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SPECIAL PROJECTS AND SCHEMES FOR THE  
MOST BACKWARD AND PRIMITIVE TRIBES -  
THE KATKARIS, MADIAS AND THE KOLAMS.

By

Tribal Research & Training Institute,  
Maharashtra State, Pune.

1977



P R E F A C E

The Tribal Research & Training Institute, Pune, have identified the Madia Gonds, the Kolams and the Katkaris as the most primitive tribal groups in Maharashtra State. On the basis of felt needs of the people, special projects and schemes for these primitive communities have been prepared by the Institute. These special projects and schemes will be helpful in the educational and economic advancement of these weaker sections of the society.

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Contents

|   |       |
|---|-------|
| 1. Frog Leg Scheme for the Katkaris   | 1-6   |
| 2. Special Project for collection of Medical Herbs by the Katkaris  | 6-12  |
| 3. Agricultural Rehabilitation  | 12-14 |
| 4. Operation Apta Leaves for the Katkaris   | 14-15 |
| 5. Charcoal Kilns for the Katkaris  | 15-20 |
| 6. Residential Technical Schools at Karjat (District Kulaba) and Vikrangad or Jawhar (District Thane)                           | 21-25 |
| 7. Supply of Dresses to Primary School children   | 25-26 |
| 8. Supply of educational materials to the Katkari boy and girl students   | 26-27 |
| 9. Construction of Drinking Water wells in villages having Katkari population   | 27-28 |
| 10. Scheme for mobile Health Units for Katkari Area   | 28-32 |
| 11. Supply of Milch cattle to the Katkari families  | 32-33 |
| 12. Plantation of Fruit trees on lands belonging to the Katkari families  | 33-44 |
| 13. Scheme for paper manufacturing unit to be set up in Etapalli and Bhamragad Area for the economic development of Madia Gonds | 45-46 |
| 14. Tuberculosis and Chest Hospital for Madia Gonds   | 46-47 |
| 15. Award of Scholarships to Madia Gond Girl students of Bhamragad Region of Chandrapur District.                               | 48    |
| 16. Supply of educational materials to the Katkari boy and girl students  | 26-27 |
| 17. Construction of Drinking Water wells in villages having Katkari population  | 27-28 |
| 18. Scheme for mobile Health Units for Katkari Area   | 28-32 |
| 19. Supply of Milch cattle to the Katkari families  | 32-33 |

## Contents

|  |       |
|--|-------|
| 1. Frog Leg Scheme for the Katkaris  | 1-6   |
| 2. Special Project for collection of Medical Herbs by the Katkaris   | 6-12  |
| 3. Agricultural Rehabilitation   | 12-14 |
| 4. Operation Apta Leaves for the Katkaris  | 14-15 |
| 5. Charcoal Kilns for the Katkaris   | 15-20 |
| 6. Residential Technical Schools at Karjat (District Kulaba) and Vikramgad or Jawhar (District Thane)                          | 21-25 |
| 7. Supply of Dresses to Primary School children  | 25-26 |
| 8. Supply of educational materials to the Katkari boy and girl students  | 26-27 |
| 9. Construction of Drinking Water wells in villages having Katkari population  | 27-28 |
| 10. Scheme for mobile Health Units for Katkari Area  | 28-32 |
| 11. Supply of Milch cattle to the Katkari families   | 32-33 |
| 12. Plantation of Fruit trees on lands belonging to the Katkari families   | 33-44 |
| 13. Scheme for paper manufacturing unit to be set up in Etapalli and Bhamragad Area for the economic development of Madia Gond | 45-46 |
| 14. Tuberculosis and Chest Hospital for Madia Gond   | 46-47 |
| 15. Award of Scholarships to Madia Gond Girl students of Bhamragad Region of Chandrapur District.                              | 48    |



### 1. Frog Leg Scheme for the Katkaris

While probing into the social and economic condition of the Katkaris - an isolated primitive tribe of Maharashtra - it was observed that the Katkaris catch frogs seasonally. This seasonal work is peculiar to the Katkaris since the other tribals perhaps consider it unclean. The Katkaris catch frogs for the collectors and suppliers of frogs to frog leg units run by several big business houses, like Tatas, Mafaco, Britannia and Choughale. The collectors pay the Katkaris 25 paise per frog. This operation is possible in the ponds around paddy fields and is done during dark nights just after August. The Katkari couples catch frogs with the help of kerosene lamps and it is seen that a single couple can catch nearly 100 frogs in one night and earn about Rs.25/- in one single night. This operation continues for 3 to 4 months, which means the Katkaris can work for 60 days in one season. If only 50 couples could be employed on this seasonal work, they would catch 5000 frogs in a single night and about 3,00,000 frogs in one season and thereby earn about Rs.75,000 annually by way of wages.

Frog legs have assumed a place of delicacy in the international diet and is very popular in Japan, South East Asian countries, England and America. Big business houses are exporting frog legs and earn foreign exchange. The Katkaris being the

primary collectors of frogs, a frog-leg unit exclusively for them through the aegis of the Maharashtra State Co-operative Tribal Development Corporation should prove a very useful source of transforming the eco system of the Katkaris.

There are only two species of frogs which are edible:

- (1) Rana (Esculante), (2) Rana (Hexadectyla).

The functioning of scheme starts with the catching of frogs by the Katkaris. This is in vogue in Thane and Kulaba Districts which are the predominant abodes of the Katkaris. The traders, collectors of the frogs collect the frogs from the Katkaris and temporarily keep the frogs in small pits surrounded by nets 4 to 5 feet high. This is done to prevent the frogs jumping out of the pits. The jump range of the frogs is 3 to 4 feet. The second operation is heheading of the frogs, where the skin of the frogs is removed and its hind legs are separated. The hind legs only are transported to the freezing plants in and around Bombay in packages full of ice. These legs of the frogs are washed properly by the brine solution in order to kill the bacteria. This work is generally done by women who are required to tie their heads with scarfs so that no hair should fall in this food stuff. This precaution is taken because the presence of a single hair in the consignment may result in outright rejection of the entire consignment by the purchaser. The frog legs are then sent to the quick freezing plants which are owned by big business houses, who do this work as job work for the frog suppliers. Maintenance of quick freezing plants by individual frog supplier is not viable and economic since they cannot be put to use continuously for

quick freezing of the frog legs alone. After the frog legs are quick freezed at 40° sentigrades they are packed and transported by sea and air to the purchasers in foreign countries.

Two frog legs weigh about 50 grams which means 10 frogs yield 1 kilogram of flesh. The present rate of frog legs is between Rs.50 and Rs.60 per kilogram. If the proposed project is put through, the stipulated catch of 3 lakh frogs during one season would yield 30,000 kilograms of flesh. At the present rate the total cost of the catch would come to the tune of Rs.15 lakhs.

It would be a worthwhile experiment to launch the frog leg scheme for the Katkaris through Maharashtra State Tribal Development Corporation. Such unit could be located at Vikramgad in Jawhar Taluka of Thane District which is situated on a state high way and would be ideal from communication point of view. The other places that could be ideal from transport point of view would be Khopoli or Panvel in Kulaba District or Palghar in Thane District.

The details of the project are as follows:

Financial Implications of Frog Leg Scheme  
under Projects for Katkaris

|                     |     |  |
|---------------------|-----|--|
| Name of the Project | ::: | Opening of Frog Leg Scheme<br>in Kulaba District                       |
| Period of operation | ::: | 4 months of monsoon season.  |
| Quantity            | ::: | 3,00,000 frogs (Edible:<br>1) Rana (Esculate)<br>2) Rana (Hexadectyla) |

A) Working Capital

|   | Rs.      |
|---|----------|
| 1. Cost of catching of 3,00,000 frogs @ 25 paise each or Rs.250/- per 1000 frogs  | 75,000   |
| 2. Cost of storage pits for frogs of the capacity of 10000 frogs per pit for 3 pits @ Rs.1500/- each  | 4,500    |
| 3. Cost of baehading frogs for extrading hind legs @ 250/- per 1000 frogs   | 75,000   |
| 4. Cost of scarfs for 50 lady workers for tying their heirs @ 6 scarf per lady worker for the season @ Rs.4/- per scarf<br>50 x 6 x 4 = 300 x 4 =       | 1,200    |
| 5. Transport charges of 30,000 kg. or 300 quintals or 30 tons at 7½ per truck @ 450/- per truck or Rs.60/- per tar from Kulaba to freezing plant Bombay | 1,800    |
| 6. Quick freezing plant charges for 30,000 kg.hind legs packed in 250 kg. per package @ 0.75 per kg.  | 22,500   |
| 7. Cost of disinfectant lotion etc. for 30,000 kg. @ Rs.2.50 per kg. to kill the bacteria (brian solution)  | 75,000   |
| 8. Containers for 30,000 kg.hind legs for frogs for 250 kg. package i.e. 120 such containers @ Rs.50/- each   | 6,000    |
| 9. Provision for unforeseen expenditure incidental to purchases @ Rs.0.25 per kg. for 30,000 kg.  | 7,500    |
|   | -----    |
| Total A   | 2,68,000 |
|   | -----    |
| Total A rounded to  | 2,68,000 |

B) Equipment Tools

|                             |       |
|-----------------------------|-------|
| 1. Furniture and fixtures   | 4,500 |
| 2. Saller spring balances 6 | 3,000 |
| 3. One typewriter English   | 2,000 |

Total B 9,500

9,500

C) Management Cost of Project

1. Pay and Allowances

- i) One post of Frog Leg Procurement Officer  
Rs. 300-830
- ii) One post of Chemist  
Rs. 200-350
- iii) One post of Storekeeper  
Rs. 150-270
- iv) One post of Accountant-cum-typist  
Rs. 150-270
- v) One Weighman helper  
Rs. 75-100
- vi) One peon/attendant  
Rs. 75-100

| <u>Post</u>                     | <u>Pay</u><br>Rs. | <u>D.A.</u><br>Rs. | <u>Total</u><br>Rs. |
|---------------------------------|-------------------|--------------------|---------------------|
| 1. Frog Leg Procurement Officer | 300               | 356.40             | 656.40              |
| 2. Chemist                      | 200               | 254.20             | 454.20              |
| 3. Storekeeper                  | 150               | 254.20             | 404.20              |
| 4. Accountant                   | 150               | 254.20             | 404.20              |
| 5. Weighman                     | 75                | 172.00             | 247.00              |
| 6. Peon                         | 75                | 172.00             | 247.00              |
| Total                           | 950               | 1,462.00           | 2,413.00            |

|  |     |        |
|--|-----|--------|
| 1. 2413 x 12 = 28,956/-  | say | 29,000 |
| 2. Travelling expenses ad hoc provision                            |     | 3,000  |
| 3. Rent rates and taxes @ Rs.500/- p.m.                            |     | 6,000  |
| 4. Stationery and printing charges @ Rs.50/-                       |     | 600    |
| 5. Unforeseen charges  |     | 400    |
| 6. Interest charges @ 9% on Rs.4,37,000 for 6 months               |     | 19,665 |
| 7. Insurance charges @ Rs.1000/- per set 50,000/- on Rs.3.75 lakhs |     | 7,500  |

Total C 66,165

Say 66,200

Grand Total A + B + C 3,43,665

Receipts

Sale price of 30,000 kg.hindlegs of frogs approximately Rs.50/- per kg. 1,50,000 15,00,000

N.B. The cost of Rs.5,12,700/- does not include the following charges.

