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INSTITUTIONAL FACTORS AS A DETERRENT FOR ECONOMIC DEVELOPMENT IN TRIBAL AREAS

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SUMMARY

In this paper an attempt is made to analyse the magnitude of institutional influences that are faced when a society comes through different stages of economic development from the tribal stage, i.e., subsistence-consumption to the latest level. To substantiate our thesis, two NEFA villages are taken into consideration which were recently surveyed by the Agro-Economic Research Centre, Jorhat. It is true that due to the developmental and other administrative measures taken by the administration, certain institutional set-ups like bachelor's dormitory, strong unity among the people, change in leadership and outside contact, were undergoing changes. The initiation of these changes were releasing more extra time and manpower for intensive pursuit of agriculture. But because of the presence of certain institutional behaviours like religious beliefs, customs and practices, and imputation of extremely high value for primitive currencies like methuns, etc., the pace of expected development was not up to the mark. Due to the extension of medical care, mortality was decreasing considerably as a result of which the land-labour ratio in jhuming was disturbed which is a salient feature of jhuming. The jum cycle which was previously of long duration was considerably shorten-feature of shuming. The jum cycle which was previously of long duration was considerably shorten-feature of which were more paying. The introduction of HYV paddy in one village might have expected to have some influence, but it was not so in terms of increase in area under settled farming, because jhuming was still considered as more paying, intensive and prestigious, not to speak of its palatable taste. Another relevant point is that the people did not like to extend the proportion of jhuming and settled farming up to a certain point lest there might be any exhaustion of natural resources. The pace of limited urbanization had no doubt opened up scope for new demand, but the people in general were reluctant to avail of the new opportunities. This is becaus

A STUDY OF CREDIT PROBLEMS OF FARMERS IN A TRIBAL AREA OF MAHARASHTRA

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SUMMARY

In Maharashtra there is a sizable population of tribals in the districts like Thana, Dhulia, Nasik, Bhandara, Chanda, etc. Of the tribal population in Thana district, it is more in Bassein, Dahanu, Jawhar, Shahapur and Talasari talukas. The poverty of the tribal people in this area is well-known. Prior to the introduction of land reforms, tribals were practically serfs of the land-lords and were exploited. Since Independence, the conditions of these people are undergoing a change. However, progress in the area is rather slow. In this area, credit system known as "Pademodi System" is very common under which credit for consumption is supplied by the moneylenders at very high rates of interest. This credit is in the form of cash and/or kind, usually taken prior to and during rainy season and the repayment is to be effected immediately after the harvest-Besides this, co-operatives and the Government also provide sizable credit to the needy farmers.

Bassein taluka of Thana district was selected for the present investigation. In all, 60 cultivators spread over in five villages were selected. The data were collected by the survey method. The cultivators were grouped as small, medium and large on the basis of the size of operational holding. The average size of holding in the area was 6.35 acres. It was observed that out of 60 farmers, as many as 53 were in debt. The average amount of debt per holding was Rs. 589.9. The indebtedness was proportionately more with small and medium sized farmers.

Major sources of credit in the area were the co-operatives, moneylenders and the Government. The proportion of credit availed from the above major sources was more with the small and medium sized farmers. A noteworthy observation was that the credit facility under the "Pademodi Eradication Scheme" was not availed by many cultivators because the loan was supplied partly in cash and partly in the form of jowar. Rice being the staple food of the people, jowar was not relished well by them. While examining the rate of interest, it was observed that the co-operatives charged 9.50 per cent per annum while it was as high as 25-50 per cent per annum with the moneylenders. Of the 35 cultivators belonging to the small size group, as many as 18 had taken loans from the moneylenders. The small and economically weak farmers were exploited more by the moneylenders. Of the total loan of Rs. 589.9 per holding, the co-operatives contributed Rs. 399 while the figures for moneylenders and Government were Rs. 128.9 and Rs. 23.8 respectively.

On examination of the utilization of credit it was found that as high as 45, 38 and 24 per cent of the credit was utilized for consumption alone by the small, medium and large sized farmers respectively.

