

Role of Rural Industries in Rural Development

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Introduction

Most of the literature on rural industries tends to take a perspective on the subject that might best be described in architectural terminology as a "bird's eye view." Bird's eye views are popular with the architectural profession since they facilitate portrayal of a building in congenial and verdant surroundings, emphasize shadows and projections on the surface and soften and make less obvious any problems the building has relating to its immediate surroundings. A "worm's eye view" on the other hand, because of the vantage point from which it is generated, necessarily takes a more myopic view of the building and shows what is happening under its eaves and canopies. It emphasizes the way the building relates to its immediate surroundings and accentuates both problems and successes therein.

Just as both the overview and the closeup details are important to study in achieving a comfortable fit in architecture, so is it becoming increasingly clear that such a study is almost mandatory to achieve a "fit" in socio-economic planning too. If rural development plans for rural industries are to have any change of attaining their projected ends there must be a micro as well as a macro level understanding of the socio-cultural as well as economic matrix in which it is proposed to place these industries. Since most writing on rural industry takes a bird's eye or macro view, in this paper a "worm's eye view" or micro view of rural industries

will be presented. It is intended to describe the kinds of changes that have occurred in traditional and new agro-industries in two villages in the Maharashtra Deccan in the hope of thus highlighting some of the reasons why programmes to promote rural industries sometimes have problems of "fit".

The rationale for promoting rural industries has been that they would generate employment at the local level, use local resources and labour intensive technology, produce goods to satisfy local demand and increase incomes at the village level. In this fashion, the rural economy would become more diversified and strengthened and better able to absorb the landless and the poor, thereby stemming or reducing migration to the cities. With the help of data drawn from in-depth studies of two Deccan villages an attempt will be made in this paper to examine if these expectations are fulfilled in a real life situation.

Rural Industries

Before proceeding one of the first questions that needs to be resolved is what precisely is included under the head "rural industry"? In surveying the literature one finds that various sources categorize a very wide range of types and scales of activity under the generic heading "rural industry". The criteria for such classifications themselves vary and make it difficult to construct a precise typology. A more or less typical collection includes units producing agricultural equipment and fertilizer, that are of substantial size, to very small scale animal husbandry units, such as maintenance of one or two milch animals or half a dozen chickens, that provide a secondary source of income.

The non-agricultural productive activities at the village level that will be considered in this paper can be grouped under three major categories : (i) traditional village artisans who supply products and maintenance services to meet the needs of agricultural production in the village and produce goods to meet local demands. This category would cover carpenters, cobblers, ropemakers, blacksmiths, potters, etc. (ii) Agro industries such as oil pressing and gur making and (iii) Animal husbandry such as dairy, poultry and piggyery.

Data Base

The two villages we have selected for study differ from one another in size and types of crops produced. The larger village, which we will name Lapur, has a population of about 5,500 people. The smaller village, which we shall call Sugao had a population of 2,602 people in 1971. Our data on Lapur are drawn from three surveys of the village executed in 1939-40, 1960-61 and 1975-76 whilst the data for Sugao are taken from three surveys conducted in 1942-43, 1957-58 and 1975-76.¹ Lapur. Lapur village is located in Nasik District, Maharashtra State. It has a cultivated area of about 1600 hectares and has some form of canal irrigation for perhaps as long as a couple of centuries. In 1963 with the construction of a new dam across the Godavari river, the canal irrigation in the village was considerably increased. Canal and well irrigation together watered only about a fifth of the cultivated fields till the 'sixties. During the last decade, the area under irrigation increased substantially and today nearly two-thirds of the cultivated land is under wet cultivation. Availability of perennial irrigation triggered the cultivation of sugarcane in Lapur and several other villages in the vicinity. A cooperative sugar factory was established in the neighbourhood in 1962 and the factory went into production by 1964. The area under sugarcane cultivation used to be about 25 hectares. Sugarcane was supplied to a local gur making unit. The area under sugarcane increased to about 200 hectares by 1968-69 and it was 340 hectares in 1974-75. Up to the early 'sixties the major commercial crops grown were onion and groundnut and a small area was put to cultivation of grapes, vegetables, chillies and sugarcane. Cash sales accounted for only about one-third of the gross value of agricultural produce and the demand for manufactured inputs like fertilizers was quite limited.

