PART II

THE ECONOMIC BASE
CHAPTER VII

ECONOMIC STATUS OF TRIBALS

Contrast between the rich and the poor is the most striking feature in the manifold diversity of mankind. To understand these disparities requires knowledge of the different forms of economy. The word 'economy', as used here, refers to the system of 'techniques, tools resources and organization' by which a society make its living. The same is the case with tribal societies of the region under study.

The Baghelkhand region is a traditional land of tribals. Most of the tribal societies of the region are small in size, their own social relations are based on kinship or village community. Their simple technology affords little or no margin beyond production for immediate consumption. They rarely save for capital equipment, or specialize beyond the division of labour between the sexes. The insecurity of life, the effort for and uncertainty of making a living demand the solidarity of the group. Mutual aid is common, especially in sharing fortuitous food surplus. Work and gift exchanges are the mechanism of redistribution of wealth.
such as there is, and cementing social relations. Rules of custom prescribe these rights and obligations. To claim the exclusive enjoyment of the fruits of one's labour is to make oneself an outcast. Herein lies a severe barrier to economic advance. Nevertheless, the tribal societies are undergoing a process of change. Purposeful production for the external market is now an important element in several areas, although it is still peripheral to the subsistence economy. Processing and long distance trade are largely in the hands of non-tribal merchants, who are not inhibited by the social customs of the indigenous community.

The tribal economy of the region has been changing continuously from food gathering to settled agriculture. From the early times the non-tribals have been penetrating into tribal areas to exploit the valuable resources of forest and minerals. The forest resources are reduced not only because of cutting of jungles by tribals, but also due to commercial use of the forests by the early rulers and the outsider merchants.

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Successive governments have been dividing the forests into zones and circles of reserved areas, restraining the tribals from using them freely. Therefore the tribals who were totally or partly dependent upon the jungles, turned for making a living towards settled agriculture or joined road making gangs etc.

Some of the tribal areas of the region are located near coal mines. For working the mines the Government has acquired the lands of tribals and has shifted them to other places. Due to this, experts and technicians from outside have been given jobs instead of tribals. The local tribals have been given only low-paid jobs. Alcoholism is an abuse which is common among tribals as well as non-tribals in this region. The tribals are permitted to prepare 15 litre wine per head for their personal use. But some of them prepare wine more than their permitted quota and sell the surplus to non-tribals. This practice is not common only in collieries but also in other areas where tribals and non-tribals are living side by side.

The ways of making a living of the tribals have changed under the pressure of forces having no sympathy with them. But even after independence, little attention
has been given to the tribals by the Government. Till now the condition of the tribal economy remains in a very poor state. According to 1981 census only 43 per cent tribals are economically active. But this is not a true picture, since this percentage does not take into account children who are engaged from the age of 6 or 7 in economic activities. The present researcher has observed that children of 7 to 9 years old bring fuel wood from the jungle and sell it in Shahdol town while others of the same ages work as shepherds.

Among the economically active tribals, a huge chunk, i.e., 93 per cent are engaged in agriculture and remaining 7 per cent engage themselves in secondary and tertiary activities.

**CLASSIFICATION OF ECONOMIC GROUPS**

The tribals of Baghelkhand may be classified under the following economic groups:

(i) Settled and prosperous cultivators who own lands and who have a surplus domestic economy.

(ii) Cultivators who have a hand to mouth existence either because the lands they own are insufficient or of poor quality.
(iii) Landless labourers who have to work on the lands of others or earn their living by working as wage earners in forests.

(iv) Mining labourers.

(v) Tribals who still inhabit dense forests and live by shifting cultivation and collection of forest produce.

Prosperous Cultivators

These cultivators, mostly Gonds, Oraon and Korkus, live in villages in the plains. These villages also have some Hindu peasants population. They own good quality lands with more than 20 acres per family on average. They have adopted the agricultural tools and practices of Hindu peasants and have also accepted their food, dress and the way of living. Often they supplement their incomes from land cultivation by taking recourse to such occupations as felling of trees and sale of timber, selling of liquor, shopkeeping and money-lending and by taking up salaried jobs. A large number of these Gonds, Korkus and Oraon living in the plains are prosperous cultivators.
Hand-to-Mouth Living

The largest number of tribals namely, Gonds, Kols, Baigas, Korwas etc. in the region belong to the second category. They own small pieces of land which they cultivate but the soil of their lands is poor and their holdings are too small to enable them to depend wholly upon these holdings for their living. They do not have irrigation facilities and they use refuse and ash as manure. Generally they have low crop yields on account of the use of inferior quality seeds and primitive implements. To supplement their income from land, they have to work as labourers in the fields of the well-to-do farmers, in forests, and as labourers in P.W.D. gangs. They also take advantage of the facilities provided to them by the forest department called nistar of free collection of tendu leave and such other forest produce as harra, bahera, sonla, tamarind, mahua flowers and fruits, mango, and wild grasses. They sell these to dealers and contractors to get some money for the purchase of such articles of their daily use as beads, iron implements, gur and sugar, salt, spices, oils and tobacco. The tribals who are living in countryside or suburbs of the cities or towns are engaged in rikshaw pulling, building construction work, sale of fuel-wood from the jungles etc.
Usually they lead a hand-to-mouth existence, and have to resort to borrowing to meet unforeseen exigencies. As their income is hardly sufficient for bare existence, these loans keep mounting. Often the indebted tribals have to serve the creditors without payment, almost like serfs, and often this serfdom is passed on to succeeding generations.

**Landless Labourers**

The third category consist of landless labourers. They constitute more than 20 per cent of the total tribal population of the region. These people are exploited most by traders, contractors, money-lenders and are unable to find any solution to the perennial problem of indebtedness. During the busy agricultural season (June-September) they work for well-to-do tribal and non-tribal cultivators at fixed wages. The wage is usually in kind and paid by weight. Very rarely are such payments made in cash. Tribals living in forest villages are under an obligation to serve as labourers in the forest. Their wages vary from Rs.6/- per day to Rs.10/- per day. Forest contractors also employ them for felling trees at wage rates ranging from Rs.6/- to Rs.9/- per day.

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2 The rates given refer to 1984 A.D.
A small number of the landless tribals are employed in welfare projects sponsored by the Government, such as digging tanks and building houses. Efforts are being made by the Government to provide some land to the landless and thus rehabilitate them in their own environment. There is also a proposal to train some of the landless tribals in cottage industries and crafts the raw materials for which are available in abundance in the vicinity. The tribals also possess traditions and memories of crafts which are now dead or decadent.

Mine Labourers

There is a small tribal population of Kols, Baigas, Oroans, Gonds etc. scattered all over the region who work as labourers in coal mines and in stone quarries and in industrial concerns. Most of them work as unskilled labourers.

Baghelkhand is rich in mining and industrial potential and as the industrialization of the rural areas makes progress, more and more tribals in search of employment are being attracted towards such places. It is a matter of some satisfaction that the tribal labourers working in the mines and factories are treated exactly like their non-tribal counterparts. The supervisors and managers speak highly of their ability, strength and
sincerity. One unfortunate fact which they point out about tribal labour is absenteeism. The average tribal labourers works for about 230 days in a year. Most of the time, they are away to their villages, celebrating, drinking and dancing, visiting their friends and relatives, or just idling. Most tribals generally do no like to work more than what is necessary to earn enough for their daily needs. The idea of saving is alien to all except the acculturated tribes.

**Subsistence from Jungle**

The number of tribals belonging to the fifth category is very small. They live in deep forests, hills and inaccessible areas of Sarguja district. Shifting cultivation is not permitted but it is practised surreptitiously in those places where hill slopes are steep and regular agriculture is difficult or not at all possible. The tribals inhabiting such deep forests, like the Pahari Korwas, and Baigas eke out their subsistence from the jungles. They are practically omnivorous, at times not sparing even poisonous roots, reptiles and carrion. They are scantily dressed and their ornaments are made of palm leaf, bamboo and straw. Their houses are made of timber, bamboo, mud and straw (all locally available at practically no cost). They tap the palm and
palmyra trees for sulphi and tari and occasionally brew liquor from mahua blossoms. They grow tobacco and vegetables in their kitchen gardens. They do their own smithy and carpentry, and believe that they are protected against illness by their medicine men. The result is that there is very little indebtedness among them and they do not suffer from many of the social problem which are common to the acculturated tribals.

These isolated or semi-isolated tribes present another problem, though, viz., whether they should be left as they are, or whether they should be covered by the usual development projects. It is clear that they cannot remain isolated for a long time. Already these areas are being surveyed by the Government for development projects.

Even where tribals have settled down as cultivators, their agriculture retains its backward character. Factors responsible for the backwardness of tribal agriculture in the region are:

(i) poor soil, (ii) almost total absence of irrigation, (iii) lack of manuring (iv) ignorance of the people about the techniques of crop rotation and crop mixing, (v) use of crude and primitive agricultural implements, and (vi) greater intensity of soil erosion on hill slopes and inability of the tribal farmers to arrest it.
The result is that the crops grown by tribal farmers are of the coarse variety which they use for their own consumption. Only in a small area of southeastern Baghelkhand region, oil-seeds and rice are grown. In the wheat growing tracts of the Sidhi district where the soil is better, cotton and groundnut are cultivated. For the rest of the area, coarse varieties of paddy, maize and millets are the standard crops raised by tribal farmers. In their bari (kitchen garden) they grow vegetables, maize, tobacco and some fruits like bananas, guavas and papayas.

To sum up, it can be said that agriculture is the main source of livelihood for the tribals in this region. They have been dependent upon cultivation of land for centuries, and in spite of industrial development, cultivation is likely to be the predominant pattern of their economy for a long time to come.

Making a Living

The majority of the tribal population of the Baghelkhand region live in the hilly and jungle areas where most of land is under reserved/protected forest. In the past they generally practised shifting agriculture. In 1867, it was finally decided to prohibit shifting
cultivation throughout the Central Provinces. Before this, the tribals used to practise shifting cultivation without any check. Now shifting cultivation has been banned, and the tribals, restrained by administrative and economic pressures, have adopted settled agriculture, except in a few parts of Surguja District, where shifting cultivation is carried on illegally. The tribals have been extremely reluctant to have contacts with non-tribals and were either pushed or themselves withdrew to relatively isolated tracts, on the hills and into the jungles. Naturally, the land is more barren on the rugged and undulating hills than in the plains, and the yield from it is seldom sufficient to meet even the essential requirements.