The per acre scale of crop credit for paddy by the co-operatives in the area was Rs. 185 and Rs. 320 for the local and high-yielding varieties respectively. However, the credit to the extent of Rs. 89.21 for local paddy and Rs. 95.55 for high-yielding varieties was actually utilized by the farmers. The under-utilization of the available credit was reported on account of untimely supply by the co-operatives. Thus, the problem of credit remained in spite of the provision of credit but for the timely supply. Timely supply of credit to the poverty stricken tribal farmers for paddy cultivation in general and for high-yielding varieties in particular seems to be the vital problem of the area. Since credit is the prime need for efficient cultivation of paddy in this tract, problems of credit need to be solved as the economy of the area is totally dependent on paddy crop.

COLONISATION SCHEME OF SHIFTING CULTIVATORS IN TRIPURA (AN ASSESSMENT)

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SUMMARY

The Jhumia Colonisation Scheme inaugurated in 1957 by the Tripura Administration for the settlement of the jhumias is a bold experiment in social change. Because of the gradual decline of jhum cycle, jhuming alone was not in a position to provide even the bare subsistence for the jhumias. There are two schemes for weaning the jhumias away from shifting cultivation: (i) settlement scheme and (ii) colony scheme. Under the settlement scheme jhumias are given settlement of, on an average, 4 acres of land and a grant of Rs. 500. Under the colony scheme in addition to the above benefits, houses or house building grants are given in a colony established by the administration. By the end of Third Plan (1965-66), 5,716 families were given settlement in 22,527 acres of land in 47 colonies at a cost of Rs. 112.305 lakhs. But no information is available about the number of families yet to be settled.

The investigation reveals that out of the 50 households surveyed, exactly half of them have taken up settled cultivation, while 40 per cent have undertaken *jhuming* along with settled farming to supplement their income and the remaining 10 per cent remained mainly shifting cultivators or agricultural labourers. On the basis of performance levels of the families, 25 families were found forward-looking or progressive, 17 mediocre and only 8 families were placed as laggards. On the whole, the scheme has achieved considerable success, though there are certain defects in the process of implementation.

The success of the scheme like the *jhumia* colonisation depends, among others, on two most important factors: (1) availability of land and (2) process of change in the outlook of the *jhumias* to adopt settled agriculture and settled life in a permanent village. The study indicates the shortage of suitable land for cultivation. The *tilla* (upland) land is not always suitable for terracing and even when terraced does not give good crop. *Lunga* (low land) land is not adequately available for wet paddy cultivation.

The system of allotment of land on the basis of private ownership, when the tribal people are accustomed to communal ownership is also fraught with dangerous consequences. This may lead to transfer of land to undesirable hands. In this respect co-operative (collective) farming with Government providing management would have been better. Moreover, a scheme of this type will require complete co-operation among different departments of the administration. Given co-operation and co-ordination and a cautious but bold approach to the problem of social and economic behaviour of the *jhumias*, the colony scheme provides a good solution to the deteriorating economic conditions of the *jhumias*. But in such a scheme stress should be given not only on the farm sector, but also on the non-farm sector.

CARRYING CAPACITY OF SHIFTING CULTIVATION (A STUDY OF ASSAM HILLS)

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SUMMARY

Shifting cultivation (known as *jhum* in North East India), as distinct from sedentary cultivation, is a form of land use in which a part of a hilly and forested area is used for a short period of one or two croppings alternating with a long fallow period of 5 to 10 years. The *jhum* cycle—the number of years between two successive *jhum* operations—depends in most cases on the availability of land for such cultivation and the number of people to be fed, *i.e.*, the land-man ratio. The carrying capacity of land means "the ability of an area of land to provide food, drink and shelter or means of a 'civilised existence.' It is the result of two other factors, *viz.*. 'biotic potential' and environmental resistance or limitations placed by environment. The 'biotic potential' of land, besides geographical factors, depends on the form and pattern of land use. Shifting cultivation, being an extensive form of land use has, therefore, very low carrying capacity, compared to sedentary and intensive cultivation.