By 1975, nearly 75 per cent of the agricultural produce of the village was marketed and sugarcane accounted for over 60 per cent of the marketed produce. The gross value of agricultural produce, from this village of 350 cultivating families, worked out to be

1. The first two surveys at Sugao and at Lapur were carried out by the Gokhale Institute of Politics and Economics, Pune. The permission to use this data is gratefully acknowledged. The current surveys were executed by the authors.

nearly 5 million rupees while 1 million rupees worth of fertilizer and 50 thousand rupees worth of pesticides were purchased.

The switch to extensive sugarcane cultivation causes a large immigration of workers during the six months of the sugarcane harvesting season. At this time the population of the village swells by about 40 per cent. The migrants come from unirrigated tracts of Nasik district and live in makeshift huts outside the village. The business of the service traders and retailers in Lapur is brisk during this period and one also notes some increase in the demand for the products of local artisans such as cobblers and potters. Since the sugar factory is located near Lapur it provides employment to a significant number of villagers.

Sugao Sugao, the smaller village, is located in Satara District, Maharashtra State, in an area classified as having sufficient rainfall for dry agriculture. It has a cultivated land area of about 900 hectares of which 23 per cent is irrigated by minor irrigation dams on local streams and by wells. Until 1971 all the minor irrigation dams around Sugao were earthen ones that were periodically washed away in the rains. By 1971-72 four of the dams were reconstructed in masonry and this has resulted in a more assured supply of water. Well irrigation, which is year round irrigates 3 per cent of the cultivated land. A percolation tank at Sugao, and one further upstream, were built during the drought years in the 'seventies. The Sugao tank has not been functioning satisfactorily but the one upstream has resulted in an increase in the water table in the village. The major crops in Sugao have not undergone as extensive or rapid a switch to commercialization as in Lapur, and many of the Sugao farmers consume most of their agricultural produce. The village does not produce sufficient grain for its population and the deficit is made up by Sugao residents buying grains from the village ration shop or at nearby market towns. Money for these purchases is earned either through agricultural labour or through remittance sent by relatives working in large cities, primarily Bombay.

The connection with Bombay and other cities for the purpose of work is one of the major features of the Sugao economy. Migration started in earnest some fifty years ago and now about 300 or nearly half of Sugao's adult males work in Bombay while their women cultivate the land in the village and rear the children. Migration is cyclical in that after retirement the individual returns

to the village often making arrangements for a son or a relative to replace him. The bulk of investments in land, housing and agricultural equipment observed in the village are the result of remittances and accumulated savings of these migrants. The live connection with the metropolitan city is, thus, a major factor bringing about certain changes in the village economy.

Baluta System

Non-agricultural productive activity has had a very narrow base in the traditional village economy. The non-agricultural production accounted for about six per cent of the total value of production in 1960. Most of the non-agricultural activity was closely tied to the requirements and needs of agricultural production and consisted of tasks such as making and mending ploughs and agricultural equipment, leather *mhots*¹ bullock carts, supply of reins, whips and ropes, etc. For the maintenance and repair work, the artisan received a traditionally fixed share of the agricultural produce in kind, for example, a carpenter in the Lapur in 1960 would receive per pair of bullock owned by the farmer about 30 kg. of cereals and a small portion of other crops cultivated like onions and groundnuts. This system known in Maharashtra as the baluta system, has been on the decline.

In 1939-40 the baluta payment made in Lapur was 2.6 per cent² of the total value of agricultural production. This decreased to 1.5³ per cent in 1960-61 and was negligible in 1975-76, being only 0.13³ per cent.⁴ In Sugao in 1937-38, about 7 per cent of the total cereal production was given in kind as baluta payment. This proportion declined to 3.7 per cent in 1959-60 and to only 1.8 per cent by 1966-67. The reduction in baluta payment of cereals to balutedars grouped according to their function is given in Table 1.