- i) Underwriting charges for exports
- ii) Export licence fees
- iii) Export duty
- iv) Air or sea freight charges for despataries to all round.

2. Special Project for Collection of Medicinal Herbs by the Katkaris

During the monographic study on the Katkaris of Maharashtra, an isolated primitive tribe it is observed that the Katkaris intimately know and collect medicinal herbs required by the

Pharmacies in the State. Private contractors utilise the services of the Katkaris for collecting these herbs and pay them very little wages or even extract work from them as bonded labour. These private traders like Kala Gandhi and Gora Gandhi of Bombay have almost a monopoly of supplying these herbs to different Pharmacies including Government Pharmacies.

Nearly seventyfive medicinal herbs are available in the Konkan forest where the Katkaris predominantly reside. These herbs are abundantly used in preparing medicinal drugs. A list of these herbs giving their botanical equivalents is enclosed.

While contemplating a programme of all sided development for this under developed tribe, an attempt to collect medicinal herbs by the Katkaris through the Tribal Development Corporation and supplying them to the Pharmacies could provide substantial economic secure for improving their eco system.

There are several Pharmacies in our State a few of which are listed as followw:

- 1) Dhutpapeshwar Ayurvedic Pharmacy, Panvel, Dist.Kulaba
- 2) Zandu Ayurvedic Pharmacy, Bombay
- 3) Charak Ayurvedic Pharmacy, Bombay
- 4) Khandesh Ayurvedic Pharmacy, Jalgaon
- 5) Navshakti Ayurvedic Pharmacy, Bhusaval
- 6) Baidyanath Ayurvedic Pharmacy, Nagpur
- 7) Ayurvedic Rasashala, Pune
- 8) Nagarjun Ayurvedic Pharmacy, Nashik
- 9) Ayurved Seva Sangho, Nashik
- 10) Sandu Brothers Private Limited, Bombay

- 11) Aphali Ayurvedic Pharmacy, Ahmednagar
- 12) Government Ayurvedic Pharmacy, Nanded
- 13) District Ayurvedic Pharmacy, Z.P.Satara
- 14) District Ayurvedic Pharmacy, Z.P.Kolhapur
- 15) District Ayurvedic Pharmacy, Z.P.Pune.

#### Herb Requirement

The annual requirement of medicinal herbs of the Government Ayurvedic Pharmacy, Nanded during 1975-76 is to the tune of 76 quintals. Working on a presumption of an average requirement of 40 quintal of medicinal herbs per pharmacy, the forecast requirement per year of the above 15 pharmacies would come to 600 quintals.

The cost of different medicinal herbs vary from Rs.2/- per kilogram to Rs.50/- per kilogram and further varies from region to region according to the agency involved. Presuming safely the average cost per kilo of medicinal herbs as Rs.5/- per kilo, the total requirement would cost Rs.3 lacs.

The collection of these herbs is mostly done by the Katkaris. If the middleman and the trader is eliminated from this process and medicinal herbs collected and supplied to the pharmacies directly through the aegis of the Maharashtra State Co-operative Tribal Development Corporation, we could guarantee proper employment and fair wage to the Katkaris and thereby improve their eco system.

The summary of proposed project is reflected below.



The summary of proposed project is reflected below:

- 1) Name of the Project :: Collection of medicinal herbs
- 2) Period of operation :: 12 months
- 3) Quantity :: 600 Quintals

A) Working Capital

|   | Rs. | Rs.        |
|---|-----|------------|
| 1) Payment of purchase price of 600 quintals (Approximately 75 type of medicinal herbs available in Konkan areas) @ Rs.3.25 (Average price payable) |     | 1,95,000/- |
| 2) Cost of 800 bags for 600 quintals (75 kg.per bag) @ Rs.2.50 per gunny bags   |     | 2,000/-    |
| 3) Cost of insecticides/pre-servatives for the herbs @ Rs.2/- per quintal for 600 quintals  |     | 1,200/-    |
| 4) Expenditure incidental to purchases @ 15% of the purchase price  |     | 29,250/-   |
| 5) Interest on working capital of Rs.2.00 lakhs @ 9% per annum  |     | 18,000/-   |
|   |     | -----      |
| Total A   |     | 2,45,450/- |
|   |     | -----      |

Say rounded to

2,45,500/-

B) Equipment Tools & Plant  
(Capital expenditure)

|  |  |         |
|--|--|---------|
| 6) Spring balances-6 balances upto weighing capacity of 150 kg. each @ Rs.500/- each |  | 3,000/- |
| 7) Furniture & fixture ad hoc  |  | 2,500/- |

8) One English or Marathi  
Typewriter

2,000/-

Total B

7,500/-

7,500/-

C) Administrative and Selling Expenses

9) Pay and Allowances of staff

| <u>Post</u>  | <u>Pay</u> | <u>D.A.</u> | <u>Total</u> |
|--|------------|-------------|--------------|
| i) One post of Reader<br>in Grade Rs.400-830                                     | 400        | 356.40      | 756.40       |
| ii) One post of Godown-<br>keeper in Grade<br>Rs.200-350                         | 200        | 254.20      | 454.20       |
| iii) One post of<br>Accountant-cum-<br>Typist for keeping<br>accounts Rs.150-270 | 150        | 254.20      | 404.20       |
| iv) Two post of Peon-<br>cum-Weighman-cum-<br>Choukidar Rs.75-100                | 150        | 344.00      | 494.00       |
| Total  | 900        | 1,208.80    | 2,108.80     |

2108.80 x 12 = 25,305.60

10) Travelling expenses  
@ Rs.400/- per month  
for one officer

4,800.00

11) Rent rates & Taxes  
@ Rs.300/- p.m.

3,600.00

12) Contingencies @  
Rs.50/- p.m.

600.00

Total C

34,305.60

Say rounded to

34,300/-

Abstract

|                                       |                            |
|---------------------------------------|----------------------------|
| A - Working Capital                   | 2,45,500                   |
| B - Equipment Tools & Plant           | 7,000                      |
| C - Administrative & Selling expenses | 34,300                     |
| Total cost                            | -----<br>2,86,800<br>----- |
| i) Non-recurring                      | 2,52,500                   |
| ii) Recurring                         | 34,300                     |
|                                       | -----<br>2,86,800<br>----- |

Receipts Anticipated

|  |                          |
|--|--------------------------|
| Sales proceeds of 600 quintals of medicinal herbs @ Rs.500/- per quintal | 3,00,000                 |
| Deduct expenses as above   | 2,86,800                 |
| Expected surplus   | -----<br>13,200<br>----- |

The non-recurring expenditure of Rs.2,52,000/- is based on two things

|  |                            |
|--|----------------------------|
| 1) Working capital requirement           | 2,45,000                   |
| 2) Investment on equipment and furniture | 7,000                      |
|  | -----<br>2,52,000<br>----- |

This would be a capital investment which has to be done at the beginning of the business. The same is recouped by way of sales proceeds partly within the same year and partly in the subsequent years. The sales proceeds are again reploughed in the business for the subsequent years. Hence it is treated as non-recurring from the point of view of initial investment in the

project. As a result the expected surplus would not be Rs.13,200/- as indicated in the budget, but Rs.2,58,700 (Rs.13,200 + Rs.2,45,000).

### 3. Agricultural Rehabilitation

Out of the 21 villages covered under case work only 7 villages are such where more than 10 Katkari families have lands of their own. The highest order in this respect comes that of village Waghala in Mokhada tahsil where 38 Katkaris have lands. 23 of them have paddy fields and 15 have dry lands. The next village is Kelghar from Jawhar block where, 23 Katkaris out of 60 families have lands of their own. 15 Katkaris own paddy fields, from 8 acres to 30 acres. Eight of them even own plough bullocks. Then comes village Palsunde (Mokhada) where 16 Katkaris have agricultural lands, nearly half the number has paddy lands and the other 8 have dry lands.

In village Sakhare (Jawhar), 14 Katkaris have lands of their own.

With a view to rehabilitate the Katkaris and assist them to take up to improved agriculture it is necessary to organise their collective and joint farming societies.

A scheme of colonisation with a joint farming society is in vogue in the Social Welfare Department with the following details.

|                                   | Rs.       |
|-----------------------------------|-----------|
| 1) Construction of 15 houses      | 15,000.00 |
| 2) Acquisition of land for colony | 2,000.00  |

|  | Rs.         |
|--|-------------|
| 3) Acquisition of karif land for agricultural purposes 150 acres | 50,500.00   |
| 4) Supply of plough bullocks (15 pairs)                          | 7,500.00    |
| 5) Supply of carts (15 carts)                                    | 4,500.00    |
| 6) Supply of plough and implements                               | 1,500.00    |
| 7) Supply of fertilizers   | 1,500.00    |
| 8) Supply of seeds   | 3,000.00    |
| 9) Supply of fodder  | 3,000.00    |
| 10) Supply of cows, goats and poultry birds                      | 4,000.00    |
| 11) Supply of plant protection equipment                         | 1,500.00    |
| 12) Supply of power sprayers                                     | 500.00      |
| 13) Medicine chest   | 500.00      |
| 14) Sinking of well  | 2,000.00    |
| 15) Construction of community cattle shed                        | 2,000.00    |
| 16) Unforeseen contingencies                                     | 2,000.00    |
|  | -----       |
| Total  | 1,03,000.00 |
|  | -----       |

One such project has already been located at village Shenvai in Roha taluka of Kolaba district. 150 acres of Government land has acquired for agricultural purposes. The model huts have remained incomplete. Permission of certain re-appropriation have been sought from Government. If the matter is expedited by the Zilla Parishad, Kolaba, 15 Katkari families could be gainfully rehabilitated.

Another such project has been sanctioned to Thane District last year which has been earmarked for the Katkaris. This could be located at Dumblipada of Jawhar Block of Thane District where about 200 acres of land has been set aside for a proposed growth centre.

It is recommended that provision may be made in the departmental budget of the Tribal Welfare Department for 2 such colonies, each for Katkaris of Thane and Kolaba districts every year for a period of 5 years and provision may also be made for one such colony for the Katkaris of Ratnagiri District.

