rural industries, Dairy farming, vegetable production and small business. It indicates that among the seven Tribal communities of Dhalai District studied, Reangs are still interested for jhum cultivation with some technological improvement i.e use of improved seeds, fertilizers, P.P.C. etc. for higher production.

Among the Tripuri communities 20% youth preferred settled cultivation through growing Agricultural crops like paddy, pulses and oil seed and for improved jhum and Traditional jhum cultivation 13% and 11% respectively showed interest as preferred occupation. They also showed interest for growing plantation crops like coconut, Alcanut and Rubber/Forest/Tea 8%, 6% and 2% respectively. Youths of Tripuri community are less interested for horticultural crops and only 6% showed interest for fruit crops. Regarding Animal Husbandry 12% for piggery, 6% for goatery, 5% for poultry and 2% for Dairy.

Among the youths of Chakma community 25% are interested for settled cultivation in plain land, 22 % on vegetable crops and 12% on fruit crops, Seven percent Chakma youths showed interest

for piggery and 8% for Arecanut plantation. However, six percent Chakma youths expressed to settled on pisciculture. Halam community youths maximum 18% interested for settled cultivation on Agricultural crops, 16% on plantation of coconut, 12% for Arecanut, 8% for fruit crops and 5% for vegetable crops. However 12% Halam youths showed interest on Improved jhum and 6% on Traditional jhum. Regarding Animal husbandry 9% youths showed interest on piggery farming and 4% on poultry farming.

Among Tribal youths of Garo community maximum 23% showed interest to settled on plain Agriculture, 19% on Fruit crops, 16% on piggery, 15% on Improved jhum, 8% on Fishery occupation.

Kuki (Darlong) Tribal youths however showed maximum interest to settle on Horticulture (fruit crops) 45% and 18% on plantation crops(Arecanut), 14% on piggery. Kuki youths are less interested for Traditional jhum, pisciculture, vegetable, coconut and Goatery. Mog Tribal youths of Dhalai District expressed their views 26% on settled Agriculture in plain land, 16% on plantation crops like Arecanut, 12% on fruits, 10% on vegetables, 9% on Improved jhum, 9% on piggery, 5% on fishery, 4% on Traditional jhum and 2% each for goatery, diary, poultry and Rural Industry.

Again if we consider the preference of occupation of total seven Tribal communities of Dhalai Distirct the results are as follows:-

PREFERENCE OF OCCUPATION OF TRIBAL YOUTHS:

A) JHUM CULTIVATION :

a) Traditional jhum cultivation	= 6.71
b) Improved method of jhum cultivation	=12.85
Total	=19.56

B) Settled cultivation on Agril. Crops =18.34

C) Settled cultivation on Fruits & Vegetable crops

a) Fruits	=17.14
b) Vegetables	=5.57
Total	=22.71

D) <u>Plantation Crops :</u>	
a) Coconut	=3.71
b) Arecanut	=9.14
c) Forest/Rubber	=1.14
Total	=13.99
E) <u>Animal Husbandry :</u>	
a) Piggery	=11.57
b) Goatery	=2.57
c) Dairy	=1.85
d) Poultry	=2.57
Total	=18.56
F) Fishery :	=4.28
G) Others :	
a) Small Business :	1.28
b) Auto/pushcart :	1.28
Total	= 2.56

ABSTRACT :

A) Jhum cultivation	=19.56
B) Settled cultivation :	
Agri crop based	=18.34
Horti. crop based	=35.56
Tea/Rubber plantation	=1.14
C) Animal husbandy	=18.56
D) Fishery	=4.28
E) Others	=2.56

During discussion some of the Tribal youths also showed interest for economic settlement on Integrated farming system. For the said purpose training on multi-disciplines viz Agriculture, Horticulture, Animal husbandy, Fishery etc. are essential for one enterprinor or beneficiary, obtaining multi-disciplinary trainings on various occupation programme may not be wise for tribal youths. Let them first trained on the decipline as per their first choce for

smooth implementation and easy understanding, with the ultimate aim of economically sustainable settlement.