Surveys undertaken in different parts of the world have shown that shifting cultivation in association with attendant hunting and collecting can, at best, maintain 18 to 22 persons per square km. assuming that 50 per cent of the total geographical area is available for cultivation. In this paper an attempt has been made to estimate the carrying capacity of shifting cultivation in the hill areas of Assam where 60 per cent of the total tribal population depend on this method for subsistence. Data have been collected from village surveys of the Agro-Economic Research Centre at Jorhat supplemented by data collected especially for this paper from five *jhumia* households of a village in the Garo Hills. The actual measurement of five fields was done and data on crops collected through interview. *Jhum* cultivation is a system of mixed cropping and only rarely one or two crops may be grown pure. An estimate has been made of the average farm size from two samples—one from the Mizo Hills (42 farms) and another from the Garo Hills (5 farms). The average area cleared annually by a farm comes to 1.27 hectare in Mizo Hills and 1.43 hectare in the Garo Hills samples. In the Garo Hills, the same field is cropped with rice or millet next year. Thus an average farmily cultivates 2.86 hectares annually. The estimated value of crops from 1.27 hectare of the Mizo farm comes to 15.44 quintals of paddy equivalent. The estimated product of the Garo farm comes to 16.98 quintals of paddy equivalent.

Taking 500 grams of rice requirement per person per day an average farm requires 10 quintals of paddy for food. Providing 40 per cent of the cereal requirement for other expenses, each family of five will require 14 quintals of paddy per year. This they are producing from their farm to live at subsistence level. On the basis of the above data, it is estimated that an average farm will require 8.89 hectares in the Mizo village and 11.44 hectares in the Garo village. Thus roughly 10 hectares will be the minimum requirement of a family of five, or 2 hectares per person is the minimum requirement of land in the Assam hills. Thus the carrying capacity per sq. km. of land will be 10 persons, if 20 per cent of the land is available for cultivation. It will be 25 persons, if 50 per cent of the area is made available. This is not possible due to the topography and terrain. Moreover, the existing density of population in the Hill division of Assam is around 25 persons per sq. km. (22 persons in 1961). Further intensification with shortening of the *jhum* cycle may damage the soil permanently.

SHIFTING CULTIVATION AND FOREST POLICY

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SUMMARY

Shifting cultivation which involves felling of trees and clearing of vegetation on hill slopes and hill tops for raising a crop is considered to be a 'pernicious practice' and a thoughtless system of cultivation as it results in denudation of forest wealth and its gradual degeneration. The old forest policy allowed this system of cultivation on the basis of the rights and privileges extended to the tribals who have, since generations, been practising shifting cultivation and enjoying forest produce. The new forest policy emphasizes the need for controlling shifting cultivation and allows it only as a concession. Rules and regulations are now framed to permit shifting cultivation and use of forest produce. It is, however, necessary to appreciate the problems of the tribals who have taken to shifting cultivation only as the last resort as the inhospitable terrain, in which they live, permits no alternative system of cultivation. Besides, the tribal economy is almost interrelated and integrated with the forest economy and any hasty or sudden change in the living conditions of the tribals and their dealings with forests is likely to cause avoidable hardship. While the present system of tribal agriculture has, no doubt, a serious bearing upon forest economy in terms of the loss of forest wealth and produce, efforts made to wean them away need to be governed by a short-term policy and a long-term perspective. In areas where the extent of loss to forest economy is not serious or where a suitable system of cultivation is not provided to the tribal as an alternative, he should be allowed to pursue shifting cultivation. It thus becomes an essentially human problem and needs to be tackled with care and understanding. To minimize loss to the Forest Department and to facilitate forest regeneration the *Taungiya* system needs to be stipulated before the tribals are allowed to carry shifting cultivation. Besides, application of nitrogenous fertilizers or raising a legume crop has to be made compulsory. The long-term solution,

AGRICULTURAL DEVELOPMENT AND PROBLEMS OF NOMADIC TRIBALS IN RAJASTHAN DESERT

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SUMMARY

Government efforts for tribal development in India have largely been confined to the areas or tracts which are more or less exclusively inhabited by tribals. But the sizable proportion of tribal population residing in non-tribal areas has practically been neglected. Not only there are no special schemes for this section of the tribal population, but their economy has suffered due to what may be described as 'back-wash effect' of the economic developments taking place in their respective regions. At least this appears to have happened in the case of nomadic tribes, particularly *Raikas* in the arid region of Rajasthan.