Even when the tribals have given up or been forced to give up shifting cultivation, they have continued to follow their traditional and primitive methods of agriculture with crude implements, poor quality seeds, without the knowledge or practice of manuring and crop rotation.

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A noticeable fact about the agriculture of Baghelkhand region, and more specifically of the tribals, is its low productivity. The yield and the value of the crops produced by the tribals is even less. This is because of the following factors:

(a) Limited land available for agricultural purposes in the more or less isolated, inaccessible hilly regions and jungles, where a big part of the area is covered by forests.

(b) Soil erosion, lack of fencing around the fields, paucity of irrigation facilities and employment of very crude techniques and implements of agriculture.

(c) The tribals' preference for producing low value and coarse crops like kodon-kotki, jowar, maize, tangurn, kunuwan, kangun, budia, marhia, sutru, and khursa.

Animal Husbandry

The cattle population in the tribal areas of the region is quite high, although the breeds of cattle reared are usually very poor. In traditional economy of the tribals cattle serve only as suppliers of food.
and as beasts of burden. Hence there is a great emphasis among them on the rearing of pigs and poultry, which is the common feature of tribal villages all over the eastern and southeastern areas of the region.

From the First Five Year Plan period the emphasis has been laid by the Government upon the establishment of veterinary dispensaries and cattle breeding farms, training veterinary personnel and distribution of bulls and cows of better breed. Thus animal husbandry is developing as a major subsidiary occupation for the tribals in the region but the rate of the progress of such project is very very slow and the results are not very encouraging.

Forests

Most of the tribal communities in the region have had their share in the forests since times immemorial. They have been dependent to a large extent upon produce from the forests for their consumption and for barter. Unfortunately, during the past, as a result of shifting cultivation operations, many of the forests in the region have been ravaged.
At present, the forest area of the Baghelkhand region comprises approximately 21,573 sq. km or nearly 46 per cent of the total geographical area of the region. Of the total forest area, 6,422 sq. km or 28.8 per cent is classed as reserved forests in which all private rights and concessions have been abolished. Some 8,049 sq. km or 38.4 per cent of the total forest area is classified as Protected Forests and rest as Unclassed Forests. In the protected forests the local population has retained certain privileges in regard to firewood collection and grazing of cattle.

The economically valuable forests of Baghelkhand are classified as sal, teak and mixed forests.

Sal forests are concentrated in the Sidhi, Shahdol and Surguja districts. Mixed deciduous forests occupy large areas in Sidhi and Shahdol forest divisions, while bamboo occurs as underscrub and is prevalent in most of the teak forests of the Baghelkhand region. The largest unused reserves of bamboo are found in the central part of Shahdol district.

Most of the forests abound in products of commercial value as achar or chironji (buchania latifolia), dhamun (grewia restita), semur or semul cotton tree
(bambax malarium), amaltas (cassia fistula), kachnar (bauhinia variegata), harsingar (byctanthes arbortristris), gular (ficus glomerta), tinsa (ongonia dalbergiodes) and mahua (bassia latifolia). Mahua has high spreading foliage useful for consumption and barter.

Important fruit-bearing trees are mango (mangifera indica), jamun (engenia jambologna), tamarind (tamarindus indica), wild plum (zigyphus jujuba), kairl or wood-apple (feronia elephantum).

A very important source of income, in almost all the tribal areas of Baghelkhand, is the picking of tendu or ebony (diospyror tomentosa) leaves used for the manufacture of bidis.

There are various types of grasses of commercial value found in the region. Mention may be made of babel or bhabhar (polinica eioponda) utilized in making ropes and for paper manufacture, bharru (sorghum helepense) needed for making reed-pens, andropagon sehoenanthus which yields the aromatic rusa oil, and panicum crus-gali whose seeds are gathered and eaten by the tribals, and other herbaceous undergrowth like acanthaccae and legniminosea.
Besides carrying on agriculture and selling forest produce, the tribals engage themselves in many other jobs for supplementing their income, such as serving as agricultural labourers within or outside the villages they live in, working as wage-earners in the Forest Department, directly or indirectly (that is, with forest contractors), in constructing roads, and as labourers in mines and collieries. Fishing and hunting provide extra food in some parts. It has been reported that tribals in some area have taken to cattle grazing as a primary and, more often, as a subsidiary source of income.⁴

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CHAPTER VIII

AGRICULTURE

Most of the tribals of Baghelkhand region are agriculturists. More than 90 per cent of the tribal population of the region inhabits the hilly and plateau tracts. Land is the only basis of their sustinance and they have a purely rural character. Most of the cultivators are poor and small farmers and lands owned by them are of relatively low fertility as compared to the lands owned by non-tribals. Very large areas are devoid of irrigation and depend upon seasonal rainfall. Irrigation, if available, it is done mainly with wells, which rarely have water throughout the year because of low water-table.

CLASSIFICATION OF LANDS OWNED BY TRIBALS

The agricultural tribes of the Baghelkhand region have their lands as the mainstay of their economy, as in any other region. The value of land is judged and classified with reference to their relative position and gradient. The tribals possess mainly two types of cultivable lands viz., the Don (lowland) and 'the Tnar' (upland). In the north-western part of the region lands is classified into three categories (i) 'Dand' (upper land), (ii) 'Chawar'
(medium land with paddy fields), and Bhara (lower land where water remains up to January).

The Don

The depressions between the rugari tnars are known as the don or the 'bahla'. These are actually terraced fields on slopes. These don fields can be classified on the basis of elevation, site, fertility and soil moisture. The poorest quality are upland fields the tops which are known as -- 'Chawra don' -- Next in quality is called the 'Sokra don', the third terrace is called the 'Garha don' and the lowest part of the depression is called the 'Kudar don'.

The 'Kudar don' is best of all, which possesses the highest fertility and moisture contents. As a rule, the fertility and moisture contents become low as one goes up from 'the kudar don to the chawra don. The quality and quantity of the output of rice and other crops also decreases accordingly. The don are generally utilized for growing paddy.

The Tnar

The 'Tnar' is flat land. It is almost level or it may show a gentle slope. According to the location and
fertility of the soil, the 'tnar' land is further divided into three categories. The 'Bari', the 'Dehari', and the 'Rugari' tners. The land that is attached to a house and used as a kitchen garden is called the 'Bari tnar'. Generally vegetables and fruit for domestic use are grown and paddy nurseries are prepared in these Bari tners.

The land used for the rice seedling is called 'the Bira bari'. The bari is well manured and adequately irrigated land.

Outside the village settlement, patches of upland are known as the 'dehari tnar' or the 'chawra baries'. These tners are used for growing different varieties of pulses, vegetables and rice seedlings. Those who can afford to dig wells grow various type of vegetables. The good quality tners are cultivated every year without any problem and the fields are rarely left fallow.

The distant uplands are called the 'rugari tners'. The 'rugari tnar' is comparatively less fertile than the 'dehari tnar' and hence it is cultivated in alternate years. Sometimes it is also left fallow for two years. Generally, coarser varieties of crops are grown in rotation on these lands. The upland paddy (goradhan), millets (gondali) and marua, pulses, cotton, til, san, rapeseed lineseed, mustard, ram til etc. are grown on the 'rugari tnar'.
AGRICULTURAL TOOLS, IMPLEMENTS AND MANURING

The chief agricultural implement used in tribal areas is the plough or 'hal'. It is an age-old wooden implement with an iron share which varies in weight from 18 to 36 kg, depending upon the type of soil. It consists of the 'ugta', 'pasi', 'nari' and 'sangi' (also known as gohla) in combination. Other implements used in farming are the pata (harrow), the kodari (earth remover), the 'hangga' (leveller), the 'tantar' (sickle), the 'kuddi or kudal' (spade) the tongi (axe), 'the sabar' (crow-bar), the 'calari' (pitchford) etc. Other tools used in processing are the rice pounder and the expellar (to squeeze out oil from oilseeds) both of which as known as 'dhenk'; the 'patla', the 'chunika' and the 'mann' (mortar and pestle). The Sikabahinga (ugi) which is composed of epta and 'arganaep' (bahinga) are used to carry the loads. The bullock-cart is used as a means of transport for short distances. It is comparatively small with solid wooden wheels.

From the very beginning, the agricultural tribes of the region have depended upon forests. Hence the implements used in agricultural operations are mainly made of wood, and for the making and repairing of these wooden
implements the tribals have their own traditional small tools. Prosperous tribal cultivators have started using modern implements such as paddy huskers (threshers), straw cutters, pumping sets etc.

The chief fertilizer used by the tribals is cowdung manure. The dung is collected in a pit into which dirt and other refuse are heaped. After some time the decomposed contents of the pit are scattered in small heaps all over the plot. The ploughing before the first shower mixes the manure with the soil. The use of chemical fertilizers is practically unknown in the region. At some places well-to-do peasants have started using them very recently. Green manuring is also done occasionally by a very small numbers of tribals. As far as irrigation is concerned, the tribals usually depend upon Nature. At some places wells and tanks are also used for the purpose.

**AGRICULTURAL PROCESSING AND PLOUGHING**

Various agricultural processes are carried on in the region.

(i) **Ploughing**

Before cultivation the land is ploughed three to four times, according to its state. The first ploughing is
done immediately after reaping the earlier crops or immediately after the first heavy shower of rain in January or February. This is known as 'chirna'. (It means to cut the land open). Within one or two months, after the first ploughing, the second ploughing is done. It is known as the 'khetrana'. Thus the soil is exposed to the sun. The big clods are broken with a mallet (dhelaphora). In March and April, the field is manured, and, if needed, it is ploughed again for the third time. This operation is known as the 'uthona'. The last ploughing is done just before the sowing or transplantation of paddy and is known as the 'kdina'. The field is harrowed before sowing. After sowing, if necessary, weeding is also done with the help of the plough.

(ii) Repairing of Ridges or Embankments

The field terraces are separated from each other by mud ridges. These embankments have to be repaired frequently and made watertight. Again, these are strengthened between the first ploughing and the sowing operations. These operations are done when the soil gets moistened by the winter showers.

From the time of sowing up to the end of the rainy season the amount of the water in the fields has to be.
regulated constantly, to prevent its excessive accumulation in the fields. Surplus water is allowed to flow off. When water is to be retained, its flow is prevented. These two operations in the process of regulating water are cutting out water and confining of water. After the rainy season the embankments are further strengthened and made water­tight (adding earth towards the close of the rainy season), approximately in the middle of September.