HORTICULTURE :

Tribal peoples of Tripura are lovers of fruits, vegetables and flowers. The typical physiography of large expanse of hills and undulating high land of Dhalai District combined with favourable Agro climatic situation offers immense scope for growing of a large numbers of Horticultural crops.

The Agro climate of Dhalai District offers a great potential for production of a number of Tropical and sub-tropical fruits and vegetables. The fruit crops like banana, pineapple, orange, litchi, jackfruit, papaya, mango etc. can be successfully grown in Dhalai District, plantation crops like Cashewnut, Arecanut, Coconut and spices crops like Black pepper, Ginger, Termaric, Chilli etc. and vegetable crops like Mukhi kachu, Kakrol, Patal, Cabbage, Cauliflower, Tomato, Brinjal, Bhindi, Cucurbits, Radish etc. are also grow very well.

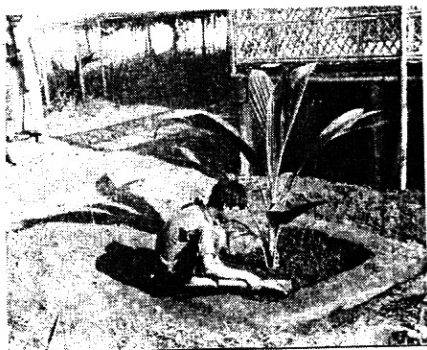
Tribal people are very much fond of Mushroom. They generally collect wild mushroom from forest and after fulfilment of their family demand some times sells the surplus booty in the local market.

Favourable Agro climate coupled with availability of hills and undulating high land in plenty offers tremendous scope for cultivation of various fruits, nuts, spices and vegetables in Dhalai District.

A good number of medicinal plants grow well under natural condition of Dhalai District. The tribal Ochai (Tribal village Doctor) mostly utilize these for the treatment of their patient. The potential medicinal plants are Sarpaganda, Hartaki, Amlaki, Bhahera, etc.



Practical training on cashew grafting



Nursing Coconut seedling



Aftercare of orchard



Intercultural operation in orchard

SUGGESTION :-

Horticulture :

- 1) Identification of specific fruits and vegetable crops, varieties etc. need to be identified to sustain higher economic return.
- 2) Area base planning necessary for cultivation of selected fruits and vegetables for easy access to the market preferably on cluster basis.
- 3) Horticultural crops should be selected high value, low volume for the interior area and near by road side area high productive, having good market demand crops may be selected.
- 4) Adequate facilities for post harvest management, storage, transportation and marketing need to be developed for horticultural produce.
- 5) Emphasis should be given to explore local medicinal plantation/ flower gardening, orchid and Mushroom cultivation.
- 6) Organic farming need to sustain and encourage for promotion of export oriented horticultural produce. The improved horticultural ecologically sustainable technologies should be blended with Traditional wisdom of the Tribal.
- 7) Arrangement for crop specific training course need to be vital for the intended Tribal youths well before the crop season along with assured supply of different inputs.

PLANTATION CROPS :

Plantation crops like Tea, Rubber, Coffee, Cocoa, Coconut, Arecanut, Red oil palm etc. can be successfully grown under Agro-climatic condition of Tripura. All these crops has Industrial potentialities if grown in sizable quantity. So for economic settlement scheme these plantation crops may be taken up in compact area with in a group of Tribal youths preferably co-operative basis for easy management and marketing.



Collection of rubber latex



Tribal youths in rubber processing



Harvesting betel leaves



Cultivation of Dioscoria

SUGGESTION :

Agriculture :-The Tribals of Tripura are born jhum cultivators. Failure of monsoon, infestation of crop pest and disease causes starvation among them. Again they generally grow single crop on the available plain land. Irrigation facilities are also very poor in the Tribal inhabited area. It is necessary to increase irrigation potentialities where ever plain land and water sources are available. Trained Agrilcultural worker need to stay with the Tribal cultivator and may act as guide, friend for adopting improved methods of cultivation for field crops like cereals, pulses, oilseeds etc. as well as Horticultural crops like fruits, nuts, vegetables, species etc.