Raikas, a nomadic tribe, are spread all over the desert region of Rajasthan. In the Central and Lower Luni basin alone they constitute nearly 8 per cent of the total households. Their traditional occupation, sheep, goat and camel raising, is followed by them even now. Traditionally, the animals are raised through migratory grazing. Owing to the nomadic pattern and availability of vast fallow lands for grazing, the sheep-goat raising by Raikas was never linked with the ownership of land. Consequently, one would raise as big a herd of sheep as one wanted without owning a single acre of land. According to the sample survey of Luni basin by the Central Arid Zone Research Institute, Jodhpur, nearly 27 per cent of Raikas owned no land, yet they owned 30 per cent of the total sheep raised by them.

The economy of *Raikas*, the prosperity of which was linked with vast stretches of fallow lands has suffered as a result of recent developments in the arid agriculture. The most relevant aspect of agricultural development in the present context is increased use-intensity of arid lands both in terms of (a) transfer of hitherto fallow lands under plough and (b) reduced extent of periodical fallowing of crop lands. The area under plough has increased from 6.6 to 9.3 million hectares (41 per cent) during 1951-52 to 1965-66. This has been mainly at the cost of grazing lands. Consequently, the economy of the livestock raisers in general and pastoral nomads in particular has suffered severely.

The consequent changes in the economy of *Raikas* which may be taken as indicators of 'backwash effect' of agricultural development in the arid region has taken the following forms: Complete abandoning of sheep raising and resorting to attached or casual labour; reduced scale of sheep enterprise; increased extent of nomadism and consequent losses in sheep farming; intensification of 'ploughman-grazier conflict.' There is no comprehensive information for the region as a whole, yet some case studies undertaken by the Central Arid Zone Research Institute do support the above view. Thus if the present trend continues the economy of this nomadic tribe will be completely uprooted. Therefore, their rehabilitation should be made an integral part of desert development programme.

AGRICULTURAL PERFORMANCE OF "THARUS"—A TRIBAL COMMUNITY IN TARAI REGION OF UTTAR PRADESH

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SUMMARY

The hope for the prosperity generated through the new technology of agricultural production is not being shared in the under-developed tribal areas. The farmers in these areas are still pursuing the primitive technique of production resulting in low productivity on the farm. An attempt has been made in this paper to examine the socio-economic conditions prevailing in a tribal area of Tarai in Uttar Pradesh settled with *Tharus*. The data from 36 cultivators representing small, medium and large, coming from three villages of a tribal locality, pertaining to 1968-69 were collected. Regression analysis was used to study the resource productivity and evaluate the economic efficiency of farmers. It is shown that the agriculture of these farmers is still in primitive stage and the farmers are irrational and inefficient in the use of farm resources.

DEVELOPMENT OF AGRICULTURE IN A TRIBAL AFRICAN ECONOMY

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SUMMARY

In Swaziland, the second smallest country in Africa, tribal agriculture under communal land ownership is practised side by side the title deed agriculture practised by European farmers. In this traditional sector of agriculture, an individual obtains rights to use and occupy land from the tribal chief of his area, and his rights may be extinguished if he is arrainged before the chief for a serious misdemeanour. While modern farming and animal husbandry practices have been adopted and agriculture is market-oriented on several of the title deed farms which are large in size, Swazi Areas which are comparatively over-populated and over-stocked, have small scattered holdings with unbalanced land utilization, over-grazing of pastures, poor farming techniques and low levels of yield rates.

The right of occupation of land once granted to a farmer by the chief of the Area is generally firm, yet insecurity of tenure and possibilities of unjust distribution of land are inherent in the system and affect optimum land utilization and land improvements and farm investments. Shortage of arable land is aggravated by the fact that even the poorly exploited and thinly populated title deed farms are not available for occupation by the rapidly rising Swazi population. Pressure of both human and cattle population has been causing fragmentation of holdings and soil erosion in overstocked communal pastures. Limited credit facilities, inadequate production inputs, poor infrastructure, lack of organization for disposal of output and low level of farm education and training are other impediments to agricultural development in the Swazi Areas.

Any change affecting radically the authority of chiefs is likely to have serious repercussions on the implementation of development plans. However, in order that the communal ownership does not prove a hindrance to land improvements and farm investments, there should be a provision for reimbursement for the land development, etc., by paying to the holder who carried them out by the new allottee or the community the value of that fraction of his work which he had not enjoyed. The only condition for terminating the tenancy of a holder should be his failure to develop fertility and increase productivity. The community on its part should undertake costlier land developments like construction of irrigation works, consolidation of holdings, balanced land use planning, antierosion measures, rotational grazing on communal pasturage and its fencing, etc.