#### 4. Operation Apta Leaves for the Katkaris

Katkaris are the main collectors of Apta leaves. People of Gujarat State smoke bidies made out of Apta leaves. They do not smoke bidies made of either Tendu leaves or any other leaves. Maharashtra supplies Apta leaves to Gujarat State. Even Gujaratis staying in Bombay and other metropolitan cities patronise bidies made out of Apta leaves. The major bulk of Apta leaves comes from the Konkan region, which amounts to nearly 10,000 quintals per year. The traders enter the tribal area seasonally to collect Apta leaves. This is done through the Katkaris. The trader at the outset advances some petty amounts to the Katkaris for this work. He keeps on supplying them with atta or foodgrains and even arranging for drinks for them. He keeps on paying them small amounts every day or every week. No fixed wages are decided or the leaves purchased on a fixed rate per quintal. In the end the trader accounts for the payments and tells the ignorant and simple Katkari that a hundred rupees or little less are

outstanding against his name. This outstanding amount binds the Katkari for the next season.

The collection of Apta leaves in the Konkan region is reflected below with a nearby cost of Rs.1 lakh.

| District  | Total collection<br>(quintals) | Rate per quintal<br>Rs. | Cost<br>Rs. |
|-----------|--------------------------------|-------------------------|-------------|
| Thane     | 1200                           | 100                     | 1,20,000    |
| Kolaba    | 3500                           | 133                     | 4,65,000    |
| Ratnagiri | 5000                           | 100                     | 5,00,000    |
| Total     | 9700                           |                         | 10,85,000   |

If "Operation Apta Leaves" is taken up through the Maharashtra State Co-operative Tribal Development Corporation, an avenue of gainful employment for improving their economic condition will have been opened. Although Apta leaves have been nationalised, the Tribal Development Corporation could work as one of the agencies.

The actual details for implementing the Project could be worked out as soon as the specific areas are identified.

##### 5. Charcoal Kilns for the Katkaris

The Katkaris have almost abandoned their basic occupation of catechu making and have taken up to charcoal making. Charcoal making is one of the major forest industries of Thane, Kulaba and Nashik Districts for which cent per cent labourers engaged are tribals. Nearly 70 per cent of the tribals who are engaged

in charcoal making are Katkaris. The Katkaris are considered experts in charcoal making and are invariably employed for this purpose by the contractors and the forest labourers co-operative societies. This seasonal work starts in the month of November and continues upto 15th May every year. Despite hard work the Katkaris do not receive their legitimate due by way of wages and are often exploited. Strangely enough the Katkaris who work on charcoal kilns for the contractors and for the forest labourers co-operative societies are not the members of such societies and as such do not derive any benefit of the profits accruing therefrom. The Katkari population is concentrated in Thane and Kulaba Districts which is divided into following four forest divisions where Katkari labourers employed for this work is reflected below:

| Division   | Approximate number of labourers working on charcoal manufacture |
|--|---|
| 1. <u>North Division</u><br>(Dahanu, Jawhar, Mokhada, Talasari and part of Wada) | 4000  |
| 2. <u>East Division</u><br>(Kalyan, Shahapur and eastern part of Thane)          | 1500  |
| 3. <u>Western Division</u><br>(Bassein, Borivali, western part of Thane)         | 2500  |
| 4. <u>South Division</u><br>(Kulaba)   | 2000  |
| Total  | 10000   |



It will, thus, be seen that in all 10,000 Katkaris are employed as labourers for charcoal making either by societies or by private contractors.

Charcoal is manufactured in the most interior parts of the forest away from habitation. The Katkari has to pitch up temporary huts near the charcoal kilns and live with his wife and children, unprotected from wild animals. At these kilns the basic amenities and necessities are almost absent. The contractors and the forest labourers societies do not bother to arrange for huts or to arrange for drinking water and other amenities. After the kilns are lit the Katkari has to watch it day and night. Although he works with his wife and children on the kilns all the 24 hours round, he gets very meagre wages in return. The Katkaris have to go to far off places to fetch drinking water or to manage with the available stagnated water available nearby and is often exposed to resultant diseases. After the charcoal is ready it is opened up and the Katkaris have to pour water on the charcoal for which the labourers themselves have to get water and no additional amount is paid to them for this work. Once in a week they have to go to nearby market places to buy the provision required by them and their children are left alone near the furnaces in tiny sheds throughly exposed to dangers imminent from the burning fire. The Katkaris are required to cut logs of woods according to size and arrange them in the kilns. Once the furnace is arranged it is covered with grass and plastered with mud and fire is lit through oven. The Katkaris have to constantly watch that there is no leakage in the furnace. The moment he notices any

leakage in furnace he has to close it with plaster. The furnace is allowed to burn for 10 to 15 days according to size. It is then opened and water is thrown over it to extinguish the fire. The charcoal is then removed. Both at the beginning and at the close of the work pooja is performed and fowls sacrificed.

The Katkaris work for the contractors almost as bonded labour. The contractors arrange for their to and fro transport. The contractor advance petty amount to the Katkaris and then pay on an average Rs.7/- per family per week, the usual break-up of which is given below:

7 kilo Nagli

4 kilo rice and

Rs.1.25 in cash for purchase of oil, salt, chilly, fish etc.

In this way, the family of three persons gets Rs.7/- per week for which they have to work round the clock on the charcoal kilns. These rates vary from place to place. Some contractors pay the Katkaris Rs.100/- to Rs.200/- for each kiln. Some forest labourers co-operative societies in Thane District issue printed cards to the Katkaris and record the amount advanced to them from time to time. The possibility of cheating in this case is less. The prevalent rates of wages are reflected below:

| <u>Nature of work</u>   | <u>Weight of charcoal</u> | <u>Rs.</u>                        | <u>Remarks</u>                   |
|---|---------------------------|-----------------------------------|----------------------------------|
| <u>By the Societies</u>   |                           |                                   |                                  |
| I) 1. The felling of trees<br>2. Cutting it into logs<br>3. Preparation of charcoal | Bag of<br>40 kg.          | 2/- per<br>bag                    | By F.L.Cs.                       |
| II) Preparation of charcoal<br>after given the cut logs                             | -do-                      | 1.75 per<br>bag                   | -do-                             |
| III) For filling bags   | -do-                      | 0.12 per<br>bag                   | -do-                             |
| IV) Loading and unloading<br>of bags  | -do-                      | 0.12 per<br>bag                   | -do-                             |
| <u>By the Private Contractors</u>   |                           |                                   |                                  |
| 1. Felling the tree, cutting<br>logs and charcoal making                            | -do-                      | 1.50 to<br>1.25                   | It include<br>filling of<br>bags |
| 2. Loading and unloading  | -do-                      | 0.12 per<br>bag                   |                                  |
| <u>Thane District</u>   |                           |                                   |                                  |
| <u>Wages paid by the Society</u>  |                           |                                   |                                  |
| 1. Felling of trees and making<br>pieces and preparation of<br>charcoal             | -do-                      | 2.35 per<br>bag                   | Fixed by t<br>Wage Board         |
| 2. Preparation of charcoal after<br>cutting pieces from fallen<br>trees             | -do-                      | 2.00 per<br>bag                   | -do-                             |
| 3. Preparation of charcoal out<br>of cut pieces                                     | -do-                      | 1.50 per<br>bag                   | -do-                             |
| 4. Filling the bags   | -do-                      | 0.12 per<br>bag                   |                                  |
| 5. Loading and unloading  | -do-                      | 0.12 per<br>bag                   |                                  |
| <u>Wages paid by the Contractors</u>  |                           |                                   |                                  |
| 1. Felling of the trees making<br>pieces and preparation of<br>charcoal             | -do-                      | 2.00 including<br>filling charges |                                  |

If the work of manufacturing of charcoal is taken up by the Maharashtra State Tribal Development Corporation, fair wages to the Katkaris could be ensured and the benefit of the profit accruing from the operation could be given to them. This would be an effective measure for improving the conditions of the Katkaris who have lost self-confidence economically.

The actual details for implementing the Project could be worked out as soon as the specific areas are identified.

GENERAL DEVELOPMENTAL SCHEMES FOR THE KATKARIS

1. Residential Technical Schools at Karjat (District Kulaba) and Vikramgad or Jawhar (District Thane)

The development in this area pertaining to education of Katkaris is very slow. Karjat and Jawhar are the taluka headquarters and Vikramgad is a block headquarter in the heart of the talukas which will have a good feeding centre if the residential technical school is opened at these places. The residents of this area are mainly Katkaris, mostly engaged in agricultural and forest labour and petty cultivation. They are illiterate and lack in respect of all developmental activities. Their leisure time is wasted and cannot be utilised for all round developmental activities for want of adequate facilities. The area of Jawhar is full of forest and the area of Karjat and Khopoli is very close to industrial complex. In the near future many industries are likely to flourish in this area. Hence to cope up with the demand of technical personnel it is necessary to have technical schools at central places. Hence it is proposed to open a residential technical school at Karjat and Jawhar or Vikramgad for Katkaris.

Scheme

In view of the fast industrial development of this area in the near future, technical hands, especially fitter, electrician,

welder, carpenter and motor mechanics will be required. It is therefore proposed to open five trades as detailed below. Each course will accommodate 16 students only. The minimum educational qualification would be VIII standard pass. Financial implication of one school in opening these trades are given below:

|  | <u>Rupees</u><br>Per annum |
|--|----------------------------|
| <u>1) Fitter Trade</u>                                     |                            |
| 1. 16 students @ Rs.75/- p.m.<br>food, clothing and books  | 14,400/-                   |
| 2. Cost of equipment                                       | 40,000/-                   |
| 3. Cost of raw material @ Rs.25/-<br>per student per month | 4,800/-                    |
| 4. One instructor @ Rs.400/- p.m.                          | 4,800/-                    |
| Total  | -----<br>68,800/-<br>----- |
| <u>2) Electrician Trade</u>                                |                            |
| 1. 16 students @ Rs.75/- p.m.                              | 14,400/-                   |
| 2. Cost of equipment                                       | 50,000/-                   |
| 3. Cost of raw material @ Rs.25/-                          | 4,800/-                    |
| 4. One instructor @ Rs.400/- p.m.                          | 4,800/-                    |
| 5. One peon @ Rs.200/- p.m.                                | 2,400/-                    |
| Total  | -----<br>76,400/-<br>----- |

|                                   | <u>Rupees</u><br>Per annum |
|-----------------------------------|----------------------------|
| <u>3) Welder Trade</u>            |                            |
| 1. 16 students @ Rs.75/- p.m.     | 14,400/-                   |
| 2. Cost of equipment              | 55,000/-                   |
| 3. Cost of raw material @ Rs.25/- | 4,800/-                    |
| 4. One instructor @ Rs.400/- p.m. | 4,800/-                    |
| 5. One peon @ Rs.200/- p.m.       | 2,400/-                    |
| Total                             | -----<br>81,400/-<br>----- |
| <u>4) Carpenter Trade</u>         |                            |
| 1. 16 students @ Rs.75/- p.m.     | 14,400/-                   |
| 2. Cost of equipment              | 35,000/-                   |
| 3. Cost of raw material @ Rs.25/- | 4,800/-                    |
| 4. One instructor @ Rs.400/- p.m. | 4,800/-                    |
| 5. One peon @ Rs.200/- p.m.       | 2,400/-                    |
| Total                             | -----<br>61,400/-<br>----- |
| <u>5) Motor Mechanic Trade</u>    |                            |
| 1. 16 students @ Rs.75/- p.m.     | 14,400/-                   |
| 2. Cost of equipment              | 10,000/-                   |
| 3. Cost of raw material @ Rs.25/- | 4,800/-                    |
| 4. One instructor @ Rs.400/- p.m. | 4,800/-                    |
| 5. One peon @ Rs.200/- p.m.       | 2,400/-                    |
| Total                             | -----<br>26,400/-<br>----- |

Expenditure on Staff Excluding Staff  
Required for Each Trade

|   |          |
|---|----------|
| 1. One Principal @ Rs.900/- p.m.              | 10,800/- |
| 2. One Allied trade instructor @ Rs.400/-p.m. | 4,800/-  |
| 3. One Foreman @ Rs.500/- p.m.                | 6,000/-  |
| 4. 2 Attendants @ Rs.250/-                    | 6,000/-  |
| 5. 2 Upper Dn.Clerks                          | 8,000/-  |
| 6. 1 Lower Dn.Clerk                           | 3,000/-  |
| 7. 2 Beons for office                         | 4,800/-  |
| 8. 1 Sweeper                                  | 2,400/-  |
| 9. 2 Choukidars                               | 4,800/-  |
|   | -----    |
| Total   | 50,600/- |
|   | -----    |

The other allowances etc., would be in addition to the bare salaries provided.