(iii) Sowing

Due to the subsistence economy, every tribal peasant keeps his best seed stored for sowing. Due to ignorance and high prices they do not get, HYV seeds supplied by the government. The actual process of sowing starts from April and lasts till August. Sowing operations may be divided into the following:

(a) Broadcasting (Buna) - After the first showers in April, the prelimineries of ploughing, manuring and levelling are done, and the fields are prepared for broad­
casting. Then the seeds are collected in bamboo baskets and are broadcast. The soils are then mixed with the help of light ploughing and finally harrowing is done.
(b) **Sowing in the Mud (Lewa)** - The field is prepared first like the *buna* fields. The only difference is that the last ploughing for the *lewa* is done so as to bring the soil to a muddy state. After a day or two when the soil is settled, the excess of water which floats over the surface is drained off and the pre-germinated paddy seeds are broadcast. This is done after soaking them in water for a day or two and then keeping them/covered baskets.

(c) **Transplantation (Ropa)** - Transplantation is done in the month of Sawan (July-August). The *ropa* fields are also prepared in the same manner as the *buna* and the *lewa* fields. But *ropa* fields are re-ploughed before transplantation so that the soil and water are mixed uniformly. This process is known as *kudrana*. The seedling nursery is known as *bira bari* and seedling is called *bira*. The *biras* are of two types, the *buna bira* and the *lewa bira*. The *buna bira* is sown in the months of April and May using the *buna* method whereas the *lewa bira* is sown in the months of June to August by the *lewa* method. Transplantation is generally done by women. They make rows and hold small bunches of seedlings in their left hands. They make holes with the finger of the right hand at the interval of few inches and plant 2-3 seedlings in each hole.
(d) **Weeding** - The rice fields are weeded three times. The first weeding is done after about a month of sowing when the paddy plants have become a little mature. The second weeding takes place when water accumulates in the fields for two or three days so that the wild grasses get decayed. Then it is ploughed, and the water is allowed to flow off. The third weeding takes place after fifteen days of the second weeding. It is generally done by labourers.

(e) **Watching** - When the paddy is growing it needs careful watching. Cattle grazing should be strictly prohibited. When the crop gets matured or ripens completely a careful watch against the thieves' birds and cattle is necessary. Women and children often do this job during the day-time and men keep watch at night. They sleep in field on the 'Macha' (a raised plat form) or in the 'kumbas' (a umbrella type shade made of straw).

(f) **Harvesting** - Since the crop ripening periods vary, the harvesting starts from October and continues till January. It is done by country-made sickles.

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1 Theft of ripe crops is a very common thing in this tribal region because of food scarcity.
(g) **Threshing and Winnowing** - The ground on which the threshing operation is done is known as 'khali' (Khaliyan). A rocky place is preferred for this purpose. If this is not available some other convenient site is selected. Generally the 'Khali' is done near to the fields. The threshing ground is cleaned and made smooth. The paddy is brought in bundles and left in the open so that it may dry in the sun. After two or three days it is re-arranged in a circular form of heap and ears of the paddy are kept towards the centre. A few bullocks are driven on it. Then the straw is continuously turned up and down by a pitchfork (*the kalari*). Sometimes this is also done with hands. The chaff is removed from the grains by a winnowing fan (*sup*). When the winds blow, the farmer puts some grains in the winnowing fan and lifts his hand upwards as much as possible and then shakes his hand so as to let the grains gradually fall on the ground. The chaff being very light blow away some distance while the grains fall below at the winnower's feet.

(h) **Husking** - Paddy is husked either with the *dhenki* or *chunjka* (pestle and mortar). Unboiled rice is known as 'abda' (*ara*) and that which is boiled before husking is known as 'ondka' (*usna*) rice.
CULTIVATION OF THE UPLAND PADDY AND OTHER CROPS

Upland Paddy (Gora dhan)

On the upland fields, paddy is grown by the broadcasting method. The operations of the fields for sowing are the same as for low lands. They are sown in June and harvested in September. The north-eastern part of Madhya Pradesh is known as a rice bowl and Sidhi, Shahdol and Surguja districts are parts of this region. Paddy production in these three districts was higher than those of all the other foodgrains in the region - 54.58, 168 and 231.48 metric tonnes respectively, in the year 1981. Rice is the staple food of the tribals.

Kodon Kutki (small millet)

Kodon kutki is also an important crop of the region. It is grown all over the region, especially in the areas of tribal concentration. It is cultivated on higher portions of land locally known as 'tekars' or 'tnars'. Ploughing is generally done in July, usually once or twice for kodon and twice or thrice for kutki. Fields are generally bakharred twice before sowing kodon which is sown in July while kutki is sown in August.
Kodon is grown on almost every kind of soil, and in favourable years its yields are remarkable.

The production of kodon kutki in the Shahdol district is 18.50 million tonnes, it is 26.85 million tonnes in Sidhi, and in Surguja district 9.50 million tonnes.

Kodon is of various kinds - 'Bisbaria' and 'Luma' which have large grains are called kodon; 'Basin' and 'Lehri', which have smaller grains are called 'Kodeli'. Kodon is usually mixed with arhar or tur in Shahdol and Sidhi districts and the adjoining parts of the Surguja district.

When Kodon is sown with arhar, both the seeds are broadcast together, but when jowar is sown, Kodon is broadcast first and than the field is ploughed and after 2 or 3 days jowar seeds are broadcast. This is followed by another ploughing. Generally this millet takes a longer time for germination than jowar; but if sown earlier, both the crops germinate together. These crops are usually not given any manure, and are rainfed and allowed only one weeding. Being strong, this millet neither requires irrigation nor rain. Weeding is done after a month of sowing.
After being harvested in the middle of November, it is kept for a month in 'khaliyan', as the cultivator is busy with the threshing of paddy.

Kutki grain closely resembles kodon and is about a quarter of its size. It is generally sown in those fields which have been broken up from fallow and ploughed three or four times. Unlike kodon, the millet does not thrive on poor soils, and unlike its counterpart, it requires intermittent rains too. As kutki is sown in August, generally after two or three ploughing, weeds are naturally killed and hence weeding is not required. It is threshed soon after being harvested in early October.

Threshing and winnowing practices in these twin millets are the same as in other crops. The seeds are preserved in earthen pots. To retain the fertility of the soil the following rotation system is observed on the poor lands.


Maize

Owing to the suitability of climate for it, maize grows well and abundantly in the three districts of the
region. It is sown in early June or July. Short duration varieties are ready to be harvested by September and the long duration ones in October or early November. Hybrid maize is now being introduced and gives excellent results. The yield of hybrid varieties under irrigated conditions, increases three to four times those of the ordinary varieties.

This crop needs very careful watching just after bearing corn fruit. In the day time watching is done mainly by children or women and at night it is done by men with the help of comparatively higher Macha or Machan.

**Wheat and Barley**

Barring the hilly and less irrigated areas, these crop are evenly distributed in the region, especially in tribal concentration areas. Meagre amounts of the crop are produced because of some physical and economic limitations. Generally wheat is sown in October or November, and harvested from the middle of March to the end of April. It needs much waters, and therefore the areas where the soil is light or irrigation scanty, barley is preferred. It is sown in October and November and harvested in March and April.
The total production of wheat in Sidhi is 23.87 million tonnes, in Shahdol 29.80 million tonnes and in Surguja 39.12 million tonnes. Barley production is approximately one third of wheat.

Oilseeds

The important oilseeds which are grown in the region are sesame (Til or Tilli and Ram Til), rapeseed, mustard (Rayee-Sarsoon), linseed (ulsi) and groundnut (Moongphali).

Sesame

Generally these are grown on uplands. Among oilseeds, sesame is the main kharif crop. It is grown all over the region, but Gopodhanas and Sigrauli tahsils of Sidhi district and Beehari and Sohagpur tahsils of Shahdol district have a special tradition for cultivating it.

The land for til cultivation is well ploughed and 'bakhered' before sowing. After the seed is in the ground the bakhar is inverted and run over the ground to press the seed home. This process is called 'pahta'. It seldom requires weeding. Sowing is done in June and July and harvesting in December. It requires rain soon after
germination. If there are no rains its crop is destroyed by an insect called 'chidda' or 'chitu'. 'Mahu' is an insect which appears if too much rain falls and it destroys the leaves.

There are two varieties of til crops grown—white and black. The former fetches a higher price. Large quantities are exported to France where it is mixed with olive oil to make Lucca Oil, which is a trade name.

The production of til is 2.28 million tonnes in Sidhi, 1.6 million tonnes in Shahdol and 0.90 million tonnes in Surguja district.

The production other oilseeds are given in the following:

<table>
<thead>
<tr>
<th></th>
<th>Sidhi (million tonnes)</th>
<th>Shahdol (million tonnes)</th>
<th>Surguja (million tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulsi</td>
<td>1.66</td>
<td>1.40</td>
<td>2.60</td>
</tr>
<tr>
<td>Peanut</td>
<td>0.01</td>
<td>0.10</td>
<td>3.25</td>
</tr>
<tr>
<td>Mustard</td>
<td>-</td>
<td>-</td>
<td>12.20</td>
</tr>
</tbody>
</table>
Pulses

The arhar or tur, gram and urd are grown all over the region, while masoor and moauth are grown in the northern and south-southeastern part of the region respectively. About arhar, it has already been mentioned that it is generally grown mixed with other crops like kodon and kutki.

Gram (Cicer orientinum) is a major pulse crop of the region. Unlike other crops mentioned above, gram is of limited occurrence. It is cultivated in some areas of Schagpur tahsil, Gopadbanas tahsil and Son trough. Though it is common in some particular areas, it is not totally absent in rest of the region.

It is generally grown in fertile areas. Land for its cultivation is well ploughed and 'bakhered' before sowing is done. In the first half of October the gram seeds are sown with nari. These are sown pure or mixed with wheat and barley in a mixture ratio of 3.1 and 5.1 respectively. Manuring and irrigation are not required. The crop, if sown pure, is harvested in the first half
of March and if mixed, in the second half of the same month. The following rotation is usually done:

1. Fallow - Wheat - Fallow - Gram
2. Paddy - Gram - Paddy - Gram
3. Fallow - Gram - Fallow - Linseed

(i) Three varieties of gram are generally grown in the region, namely, 'Haldia' which is yellowish in colour, (ii) 'Imalia' with a red tint, and (iii) 'Prabatia' which is white.