Land shortages on Swazi Areas need to be remedied by purchasing adjoining farms, possibly through foreign aid; and compact blocks of land with high development potential should be selected for intensive development efforts which will also have demonstration effect on the other areas. The development efforts needed are listed in the paper and the roles to be played by the Government agricultural extension, crop promotion, marketing and credit services are specified.

BASIC PROBLEMS OF TRIBAL AGRICULTURE AND TRIBAL DEVELOPMENT BLOCKS

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SUMMARY

Principally because of the topographical conditions, the basic problems of tribal agriculture in Rajasthan have been (1) lack of irrigation, (2) soil erosion and (3) plant protection. It is felt that unless these basic problems are properly tackled the other attempts to increase farm production through HYV and fertilizers, etc., may not give desired results. The Community Development and National Extension Service Block approach was found inadequate to deal with the problems of tribal areas. Tribal Development Blocks were started in the State because it was hoped that these blocks will bring speedy development of the tribal community. The efforts made by the Tribal Development Blocks to tackle the basic problems since their inception cannot be claimed as very satisfactory.

The extent of area irrigated in 1966-67 in all the 18 Tribal Development Blocks in operation at the end of Third Plan was only 5.78 per cent of the total cropped area. Moreover, a large number of wells (44 per cent of the total wells) and tanks (42.71 per cent of the total tanks) remained unused for want of repairs and proper maintenance. The proper maintenance of tanks was also neglected which constitute valuable sources to raise the water table of wells of the area.

The heavy downpour within a short-time results into faster run off in volume with increasing ravages of soil erosion in areas which are not covered or surrounded with forests in the Tribal Development Blocks. Therefore, the control and prevention of soil erosion is an urgent problem in the Tribal Blocks. The progress achieved so far by the Tribal Development Blocks in this direction has only touched the fringe of the problem. Levelling and dry farming were done only in 0.36 per cent and 11.57 per cent of the total cropped area respectively in these Blocks.

The need for protection of crops against diseases, pests, wild animals, etc., is more in the tribal areas, because of the existence of hilly and forest tracts.

The plant protection measures such as seed treatment, rat control weedicides have not been introduced in all the 18 Tribal Development Blocks.

Any programme of development of tribal agriculture in Rajasthan lies in solving these basic problems. Following suggestions merit consideration for tackling the basic problems. For minor irrigation, every effort should be made for timely repair and maintenance of wells and tanks. The Tribal Development Blocks should give loans and subsidy for not only construction of new wells but also for timely repair and maintenance. Looking to the size of land holding, sub-soil water level and the level of development of the tribal economy, the traditional methods should receive proper attention for some years to come. Hence the Blocks should give more loans and subsidy for installation of Rehart and Persian wheels instead of pumping sets. In the matter of soil erosion a phased programme of soil conservation should be chalked out in all the Tribal Blocks and must be treated as a priority programme. In the direction of plant protection the Block authorities should educate the tribal farmers about the various methods of plant protection and provision of sufficient credit for plant protection should be made available to the tribal farmers.

GUIDE-LINES FOR DEVELOPMENT OF TRIBAL AGRICULTURE IN INDIA

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SUMMARY

Due to agro-climatic conditions, technological backwardness of tribal farming system, lack of education, prevalence of rigid, traditional, social and cultural outlook, etc., tribal agriculture can rightly be classified as subsistence sector of the tribal economy. Primitive method of farming, low crop intensity, high labour intensive dry farming and static cropping pattern are the key characteristics of tribal agriculture in India. The interaction of key characteristics has generated a number of secondary characteristics such as, low farm output and high man-land ratio leading to a low input-output coefficient, increase in the quantum of distress sale and repurchase of agricultural produce, high cost of production per unit of area and low farm productivity, etc. Among many a factor affecting agricultural development in the tribal areas, agro-climatic conditions, non-availability of plain fertile lands, irrigation, fertilizers, improved seeds, easy credit and storage facilities and organized market, ignorance about the latest use of agricultural technology and practices, aptitude of tribals for primitive traditional tribal culture, etc., are a few important factors affecting the growth of tribal agriculture in India. Of the factors influencing the pattern of farm investment, topography of tribal areas, irrigation facilities, structure of operational holdings and farm families, rate of saving, availability of credit facilities, degree of indebtedness, level of education and social inhibitions and sanctions, are worth mentioning.