If one looks at the artisan-wise payment (Table 2) for Lapur one finds the average baluta payment received in terms of cereal

1. Leather buckets used for drawing water from wells for irrigation.
2. Figure obtained from a sample of 30 households of cultivating families.
3. Figure obtained from all households in the village.
4. During this period, reduction in baluta payment is due to (a) discontinuation of baluta payments to service balutadars such as village servants, reduction in the *rate* of baluta payment to production workers.

did not decline between 1939-40 and 1960-61, a period in which the village agriculture did not undergo a significant change. Nevertheless, the quantity of commercial crops paid in baluta, like groundnuts and onions was reduced. This could be partially explained by the fact that there was a sharp increase in their prices during that time. Effectively, therefore, there was some reduction in the average baluta payment. A market reduction in these payments occurred in the following decade and by 1975-76 the average baluta payment per farmer was down to 18 kg. for the carpenters, and similarly for other artisans.

Baluta services declined in importance with technological change and resulting mechanization in agricultural cultivation and with the monetization of the village economy as a result of commercialization of crops. This led to a reduction of both the number of families receiving payments in baluta and the total number of families making baluta payments. The reduction in the share of earnings from baluta receipts to the total earnings of the artisan families can be seen in Table 3. Because of the displacement of the traditional role of the balutedar, these non-agricultural workers in the village have either had to diversify their productive activity or migrate to the city.

Village Artisans

If we consider the 1961 to 1976 period for Lapur the population of the village increased from about 3,500 to about 5,500. The number of working artisans, however, has remained stagnant in most cases. For the period 1941-71 in Sugao the population increased from 1,558 to 2,602, yet, except for the ropemakers the number of working artisans has remained stationary as can be seen from the data presented in Table 4. This is a reflection of the fact that the expanding agricultural production base in the village is not providing increased opportunities for the village artisans.

Carpenter : Looking into the various individual artisan groups one finds that the carpenter is the least affected by changes in technology. For example in Lapur, even though the number of iron ploughs has increased and five tractors and three threshers are operating in the fields, the use of wooden ploughs and other agricultural implements as well as of bullock carts persists. The carpenters continue to provide the traditional maintenance and

repair services but they are increasingly paid in cash. To supplement their income they work in the building construction industry as carpenters and tile setters and make parts of agricultural equipments on a wage basis. Average annual income of the Lapur carpenters in 1975-76 was Rs. 1,800. One of the carpenters has developed and provides repairs and services for tractors, motor cycles, etc. His income in 1976 was Rs. 3,000. There is, however a limited scope for this kind of diversification in the village and not all carpenters would find similar avenues for increasing their incomes.

In Sugao today only two carpenters are supported partly on baluta payments for maintenance work, the other four have either switched to building construction or are paid in cash for minor carpentry work. One of the carpenter families in Sugao went into building construction in the early 'forties and earned sizable profits which they invested in land. Presently this family has diversified once again and is carrying on a dairy business and runs an electrical repair shop in the village.

The only increase in artisan families one notes in Lapur are two blacksmiths who have immigrated. They service the bullock carts which come seasonally in large numbers to transport sugarcane from the fields to the sugar mill.

Cobblers : Traditionally the cobblers supplied mhots, whips, etc. and rendered maintenance service for baluta payment. In 1960-61 leather mhots were still in use in Lapur. During the, sixties the mhots went into disuse and now there are 295 electric pump-sets instead. Now the cobblers in Lapur are mainly engaged in production of leather footwear that is sold in the village or at the nearby weekly markets. There was some reduction in their income from an average of Rs. 1,950 in 1960-61 (at 1976 prices) to Rs. 1,650 in 1975-76. Sugao cobblers had no such convenient outlets for readymade footwear. Four adult male members from these families migrated to Bombay either to do cobbler work on side walk locations or for jobs in the cloth mills. Sugao only supports one cobbler family in its traditional occupation. Even switching to leather footwear manufacture may only be a holding position because plastic footwear has begun to make inroads into the village and to compete with leather ware.