Gram and Tur are among the important pulses of the region. Their production in the year 1981 is given below:

<table>
<thead>
<tr>
<th></th>
<th>Sidhi (million tonnes)</th>
<th>Shahdol (million tonnes)</th>
<th>Surguja (million tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gram</td>
<td>20.93</td>
<td>6.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Tur</td>
<td>10.83</td>
<td>4.1</td>
<td>10.70</td>
</tr>
</tbody>
</table>

Other Crops

Recently a few of the tribals have started growing sugarcane. Some tobacco is also grown by most of the tribals in a corner of their 'bari'. It is exclusively
meant for their own consumption and has been exempted, as a special measure, from licence and excise tax by the Central Excise Department. This tobacco is of a especially strong variety, stronger than the one mostly grown by licensed tobacco cultivators.

Common vegetables are also grown in baris of Gond, Bhumia, Baiga, Oraon and other tribes. Common varieties of this region are brinjal, barabatli, kotna, pumpkin, vegetable marrow, bhaji, sweet potato, khorwari, lal bhaji, tomato, potato etc. These vegetables are grown by the tribals in the baris and are mainly for their domestic consumption. But they also sell their excess amounts of vegetables in the hats (weekly markets) or towns or colliery areas. Some fibre crops are also grown in the region like 'San' and lakda.

Livestock

The tribals of the region do not keep large herds of cattle. Generally agricultural tribes prefer to keep those animals that are necessary for agriculture.

The common domestic animals found with the tribals are cows, bullocks, buffaloes, goats, ponies, pigs and poultry. The average number of animals in each tribal
home is 9. Villages situated nearer to the forest have comparatively higher number of cattle because of easy grazing facilities. Bullocks and buffaloes are used for pulling ploughs and carts, ponies as pack animals and for occasional riding, cows and she buffaloes for their milk, and goats for milk and meat and pigs and poultry for their flesh only. The goat, pigs and poultry are also used in sacrifices and cows and buffaloes are used as 'bunda' (bride price). Under the influence of Hinduism, the Gonds and Baigas have given up beef eating though some of them still consume beef. Pork is one of Oraon's favourite meats. During marriages and festivals, pork is served as a delicacy. Generally the village panchayat demand pig in the feast when a person is fined. Though the tribals have these cattle, milk obtained from them is very little.

Cattle Tending and Rearing

All the members of the family are engaged in cattle tending and rearing. The elder members of the family milk the cows or she-buffaloes and serve fodder to the animals. The women clean the cattle-sheds. The children take them to the grazing ground. The Gonds and Baigas are not good husbandmen and consequently the cattle
in this region are poor and unhealthy. Generally the tribals are unaware of the methods of the improvement of the breed of their animals.

**Division of Labour**

The division of labour between males and females is done according to age groups. The male members do heavy work such as ploughing, sowing, repairing of embankments, threshing, winnowing and driving bullock carts etc. The females do lighter work such as transplantation and weeding. They also manage affairs such as husking rice, cooking, taking care of children and taking fuel wood, grass, forest fruits etc. to the market. Some jobs are shared by both the sexes, such as harvesting and reaping of the crops and cultivation of vegetables.

Younger members of the family also help their parents in agricultural operations like watching the field at the day time and driving the cattle to the pastures.

The tribal farmers help each other. If a farmer does not possess plough cattle, he may form an alliance with another person who has them. The farmer who has
plough cattle, ploughs the fields of farmers who have no plough cattle. This system is known as the 'pasari'.

Another kind of alliance is known as 'sajha' viz., partnership. Peasant farmers who have no plough-cattle but are owners of land, supply half of the seeds and manures. Other peasant farmers, who have plough-cattle, furnish the other half of the seeds and manures and work on the fields. They are known as 'sajhadara'. The owners of land and those with plough-cattle take equal share of the produce. If a person has no plough and plough-cattle, then sometimes his services are used by other farmers in exchange of free lodging and boarding and he works on the land for one year. This alliance is known as 'sankhia'.

When a farmer requires assistance in cultivation, he may engage some young boy with the permission of his elders. Such a boy is known as the 'dhangar' or the jonkh. His appointment is marked by a feast. The 'dhangar' boy gets 'pogari' (allowance) in kind or cash according to his age and nature of work for which he is engaged. His services terminate in 'Magh' (February), which is the end of the working season. If he is willing to continue, his service may be renewed for the following
year. The 'Dhangar' boy gets free lodging and boarding throughout the period of his service and a fixed amount of rice and other grains are supplied to him for food. If there is no male successor of land holder, he may adopt a 'dhanger' boy on the basis the understanding that the boy will marry his daughter without having to pay bride price. Such a 'dhanger' is called 'ghargia' or 'ghardamad'. He gets free boarding and lodging apart from 'pogari' (allowance).

Occasionally, a cooperative labour group is organized by the headman of 'Dhumkuria'. If a farmer requires some labourers, he applies to the 'dhanger mahto' (headman of dhumkuria) for male labourers and to 'barki dhangrin' (head of the 'peal erpa') for female hands. Generally they are required for thatching of roofs, and harvesting, transplantation and weeding operations. In return, the labourer get food and wine made from rice or mahua. Sometimes they are paid in cash as well as in kind.

Thus the whole village works as a family in economic pursuits.

Storing

Whatever a peasant produces is first paid to clear his debts. Then the share of the village musicians,
blacksmiths, and other craftsmen is distributed. The rest is generally stored for domestic consumption in earthen containers which are locally known as moras. Foodgrains for immediate consumption are stored in bamboo baskets.

Storage of Grains

There are many indigenous methods of carrying over the produce beyond the harvest season in the Baghelkhand region. But the four methods described below are very much in vogue.

1. **Storage in Earthen Pots** - This type of storage method is generally used by small farmers. They keep the grains in the earthen pots of various sizes and shapes. The capacity of a pot ranges from 20 kg to 200 kg.

2. **Dholies or Palai** - This is a local name given to bins made of bamboo. These are somewhat square at the top. The dimension of such bins varies according to individual needs. These are used for storing small quantities of grains, varying from 3.5 to 6 quintals. A newly prepared bamboo bin, 'dholi', is plastered on all sides with a mixture of cowdung and mud. After completely
drying for two or three days, it is again plastered with cowdung alone and then dried. The main idea of plastering the dholi is to make it airtight.

When they are dry, the dholis are kept in a room where the grain is to be stored. Thoroughly dried grain is then filled in, leaving about 15 cm space from the top empty. The grain is then covered with teak leaves, over which straw is spread up to top of the dholi. The mouth of the dholi is closed with mud, thus making it completely airtight. Proper care is taken in filling the grain and the 'dholi' is made airtight and there is little possibility of damage.

3. Storage in Bags - When small lots of different kinds of seeds are to be stored simultaneously and collectively, particularly grams, they are stored in bags.

A layer of about 15 cm of wheat straw is spread over the floor of the store room. Over this straw or 'bhusa', bags full of grain are stitched and arranged one over the other in rows. About one and half feet space is left in between the bags, while the space between the rows of bag and walls of the room is filled in with wheat straw, about two and half feet from all sides, to protect the foodgrains from outside moist air.
4. Iron Bins — Iron bins of various sizes are used by prosperous tribal cultivators. The bins are made of galvanized iron sheets. They are of various sizes, varying from one to one and half metres in diameter and two to two and half metres in height. They are also provided with lids. The capacity of bins varies from eleven to seventeen quintals.

For storing seeds, the bins containing them are kept in the sun for about three to four days, cleaned thoroughly and dusted with insecticide to destroy any possible insects or their eggs. The bins are then arranged in a godown and the dried grain is filled in, leaving about one and quarter feet empty space from the top. The empty space is filled with teak leaves or wheat straw and the bins are closed and sealed with mud plaster so as to make them completely airtight, to protect the foodgrains from moist air during the rainy season. Iron bins are quite uncommon due to their high initial cost.

Songs, Dances and Festivals Associated with Agricultural Operations

The economy of most of the tribals of the region is mainly dependent on agriculture. The beginning and the end of the agricultural operations are marked by
festival and ceremonies, particularly, dances and songs. Thus their recreation is very much related to agricultural processes.

Before two to four weeks of the sowing of the paddy in the month of Jaitth and Baisakh (May and June) they celebrate 'Kothori'. For this they make collections in cash and kind to purchase hens or goats. They worship and sacrifices these at 'daiwalla' (house of gods); the blood of the sacrificed animal is poured into a pitcher 'Ghara' containing water. Then it is sprinkled over the rice fields the same evening. This is supposed to increase the yield.

Karma - In the month of 'Asarh' (June) the festival of Ganga Dasehra is celebrated before the sowing of paddy. On this occasion, the tribals dance and sing 'Karma'. Only men can take part in 'Karma'. They dance in the moon-light, or in the light of bonfire, lantern or diyas.

The Karma is a popular tribal dance. Except for the Ganga Dasehra festival, both the sexes take part in this dance. The women link arms and dance in straight lines, forming rectangles, and sway rhythmically. The men form a separate circular ring, and dance vigorously. After a while, some dancers climb on the shoulders of others,
and even then the formation moves in perfect steps, their bodies swinging to the rhythm of the drum (Madar) and the clapping of the women. Subsequently, the dancers alight from the shoulders, re-enter the dancing circle and start winding in and out, as if playing hide and seek.

In some cases men and women make rows opposite each other while musicians playing the drum sit between them on the ground. The dance is graceful and well regulated with measured steps which are very correctly performed. While they dance, they sing love songs, one row answering another. The dance is always accompanied by songs which determine its rhythm and pauses. Dancing continues throughout the night, watched by crowds of spectators who gather from many miles. Home distilled wine from 'mahu' blossoms is freely taken by the performers in order to maintain their energy. In Surguja, 'handi' (rice beer) is the common drink, mainly among Oraon tribals. The Christian Oraon tribals perform karma on the occasion of Bara din (Christmas).

In the month of Bhadon (August) at the time of the ripening of the paddy, they worship Anna deo (god of grain). They fix the Karam dandh (a twig) in the centre
of the courtyard and sing out the story of *Anna Deo*. After this they drink *mahua* wine and perform the *Karma* dance.

**Shaila Dance** - After harvesting paddy crop, when the tribal farmers become idle, the Shaila and Sugna dances are performed.