The main problems of Agriculture in Dhlai District are:

- 1) Due to hilly terrain lands are susceptible to excessive soil erosion, fertility loss with in a short period if proper care and management practices are not adopted.
- 2) Poor Agricultural technology and difficulty to adopt improved Agricultural technology due to prevailing geographical and socio-economic problems.
- 3) Poor infrastructural facilities in the hill farm.
- 4) Poor transport, communication and marketing.
- 5) Poor capital investment due to economic backwardness of Tribal cultivators.
- 6) Fragmented land holding.
- 7) Poor irrigation facilities.
- 8) Lack of adequate credit from banks.

For economic settlement of Tribal youth in Dhalai District of Tripura Agriculture may play a vital role as Tribals are income dependants on primitive form of Agriculture. Plain land in the Tribal area is a limiting factor for extensive plain crop cultivation. However, self sustainable integrated Farming system may be adopted by the Tribal youths for emphasising settled cultivation, Cash crop production and to increase Agricultural production per unit area per unit time and sustaining the increase production over a long



Traditional ploughing



Settled agriculture in plain land



Spraying plant protection chemicals

period of time by using land according to its need with least dependence on outside source.

Multi-purpose water harvesting structure need to be constructed in Tribal area of Dhalai District. These can serve as fishery water area, house hold use and provide irrigation water for crops and meet the requirement of livestock. If rain water can be harvested properly, soil erosion can also be checked to some extent.

Improved agricultural technology based on intergrated nutrient management, integrated pest management and other effective capital inputs alone does not contribute to increase production. Eduction and training in advanced skills to persons engaged in agriculture and allied fields play a key role for economic production. As the tribal youths constitute a important work force the important emphasis should be given on them for economic settlement. So for the economic settlement, tribal youths should be provided on all the aspects of modern scientific Agricultural technology and allied fields like Horticulture, Animal husbandry, Fishery, Sericulture, Rural Industries etc. as per their own choice.

ANIMAL HUSBANDRY :

Although jhum cultivation is the principal source of livelihood for majority of Tribal population of Dhalai District in Tripura but due to decline production and ill effect of primitive agriculture large number of Tribal jhumia families are living much below the poverty line. Animal husbandry may also be suitable for economic settlement of Tribal youth in Dhalai District. During survey 18.56% of Tribal youth of Dhalai District showed interest as preference of occupation on Animal rearing farming. Out of these tribal youth showed interest for piggery, goatery, diary and poultry farming 11.57%, 2.57, 1.85% and 2.57% respectively. In practical also it is observed that tribal people habituated to rear domestic pig, goat

cattle and poultry in the homestate. Rearing of these domestic animals and birds specially indigenous breed in small number is a tradition of Tribal life and is a part of socio-cultural heritage. In addition these domestic animals and birds provide them a steady source of supplementary income and may easily be acceptable by the Tribal youths. During the study it is observed that tribals are in general not in the habit of taking milk but they are very much interested to consume meat of pig and poultry. The goats, pig, poultry birds etc. are also necessary to offer to their Gods and to perform social ritual, custom etc. At present most of the cattle population cow, buffalo etc. belongs to Tribals are local breed having poor milk yielding capacity. Marketing of milk is also a problem in the interior Tribal area of Dhalai District due to lack of communication and shortage of scientific processing units. Again exotic breed having high milk yielding capacity susceptible to diseases for which adequate care and management is necessary. But the veterinary services in Dhalai District specially in the interior Tribal area are not adequate. So for economic settlement of Tribal youth in Dhalai District it is proposed to offer animal husbandry scheme near by road side, Semi-urban and urban areas.

PIGGERY:

Pig rearing is a popular activity among the tribal but here also 90% breed are local. The local sows are small in size, yield less meat and take much time to attain marketability. Again production of piglets are also less in local breed as compared to improved breed. So for economic settlement of Tribal youth improved breeds like Black Hampshire, white youk shire may also be distributed. These improved breed may be utilized to upgrade local pig by cross breeding which are acceptable to the tribal people and meat also fetches remunerative market rate. So in the economic settlement scheme supply of improved boar for breeding and fattening may play an important role. The new born piglets will be reared and then sold of in the market for meat purpose which will

ensure higher economic return to the Tribal youth. Simultaneously, the tribal youths should be trained to rear pig under semi-controlled condition by letting them off for browsing from time to time. There is scope to reduce the cost of pig feed with the locally available cheaper materials like colocasia, Tapioca, kitchen wastes etc. in addition to supply of adequate concentrated food.