Expenditure on Hostel

The existing hostel building available at hand will be utilised for the purpose.

|   |            |
|---|------------|
| 1. One Hostel Superintendent @ Rs.500/-p.m.                   | 6,000/-    |
| 2. One Clerk @ Rs.250/- p.m.                                  | 3,000/-    |
| 3. Two Sweepers @ Rs.200/- p.m.                               | 4,800/-    |
| 4. Two Choukidars @ Rs.200/- p.m.                             | 4,800/-    |
| 5. One Waterman @ Rs.150/- p.m.                               | 1,800/-    |
|   | -----      |
| Total   | 20,400/-   |
|   | -----      |
| Rented building for technical school<br>@ Rs.1,000/-per month | 12,000/-   |
|   | -----      |
| Grand Total   | 4,95,000/- |
|   | -----      |



Thus, the total expenditure of approximately Rs. 5.00 lakhs will have to be incurred for one residential technical school for five trades as proposed above for the first year. Thereafter Rs.2.15 lakhs will be required as recurring expenditure each year. The scheme is intended to continue for ten years in the first stage and it may be continued further if found fruitful.

Although the tribals have a propensity for poultry rearing and regard it as a hobby, yet the practice has been confined mostly to the use of poultry for home consumption, little being set apart for marketing except in limited cases. Even egg production has not been given any great emphasis. The birds reared are of inferior, country variety which yield low returns.

It is proposed to take up upgradation work of the hen population through improved strains of cockrels.

Financial Implication Involved in Supply of one Cockrels

|  |           |
|--|-----------|
| 1) Cost of 1 cockrels including transportation charges | Rs. 16.00 |
| 2) Medicines   | Rs. 3.00  |
|  | -----     |
| Total  | Rs. 19.00 |
|  | -----     |

2000 cockrels will be distributed to the Katkari families and the total cost of the scheme will be Rs.0.38 per year.

2. Supply of Dresses to Primary School Children

In Thane and Kulaba Districts very few Katkari boys and girls are taking education in primary schools. It was noticed many a times that the Katkari boys and girls are not attending schools

as they do not have a proper dress to wear. Even though a simple uniform is prescribed the poor Katkaris cannot provide uniform to their children. It is, therefore, proposed to provide uniforms to the needy children of Standard I to IV under this scheme. Each pupil will be supplied with two dresses per year. The cost of cloth including stitching charges per beneficiary would be Rs.60/-.

The estimated cost for the scheme is as under:

| No. of beneficiaries to be covered | Cost per beneficiary | Total cost for one year | Total cost for 5 years |
|------------------------------------|----------------------|-------------------------|------------------------|
| 1000                               | @ 60/-               | Rs.6,000/-              | Rs.3,00,000/-          |

### 3. Supply of Educational Materials to the Katkari Boy and Girl Students

As pointed out above the Katkaris in Thane and Kulaba Districts are not inclined to stick up to education and very few Katkari boys and girls continue in middle schools. Due to poverty the Katkaris are not in a position to provide various needs to school going children such as text-books, slates, note-books, practical books, compass box, colour box and other educational materials to their children as and when required. It is, therefore, proposed to provide educational material to the Katkari boys and girls studying in middle school and high school standards. This will also serve as an incentive to the tribals.

The estimated expenditure on this account is as under:

| Type of school       | No. of students | Rate p.m. per student | Total for 1 year i.e. 10 months |
|----------------------|-----------------|-----------------------|---------------------------------|
|                      |                 |                       | Rs.                             |
| 1. Middle schools    | 1000            | @ 20                  | 20,000                          |
| 2. Secondary schools | 50              | @ 25                  | 12,500                          |
| Total                |                 |                       | 32,500                          |

The benefit of the scheme may be extended to all the Katkaris residing in any part of Maharashtra.

4. Construction of Drinking Water Wells in Villages having Katkari Population

It has been observed that there is no provision of clean drinking water in the hamlets mostly inhabited by the Katkaris from Thane and Kulaba Districts. As a result these people have to fetch water from a long distance either from a river or rivulet, which is not clean throughout the year. These people also suffer from diseases, which are caused because of unclean water used for drinking purposes.

With a view to provide this minimum need of clean drinking water throughout the year it is proposed that the Z.P.Thane and Kulaba will take up every year a phased programme of constructing 100 wells in the hamlets of the Katkaris having a minimum population of 100 with the assistance of Ground Water Survey Department and on the basis of their feasibility reports. The expenditure on this account will differ from area to area and

will be met from the sub plan programme. Details of the financial layout of the scheme proposed is given as under:

1) Construction of 500 wells in the Katkari villages

and hamlets @ Rs. 3500/- per well

500 x 3500 = Rs. 17,50,000/-

The work may be completed in a phased programme of five years.

5. Scheme for Mobile Health Units for Katkari Area

The Katkaris are scattered in Thane and Kulaba Districts. However, they are largely located in Jawhar, Wada and Shahapur Talukas of Thane District and Pen and Karjat Talukas of Kulaba District. The health standard of the Katkaris as reported by the District Health Officers is very poor. Many diseases like Malaria, Cholera, Small Pox, Ringworms and other kin diseases are prevalent among them. The Katkaris being the most backward and primitive tribe, the guidelines for health programme will have to be kept in view. Accordingly, it is possible to locate additional Primary Health Centres and mobile dispensaries giving due weight to preventive programmes in the tribal areas having the Katkari population. It has been calculated that taking into consideration the hospitals, the Primary Health Centres and the dispensaries, 10 Mobile Health Units would be required for the areas having the Katkaris in large number. These units can serve other tribal and non-tribal population of the areas also.

The cost of each Mobile Health Unit has been calculated and the cost of 10 such units will be Rs. 29.49 lakhs.

Proposed Mobile Health Units

I. Staff Pattern

|                    |        |
|--------------------|--------|
| Medical Officer    | 1 No.  |
| Pharmacist         | 1 No.  |
| A.N.M.             | 1 No.  |
| Sanitary Inspector | 1 No.  |
| Vaccinators        | 2 Nos. |
| Class IV           | 2 Nos. |
| Driver             | 1 No.  |

II. Contingent and Other Expenditure

Rs.

i) Non-recurring

|                           |        |
|---------------------------|--------|
| Vehicle                   | 65,000 |
| Equipment and instrument  | 5,000  |
| Building (Staff Quarters) | 50,000 |

Total 1,20,000

ii) Recurring

|  |        |
|--|--------|
| Pay & allowances of staff  | 33,000 |
| Medical spare and instrument   | 10,000 |
| Miscellaneous contingencies including P.O.L.C., maintenance of vehicle | 10,000 |

Total 53,000

Rs.

III. For 10 Mobile Health Units in Phased manner for 4 years calculated as follows

a) For 5 Mobile Health Units for 4 years

Rs.53,000 x 5 x 4

10,60,000(Recurr-  
ing)

Rs.1,20,000 x 5

6,00,000(Non-re-  
curring)

Total

16,60,000

b) For 3 Mobile Health Units for 3 years

Rs.53,000 x 3 x 3

4,77,000(Recurr-  
ing)

Rs.1,20,000 x 3

3,60,000(Non-re-  
curring)

Total

8,37,000

c) For 2 Mobile Health Units for 2 years

Rs.53,000 x 2 x 2

2,12,000

Rs.1,20,000 x 2

2,40,000

Total

4,52,000

So total outlay calculated for 10 Mobile Health (a+b+c) comes to Rs.29.49 lakhs.

6. Genetic Findings on the Katkaris

The genetic division of the Department of Medicine of the B.J.Medical College, Pune, was requested to conduct a study on

the genetic condition of the Katkaris and make available their expert opinion for being incorporated in the monograph on the Katkaris commissioned by the Tribal Research & Training Institute.

The study team covered seven Katkari villages from Kulaba District viz. (1) Khopoli, (2) Chowk, (3) Khalapur, (4) Kune, (5) Homdi, (6) Aпти and (7) Khadkiwadi. 1009 Katkaris (622 males and 375 females) were covered.

The team studied the frequency of the following genetic marks:

- 1) Hemoglobin blood groups
- 2) Red cell enzymes
- 3) Serum protein groups
- 4) Dermatoglyphics P.T.C.
- 5) Testing colour blindness

The Katkari group showed (1) High incidence of red cell enzyme, (2) Deficiency of glucose 6 phosphate dehydrogenase, (3) Abnormal hemoglobin known as sickle cell hemoglobin.

Approximately 10 per cent of this population carries these abnormal genes in them. The abnormality of these two genes gives rise to haemolytic anaemia with all its known complications. The team has also recorded high rate of infant mortality and congenital malformation like poly and syndactyly.

The Katkari group showed

- 1) High incidence of red cell enzyme.
- 2) Deficiency of glucose 6 Phosphate dehydrogenase
- 3) Abnormal Haemoglobin.

The abnormality of these two genes expose the Katkaris to:

- a) Haemolytic anaemia with all its known complications
- b) Drug deficiency
- c) Multiple nutritional deficiency
- d) Infant mortality
- e) Conginetal malformation
- f) Ultimately dragging the Katkari group to extinction

Each of these hazards needs special preventive and curative measures which the Department of Medicine is prepared to work in collaboration with the Department of Tribal Welfare. They are willing to formulate special programmes for curative and preventive measures to combat the abnormal genes found amongst the Katkaris, for which they have adequate staff.