The Shail dance is performed by males in the months of September and October to propitiate their tribal gods. In this dance musical instruments and songs are same as in the *Karma*, but they differ in the way of dancing. Each dancer has two about one-foot long sticks of *sal* or any other strong wood. They dance in circles, striking the sticks of each other in a rhythm. They observe fast (Ekadashi Upwas) and go from village to village. A dancing party consists of 20 to 50 persons, and they dance in pairs.

**Suga or Sua Dance** - This dance is also performed in the months of September and October, but by women. They dance in two parallel rows and, in between these two rows, there is a woman in the centre with a basket containing a *Sua* (parrot) made of wood. First the woman in the centre sings and this is followed by clapping and dancing by women in the
parallel rows. They wear coloured sari and blouses. The Suga dancers go from village to village and stay at night in the houses of their relatives.

The parties of Shaila and Sua dances do not perform their dances on the same day in the same village. They believe that if they do this, they will turn into stone. Neither of these two dances is common in Sidhi district.

As has already been mentioned, agriculture and as well as the whole socio-economic life of the tribals is determined by their natural environment. From the very beginning, the Government has been trying to help the tribals to come out of this deterministic circle. But their traditions and beliefs still exercise a firm hold on them, which hinders their socio-economic progress. Other important factors which inhibit the development of agricultural among the tribals are as follows:

The level of technology among the tribals of Baghelkhand region is extremely low.

Their Implements - Tillage is done by the tribals with crude and primitive tools. The small wooden plough dragged by a pair of lean bullocks or buffaloes is nothing
more than an implement to scratch the earth. Thick shrubs are allowed to remain in the fields. The seed drill is largely unknown to them and much of the seeds sown are wasted. Nearly all the agricultural implements are home made. Most often the tribal farmers themselves do the carpentry and the wood is acquired from the neighbouring forests. Only for iron blades they depend upon the services of the Agariyas (blacksmiths) who inhabit the villages all over the region.

Irrigation - Irrigation facilities are not available to most of the tribals. Some of them use wells, tanks, springs and rivers for the purpose. As the ground water potential for irrigation wells is limited, they entirely depends on rainfall which is quite heavy. Land, owing to its hilly and sandy nature, does not retain moisture. This lack of moisture restricts the diversification of cropping. Generally only a single crop is cultivated in a year. The crops sown in the rainy season are known as 'Sinhari'. Paddy, maize and millets dominate their agriculture. In a few fertile fields, winter crops 'Unhari' are also grown. With the help of wells and tanks, kitchen garden crops (bari) are irrigated.
Conservation of the Soil - The tribal farmers of the region do little to improve or preserve the fertility of the soil. Most of them still do not build embankments for paddy cultivation or for the prevention of soil erosion. They are indifferent to manuring, though not absolutely ignorant of it. Cattle dung which can be used as manures is dried into cakes and burnt as fuel. Green manuring is done only by those tribal farmers who are in touch with non-tribals. They also use refuse and ash for their bari crops and manure for their Dand and (upper lands)/Chawar (medium land) because they know that yields from their 'bari' are insignificance while they mainly depend on 'Dand' and 'Chawar' food crops for subsistance.

New Varieties of Seeds - The tribal farmers do not know the use of new and improved varieties of seeds. Usually the left-over grains from the previous crops are re-sown, with the result that the quality of crops show a gradual degeneration. Recently, some tribal farmers have started using improved varieties of seeds available through different agencies such as Government depots, Christian missionaries etc.
Crops – In a subsistence economy, most of the food crops grown, particularly cereals, are consumed by the farmers' families. Rotation of crops is mostly based on thousands of years of experience.

Social Structure, Tradition and Beliefs

Among most tribals of the region, agriculture was until recently practised primarily for subsistence and farming system and practices form an intrinsic part of their culture, being intimately bound up with other elements of that culture. This influence of general cultural pattern on agriculture has to a considerable extent persisted in modern times, and despite widespread production of crops for the market in most of the tribal areas farming is still in the nature of a traditional occupation rather than business. Their farming system is directly influenced by this inter-relationship between agriculture and other cultural elements. Religious beliefs exercise great influence in many tribal areas of the region. For example, cows are treated as sacred by tribes which are under the influence of Hinduism, and cannot be killed and used as beef. Ultimately, land is being burdened with a large number of unproductive cattle. Another example may be taken from the Baigas of Sohagpur.
(Shahdol district). There, cultivation of other crops on the same land after the rice crop is desirable, and but it is not practiced because of the taboo on planting maize and certain other crops after rice.

The existence of a rather rigid form of group or tribal life has affected the development of the agriculture of the region. From the very beginning, the majority of tribals have lived not as individuals but as members of a group, clan or tribe, living strictly in accordance within the norms of that group. The individual is expected to act according to tribal customs. There is little scope for initiative or deviation from the accepted pattern because all innovation is frowned upon and commonly invites reprisals.

As a result, there is virtually no agricultural innovators or experimentalists, and practically there are no exceptionally good farmers from whom others might learn. Consequently, agricultural practices tend to change very slowly. There is no doubt that they have been modified slowly from time to time as a result of external influences - perhaps by the gradual adoption of a method employed by a nearby tribe, or by the introduction of a new crop. It is obvious that many food crops widely grown
in the region, such as maize, potato, sweet potato and tomato, are not indigenous but were introduced to the region by non-tribal immigrants during the colonial period. This is an evidence of their ability to absorb something new.

Human Health and Nutrition

The widespread occurrence of diseases like malaria, dysentery, tuberculosis, venereal diseases etc. naturally reduces the energy, initiative and mental capabilities of the people. In the Baghelkhand region, during the transitional periods of seasons of the year, many diseases like malaria, cholera, typhoid, measles, cold and cough etc. erupt. Diseases and malnutrition are often inter-related, because malnutrition frequently reduces a person's resistance to disease, delays his recovery and makes him more liable to have relapses. Many diseases, particularly those due to parasitic infections (malaria, cholera, dysentery etc.) reduce a man's power to produce his food or to benefit by what he consumes.

Obviously, most of the tribals of the region suffer from nutritional deficiency diseases. The situation
becomes all the more aggravated when famines occur in the tribal areas and the tribals have to depend on jungle roots and fruits for their diet.

**Education**

Illiteracy among the tribals is a barrier to the adoption of new ideas and know-how. Ignorance not only affects the development of agriculture but that of the whole of their socio-economic life.

The literacy rate in Oraon among the tribes is comparatively high. It was 9 per cent in 1981. They are known as skilled farmers of the region while Baigas having a low literacy rate (4 per cent 1971), are not regarded as good farmers and are known as/backward tribe of the region.
CHAPTER IX

COTTAGE INDUSTRIES

As has been mentioned above, the mainstay of tribal economy is agriculture. Whatever they produce, they consume themselves. Hence the tribal economy is of the subsistence type, and they become more or less idle after harvesting the crops. But this economy in itself is not sufficient to make both their ends meet. So, to supplement their meagre incomes, the tribals have evolved a system of small earnings based on the manufacture of some small articles.

Though the region is rich in coal and other minerals and forest resources, yet the industrial and power development based on these resources within the region is meagre. In recent past, at a few suitable places the State Government and the Birlas have established factories, like the paper manufacturing plant at Amlai, 35 km southeast of Shahdol on the Katni-Bilaspur railway line. A caustic soda and chlorine plant is also operating at Amlai, at a distance of 3 km from the Orient Paper Mills. These are two important industries of the region. Other industries are rice mills, flour mills, brick making
and tile making units and limestone, cement pipe, brassware, hardware, secriculture and other industries producing items of domestic use. But in these factories the gains accrue mainly to the non-tribals. Only negligible benefits are obtained by the tribals of the region from these industries.

However, part of the tribal population is also engaged in cottage industries. There are 4,864 people (0.79 per cent of the tribal workers) engaged in cottage industries and handicrafts. In Table I and Fig.9.1 the tahsils of the region have been classified into high, medium and low on the basis of the percentage of tribal workers engaged in these industries and handicrafts in the year 1981. The high category has 3,468 tribal workers (1.20 per cent) in the Sohagpur, Pal, Samri,

TABLE I
Distribution of workers in Baghelkhand region - Cottage Industries

<table>
<thead>
<tr>
<th>Rank</th>
<th>Total population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3468</td>
<td>1.20</td>
</tr>
<tr>
<td>Medium</td>
<td>678</td>
<td>0.68</td>
</tr>
<tr>
<td>Low</td>
<td>718</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Source: Census of India, 1981.
Bharatpur and Surajpur tahsils. There are 678 (0.68 per cent) tribal workers in the low category in three tahsils, namely Deosar, Singrauli and Baikunthpur. The remaining six tahsil, namely, Beohari, Gopadbabas, Bandogarh, Pushparajgarh, Manendragarh and Ambikapur fall in the low category and have 718 (0.51 per cent) tribal workers engaged in cottage industries. They have not adopted these industries as a means of livelihood but as sources of supplementary income. These are resource based cottage industries which may be classified into the following three broad categories:

1. Forest Based Units
2. Agriculture Based Units
3. Mineral Based Units.

Forest Based Industries

Forests play a very important role in the socio-economic life of the tribals. A number of articles of different kinds based on forest resources are made by the tribals of the region. These articles, given as follows, are generally prepared for personal as well as local use.
(a) Bidi Making

Most of the tribals know the technique of bidi making. In Baikunthpur the present researcher found tribals smoking bidis prepared by themself from 'Sarai' (sal tree) leaves filled with 'kheni' (tobacco). However a few of the tribals are engaged in making bidis from tendu leaves on a commercial basis. They get a fixed number of dried tendu leaves with fixed amount of kheni (tobacco) and prepared bidis for bidi traders.

(b) Preparation of Liquor

Liquor drinking is a very important part of their culture. They distil it from the 'mahua' blossoms. The Government has given facility to the tribals to distil liquor for their personal use upto a certain fixed limit. But some of them break the law to prepare excess amounts of liquor for sale. This practice is common mainly around the mining and industrial establishments.

(c) Bamboo Craft

There are so many articles made by the tribals from bamboo. One of them is basket. Its manufacture is common among the Baigas and other tribals of the region. The baskets made by them are mainly for their own use.
They make a few baskets for barter with other villagers or for sale in the weekly markets and do it only when they want to purchase some goods that they need. Sometimes these baskets are decorated with gay colours and designs, according to the artistic capability of producers, so that they may fetch higher prices.