GOATERY:

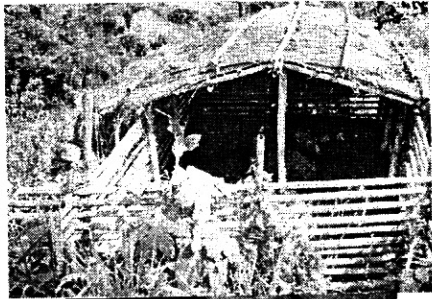
It is also observed that a vast area of Dhalai District is under waste and tilla lands covered thickly with vegetation where rearing of goat may be taken up by the Tribal youths. Rearing of goats in such Tribal areas is practically no cost involved in their maintenance. Moreover, there is a very good demand for mutton in the local and urban markets of Tripura. Here also local low meat yielding goats may be improved by crossing with improved Black Bengal breed. The goats can easily be maintained on grazing and browsing with very minimum cost and tribal youths will be able to get maximum profit.

POULTRY :

Poultry farming is also a profitable occupation if scientific management practices adopted in Tripura. Poultry birds can supply egg and meat. Now a days rearing of layer poultry for eggs and broiler for supply of meat is well established in the rural and urban area of Tripura. At present poultry eggs and chicks are coming from outside state to fulfill the local market demand. So there is scope for economic settlement of Tribal youth in Tripura through poultry farming. In this connection it is also suggested to improve the local breed of poultry birds through crossing with exotic improved breed for further distribution of cross poultry birds to the common tribal poultry growers. The Tribal youths may be Trained up in hatchery technology to reduce the dependence of outside supply of poultry chicken. Poultry manures can supplements the demand of chemical fertilizer for growing Agricultural and Horticultural crops too.



Selling piglets at Ambassa Market



Pigging a remunerative occupation



Goatery is now popularised among the Tribal



Poultry/Duckery a profitable occupation



Practical training on improved
jhum



View of improved jhum plot



A leisure moment of jhumming



Harvesting paddy from improved jhum plot

INTEGRATED FARMING/DIVERSIFIED FARMING:

Self-sustainable integrated Farming or diversified farming system may be adopted as per choice of Tribal youths. Integrated farming system may be permanent Agricultural and Horticultural crop (cereals, pulses, oilseeds, vegetables, fruits and plantation crops) cash crop (jute, mesta) and compatibility of the mixed enterpriners with livestock, fishery, bee-keeping, sericulture etc.

The self-sustainable Integrated Farming System will help the Tribal youth in the following ways.

- 1) As at present the Tribal jhumia fill up their needs from jhum land, the need of the integrated farm can be generated with in the farm itself.
- 2) The needs of the soil fertility can be sustained over time with out using chemical fertilizers.
- 3) The self sustainable integrated farming has the potential to provide all year round employment like jhum cultivation without ill effect.

Through integration of different compateble eco-friendly organic farming system continuous flow of income can be generated round the year.

The integrated farming system minimises the risk of loss to a great extent as it is not a mono crop culture. In addition various enterpriners integrated are beneficial to each other. As for example livestock provide manures to crops, honey bee increase production of crops in lieu of necter from crops, crops provide food and fodder to livestock, again crops and livestock helps to supply food to fish. In fact at present also Tribals are following integratd farming of agriculture and livestock in small scale with primitive forms, so modern improved method of farming technologies need to be injected for improving production in Agriculture and allied sectors



Tribal youth need economic settlement



Collection of wild mushroom a delicious food of Tribal



Fishery for economic settlement



Horticultural activities for permanent settlement

through the economic settlement of Tribal youth.