#### 7. Supply of Milch Cattle to the Katkari Families

In Karjat, Pen and Panvel Talukas of Kulaba District and in Wada, Jawhar and Shahapur Talukas of Thane District large numbers of the Katkari families are landless and have no means of livelihood. This problem can be solved if milch cattles are provided to them in order to subsidise their earning. It is proposed to select 500 Katkari beneficiaries to each of whom a cow costing about Rs.1,000/- will be given free. During 10 years programme the benefit will be extended to 5000 families from 200 Katkari villages. This scheme may encourage the tribals to take up to the profession of dairy development subsequently.



Cost of Scheme

| Type of milch cattle | No. of beneficiaries |              | Rate of assistance per beneficiary Rs. | Total cost Rs. |
|----------------------|----------------------|--------------|--|----------------|
|                      | Each year            | For 10 years |  |                |
| Cow                  | 500                  | 5000         | @ 1000                                 | 50,00,000      |

8. Plantation of Fruit Trees on Lands Belonging to the Katkari Families

The uneconomic holding of land of these tribals does not provide the necessary income and food needed for a year. As a result of it these people have to hunt for work, which is not available all the year. With a view to supplement the income of the tribal people belonging to the Katkari group, it is proposed to give each selected family five saplings of indigenous fruit trees, such as mango, chikoo, jack fruit etc., free of cost by the Agriculture Department. The Department should also pay Rs.5/- per month to a tribal family for two years for looking after the trees on his land. The Department should ensure that the trees are growing on their lands. This scheme may be implemented as a pilot project in 15 villages. 10 families from each village can be selected and each family will be given 5 saplings in the first instance, and then on the basis of results, it may be continued in other areas having Katkari population.

The financial implications of the scheme will be as under:

|  | Rs.       |
|--|-----------|
| 1) Cost of five saplings @ Rs.3/-<br>per sapling - Rs.15/- for 150<br>families 150 x 15  | 2,250.00  |
| 2) Cost of supervision for two years<br>@ Rs.5/- per family, i.e. Rs.60/-<br>per year x 150 = 9000<br>Rs.9000 x 2 years = 18,000/- | 18,000.00 |
|  | -----     |
| Total  | 21,000.00 |
|  | -----     |

Grand total Rs.21,000 x 5 = 1,05,000/-

This scheme will be implemented by the Agriculture  
Department under the Sub Plan programme.

Appendix I: Names of Raw Drugs in Marathi, Latin, Sanskrit and their Uses

| S. No. | Names of raw drugs i.e. herbs, shrubs etc. | Marathi name         | Latin name                             | Sanskrit name                                | Remarks |
|--------|--|----------------------|--|--|---------|
| 1      | 2  | 3                    | 4                                      | 5  | 6       |
| 1.     | Amalki                                     | <u>Amr arasyukta</u> | Legumikosae                            | -  | -       |
| 2.     | Ashwagandha                                | Asagandha            | -                                      | -  | -       |
| 3.     | Airam mool (Airana)                        | -                    | -                                      | Puskara                                      | -       |
| 4.     | Anant mool                                 | -                    | -                                      | Part of Puskara                              | -       |
| 5.     | Ashok                                      | -                    | -                                      | Asoka, Kankelli<br>Vichitrani,<br>Gandpushpa | -       |
| 6.     | Arjun sal                                  | -                    | Terminallia<br>Arjuna                  | Arjuna Kukubha<br>(Red) Rakta<br>Arjuna      | -       |
| 7.     | Adulsa Patra                               | -                    | Adhotoda,<br>Vasika, Vitis,<br>Carnosa | Sinhaparni<br>Vasaka, Arusak                 | -       |
| 8.     | Amal-lata                                  | <u>Amalveksa</u>     | Vasika Vitis<br>Carnosa                | -  | -       |

Contd...

Appendix I: (Continued)

| 1                     | 2                 | 3 | 4   | 5                                  | 6          |
|-----------------------|-------------------|---|---|------------------------------------|------------|
| 9. Akarkara           |                   |   |   |                                    |            |
| 10. Attebala          | Mudra             |   | Anacyclus-<br>pyrethrum                           |                                    |            |
| 11. Indra Java<br>God | Indira Java       |   | A Butilon-<br>indaecum                            |                                    |            |
| 12. Indra Kadu        | Kadu<br>Indravani |   | Wrightia-<br>tictoria                             | Asitakuterja,<br>Hymaraka          |            |
| 13. Imali(Chinch)     | Chinch            |   | Citrullus,<br>Celocunthis                         | Indravani/<br>Indrauan,<br>Pdakhai |            |
| 14. Kaduchurayata     | Kirant/Karu       |   | I amarindus                                       | Tintri, Tintrani                   |            |
| 15. Kutaj sal         |                   |   | Gentianakurroo                                    | Kiratatikta<br>Kakuki              |            |
| 16. Kateni choti      |                   |   | Holarrhena<br>Antidy<br>Senterica,<br>Oryzasativa | Kutuja, Kalirga                    | Sava Ketan |
| 17. Khirsal           | Khira             |   | Oryzasativa                                       | Vribi Tandula                      |            |
|                       |                   |   | Cucumisem-<br>mordia                              | Sakusa,<br>Tarapusha, Sakusa       |            |

Contd...

Appendix I: (Continued)

|                           | 1 | 2 | 3                             | 4                            | 5                     | 6  |
|---------------------------|---|---|-------------------------------|------------------------------|-----------------------|--|
| 18. Kavita(Magaj)         |   |   | Kavitpana                     | Feronia<br>Elephantum        | Kapitha,<br>Kapipriya |  |
| 19. Kanahanasal           |   |   |                               | Toddallia<br>Acyleata        | Dahana                |  |
| 20. Gulvel                |   |   | Gulvel                        | Coculuscor-<br>ditolious     | Nirjanasomaval        |  |
| 21. Gulal Kali            |   |   | Gulab                         | Rosa Doma<br>Scena           | Satapatri             |  |
| 22. Gunj Pandhain         |   |   | San/Mah/Guj                   | Abrus<br>Recatorious         |                       | Part used: Roots,<br>Seeds,Leaves  |
| 23. Gorakh Mundi          |   |   | Munaitika<br>Bhikshipanureaji | Sphaeranthus<br>hirtus       |                       | It is herb found<br>mostly in South<br>India. Leaves &<br>flowers contain<br>bitter alkaloid.  |
| 24. Gaga Magaj<br>Keshmin |   |   |                               | Rhododendron<br>Campanulatum |                       | Found in Himalayas,<br>Bhutan. Used leaves<br>are poisonous.Mixed<br>with tobacco they<br>are used into medi-<br>cinal stuff. Useful<br>in colds and<br>hemicrana. |

Contd....

Appendix I: (Continued)

| 1                 | 2   | 3                         | 4             | 5 | 6   |
|-------------------|---|---------------------------|---------------|---|---|
| 25. Gokhane(Kate) | Ashphota,<br>Gokarna,<br>Aparajita<br>Viohnukaranta | Clitoriatenatea           | Butterfly pea |   | Rootbark contains starch tannin and resins seeds contain a gixedoil.                    |
| 26. Babul phool   | -   | Eguminosae                |               |   | -   |
| 27. Chitrak mool  | Chitraka, Agni Shikha                               | Plumango- zeylanica       |               |   | Root is used. This is garden plant wild in Bengal, U.P.S. India & Ceylon.               |
| 28. Chawak        | Tambula,<br>Nugavau                                 | Piperbette                |               |   | It is kind of creeper yielding a fragrant fruit resatribling at a migrumas.             |
| 29. Tendu mool    | Tinduka   | Diospyros & Embryoppteris |               |   | An infusion or decoction of the rind of the fruit useful inchoronic tery and diarrhoea. |
| 30. Dorla mool    |   |                           |               |   |   |

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Appendix I: (Continued)

|  |                                     |                             |   |   |   |
|--|-------------------------------------|-----------------------------|---|---|---|
| 1                                      | 2                                   | 3                           | 4 | 5 | 6   |
| 31. Tagar                              | Nandivvaksha<br>Tagara Togar        | Tabernamontana<br>Cororania |   |   | Met in S. India and<br>Bengal. Root tana-<br>coro rose bay or<br>contains resin,<br>extractive matter<br>was clower and<br>bitteralkaloid<br>relief for toothach. |
| 32. Dhatur bij<br>Dhotarmool           | Dhotra                              |                             |   |   |   |
| 33. Dhaiti phool<br>Piwale/Ben<br>Jira | Dhattki<br>Dhauri<br>Agnijwala      | Wood foradia<br>floribunda  |   |   | Bright red flowers<br>contains 20 p.c.<br>tannis used as tea.   |
| 34. Dhamasa                            | Duspursha                           | Fagonia<br>Arabika          |   |   | Leaves twigs and<br>juice used as a<br>tonic.   |
| 35. Deodaru                            | Deodaru<br>Snchavidha<br>Vrikashipa | Pinus<br>Deodara            |   |   | Bark is good remedy<br>remittent and<br>intermi fevers,<br>diarrhoea and<br>dysentery   |
| 36. Daru Haldi<br>Puni                 | Dadima-Bhalam<br>Kauchaphala        | Punica<br>Granapotum        |   |   |   |

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Appendix I: (Continued)

|                    |  |   |                           |   |   |
|--------------------|--|---|---------------------------|---|---|
| 1                  | 2  | 3 | 4                         | 5 | 6   |
| 37. Dauti mool     |  |   |                           |   |   |
| 38. Nagar motha    | Jangli methi<br>Ran methi                |   | Demodium<br>triflorum     |   | Roots are considered. Carminative tonic and diuretic and used in bilious complaints |
| 39. Neel Kamal     | Neela, Nilika,<br>Neelinee               |   | Indiagofera-<br>pulchella |   | Part used. Plant and expressed juice indigo.  |
| 40. Nishottar Swet | Kalparni,<br>Triwriti,<br>Triputa Nandi  |   | Ipomoeturpel-<br>thum     |   |   |
| 41. Nimb Sal       | Ravipriya,<br>Vembaka,<br>Nimba, Anshata |   | Melia Azadi-<br>rachta    |   | Every part of nimb is useful in medicinal point of view.                            |
| 42. Pithwan        | <u>Pithawan</u>                          |   | Urania picta<br>Desu      |   |   |
| 43. Pahad mool     | <u>Pahad mool</u>                        |   | Cissampelos<br>Pareira    |   | Root and bark leaves used as bitter tonic.  |
| 44. Patal Patra    | -do-                                     |   | -do-                      |   | -do-  |

Contd...