Potters : The potters, working on the locally available earth and dung, to make containers for storing water or grains find the

demand for these goods shrinking with the introduction of metal containers. Unless they switch to related industries, such as brick and tile making, which tap a larger local market, potters cannot survive on their traditional skills in the village. Sugao village supports only one potter working at his traditional craft and that too rather minimally. In Lapur all the 13 potters are still continuing in their traditional crafts of making earthen vessels, pots, stoves and clay idols and oil lamps. Additionally five of these families are involved in brick-making and their average family income comes to Rs 4,000 per year which is appreciably higher than that of the non-brick making potters whose average income is Rs 900 per year. Production of bricks has gone up from about 500,000 in 1960-61 to 700,000 in 1975-76.

Basket Weavers and Rope Makers : The rope makers/basket weavers of Lapur who are one of the poorest groups in the village have not been able to tap effectively into a larger market for their goods. Two of the families have shifted to the cattle rearing business and only one continues in basket weaving activity. Sugao basket weavers and rope makers have increased in number and managed to maintain themselves by increasing their market or sell them in the local weekly markets. However, they are one of the poorest groups in the village, merely managing to eke out a living.

Animal Husbandry : In Sugao the economic activity connected with animal husbandry includes very small scale raising of cattle, goats, poultry and pigs in response to local demand, and the larger dairy and poultry operations that have resulted from better market links to urban areas.

Cattle Rearing : The Small Farmer Development Agency, under one of its schemes provides for distributing milch animals such as water buffalo and better breeds of cows to small farmers and landless labourers in the village. The idea is to provide these poorer villagers with an additional source of income. Similar schemes, presently in the pipeline will provide these people with half or one dozen chickens of improved breeds with fertilized eggs of improved breeds, or with half a dozen female and one male goat. These are indeed potential assets through which a farmer might be able to increase his income. However, there are a few operational problems. Firstly, village common lands are often very meagre. It is questionable whether any sizable additions to the existing cattle or goat population of Sugao could be maintained

on Sugao's common land. Therefore, if the animal population is to be increased in any appreciable way the new animal owners must possess some land on which to grow the fodder necessary for the animals. Secondly, in a village these activities quickly become very labour intensive. One individual is required almost all day, to follow around the one or two animals provided to the family, to see that they get enough to eat and that they do not stray and damage other peoples' standing crops. If this system were to be replaced by fixed stall feeding so as to make this a viable subsidiary occupation, investments in stalls and sheds and space to store fodder become necessary as well as the cash to buy the fodder in season. These investments will have to be subsidized if poor farmers are to be able to participate in these projects.

Poultry : Similar constraints operate in poultry raising. The couple of country fowl that many families keep around need minimal care and feeding. Chickens are collected and put under a basket at night, let loose in the morning and fed a handful of grain once in a while. Generally they wander around and feed themselves by foraging around the house and street. If one invests in a dozen improved chicks then suddenly it becomes necessary to find someone to watch them and to guard them from predators both animal and human. The whole operation becomes quite time consuming and it becomes difficult to treat it as a subsidiary occupation. If one person is not to be tied up all day, a large protective coop becomes necessary and then the chickens have to be properly fed since they no longer forage in the street. This requires a larger investment. Additionally, there is the problem of higher mortality of better breeds of chicks. Some farmers had in fact invested in inseminated eggs of better breeds only to discover that the chick was more delicate than the country breeds and succumbed quickly to various diseases.

Two commercially viable (300 chicks each) poultry operations have come up in Sugao. One of these has been financed by an individual who generated the starting and working capital through his Bombay job, the other through the surplus generated from above average land holdings. These poultry farms are completely locked into the urban markets both for their inputs, by the way of feed, new chicks, medicines and equipment, and their products, eggs and birds which are mainly sold to merchants who ship them to larger cities like Poona and Bombay. Spillovers to the village

economy are in fact negligible. One finds that this scale of activity, that can become successful, develops very few linkages forward or backward with the village economy. Projects to stimulate husbandry based rural industries of a smaller scale in the rural areas do not generally take on the responsibility of providing a market linkage to the city or of ensuring some of the supplies of raw materials such as fodder for cattle raising, feed for poultry, etc., nor do they assess if the land resources are sufficient. Without such linkages it is somewhat unrealistic to hope that such small units can become successful and even if they are successful that they can incorporate the small and landless agriculturist for whose uplift these projects are designed.