For economic settlement of jhumia tribal youths it is felt essential to provide them suitable land and permanent house, simultaneously it is suggested to utilise the top of the high hills and steep slopes permanently for forest plantation. The gentle slopes are to be utilized for growing different crops like upland paddy, Jhum paddy, Sesemum, Cotton, Mesta, Maize, Green gram, Red gram, Black gram, Cow pae, Sugarcane, Toria, Chilli, Jhum cucurbits etc. arranging in descending order to their moisture requirement and soil type. In plane tilla-land ginger, turmeric, apioca, sweet potato, groundnut etc. may be grown. In the low land with assured irrigation facilities high yielding or hybrid paddy, vegetables like potato, cabbage, cauliflower, radish etc. may be cultivated with good quality seeds, application of manures and fertilizer and integrated pest management practices followed until they are not leaving primitive jhum cultivation.

IMPROVED JHUM CULTIVATION :

The State Agriculture Department, Government of Tripura conducted trials and demonstration in Gandacherra, Chawmanu and Salema Agril. Sub-Division of Dhalai District on improved package of practices of jhuming with an aim to increase productivity of jhum crops simlutenously less injurious to soil and environments. The practices included in improved jhum are :

- 1) Construction of fireline around jhum plots.
- 2) Replacement of old traditional varieties by the improved varieties.
- 3) Use of manures and fertilizers to maintain soil fertility.
- 4) Seed treatment and adoption of integrated pest and disease management technology.
- 5) Placing different crops in scientific manner for better production and utilization of land.

- 6) Sowing crops in line across the slopes to conserve soil and moisture.
- 7) Broadcast Blackgram /Green gram/Arahar at the time of harvest of rice in jhum plots.
- 8) Inclusion of perennial Horticultural / plantation/ Forest crops along with field crops to encourage settled cultivation in jhum area with an ultimate aim to stop shifting cultivation.

Through adoption of improved jhum package of practices jhumias were able to increase production double than traditional jhum.

FORESTRY :

At present Forest area of Dhalai District is decreasing due to indiscriminant way of collection of timber, firewood, supply of bamboo and also for unscientific primitive type of shifting cultivation. So it is also essential for conservation and maintenance of old Forest plantation, bamboo and cane forest alongwith creation of new forest for improving the economy and conservation of environment of the State.

FISHERY :

The Selected Tribal youth to take up pisciculture should also be given proper extension support, starting from the procurement of stocking materials up to the disposal of catch. So besides theoritical training the tribal youth be trained up in practical technical aspects like fish breeding, rearing of fry/fingerlings, manuring and fertilizer application in water area, method of application of fish food, netting and harvesting etc.

During the survey it is observed that 4.28% Tribal youths are interested to take their occupation as pisciculture.

It is also necessary to arrange posting of grass root level fishery worker for providing technical know how regarding rearing

of fingerlings, application of manures and fertilizer in the water area, application of fish food, care and management of fish pests and diseases etc.

The tribals population of Dhalai District are very fond of dry fish. At present entire quantity of dry fish for family consumption mainly are procured from local market and each tribal family incurs an expenditure 6.5% of their income for procurement of dry fish. In addition 1.17% expenditure incurred for fresh fish. So if proper training are provided to the Tribal youths on pisciculture including processing and preservation of fish they will be benefited through self employment.

RURAL INDUSTRY :

In Tripura 77% of the population are engaged in Agricultural and Horticultural activities and 4% in the Industrial sector. The Industries in Tripura are mainly small scale and cottage Industries . Big Industries are facing problems due to higher production cost and higher transportation cost for marketing. So at present, there is hardly any scope for economic settlement of Tribal youths through large scale Industries. During survey also only 2.56% Tribal youths showed interest for accepting rural industrial occupations like carpentry, Tailoring, push cart, cycle rickshaw, Auto rickshaw and small business only. As per opinion of Tribal youths of Dhalai District at present situation other occupations like Bamboo-cane and wooden crafts, handloom, hiring centre for Agril. implements, repairing of Agril. implements, bee keeping, Mushroom cultivation, sericulture, fruit and vegetable processing, repairing of electronic goods, musical party, Video-show, oil-ghani, rice-husking mill, chirra-muri preparation and other cottage industries may only provide a subsidiary income and a subsidiary occupation. Again they are afraid of competition in the market due to globalization policy specially for quality and production cost.