Appendix I: (Continued)

|     |                                     |                                      |                       |   |  |
|-----|-------------------------------------|--------------------------------------|-----------------------|---|--|
| 1   | 2                                   | 3                                    | 4                     | 5 | 6  |
| 45. | Pitha Papda                         | Khesetra<br>Parpati                  |                       |   | It is an allied variety. Imported from Parsia.                     |
| 46. | Pudina<br>Shushka Patra             | <u>Pudina</u>                        | Menthasyl-<br>vestris |   | Cultivated garden in Kekoon oil obtain by steamstillration leaves. |
| 47. | Palas Papadi<br>Paras Pipal<br>Prij | Bhendi/Paras<br>Biplo/ran<br>bhendi  | Hibiscus<br>populnea  |   | Menthol is prepared or shampoo.                                    |
| 48. | Punarnava mool                      | <u>Punarnava</u><br><u>Varshaboo</u> | Boerhavia<br>diffusa  |   |  |
| 49. | <u>Prasarini</u><br>Prasarini       | Prasarini                            |                       |   | Used in rheumatism piles and urinary disorders tonic and laxative. |
| 50. | Priyangu                            | Gahula                               |                       |   | Tonic, stomachic.  |
| 51. | Behadapos                           | Behada                               |                       |   | Fruits used for astrinsent tonic expendentorant and laxative.      |
| 52. | Belmool                             | Bilva, Bilvam<br>Sriphal             | Aegle<br>Marmelos     |   | Used for medical purposes.   |

Appendix I: (Continued)

|                   | 3                                  | 4                        | 5 | 6  |
|-------------------|------------------------------------|--------------------------|---|--|
| 1                 |                                    |                          |   |  |
| 2                 |                                    |                          |   |  |
| 53. Bhilva        | Bibba                              | Semecarpus<br>Anacardium | - | Used for gum and<br>oil.   |
| 54. Bharrangmul   | <u>Bharang/</u><br><u>Bharangi</u> | Clerodendron<br>Serratum | - | Met with in E.India<br>especially in Bengal.<br>Remedy in ashtma,<br>bronchitis and other<br>catarrtia affec-<br>tionised the lungs. |
| 55. Bange Sang    | -                                  | -                        | - | -  |
| 56. Belmagaj      | See S.No.52                        | -                        | - | -  |
| 57. Bauanchi      | <u>Bhawachi</u> 4                  | Psoralea<br>Corylifolio  | - | -  |
| 58. Barge Babbul  | Babool/Kinkar                      | -                        | - | Contains Arabic<br>acid.   |
| 59. Bala Panchong | -                                  | Sida<br>Cordifolio       | - | Roots & seeds are<br>useful.   |
| 60. Mudga Parni   | Jangli Mung                        | Phaseolus                | - | Used for improve the<br>sight.   |
| 61. Mashpavni     | Mashparni                          | Trilabus                 | - | Mahapasha is a<br>papilionacee species<br>found plains through<br>out the India.   |

Contd...

Appendix I: (Continued)

| 1                | 2                  | 3                       | 4 | 5 | 6  |
|------------------|--------------------|-------------------------|---|---|--|
| 62. Ritha Pasi   | <u>Ritha</u>       | Santalum<br>Rubrum      |   |   |  |
| 63. Ruchki Phool | <u>Rui</u>         | Colotropis<br>Procera   |   |   |  |
| 64. Varnasal     | Varna/Varani       | Crativa<br>Religosa     |   |   |  |
| 65. Shatovarni   | Shatavani          | Asparagus<br>Gonocladus |   |   | Root is used in<br>gonorrhoea.                             |
| 66. Salvan       | Shalaparni<br>Daye | Hedysarum<br>Gangeticum |   |   | Use at whole part<br>bitter tonic,<br>febrifugs digestive. |
| 67. Shatrapumkha | <u>Unhali</u>      | Tephrosia<br>Purpurea   |   |   |  |
| 68. Shivanmooli  |                    | Gmelina<br>Asiatica     |   |   |  |
| 69. Hirda Pasi   | <u>M.Hirda</u>     |                         |   |   |  |
| 70. Hirda Siya   |                    |                         |   |   |  |
| 71. Hirda Kalu   |                    | Terminalia<br>Chebula   |   |   |  |

Contd...

Appendix I: (Continued)

| 1   | 2           | 3            | 4                           | 5 | 6                         |
|-----|-------------|--------------|-----------------------------|---|---------------------------|
| 72. | Anand Mool  | <u>Arani</u> | Clerodendrum<br>Phlonooides | - | -                         |
| 73. | Brahmi      | Brahmi       | Herpestis<br>Morriera       | - | Thyme-leaves<br>Aretiola. |
| 74. | -           | Shankpushpi  | Evolvulus<br>Alsinooides    | - | -                         |
| 75. | Swarnakshin | Swarnakshin  | Argenone<br>Mexicana        | - | Yellow thistle.           |

Scheme for Paper Manufacturing Unit to be set up  
In Etapalli and Bhamragad Area for the economic  
development of Madia Gonds

The present acute scarcity of paper in the country backons good prospect for this industry. The sub-plan area having good forests offers abundant raw materials for paper manufacture. In fact three large-sized paper mills already exist and draw their raw materials mainly from the forests in the tribal area. The idea is to set up three or four paper manufacturing units. The units should be such as would make maximum use of man-power and local raw materials. For the execution of this item of industry, ~~max~~ action on co-operative lines will be useful. It is learnt that the Khadi and Village Industries Board have included this industry also in their list and it will, therefore, be eligible to their usual financial assistance, it will also offer opportunities for employment to the tribals. A sum of Rs. 12.85 lakhs required is being earmarked for this purpose for three units. Details are available in Annexure III.

Annexure III

Paper Manufacture

It is proposed to establish 3 paper manufacturing units in the sub plan area. The financial requirement for such unit is given below:-

|  | Total<br>Rs. | Grant<br>Rs. | Loan<br>Rs. |
|--|--------------|--------------|-------------|
| 1. Land and building   | 1,37,000     | -            | 1,37,000    |
| 2. Machinery and equipment   | 1,77,000     | -            | 1,77,000    |
| 3. Working capital   | 1,00,000     | -            | 1,00,000    |
| 4. Managerial assistance<br>@ Rs.400/- per month for<br>400 x 12 x 3 =Rs.14, 400 | 14,400       | 14,400       | -           |
| Total financial<br>requirement   | 4,28,400     | 14,400       | 4,14,000    |

Total financial requirement for 3 units comes to Rs. 4,28,400 x 3 = Rs. 12,85,200 which includes Rs. 43,200 grant and Rs. 12,42,000 as loans.

Tuberculosis and chest Hospital for Madia Gonds

It is revealed from the health survey and the quarterly return of the cases (disease-wise break up) submitted by the District Health Officer to the Director of Public Health, Pune, that out of 700 cases from Chandrapur District, 230 were under "Diseases of Respiratory system" from Etapalli and Bhamragad Tribal Blocks. This indicates high incidence of T.B. among the tribals of Etapalli and Bhamragad Blocks.

In view of the guidelines for the health problem, it has been suggested that particular diseases affecting particular tribal communities will have to be tackled on special footing. The incidence of T.B. among the Gonds and Madia Gonds in above mentioned T.D. Blocks is an example in this connection. It is therefore proposed to set up 50 bedded Tuberculosis and Chest Hospital in tribal area i.e. at Etapalli. The financial implications of this Hospital has been worked out in Annexure I.

Annexure I

For 50 beded Tuberculosis and Chest Hospital in Tribal area

A. Non recurring expenditure

|   |              |
|---|--------------|
| 1. Building for outdoor and indoor ground floor outdoor first floor Male ward Second floor Female ward, Store and Duty room.<br>Size of the building 120' x 40' | Rs. 5,00,000 |
| 2. Staff quarters )<br>Office )<br>Kitchen )<br>Laundry )<br>Charge )<br>General store )  | 6,00,000     |
| 3. Indoor and outdoor equipment   | 3,00,000     |
| 4. X-Ray machine<br>Mobile Unit /<br>State Unit /   | 4,00,000     |
| 5. Microscopes and Laboratory equipment   | 10,000       |
| 6. Vehicle -One   | 30,000       |
| Total   | 18,40,000    |

(Eighteen lakhs and forty thousand Rs.)

B. Recurring annual expenditure

|   |          |
|---|----------|
| 1. Pay of staff   | 2,50,000 |
| 2. Medicine for outdoor and indoor                      | 1,00,000 |
| 3. Diet for indoor                                      | 55,000   |
| 4. Contingency<br>Electricity, Telephone, Miscellaneous | 20,000   |
| 5. Fuel and maintenance of vehicle                      | 25,000   |
| Total   | 4,50,000 |

(Rupees four lakhs and fifty thousand)

Total recurring annual expenditure comes to Rs.4,50,000. So recurring expenditure for four years comes to Rs. 18,00,000. Thus the grand total (both non-recurring and recurring expenditure) under this

Award of scholarships to the Madia Gond girl students of Bhamragad Region of Chandrapur District

It has been observed that the percentage of female literacy among the Scheduled Tribes is alarming i.e. 2%. With a view to attract the girls of the Madia Gond Community to education, some incentive seems to be necessary. There are at present (40) primary schools and one middle school having (136) girl students on roll in Bhamragad Block. It is presumed that every year with this incentive at least there will be an increase of 20% in the strength of girl students.

It is proposed that during the year 1977-78, the scholarship @ Rs. 10/- per girl student for ten months may be given to all the girl students studying in 1st to 4th standards. The number of girl students of this group in the year 1977-78 is estimated as 150.

The total expenditure for the year 1977-78 will be Rs. 150 x 10 x 10 = 15,000. The details of expenditure for five years will be as under:-

| Year        | No. of girls (estimated) | Financial outlay required (Rs.) |
|-------------|--------------------------|---------------------------------|
| 1977-78     | 150                      | 15,000                          |
| 1978-79     | 180                      | 18,000                          |
| 1979-80     | 216                      | 21,600                          |
| 1980-81     | 260                      | 26,000                          |
| 1981-82     | 340                      | 34,000                          |
| Grand total | 1136                     | 1,14,600                        |

This expenditure will have to be met from the sub plan programme. The scheme will be implemented by the Director of Tribal Welfare through the District Tribal Welfare Officers.



Supply of dresses to primary school children  
belonging to Madia Gonds

In Bhamragad area 949 (813 boys + 136 girls) pupils are taking education in 40 primary and one middle school. Even though a simple uniform is prescribed for these children the poor tribals neither can provide uniform to their children nor they understand the importance of the school uniform. It is therefore proposed to provide uniforms to the pupils of standards I to IV under this scheme. Each pupil will be supplied with two half pants and two half shirts per year. Every girl student will be provided a pair of blouses and skirts. The cost of cloth including stitching charges per beneficiary would be Rs. 60/-. This facility will continue for five years. The estimated cost for the scheme is as under:

| Total<br>No. of<br>primary<br>and<br>middle<br>schools | No. of beneficiaries |                               | Cost<br>per<br>bene-<br>ficiary<br>Rs. | Total<br>cost for<br>5 years<br>Rs. |
|--|----------------------|-------------------------------|--|-------------------------------------|
|  | For 1<br>year        | for 5<br>years<br>(estimated) |  |                                     |
| 41   | 1000                 | 5,000                         | 60                                     | 3,00,000                            |

Scheme for opening of vocational high school at Etapalli

Etapalli, a block head-quarters is situated in the heart of the tribal area. The Block is famous for forests and forest produce. Most of the people of the area are Madia Gonds who live in forest.