Bamboo is also used for making intricate traps for catching wild animals. These traps are used by the tribals for their own use. Similarly, bows and arrows are made for their personal use. An article of everyday use both for men and women, is the 'kanghi' (comb). It is made of bamboo and practically all tribal men know how to make it. Some beautifully carved combs are also brought for sale in the market. Bamboo is used also in making tools used in agriculture and construction, like 'Fena' or 'Aar', (a stick to drive bullocks), winnowing fan etc.

(d) Preparation of Mat

Mat is prepared from the 'Cheenda', a small bush of one metre height like the date palm tree, found in the forests of Shahdol and Surguja districts. First they prepare strips of two and two to half metre long
and six centimetre wide and mat is prepared by combining twelve to fourteen strips. This work is mainly done by Oraon women.

(e) Jhadu Making

Jhadu (broom), an item of everyday use, is generally made from 'Bahari' bush and sometimes it is made from 'kans'. Every tribal make the jhadu for his personal use to clean his house.

(f) Rope Making

Rope making is done by the Baigas. It is made from 'Bagai', a wild grass. It is generally made for personal use.

(g) Wood Craft

From the very beginning, the tribals have been making wooden articles and tools of daily use. Though the Government has imposed some restrictions on the felling of forest trees, tribals still think they have their own right over forests. However the Government has given some privileges to exploit forests and their produce through Nistar facilities.
The wooden articles in their homes are Kathoti (wooden tub), 'Doyee' (wooden ladle), Bilna or Bailan (wooden rolling pin used in making rotis (loaves) etc.

The implements used in the tribal agriculture and related fields, like the plough, 'bharra' and rake, spinning wheel, weaving shuttle, oil pressing machine, husker and small carts are made from the timber which they collect from the local forests. There are no carpenters among the tribals as such, as most tribals of the region make their own wooden tools and implements.

Other wooden articles made by the tribals are wooden boxes, doors, windows, stands for utensils and lamps, beams, different varieties of toys, etc.

(h) Preparation of Herbal Medicines

Most of the tribals know the techniques of the preparation of herbal medicines from flora and fauna found in the local forests. The Baigas are a tribe of witch doctors, and witch doctor of other tribes are also especially skilled in preparing herbal medicines and oils. The Majhvars and Baigas are fond of hunting and to ensure that animal that is hit dies, they often smear their arrow heads with a vegetable poison locally.
known as 'mahur'. It spreads fast in the body of the animal who dies soon. They say that the animal so struck must not be allowed to drink water, as the decomposition of its flesh starts soon after it is dead.

**Agriculture Based Industries**

The following agriculture based cottage industries are found in the region.

(a) **Spinning and Weaving** - The old women of the villages are seen spinning and separating seeds from cotton fruits. Earlier, in Udaipur (Surguja district), there was a family or Oraon weaver called *Julahas*. Now Oraon weavers are non-existent. They just spin and provide spun thread to the professional weavers. The thread is of rough quality and hence coarse varieties of cloth are spun from it, namely 'motia', 'sari', 'barhi', 'pharia' khudri, gamcha etc.

In the olden times when, in Baikunthpur area, the shifting cultivation was done, the Gonds, the Baigas, the Kols etc. used to grow cotton and from this the Panika tribals weaved coarse varieties of cloth. This cloth was used by all the tribals of the area. The Rajwar Gonds still use this type of cloth for their bridegrooms at the time of marriage.
(b) Gur Making - Gur making is a popular and flourishing industry in sugarcane growing areas like Surajpur and Sohagpur tahsils. Tribals of the region are very fond of gur and they also prepare different types of sweet dishes from it.

(c) Liquor Preparation - 'Kusra' liquor is made from rice and is generally prepared by Oraon tribals. Sometimes this liquor is also known as 'hadiya', when prepared by the fermentation method. This intoxicating preparation is used on the occasions of religious festivals, weddings etc.

(d) Rope Making - Rope making is an important industry in this area. Almost every family makes ropes for its own use. San and lakda which are the raw materials for making ropes, are grown locally. These ropes are sold only when there is a surplus output or a family has no land and needs money for making purchases. Quite a few dealers in the region make a living from the rope trade only.

(e) Preparation of Ghee (Clarified Butter) - Though the tribals own cattle but generally their yields are low and of poor quality and some of the tribals prepare ghee (clarified butter) from the milk and sell it in the market.
Mineral Based Industries

The Baghelkhand region has extensive mineral resources. Collieries are being worked in the hilly, forested and backward tribal areas since the colonial period. However, a very limited number of tribals are working in them. Apart from collieries, quite a large number of tribals work in a number of metal based industries, a brief account of which is given in the following paragraphs.

(a) **Iron Base Cottage Industries** - Cottage industries based on iron are limited to the *Agariya* tribe. This is because of the intricate nature of the manufacturing process involved. A family or two of the *Agariyas* are found in every village and they produce simple and crude iron implements required by the villagers, and the surplus is sold in the market. The *Agariyas* smelt iron from stone available in the vicinity, their furnaces are crude, primitive and small and open and their tools and techniques are very simple and primitive. Iron is obtained in a nodular form in the hilly tracts. Some of the smelted iron is exported.

(b) **Gold Based Cottage Industry** - Now this industry is a thing of the past. For it, gold was obtained in small
quantities from the banks and the bed of the Ib river near the Gangapur border by the Jhora Gonds who washed the soils and sand of the river and made gold trinkets for the rulers and the local chief which provided them much needed rice.

**Khipra (khaprel) Making Industry**

In the beginning, the houses of the tribals had thatched roots. But due to contact with non-tribals they have improved the techniques of building houses. One of the new methods is the use of 'khipra' or tiles for making the roofs of the houses. Generally the tribals prepare these tiles for making their own use houses as well as for the repair of the roof in the rainy season. Sometime they barter these tiles for needed commodities.

**Miscellaneous Cottage Industries**

There are many items they prepare from earth and stone, like earthen pots of different sizes, for their domestic use. They also prepare toys made from clay and some of them sell these in the weekly markets.

Stone articles like 'chaki' or 'jant' (grindstone) for grinding flour, 'sil batna' (for grinding spices), Ookhli (pestle) for husking etc. are also made by the tribals.
The present researcher saw the tribal women come to Shahdol city to sell different items. Like 'lime cakes' used for white-washing. After selling these items, they purchase articles of daily use.

Table II shows that there has been a decrease in the percentage of tribal workers engaged in cottage industries in Sidhi and Shahdol districts between 1961 and 1981, while in Surjuga district there has been an increase in their percentage during the 1971-81 period.

**TABLE II**

Tribal workers engaged in cottage industry 1961-81

<table>
<thead>
<tr>
<th>Region/District</th>
<th>1961</th>
<th>1971</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total number</td>
<td>Percentage</td>
<td>Total number</td>
</tr>
<tr>
<td>Sidhi</td>
<td>2507</td>
<td>2.14</td>
<td>924</td>
</tr>
<tr>
<td>Shahdol</td>
<td>2832</td>
<td>1.10</td>
<td>1339</td>
</tr>
<tr>
<td>Surjuga</td>
<td>5549</td>
<td>2.43</td>
<td>3706</td>
</tr>
<tr>
<td>Baghelkhand Region</td>
<td>10888</td>
<td>1.81</td>
<td>5769</td>
</tr>
</tbody>
</table>

In recent years increased contacts with non-tribals have changed the character of the handicrafts of the tribals and a kind of stagnation appears to have crept in them. The designs and technical skill indicate this stagnation. In some places these handicrafts have been replaced by mill-made goods and the crafts are dying out. But for the development and upliftment of the tribals and for raising their standard of living, some agriculture based and forest based industries have been encouraged by the government.

There is much scope for the development of a number of cottage industries in the tribal areas. Care should, however, be taken to start and develop only those cottage industries which may not be in danger of competition from large scale industries which might be started in the near future in contiguous areas only where the raw materials are available locally or in the neighbourhood and where tribals are already familiar with the techniques of their manufacture. Keeping these three points in view, some of the cottage industries that can be developed are (i) pottery for domestic use, (ii) pottery painted and decorated with tribal patterns and motifs, (iii) brick and tile making, (iv) rope making, (v) gunny cloth weaving, (vi) mat weaving, (vii) iron smelting and manufacture of
carved and decorated weapons, (viii) bidi rolling, (x) furniture making from bamboo, cane and wood, (xi) leather industry, (xii) bee keeping and (xiii) tusser rearing (sericulture) etc.

The following steps are suggested for the enhancement of the above mentioned industries:

(1) Training-cum-production centres should be opened
(2) Loans should be provided at low rates of interest.
(3) A massive programme should be launched to minimize illiteracy among the tribals.

MARKETS AND MARKETING OF AGRICULTURAL AND FOREST PRODUCE

The traditional economy of the tribal people was generally self sufficient. They consumed whatever they produced within the village. With the opening up of the tribal areas and growing contacts with the non-tribals, this self-sufficiency is rapidly breaking down and the people are becoming more and more dependent upon markets for the sale of their produce and purchase of their own necessities. Also, the process of modernization is creeping in.
There are more than 162 weekly markets in Baghelkhand region (Table III). These markets are generally about away from urban centres. / 70 per cent of them are 50 km or more away from the nearest town. In a barter economy, which was the case in most tribal areas, there was no necessity for an organized market or for transport to move the produce over considerable distances. But now barter economy is gradually being transformed into money economy because of considerable immigration of non-tribals. Thus the people now think of transport facilities and organized markets. The ruggedness of the hills and the uneven terrain have restricted mobility of the people to a great extent. Marketing of the tribal produce, both agricultural and forest, is an important problem of tribal economy.

**TABLE III**

Distance of weekly markets from nearest towns in Baghelkhand region

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Distance from nearest town in km</th>
<th>Total number of weekly market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 - 5</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>6 - 10</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>11 - 15</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>16 - 25</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>26 - 50</td>
<td>46</td>
</tr>
<tr>
<td>6</td>
<td>51 - 100</td>
<td>45</td>
</tr>
<tr>
<td>7</td>
<td>101 - 200</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>162</strong></td>
</tr>
</tbody>
</table>
### TABLE IV

Days and weekly markets in Baghelkhand Region

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Days</th>
<th>Total number of weekly markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sunday</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Monday</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>Tuesday</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>Wednesday</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>Thursday</td>
<td>25</td>
</tr>
<tr>
<td>6</td>
<td>Friday</td>
<td>27</td>
</tr>
<tr>
<td>7</td>
<td>Saturday</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>162</strong></td>
</tr>
</tbody>
</table>

Source: Census of India 1971, Madhya Pradesh, Series-10, Part X A and B (i) Sidhi District (ii) Shahdol District (iii) Surguja District

**Exchange Transactions**

There was little scope earlier for exchange transactions in the types of economy followed in the tribal areas of Baghelkhand region in general. The basic needs of the tribals were just a few in number and limited in variety. The wild flowers, fruits, leaves and roots
which they collected from the forest, the game that they hunted, and a little strip of cloth and country liquor brewed from mahua and rice together with salt, were all their requirements. The tribals did not have to resort to exchange except for salt, cloth and spices. The exchange transactions were few and limited.