However, the following village Industries occupation may be suggested in the semi urban and urban area for the economic settlement of Tribal youths considering necessity of locality.

CARPENTRY :

Tribal youths may be trained up in carpentry, they may be supplied adequate improved tools and small machinaries. As timbers are available in Dhalai District carpentry occupation has some scope for economic settlement of Tribal youths. In the semi urban area or even in the village area for construction of houses and furniture there are demands for carpenters. So a very limited number of tribal youths may be engaged to adopt occupation of carpentry.

TAILORING :

Both Tribal boys and girls may take up tailoring occupation in the village markets and semi urban area of Dhalai District. Adequate training, sewing machine and tailoring tools need to be supplied for economic settlement of Tribal youths.

CANE, BAMBOO AND WOODEN CRAFTS :

Different species of cane and bamboo are available in the forest area of Tripura. At present, cane and bamboo crafts earn a good name through out India and abroad. If creative skill of Tribal youths are utilized for preparation of cane, bamboo and wooden crafts then there is a good scope for economic settlement of Tribal youths in Tripura. Besides bamboo crafts, Agarbathi stick making cottage Industries have good potentialities for generation of employment opportunities in the Tribal hamlets by utilizing locally available bamboo. At present Agarbatti sticks prepared for bamboo of Tripura have a good market outside the state like Karnataka and Tamilnadu.



Carrying bamboo from forest



Preparation of bamboo stick for
Agarbati



Bamboo based subsidiary
occupation



Preparation of bamboo basket

HANDLOOM :

In the interior tribal areas ladies use loom to make patchra, ria, bed sheets and other cloths for their own requirement. Among the Reang community knowledge of skill of loom for a girl is prioritised to get a good groom. So all young girls learn to prepare their own cloths from their mother, grand mother from their childhood. So to get subsidiary income through utilization of leisure time it is proposed to introduce improved loom among the young tribal women for their economic settlement.

CYCLE RICKSHAW :

After studying the psychology of unemployed under educated tribal youths it may be mentioned here that they are ready to accept driving of cycle rickshaw in the semi urban and urban area and even into interior market area where good road communication are available.

PUSH CART :

In the Tribal area carrying of Agricultural, Horticultural, Forest and other goods to the market is a problem and mostly the farmers carry their products by headload where even village road/katcha road facilities are available. In such a situation local Tribal youths may be provided push cart for economic settlement.

HIRING CENTRE FOR AGRIL. IMPLEMENTS :

Where plenty of plain lands are available specially near by semi urban area, demands for Agril. implements like power tiller, sprayer, Duster, pump set, paddy thresher etc. are very high. The poor farmers of Tripura are unable to invest much capital for procurement of costly Agril. implements for different essential Agricultural operations, but they are ready to offer hiring charge as per their requirement. So it is proposed that tribal youths may be trained up for operation of power tiller, sprayer, Duster, pump set

etc. then they may start hiring business of these Agril. implements for their economic settlement.

REPAIRING OF AGRIL. IMPLEMENTS :

At present in different places of Tripura a good number of Agril. implements like power tiller, sprayer, Duster, pump machine are running in the Agrilcultural sector of production. These implements are in need of maintenance and repairing occasionally when in out of order. There are great demands of Agricultural machanic in the semi-urban/village market. So tribal youths may be trained up on repairing works of Agril. implements and may be settled as Agril. machanics for their livelihood.

BEE KEEPING :

In Tripura tribals are habituated to collect honey from the forest and sometimes sale in the local market. Wild collection is combersum, painful, crude and not eco-friendly. But scientific bee keeping may be a healthy hobby and there is scope for economic settlement of tribal youths as demand for pure honey is high in the urban/semi urban area. Honey can be preserved for long time and is a low volume high value product. In addition honey bees helps crop pollination during collection of nector. This can increae both Agricultural and Horticultural crop yield from 10% to 15% on an average. So commercial scale of honey bee keeping may help in the economic settlement of Tribal youths as flowering Agricultural, Horticultural and Forest species are plenty in Tripura.