Main occupation of these tribals is cultivation and hunting. They are illiterate and have not adopted improved methods of cultivation so far. During their leisure period they make baskets and other articles from wood and bamboo and bring the same for sale in weekly markets. They prepare all these goods with their old traditional way.

Scheme

To utilise the available raw material and to improve the skill of tribal people in the area a scheme of establishment of vocational school at Etapalli is proposed. The tribals will receive crafts training in vocational school and after training they would be able to earn their livelihood by improved handicrafts.

The financial allocation of the scheme

Staff

|                                  | <u>Cost in Rs.</u>    |
|----------------------------------|-----------------------|
| 1. Two instructors               | 7000-00 (Pay & Allow) |
| 2. Two posts of Class IV         | 5000-00 (Pay & Allow) |
| 3. Instruments and raw materials | 10000-00              |

Hostel

|   |                       |
|---|-----------------------|
| 1. One Warden   | 2500-00 (Pay & Allow) |
| 2. One post of Class IV                               | 2000-00 (Pay & Allow) |
| 3. Contingent expenditure (Beds, cots, utencils etc.) | 10000-00              |
| 4. Building rents etc.                                | 3000-00               |

-----  
Total 40500-00  
-----

The scheme is proposed for 5 years. The amount of Rs. 40500-00 is estimated for the first year and during the subsequent years the recurring expenditure will be Rs. 30000/- per year. Thus, the total estimated outlay of the scheme is to the tune of Rs. 1.60 lakhs.

Scheme of central residential middle schools for  
Madia Gonds

The level of literacy is very low among the Madia Gonds in Bhamragad area of Chandrapur District. The Bhamragad Block consists of 157 villages and the population of these villages is 0.22 lakh amongst which the Madia population is 80%. This area is recognised as most backward where level of literacy is only 5.0%. At present there are 135 single teacher primary schools which are managed by Zilla Parishad and 3 middle schools and one high school. Out of 125 single teacher schools only 105 schools are working for the present.

Taking in view last 10 year's experience of working of these schools, the problems which are being faced are of the native nature. The tribals do not have any inclination about educating their children, nor such type of atmosphere is created. In spite of the existing hostel facilities, the Madias do not send their children to the schools. The enrolment in these hostels is naturally affected. There is wide spread poverty also. Problem is also being faced about the residential accommodation in tribal villages for teaching staff. The personnel appointed do not know Madia and Gondi dialects of the tribals and are not accustomed to existing tribal village life. Medical and transport facilities are negligible in these villages. Due to these difficulties the teaching staff is not residing at head quarters.

This has resulted in poor attendance in schools. On account of poor attendance thirty primary schools from the Etapalli Block are required to be closed. Since the villages having schools are scattered and are at longer distances from each other and are covered with dense forest, supervisory staff can not check up the normal working of the schools frequently. It is also a fact that these villages are not accessible for about 4 to 5 months during the rainy season.

To overcome these hardships a scheme of residential schools at the central place in Etapalli Block particularly in Bhamragad area is proposed for making concentrated efforts in education at primary level. Such schools will be equipped with hostels. At present five such centrally situated places are located i.e. 1) Bhamragad 2) Arewada 3) Mallampour 4) Burgi 5) Catta.

If this scheme is implemented it will provide better educational facilities with all sided development of the tribal children. Out of these five places the hostel facility is available at one place i.e. Bhamragad. About 150 students could be accommodated in each school with the provision of eight teachers in each school.

|   | <u>Rs.</u>      |
|---|-----------------|
| 1. Payment of stipend to the students @ Rs.75/- per month (Rs.75 x 150 = 11250 per month) amounting 1,35000 per year x 5.             | 6,75,000        |
| 2. The salary of the teachers will be borne by the Zilla Parishad and the existing staff will be utilised for this purpose.           | -               |
| 3. The contingent expenditure @ Rs. 8,000/- per school per year towards the purchase of equipments and library (Rs.8000 x 5 = 40,000) | 4,00,000        |
| Total   | <u>7,15,000</u> |

Thus, this scheme will cost Rs. 7,15,000 per year excluding expenditure on staff which is proposed to be borne by the Zilla Parishad.

This scheme can be extended in Etapalli Block in Panchayat Samiti. One residential middle school will cover 10 to 15 villages having primary schools. Local students also can be accommodated in the residential middle schools.

The teachers in the proposed residential schools will have to undergo short term training courses in Madia and Gondi dialects in order to establish close contacts with guardians and guide the parents properly.

Scheme for the rehabilitation of Madia Gond shifting cultivators of Bhamragad Area of Chandrapur District

(Colonization of the tribals)

In Sironcha Tahsil especially in Etapalli Panchayat Samiti in Bhamragad area most of the tribal farmers have no settled cultivation. The farmer locates some fallow uncultivated piece of land for cultivation. The Madia Gond being ignorant of the improved agricultural practices, cultivate land adapting old primitive methods. After 1 or 2 years he shifts from this land and takes to cultivation of some other piece of land on similar lines. This type of shifting cultivation is in vogue in this area since long. On account of this shifting the farmer does not develop permanent interest in the land. He does not try to develop it and manure it, as he has no feeling of ownership. Thus, due to improper development and poor standard of cultivation, the yeield per acre is also poor and it leads to poor economic condition.

In order to make them switch over from this tradition bound standard farming to economically beneficial and scientific farming it is necessary that they settle permanently at one place and the land permanently allotted to each of them. These farmers will require assistance from government.

#### Location of groups

In Etapalli Panchayat Samiti in Bhanragad area shifting cultivation is adopted to a large extent. In this area 10 scattered locations be identified where these tribals can be permanently settled. Thus, 200 Madia families will be settled in one village.

Following requirements will have to be fulfilled while taking up this colonization.

#### Living arrangement

For each family a hut i.e. tenement will have to be provided. A residential colony of 20 families will thus be erected. For this group a small drinking water well would be essential.

#### Allotment of land

Each family should be allotted piece of 10 acres (i.e. 4 hecets.) of land with an understanding that the ownership of the land allotted would be of the family, provided they stay there permanently. Thus, for 20 families 80 hectors of the land should be made available near their residential colony. Thus for 10 colonies 8000 hectors will have to be allotted.

Supply of implements and bullock pairs

Each family will have to be supplied with a set of agricultural implements and equipments including bullock cart and a bullock pair. The implements will be improved and indigenous.

Supply of inputs

Farmers will have to adopt improved agricultural practices which include use of hybrid and H.Y. Variety seeds, fertilizers, pesticides etc. Supply of inputs will have to be made available to each cultivator.

Other activity

Tribals usually like maintaining poultry birds or she-goats. Accordingly each individual family will have to be supplied few poultry birds or she-goats.

Farmer's training

After the families occupy the tenaments the farmers will have to be given training in the improved techniques of agriculture and some knowledge about use of implements, sowing of seed, use of fertilizer pesticides etc.

Proposal and scheme

The evaluation study of the scheme of shifting cultivators of Chandrapur District has revealed that efforts have been made earlier by the Government to rehabilitate 146 Madia Gond shifting cultivators in this region and there are 84 families, still practising shifting cultivation in Binegunda, Fermal-Bhatti, Kuwakod Timnewachi, Ture Marka, Unchur and Danamarka villages of Bhanragad Tahsil.

With a view to wean away these shifting cultivators to follow settled agriculture and to save the national wealth, it is proposed to settle every year 20 families in the same region so that 84 families will be covered in the next four years. The following scheme of colonisation is proposed with its financial implications:-

|   | <u>Rupees</u> |
|---|---------------|
| 1. Cost of 20 huts @ Rs.1500/- each<br>1500 x 20  | 30,000        |
| 2. Cost of one well Rs.3500/-   | 3,500         |
| 3. Cost of clearing 200 acres of land 1,00,000<br>@ 10 acres for each family @ Rs.500<br>each family. | 1,00,000      |
| 4. Cost of bullocks @ one pair to each<br>family for 40 bullocks @ Rs.500 each<br>family.             | 20,000        |
| 5. Seeds and fertilizers @ Rs.200 per<br>family   | 4,000         |
| 6. Agricultural implements etc. @<br>@ Rs.300 per family.   | 6,000         |
| 7. Poultry and milch cattle @ Rs.1000<br>per family   | 20,000        |
| 8. Maintenance charges @ Rs.1200 per<br>family (for two years to be given)<br>1200 x 2 x 20           | 48,000        |
| 9. Cost of one school building  | 5,000         |
| 10. Pay of two teachers (115-285) per<br>month for 12 months  | 9,330         |
| 11. Educational material like slates,<br>books, blackboards etc.                                      | 1,500         |
| 12. Cost of huts for two teachers   | 3,000         |
| 13. Settlement assistant (Class III)<br>(200-350)   | 3,395         |
| 14. Attendent (75-100)  | 500           |
| 15. Contingencies   | 500           |
|   | 2,86,700      |
| Non recurring -   | 2,65,200      |
| Recurring -   | 21,500        |
| Total -   | 2,86,700      |



Assistance for fruit gardening in Bhamragad Area

Horticultural development will provide a steady income to the tribals. At present in Bhamragad area (Sironcha Taluka) many Mango trees are seen. However, it has been observed that those trees are not properly cared. If these local inferior types of mango trees are converted into superior types by adopting scientific horticultural technique like grafting, it will be a good source of income to the Madia Gond farmers. The land of Bhamragad Block (Sironcha Taluka) is highly suitable for cultivation of mango, chikoo, jackfruit, guawa, k jamun and lemon. If better species of these fruit trees are introduced and subsequent care of irrigation and manuring is taken, it will be a good source of income. Even if each individual tribal family raises a few fruit trees it will fetch him some income.

From the total acreage which is proposed to be brought under perennial irrigation from dug well and lift irrigation about 200 hecets. could be brought under horticulture fruit gardens in the phased programme of four years. Taking minimum expenditure of Rs. 5000 per hect. financial provision of Rs. 10 lakhs will be required. Farmers will be advanced loan free of interest with 75% subsidy. Repayment of loan will start after the plants start giving fruits. The scheme will be operated after the first year of the plan.

Financial implications

- |  |             |
|--|-------------|
| 1. Minimum expenditure per hecter @ Rs.5000                                      | Rs.5,000    |
| 2. Area to be covered under this scheme in the initial year @ 50 hect. per year. | Rs.2,50,000 |
| 3. 25% interest free loan and 75% subsidy  |             |

-----  
Rs.2,55,000  
-----

Construction of drinking water wells in the areas having Madia Gond and Kolam population

It has been observed that there is no provision of clean drinking water in the hamlets mostly inhabited by Madia Gonds and Kolams in Chandrapur, Yevatmal and Nanded Districts. As a result of it, these people have to fetch water from a long distance either from a river or rivulet, which is not clean throughout the year. These people also suffer from diseases, which are caused because of unclean water used for drinking purpose.

With a view to provide this minimum need of clean drinking water throughout the year, it is proposed that the Zilla Parishad Chandrapur, Yevatmal and Nanded will take up every year a phased programme of constructing 100 wells on the hamlets, with the assistance of ground water survey department and on the basis of their feasibility reports. The expenditure on this account will differ from area to area and will be met from the sub plan programme.