Conversion to Farm Economy

However, in recent years contacts between the tribals and the non-tribals have increased. The wants of the tribals have multiplied and more civilized economy has introduced the institution of markets and money into their economy. Another set of internal factors have also been at work. The exchange from axe-cultivation to settled agriculture has converted their economy into farm economy. This change too has necessitated more exchange transactions. The tribals now need advanced iron implements, healthy cattle and better and more seeds. For buying these they have either to barter their own produce or make money by selling it. Besides, they need more cash for paying land revenue, grazing tax and Nistar charges.
Knowledge of the uses to which forest produce can be put is also responsible for expanding tribal marketing activities. Harra, bahera, lac, honey, gum, wax, tendu leaves, achar or chironji etc., which had formerly little exchange value, have now attained a significance position in the tribal economy.

The tribals are now seen selling their forest produce or agricultural yield in the markets for their other requirements like tobacco, spices, salts, mahua, utensils, cloth, and ornaments. Moreover the contact of these tribals with the outsiders has created in them a new outlook and new wants. Often they are charmed by the glittering articles of modern times. Another important factor which compels the tribals to earn more cash and take them to the weekly markets is the licensed liquor shop. Most of the liquor shops are located in the market villages where the tribals are able to sell their produce and buy liquor at the same time.

The weekly markets have become a very great attraction for the tribals. They are held at distances of 1 to 10 km depending upon the terrain of the area. Vegetables, tobacco, snuff, bidis, and all sorts of spices may be bought from these markets.
<table>
<thead>
<tr>
<th>Name of the produce</th>
<th>Raw material used or collected</th>
<th>Name of the tribe</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chatayee (Mat)</td>
<td>Cheenda leave (A bush like date palm)</td>
<td>Oraon</td>
<td>Rs.2 to 10</td>
</tr>
<tr>
<td>Jhadu (Broom)</td>
<td>Bhara or Kans</td>
<td>All tribes</td>
<td>Rs.0.25 to 1</td>
</tr>
<tr>
<td>Rassi (Rope)</td>
<td>Bagai or san</td>
<td>Baiga</td>
<td>Rs.2.2 to 3 per kg</td>
</tr>
<tr>
<td>Pooti</td>
<td>Moolayan or bamboo thread</td>
<td>All tribes</td>
<td>Rs.0.5 to 0.75</td>
</tr>
<tr>
<td>Tokni (Basket)</td>
<td>Bamboo</td>
<td>All tribes</td>
<td>Rs.4.0 to 5.0</td>
</tr>
<tr>
<td>Supa (Winnowing Fan)</td>
<td>Bamboo</td>
<td>Gond, Pamka</td>
<td>Rs.3 to 4</td>
</tr>
<tr>
<td>Mahua flower</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.1.10 to 1.25</td>
</tr>
<tr>
<td>Dori (Mahua fruit)</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.2.0 to 2.25</td>
</tr>
<tr>
<td>Anwla</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.0.5 to 0.80 per kg</td>
</tr>
<tr>
<td>Harra</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.1.0 to 1.50 per tin</td>
</tr>
<tr>
<td>Bahera</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.0.5 to 1.0 per tin</td>
</tr>
<tr>
<td>Dhooyee flower</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.1.0 to 2.0 per kg</td>
</tr>
<tr>
<td>Lahasa (Gum)</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.10.0 to 15.0 per kg</td>
</tr>
<tr>
<td>Achar or Chironji</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.40.0 to 45.0 per kg</td>
</tr>
<tr>
<td>Tendu leaves</td>
<td>Forest</td>
<td>All tribes</td>
<td>Rs.2.0 to 3.0 per kg</td>
</tr>
</tbody>
</table>
TABLE VI

Measures used in Tribal areas in Baghelkhand Region

A. Numbers

<table>
<thead>
<tr>
<th>Number</th>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Kori</td>
<td>20</td>
</tr>
<tr>
<td>Two</td>
<td>Koris</td>
<td>40</td>
</tr>
<tr>
<td>Three</td>
<td>Koris</td>
<td>60</td>
</tr>
<tr>
<td>Four</td>
<td>Koris</td>
<td>80</td>
</tr>
<tr>
<td>Five</td>
<td>Koris</td>
<td>100</td>
</tr>
</tbody>
</table>

B. Units of Measurement

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Beeta (Span)</td>
<td>9 inch</td>
</tr>
<tr>
<td>Two Beetas (Spans)</td>
<td>1 Hath = 18 inch approximately</td>
</tr>
<tr>
<td>Two Haths</td>
<td>1 Gaz (yard)</td>
</tr>
<tr>
<td>Two Gaz (yard)</td>
<td>1 Pursha</td>
</tr>
</tbody>
</table>

C. Weights

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Saan</td>
<td>(\frac{1}{4}) Seer (about 240 gm)</td>
</tr>
<tr>
<td>One Saan</td>
<td>(\frac{1}{2}) Seer</td>
</tr>
<tr>
<td>One Paila</td>
<td>1 Seer</td>
</tr>
<tr>
<td>One Tami</td>
<td>2 Seer</td>
</tr>
<tr>
<td>One Khandi</td>
<td>40 Seer or Maund</td>
</tr>
</tbody>
</table>
Cloth, cheap mirrors, cosmetics, hardware, knives and scissors, bangles and trinkets and metalware, particularly aluminium and brass utensils, are sold in these markets. The majority of the shop keepers are non tribals. A few small tribal sellers and hawkers are also found in these markets who use primitive measures, as given in the Tables IV A, B and C.

Sometimes they pile their forest and agricultural produce like amwla, bair, tomato, chilli etc. for sale in small heaps on the ground. They can count upto 20 which is 1 Kori in their language and refer to numbers above 20 in terms of Koris as units e.g. one Kori and five, two Koris and three and so on. They make little use of scales. They use container of different weights, as given in Table VIC. These containes are generally used to weigh the paddy. They measure length and width with the help of spans and arms.

Now due to greater exposer and increasing contacts with the non-tribals they are slowly adopting the new and modern weights and measures.

**Sellers' Markets**

Markets from which the tribals of Baghelkhand region buy the things needed by then are sellers markets,
in which traders are able to dictate the terms. As the number of sellers is usually small, any one who reaches these markets and displays his articles for sale enjoys a semi-monopolistic position. The absence of competition among the sellers, leaves the tribal customers entirely at their mercy. Moreover, most of the things that are purchased by the tribals consist of basic necessities of life, like salt, cloth, food-stuff etc. which they must buy at any cost. Therefore to them prices are no consideration. The tribals pay whatever price, fair or unfair, the traders ask. In the bargain, the tribals are always the losers.

The villagers come to attend the markets from distances ranging from 2 to 15 km. During the rainy season only 2 or 3 of these markets function. So, during this season most people try to meet their requirements with whatever they have been able to procure and store up during the earlier season. During the rainy season, most parts of the region (especially its northeastern part) become almost inaccessible.

**Traders and Vendors**

There are traders and vendors who visit the tribal villages at regular intervals and buy tribal produce
as well as sell their own wares. Mostly they are local money-lenders who go to the tribal villages close to their centre of activities and purchase the spare foodgrains, oilseeds, cotton, forest produce etc. available in the area of their itinerary.

The present researcher has observed that these traders generally offer low prices for the commodities they purchase from the tribals. This exploitation by traders is due to the fact that the tribals come to them for loans and the traders supply the seeds and other articles when these are needed. These traders exploit the lack of bargaining capacity among the tribals, and they have to agree to sell their goods at the prices offered by the trades not only because they mostly owe money to the traders taken as loans but also due to the fact that the traders hold a virtual monopoly in their areas of operation. The traders argue that they have to calculate the transportation charges in making any purchase, and that there are risks involved in the recovery of the loans advanced by them.

Vendors visit tribal villages to sell their merchandize which includes beads, cosmetics, conch shells,
mirrors etc. The tribals, except in highly acculturated areas of the Oroans the Kawars, the Gonds etc. are not much accustomed to use these things, but since these goods are attractive, they find anxious buyers among the tribals. Not aware of the correct price and unable to resist their appeal, the tribals pay whatever prices the vendors ask for them.

Generally the people sell their farm, and forest produce at rates which are calculated in terms of money and not in terms of commodities or exchangeable goods. The businessmen try to purchase it from the villagers at their very doors. The rates at which these traders sell their wares to the tribals are higher by 20 to 50 per cent over the prevailing rates in the markets of Sidhi, Sohagpur and Baikunthpur.

Recently government has opened fair price shops under cooperative marketing societies. They perform the dual function of purchasing forest produce and sale of consumer goods which include such articles of daily use as kerosene oil, cloth, sugar, salt, cereals, pulses, tea and soap.
These societies are also facing difficulties in their proper functioning. This is because there are little storage facilities and these societies cannot store the produce for a long time, there are no transport arrangements and the goods purchased cannot be taken to other areas. Again, these societies have no authority to sell tribal produce on their own and have to depend for deals and transactions on other departments of the government.

TRANSPORTATION

The tribal areas in Baghelkhand region are generally inaccessible. At places, they are even impossible to reach. During the rainy season, particularly, flooded hilly streams and ravines completely cut them off from the rest of the world. The region has extremely meagre facilities of transport. The rugged and forested topography and socio-economic backwardness have retarded the development of rail and road transport in this region. The rugged masses of hills and ravines of Changbakhari-Korea and adjacent parts do not provide much impetus to the building of roads and laying of railway lines. This part continues with its ancient foot-paths and cart tracks. Whatever development in the means of transport
has taken place is basically for the exploitation of coal. Katni-Bilaspur branch of the South Eastern Railway (formerly known as Bengal Nagpur Railway) and its extension beyond Anuppur upto Chirmire (formerly known as Central India Coal Fields Railway) pass through the main cold fields. The recently constructed Katni-Billi railway line also passes through a major coal field of the region. The three existing roads, between Shahdot Rewa, Sidhi and Rewa and Manendragarh and Ambikapur, were mainly constructed to connect the headquarters of the erstwhile States of Rewa, Baikunthpur, Surguja etc. with their illaquas. The tribals, who constitutes the major portion of the population of the region, pursue a primitive and subsistence type of economy in which means of transport do not play any significant role. Hence much importance was not given to transport and means of communication.