MUSHROOM CULTIVATION :

Agro-climatic condition and natural substrate of Tripura is most favourable for luxurient growth of more than two dozen of tropical and sub-tropical wild edible mushroom. Mushrooms are nutracious and palatable food item of local tribal poeple. They collect the wild edible mushroom flora from the forest and sometimes sale their surplus booty in the local market @ Rs.80 to 100 per Kg. So

mushroom cultivation may also offer an alternative occupation for economic settlement of Tribal youth in Tripura. The Tribal youths need to be trained up on mushroom production technology as they have traditional habit to consume mushroom, there is no production technology as they have traditional habit to consume mushroom, there is no problems to accept the occupation. Sub-tropical mushroom Pleurotus species can easily be grown profitable round the year under Agro-climatic condition of Tripura.

SERICULTURE :

Sericulture can play an important role for economic settlement of youth Tribal ladies in Tripura. Sericulture has both Agricultural and Industrial sector of farming system which includes cultivation of mulberry plants, rearing and nursing of silk worm and reeling of silk, weaving etc.

SMALL BUSINESS :

During survey it was observed that a few number of young tribal boys/girls showed interest to start business like grocery shop, Tea stall, Transport business etc. So necessary training may be arranged to develop business enterprise among the tribal youths for encouraging economic settlement.

DRIVING VEHICLE / MOTOR MACHANICS :

A reasonable number of young tribal boys expressed for driving of Auto-rickshaw, Jeep, Truck, Bus etc.. For the said purpose they are in need of proper vehicle driving training including knowledge of Traffic rule. They also showed preference for acceptance of occupation for Motor vehicle machanics to undertake repairing and maintenance of vehicle.

OTHER OCCUPATION :

During our survey none of the tribal youths expressed choice for occupation of Sweeper, Barber, Blacksmith, cobbler, washerman.

But a few expressed future preference of occupation like Brick kiln, preparation of jute-twine, candle making, match-making, chira and Muri frying, preparation and selling of sweets etc. if suitable training, capital and market assurance are provided.

REPAIRING OF ELECTRONIC GOODS :

It is observed that most of the Tribal hamlets possess a few electronic goods like Radio, Tape-recorder and even T.V. etc. Sometime these goods require repairing when go to out of order. So tribal youths may be trained up on repairing of these household electronic goods and may be settled economically in the suitable market area with adequate accessories and repairing tools.

MUSICAL PARTY :

In general, Tribals of Tripura are lover of music. They like to play with the verious types of musical instruments. So there is scope for economic settlement of Tribal youths in a group to form band party if interested youths are trained up and supplied with musical instruments as per their choice.

FRUIT AND VEGETABLE PROCESSING :

Tripura produce surplus fruits and vegetables and sells in the near by states like Assam, Mizoram, Meghalaya and out side country like Bangladesh. But due to perishable nature, high volume of fruits like pineaple, jack fruit, banana, papaya, orange, pumelo, lemon etc. and vegetables like cabbage, cauliflower, green chilli, radish, cucurbits etc. face problems for disposal. So to over come the situation Tribal youths specially ladies may be trained up on fruit and vegetable processing technology. Through proper processing, volume may be reduced but more value-added product like squash, jam, jelly, chattney, pickles and canned fruits and vegetables including bamboo shoots and jhum products may be encouraged as rural Industry which will help for economic



Tribal lady running small
business



Weaving patchra in loin loom



Tribal youth selling jhum
vegetables



Tribal youth tilling with power tiller

settlement/subsidary income of Tribal women folk.

VEDIO SHOW HALL/CHINEMA HALL :-

Young Tribal boys expressed to run cinema hall/ Vedio show hall if they get necessary facilities for economic settlement.

OIL GHANI :

Oil seed like mustard, sesame and groundnut grows well in Dhalai District but at present they sell their product in the local market to the marchant for cash money even at lowest market rate. If oil ghani can be established in oil seed producing area, Tribal youths may be settled to run oil ghani and selling of oil and oil-cake to get higher economic return. As a result growers may be protected from "Forced sale" or "Distress sale" in the interior area.