The Zilla Parishad, Chandrapur have undertaken survey of all the villages and on the basis of that it is reported that there are 229 difficult villages in Etapalli and Bhamragad Tribal Blocks. It is therefore proposed to take a phase programme of

construction of drinking water wells in Bhamragad region. Details of the financial layout of the scheme

proposed is given as under:-

1. Construction of 229 wells in 229 villages @ Rs.3500 per well.

$229 \times \text{Rs. } 3500 = \text{Rs. } 8,01,500$

The work may be completed in a phased programme of three years.

It has been decided that there is no provision of...

Supply of milch cattle to the Kolam families

In Kelapur and Wani Taluka of Yevatmal District large number of Kolam families are landless and have no means of livelihood. This problem can be solved if milch cattle is provided to them which will add to their earning to live a better life. It is proposed to select 100 Kolam beneficiaries to whom a cow costing each about Rs.750/- will be given free. During 15 years programme the benefit will be extended to 500 tribal families from 50 Kolam villages. This scheme may encourage the tribals to take up to the profession of dairy development subsequently.

Cost of scheme

| Type of milch cattle | No. of beneficiaries |             | Rate of assistance per beneficiary | Total    |
|----------------------|----------------------|-------------|------------------------------------|----------|
|                      | Each year            | For 5 years |                                    |          |
| Cow                  | 100                  | 500         | @ 750                              | 3,75,000 |

Kitchen gardening in Kolam villages

It is proposed to supply fruit plants, seeds etc. free of charge to the Kolam families to inculcate the habit of kitchen gardening and subsequently utilising the vegetables in their daily food. This does not involve any expenditure on the part of the tribal since domestic water waste can be used for this gardening. Every year 100 beneficiaries from 30 villages will be selected. This will serve also as a demonstration for encouraging other tribals to take up kitchen gardening.

The estimates for the ensuing 5 years are worked out as under:-

| No. of villages |             | No. of beneficiaries |             | Cost of seeds |             |
|-----------------|-------------|----------------------|-------------|---------------|-------------|
| For 1 year      | For 5 years | For 1 year           | For 5 years | For 1 year    | For 5 years |
| 20              | 100         | 200                  | 1000        | Rs. 2000      | Rs. 10,000  |

### Training of Adivasi youths in agriculture

It is necessary to impart training in agriculture to tribal agriculturists so as to acquaint them with the modern methods of agriculture. In the first instance the scheme will be implemented in Etapalli and Bhamragad Block of Chandrapur, Maregaon Block in Yavatmal and Kinwa Block in Nanded District where there is predominant population of Madia Gonds and Kolams. It may be extended to other blocks if found suitable to the tribal people. The details of the scheme will be as under:-

|  | <u>Rupees</u>      |
|--|--------------------|
| 1. Boarding and lodging charges of 25 tribal youths @ Rs. 8/- per day, per trainee for five days. 25 x 8 x 5 | 1,000-00           |
| 2. Actual bus or railway 2nd Class fare @ Rs. 2/- each to and fro.   | 100-00             |
| 3. Instruction material  | 200-00             |
| 4. Contingencies   | 200-00             |
| <u>Total for one course</u>  | <u>Rs. 1500-00</u> |

The courses will be organised by Tribal Welfare Officer concerned with the assistance of Agricultural Officer in a Government Ashram School. In the year 1977-78, such eight courses will be organised, two in each Block. The total expenditure will be Rs. 12,000/- for the year 1977-78, which may be met from the sub plan programme. This programme may be continued for 5 years and the total expenditure for five years will be Rs. 60,000/-.

Orientation Training in Tribal dialects : (Madia and Kolami)

It has been experienced that in the area having predominant tribal population of Madia Gonds and Kolams, the non-tribal teachers can not teach in the dialects known to these students. As a result of it, the students of these groups do not find interest in studies at the primary stage and this results in wastage and stagnation.

With a view to teach the Kolami and Madia dialects to the non-tribal teachers of the primary schools of this area, it is proposed to organise six orientation courses, 4 in Bhamragad and Etapalli areas in Chandrapur District, 1 in Kinwat Taluka of Nanded and 3 in Yavatmal District during the year 1977-78. The course will be of one month's duration and will be attended by 25 teachers in each course.

The courses will be organised at the Block level in Chandrapur, Yavatmal and Nanded District, particularly in the areas having predominant Kolam and Madia Gond population. District Education Officer, Tribal Welfare Officer, Extension Officer (Education), Tribal Development Block Officer, Tribal Research & Training Institute and State Institute of Education will jointly organise these courses. The total expenditure of each course will be as under:-

|   |             |
|---|-------------|
| 1. T.A. to the extent of actual railway 2nd Class fare or actual ordinary bus fare from his place to the place of course and back @ Rs. 10/- to each teacher for 25 teachers. | Rs. 500-00  |
| 2. D.A. @ Rs. 8/- (Eight) per teacher for 25 teachers x 30 days   | Rs. 6000-00 |
| 3. Honorarium @ Rs. 20/- per lecturer for 20 lectures.  | Rs. 400-00  |
| 4. Contingencies  | Rs. 600-00  |
| -----   | -----       |
| Total for one course  | Rs. 7500-00 |
| -----   | -----       |

7500 x 6 = 45,000 for six courses. The expenditure will be met from the sub plan provision for the year 1977-78. The training programmes can be continued for the year 1978-79, 1979-80, so that all non-tribal teachers serving in Madia and Kolami areas can be covered under this scheme of orientation training in tribal dialect.

Plantation of fruit trees on lands belonging to Madia Gond, Katkari and Kolam Scheduled Tribes

The uneconomic holding of land of these tribals provide the necessary income and food needed for a year. As a result these people have to hunt for work, which is not available all the year round. With a view to supplement the income of the tribal people belonging to Kolam, Katkari and Madia Gond group, it is proposed to give each selected family five saplings of indigenous fruit trees, such as mango, chikoo etc. free of cost by the Agriculture Department. The Department should also pay Rs. five per month to a tribal family for two years for looking after the trees on his land. The Department should ensure that the trees are growing on their lands. This scheme may be implemented as a pilot project in 15 villages (5 Madia Gond + 5 Katkari + 5 Kolami villages) and 10 families from each village can be selected and each family will be given 5 saplings in the first instance, and then on the basis of results, it may be continued in other areas having Madia, Katkari and Kolam population.

The financial implications of the scheme will be as under:-

1. Cost of five saplings @ Rs. 3/- per sapling - Rs. 15/- for 150 families Rs. 2250-00
2. Cost of supervision for two years @ Rs. 5/- per family i.e. Rs. 60/- per year x 150 ~~x 2 years~~ = 9000. Rs. 9000 x 2 years = 18,000 Rs. 18000-00

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Total Rs. 21,000-00  
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Grand total 21000 x 5 = 1,05,000/-.

This scheme will be implemented by Agriculture Department under the Sub Plan programme during the year 1977-78.

Scheme of plantation of food trees for lack and shealac in Chandrapur and Yavatmal Districts

Lac is the resinous protective exucation of a tiny insect laccifer Lacea (generally known as the lack insect) parasitic on certain trees. The minute larvas of the insect draw their nutriment from the gap which they ~~xxxxxx~~ search through their long probosis, inserted into the bark of tender shoots. Lac has numerous uses in industry and has continued to enjoy a prominent place in trade and commerce. Lac is used in plastics, electrical insulations, adhesives, cements, leather and shoe dressings, wood finishing and in many other industries. Films of lac on wood metal and other surfaces possess excellent gloss and resistance to abrasion, water and electric current and even chemicals.



Over 80% of the world production of lac comes from India. It is cultivated as a subsidiary cash crop in the hill tracts of Bihar, Orissax, Madhya Pradesh, West Bengal, Assam and Mysore. Efforts should be made to raise this cash crop in Maharashtra Also. Cultivation of lac is initiated from broodlac which is the twig of the host tree carrying the lac encrustation at the time when the larvae are about to emerge from the mother insects. For infecting a tree, broodlacs are cut from the host tree, bundled and tied at convenient places so that fresh ~~xxxx~~ succulent, shoots may readily be accessible to the insect larvae. Lac is usually collected from trees which are self or naturally infected. The lac ~~xxx~~ bearing twigs of the host trees are cut and the encrustation removed. The resins encrustation removed from the cut twigs is sold as stick lacm.

To main strains of lac insect are the Kusmi insect which thrives on Kusmi (Schleichera, Oleosa Oken) trees and produces a fairly thick encrustation of light coloured lack. The Rangeen insect which grows on palas (Bhutea monosperma lan) ber (Zizyphus Zlypyra willd) and produces thin encrustation.

As the production of lac gains speed and tempo, it will be necessary to depute selected candidates either at the Indian Lac Research Institute, Nankun, Ranchi (Bihar) or some of the established shellac industries in Calcutt.

Taking the cost of establishing a plantation of Kusun and Palas trees at Rs.300 per acre, 200 acre plantation is aimed at and financial implications of the scheme is as follows.:

- |   |        |
|---|--------|
| 1. Plantation of 200 acres of palas and Kusun trees.  | 60,000 |
| 2. Training; Training for 200 candidates for 2 months at the rate of Rs.100 Per month per candidate | 40,000 |

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Total: 1,00,000

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Annexure

Lac cultivation

Financial assistance for each lac rearing, processing and marketing centre:-

|  | <u>Grant Rs.</u> | <u>Loan Rs.</u> |
|--|------------------|-----------------|
| 1. One godown for stacking of raw  | ..               | 15,000          |
| 2. Collection and processing centre  |                  |                 |
| i) Workshed for processing with platform for drying  | ..               | 7,500           |
| ii) Store room for raw materials   | ..               | 7,500           |
| iii) Tools and equipments on 50 percent subsidy  | 1000             | 1,000           |
| iv) Management grant for the 1st three years 100 percent in first, 75 percent in the second and 50 percent in the third. | 2000             | 2,000           |
| v) Working capital for rearing collection  | ..               | ..              |
| vi) Working capital for sale   | ..               | 6,000           |
| vii) Marketing depot   | 3000             | 3,000           |
| viii) Capital assistance for marketing depot (working capital)   | ..               | 10,000          |
| ix) Management assistance to marketing centre  | 6900             | ---             |
| x) Training of lac rearers processing artisans will be on 100 percent assistance from the K.V.I. Commission.             | 3000             | ..              |
|  | 15,900 +         | 56,000          |
| Grant total financial requirement  |                  | 15,000          |
| percentage loan.   |                  | 6,000           |
|  |                  | 71,900 or       |
|  |                  | 72,000          |

For one centre the total financial requirement comes to Rs. 72,000. It is proposed to open 14 such centres in the sub plan area during the fifth plan period. With a total cost of Rs. 10,06,600 which includes Rs. 2,22,600 as subsidy and Rs. 7,84,000 as loan.