The transport system in Baghelkhand region may be classified into three categories 1) Rail, 2) Roads and 3) Others.

1. **Rail Transport**

Railroads make inland transport feasible. At present the major part of the region is served by the
Katni- Bilaspur branch (broad gauge) of the South Eastern Railway. The total length of this line is 220 km. Out of this, about 125 km is in the region. The line bifurcates near Anuppur junction to serve the Chimpiri coal fields. The Anuppur Chimpiri section is further joined by two feeder lines - from Anuppur to Bijuri and Bisrampur. There are the chief railway connections in the region. They have double tracks. The Allahabad to Jabalpur and Katni to Bina sections also have double tracks and connect the region to Allahabad and Jabalpur via Katni. However, Katni-Bilaspur railway line is being used for goods traffic only. Such widespread rail connections have given impetus to the exploitation of the major coal fields and other minerals of the region.

2. Road Transport

Even the innermost parts of the region are connected with roads. There are about 4,000 km of serviceable roads in the region.

The Anuppur-Bijuri line was constructed in 1958 to approach coal fields developed by the National Coal Development Corporation and the Anuppur-Bisrampur line was laid in 1960 to provide link with the N.C.D.C. Mine at Doman Hill.
Only 30 per cent of all the roads of the region are all weather ones. An examination of the road map shows that there are 5 nodal points in the region in respect of road transport i.e. Katni, Shahdol, Sidhi, Ambikapur and Bilaspur. None of these centres, unfortunately, have direct all weather roads connecting them. Through Katni passes the Nagpur-Mirzapur National Highway No.7. It stretches over only 43 km of the surface of the region in the extreme western portion. Shahdol is a nodal point of road transportation. It is linked with Sidhi via Govindgarh with an all weather road which twists down the Kaimur scarps in the Baghwar foothill zone. The road continues further up Waidhan in the southeast and Hanumana in the northeast. Direct connection also exists between Shahdol-Amarkantak and Shahdol-Chirmiri roads. In the southeast of the region, Ambikapur is an important nodal point of road transport. It is linked with Manendragarh by an all weather road which passes through the plains of Surguja. Ambikapur is connected with Raigarh via Sitapur, Pathal Gaon and Dharamjaigarh, by a broad metalled road. Chirmiri-Ambikapur, Ambikapur-Ramanujaganj, Janakpur-Shahdol and
Baikumthpur-Shahdol roads are important all weather road of south and southeastern parts of the region. Ambikapur is linked by an all weather road with Bilaspur via Raigarh.

**Fair Weather Roads**

A fair weather road connects Katni with Shahdol via Umaria. Another fair weather runs between Katni and Beohari via Barhi-Amarpur. These are the only two roads through which the rest of the region is linked with the developed part of Murwara. The fair weather road in the southeast of the region links Ambikapur and Katbhora, a place in Bilaspur.

These roads no doubt connect all the important places of the region but are still inefficient and inadequate. There are numerous streams which are difficult to bridge and traffic passes through the stream beds. Bridge construction has not received due attention and is probably supposed to be economically unwise because of the underestimation of the existing forest and mineral resources. Mention may also be made of fair weather connections through the scarps which play an important role in the region's economy. These are four fairly good
approaches to the road between Rewa and Sidhi, one via Garh (in Rewa district) connecting Kuria, the second via Maldawa, the third via Mohania, and fourth one between Sitapur and Duhuli—all located along the Kaimur foothill zone.

Fair weather connections are spread up to circle headquarters in all parts of the region, except in Bharatpur tahsil whose headquarter, Janakpur, is connected with its district headquarters through Shahdol. It may appear rather unimaginable and also impracticable for the administrative machinery to function smoothly with such a circuitous connection. The interior of this tahsil has nothing that can be termed road but the sandy paths through forests criss-crossed by numerous streams.

Track alignment has been mostly guided by topography and forests. Along the Son Trough, parallel roads run in an east-west direction with a few north-south interconnections because the main roads run along the peripheral zone of dense mixed forests. Similarly, road alignment in Changbhakhar and in Gopad-Banas and Surguja Basins has been directed by forests and rugged topography. Though very diverse modes of transport of the region
have brought about significant changes in man's relationship with the natural environment, only 3,345 or 55 per cent villages are covered by transport facilities (pucca and kutcha roads) and the remaining 45 per cent villages have still to be provided such facilities. As the distance of villages from the nearest town increases the roads linking them with the town change from 'pucca' to 'kutcha' ones and a very negligible number of villages are covered by railway transport.

Cart Tracks and Footpaths

In a region having very low road and railway mileage, the importance of lower order means of transport, i.e. cart and pack-tracks and footpaths becomes quite obvious. They are the main arteries of rural traffic flow in the Baghelkhand region. The large villages are connected by cart tracks. Almost all the approachable parts are interlinked but for the isolated hill and forest villages where only footpath are the connecting links. The incidence of footpaths is greater in Sidhi district and Bharatpur, Bandogarh and Pusparajgarh tahsils. There are about 97 bullock carts per 100 sq. km of area in Sohagpur tahsil and 2 per 100 sq. km in Deosar tahsil. In actual numbers, Sohagpur had 53,650 and Deosar 67 carts
in 1971. This indicates that the main routes of these parts of the region consist of footpaths. In Sidhi district, cart tracks are restricted partly due to pressure on limited cultivable land in agricultural areas and partly due to the rugged, forested and barren physiographical nature of the rest of the area. In Pushparajgarh tahsil the deciding factor is slope. A few pack tracks serve as connecting links between remote villages through difficult passes in the Maikal Hills.

Among the patterns of routes, usually rectangular arrangement is found in Paniogarh tahsil due to criss-crossing of latitudinal and longitudinal tracks. There is a horse-shoe pattern in the hilly southern portion of the tahsil. Radial pattern is seen in Saghagpur tahsil, circular, rectangular and parallel patterns in Beohari, Pushparajgarh, Bharatpur, Baikunthpur, Pal tahsils and Sidhi district. The guiding factors behind these alignment are topography, drainage and forests. Besides these factors, due to the low volume of products of rural areas there has been very little need for transport and hence pack-tracks and cart-track predominate.
Tribal and Rural Traffic Flow

Due to predominance of lower order means of transport, tribal and rural traffic flow needs a separate mention. Foot and animal trails, the primitive routes of transport, still play an important role in the rural economy of the region. Men, bullocks and ponies are commonly used to carry goods to the interior parts of the region.

Sample studies have been conducted in Gopadbans tahsil, and hill region where traffic passes through 'ghats' which channelise the forest and agricultural products of this region along the Katni railway line to the trade centres. Commodities from Kachodi (214 m, Ghunghuti) and Burhar (215 m, Anuppur) ghats are mostly carried in bundles on ponies and on the human head. The former mode of transport is known as 'bhadia'. Traffic through Thumbi (195 m, Pali), Bajraghatia (284 m, Shahdol), and Bangaria (201 m, Burhar) Ghats mainly uses bullock carts. These differences of means of transport are due to their respective terrain conditions. Large quantities of goods pass through Banjaria Ghat from where the Burhar railway station is at a very short distance. Thumbi

Note: Relative elevation of each Ghat and the name of connecting trade centre are given in brackets.
and Banjaria Ghats have also the advantage of the change of mode of transport due to the availability of fair weather roads in the vicinity, from where trucks usually collect the tribal products. There is, however, no stability in the volume and frequency of trade passing through these ghats.

Tribals are still the carriers of goods in the region. Almost all the products of tribal areas move to nearby markets on human head. A number of female labourers also carry loads on their heads. Bulk of the goods to remote areas are carried on men's shoulders by kanwar in the districts of Shahdol and Surguja and some hilly parts of Sidhi district. There are two ways to use the 'kanwar' type of transport. In the case of bulky goods, the load is suspended in the middle of a wooden pole and the pole is supported by two persons at either end. This mode of kanwar is employed in the remote villages, in the absence of bullock carts, mainly in Sidhi district. In the case of medium to light weight goods, the flexible rib of a bamboo is balanced on the shoulder of the human carrier and loads are suspended at both ends. This type of kanwar transportation system is extensively employed in tribal and hilly-forested areas, from where the
marketable forest produce is transported to trade centres and 'hats'. In most of the parts, this is the only means of transport for carrying goods. There are very few bullock carts in Sidhi district (there are only 7 bullocks carts per 100 sq. km in the district). Along the sandy, forested paths of Changbhakhar, 'kanwar' is the lone means of transport available. Gonds, Baigas, and Kols are employed to carry all goods, domestic and commercial, through wide stretches of forests from one place to the other. The cart used in these places is small, with solid wooden wheels, which enable them to cross sandy stretches. Along the ghats of the Maikal Hills, bullocks and ponies are employed, except on very difficult passes like Thumibada, Dabharia Singri, Singri, Ahirgaon and Banjaria, where horses may also be used. Bullock carts are used to transport grains, oilseeds, mahua etc. The bullock carts are also common with non-tribal Rajasthani traders (Lamanis) settled in the region. They employ horses and mules to carry grains, and themselves sometimes ride on horses along with them. Mules are widely employed for transport of bricks and earth.
Though these means of transport are primitive, but they are of great utility in the region. They are as primitive as they are flexible. Modern mechanical means may replace them in part but cannot eliminate them due to the nature of the terrain. Remote hamlets will continue to depend on the primitive means for long.

**OTHER MEANS OF TRANSPORT**

**Air Strips**

There are two air strips in the region. The one near Amalai is maintained by M/s Birla Brothers for their private use. The other is at a distance of 9 km from Sidhi. These air strips, however, do not share the transport of the region but are for private use.

**Ropeways**

There is only one wire transportation system in the region which extends from Gailhapani coal mine to Chirmiri Railway Station. The distance in between is 12 km which passes over hills, to transport coal in iron trolleys which move along the wire.

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