RICE HUSKING MILL :

At present most of the Tribals use wooden mortar and pestle or Dheki for husking their jhum paddy or plain land harvest. So there is scope to run rice husking mill near by the main paddy growing area market and tribal youth may run rice mill for his economic settlement but scope is very limited.

RECOMENDATION :

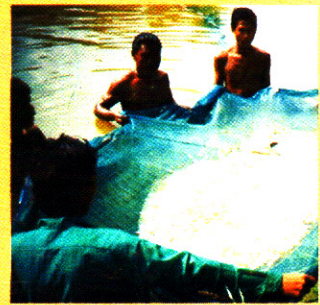
- 1) For successful economic settlement of Tribal youths preference of occupation need to be collected from the individual youth as per their educational qualification and own choice.
- 2) Selection should be free from Political colour and as per need base.
- 3) In general, Tribal youths are simple but traditionally conservative. So concept of modern Industrial technology, skill is to be imparted gradually. For the economic settlement, it is conceived to engage them in their Traditional pursuits which are acceptable to them.

- 4) Once one youth is selected for any profession as per his choice he must be trained up and after successful completion of training he will be provided inputs in time, in adequate for economic settlement and he will not be allowed to shift his occupation for others. If he fails to establish himself second or third chance may be provided on the same occupation to acquire adequate skill on the choiced subject.
- 5) After providing all the necessary technical know-how, inputs etc. for economic settlement of Tribal youths, it is essential to keep continuous guidance and follow up action for sustainable economic settlement.
- 6) During survey it is observed that most of the Tribal living in para in their homestead on khas lands/reserve forest area. Suitable measures need to be taken for their ownership right on the land which have their possession so that they can obtain loan easily from the financial institution as per their necessity.
- 7) To overcome the problems of indebtednese loan may be sanctioned from Government/Bank taking into consideration that tribal loanee may be provided loan mostly in kind but not in cash. It is the general habit of tribal youths to purchase other commodities or luxury goods at the deviation of the purpose for which loan is sanctioned.
- 8) During the survey it was observed that in most of the interior areas Tribal youths are not aware regarding the welfare schemes available for their economic settlement. Now they depend on the group leader/middle man for any schemes/financial helps. As a result welfare schemes are not transperant to them.
- 9) Although a lot of welfare schemes flooded for the economic settlement of tribal youths but practically for want of vocational education tribal youth failed to cope up themselves with the welfare schemes, resulting failure of the Tribal youth to economic settlement.

- 10) In general tribal youths prefer to live in the hilly areas where exploitation of natural resources and income generation for their livelihood are very tough. So they should be convinced to adjust with modern life too.
- 11) Market plays an important role for economic settlement of Tribal youth. Market also acts as a central point for socio-economic and cultural exchange. But during survey it was observed that all the markets in the tribal areas are suffering from lack of adequate infrastructural facilities, communication and transport etc.
- 12) Training is a process through which a person can equip himself with skill, abilities and attitudes, good quality training can help the tribal youth for economic settlement through regular economic earning.
- 13) At present insurgency problems also are faced by the young tribal youths for economic settlement. The miscreants collect money from the tribal youths. Sometimes miscreants give pressure to help in different ways against their will.
- 14) The lunga land or plain land is comparatively fertilized as the natural plant nutrients from nearer hillocks, hills and upland accumulate on the low laying lunga land by rain water. In general jhumia settlement scheme implemented mostly in the hilly area where plain land is scarce. So during selection of sites for economic settlement of Tribal youths on Agricultural sector emphasis need to be given on the selection of plain lands. But for growing Horticultural crops like fruits can be economically grown on the hillocks, hills and upland.
- 15) Selection of sites for economic settlement of Tribal youth also play an important role for successful implementation of the scheme. The selected site should have well communication and marketing facilities.

Lastly, it may be mentioned here that implementation of the scheme for economic settlement of tribal youths is stupendous in character and it requires strict vigilance at all stages. Proper co-ordination of all development department at all the stages for better integration of economic settlement of tribal youths is also necessary at different levels.





**TRIBAL RESEARCH INSTITUTE
GOVERNMENT OF TRIPURA
AGARTALA, TRIPURA.
Ph : (0381) 232 4389**