A few suggestions for the development of tribal agriculture are as follows:

- (i) More emphasis on a number of tribal development programmes in a larger area should be given instead of rigidly limiting the programmes within the present boundary of Tribal Blocks.
- (ii) Promotional measures for the installation and extension of more forest-based and agriculture-based small scale industries should be taken by the State and the educated tribals should be given preference over others for employment.
- (iii) Extension efforts should be concentrated on the most improved agricultural practices rather than on persuading the tribals for a package use of such practices.
- (iv) Prevalence of traditional, tribal culture, social backwardness of tribal farmers and their bias in favour of traditional techniques of dry farming and indifference to improved agricultural practices because of technical uncertainty, should gradually be removed by demonstrating higher marginal benefits of improved agricultural practices over the conventional ones.
- (v) In order to keep the small and medium tribal farmers free from the clutches of the exploiters, arrangements for granting loans through co-operative or other financial institutions, should be made.
- (vi) The old concept of viewing education as a social and welfare service and not as a healthy investment for regeneration of capital, should be bidden good-bye once for all, and education especially in the tribal areas should be made development-oriented.

- (vii) The shyness of the tribal farmers in establishing contacts with the extension personnel should be removed by arranging frequent visits of such personnel for supplying inputs at the village level.
- (viii) Consolidation of holdings and co-operative farming should form a wider basis of agrarian reorganization, especially in the tribal areas, and the problems arising out of such reorganization be tackled on the principle of economic viability of farm units and the size and requirements of tribal farm families.

DEVELOPMENT OF AGRICULTURE IN TRIBAL AREAS OF TAMIL NADU

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SUMMARY

The problem of tribal development is not so acute in Tamil Nadu as in the case of other parts of India, since they constitute less than 1 per cent of the population of the State. The tribals mostly live in mountainous areas and forests and their concentration is more in the districts of Salem, North Arcot, Chingleput and Dharmapuri. Of the total tribal population of the State, 51.27 per cent are males and the rest females. The level of literacy among the tribals is 5.91 per cent according to the 1961 Census. Agriculture is the main occupation of the tribals. The land holdings of tribals are small and scattered and the holding size of the households ranges between 2.5 and 4.9 acres. About 89 per cent of the tribal households owned lands or held them from Government. The bulk of the investment of the tribals is on land. Indebtedness is a serious problem among the tribals. The average debt of a family is estimated at Rs. 2,000 with the rate of interest varying from 62 to 100 per cent. Kalrayan hills in the Salem district is a region of wide spaces as yet untapped and undeveloped and is in fact the problem of the State. With the dependence on rain "rainfall agronomy" or dry farming is the rule of the hills. The farming system has mostly remained as "mono culture" or "single cropping." In respect of Periyakalrayan and Chinnakalrayan hills the entire planting materials required for the cultivation of potato and the plant protection chemicals are supplied free of cost. The *Thodas* of the Nilgiris are noted for rearing buffaloes. If adequate grazing facilities are provided, the rearing of buffaloes would improve and dairy industry can be built up.

In order to better the economic and social conditions of the tribals and to exploit the resources the following suggestions are offered.

- (i) The cropping pattern of the tribal areas should be such that the tribals are encouraged to resort to cultivation of cash crops of their region to the maximum extent possible.
- (ii) Effective measures may be taken to increase the number of orchards where a variety of fruits are grown and to set up fruit preservation industry in the vicinity of the tribal areas.
- (iii) Rearing of cattle may be encouraged in the well-suited regions such as the Nilgiris, Hosur, etc.
 - (iv) Intensive production of forest products.
 - (v) Setting up of agro-based industries within the tribal belt.
- (vi) Rapid extension of communication facilities in the form of link roads and approach roads to the tribal villages.
 - (vii) Setting up of marketing centres to ensure fair deal of their produce.
- (viii) Absorbing the available manpower in the construction activities of the tribal areas and utilizing their traditional skill in selected cottage industries.
 - (ix) The tribals may be given permanent pattas and facilities for long-term loans.