Dairy : The success of the dairy industry in Sugao has resulted basically from the evolution of a transport, information and distribution system that enables collection of milk from the villages and its delivery to various urban centres for distribution and sale. Sugao dairies either sell to a milk cooperative that takes the milk to urban consumers in Satara City or to the hotels at a nearby village on the State Highway. There is little local demand for the milk in the village because the villagers have little cash on hand for spending on such luxuries. Money not spent on buying milk or earned from selling milk can be used to buy a much larger quantity of grain that is more filling. Formerly, when there was no arrangements for milk collection, milk could not be sold in any large quantity since the local demand was low. The milk, therefore, was generally consumed in the family. Now, however, it is reported that since it can be sold it is sold for the ready cash it generates. The same logic of obtaining ready cash operates when the few chickens a family keeps begin to lay eggs. It was noted that the poorer family chose to sell the eggs if a buyer is found, rather than consuming them.

The Lapur cattle rearing industry is an example of how a local non-agricultural economic activity grows if the resource base supporting it increases. There are about forty landless families in Lapur who are engaged in cattle rearing activity as the major or subsidiary occupation. They get from one to four near dry-buffaloes from Nasik and rear them till they are ready to calf. At this time they take them back to the city for sale. Those families who have necessary cash buy the animals outright from the city and on reselling reap all the increase in value which

amounts to approximately Rs 1,500 per animal. The traditional cattle rearing families who do not have cash for outright purchases have arrangements where the owners pay the cattle breeder half of the increase in the value of the buffalo when it is returned. This amounts to Rs 1,000 per animal. Three families from a nomadic community who have neither cash in hand nor contacts merely mind two or three animals for about eight months and are paid at a monthly rate of Rs 50 per animal for this service. The buffaloes are fed on grass collected from the sides of the irrigation canal and tops of sugarcane¹. Cattle rearing activity has expanded in response to the increased availability of grass and sugarcane tops that occurred with the extension of canal irrigation. In 1956, there were only 19 milk producing and 14 dry water buffaloes in the village. In 1972, this increased to 32 milk producing and 87 dry animals. From observations in the village it appears that if a potentially exploitable resource base exists individuals in the village will endeavour to exploit it. If any activity is missing it is less likely because there are some real constraints in profitably utilizing it.

Pig Rearing · The same social and economic constraints that prevent poultry or cattle rearing from succeeding as joint occupations operate against other occupations such as pig rearing. Firstly, in the village, everything including standing crops in the fields have to be guarded against thefts, therefore, part time occupations have the tendency to become full time ones. Secondly, one needs land or housing or other such assets in order to make a project commercially viable. For example, presently pigs in Sugao are owned by the basket-weaver caste and let loose to forage in the village. If a scheme of growing pigs commercially in fixed pen areas was promoted the basket weavers would not be able to avail of it since they do not possess land to live on for themselves let alone to rear pigs, neither do they have the assets to construct pens for the pigs. In order to benefit and utilize many

1. During the sugarcane harvesting season over 400 families migrate and camp near the village. They harvest and transport the sugarcane to the sugar mill. As part of their payment they are allowed to take the tops of sugarcane which they in turn sell at the rate of Re 1 per 100 tops to the buffalo rearers. This typifies how the people struggle to augment their meagre income by putting to economic use even the smallest resources that they can obtain.

of the programmes at the village level a certain minimum amount of land and other assets are necessary. The scheme will therefore be able to generate some additional income for those in the village who already have some assets but not for the most needy, landless and land poor, for whose benefit such plans are ostensibly designed.

Agro-Industries Small village industry such as bullock powered cane crushers with small gur-making units or bullock powered oil presses have been squeezed out by mechanization. In Sugao this happened during the time period of the three surveys. There are presently four larger sized gur-making units in the village that have sprung up in response to increased sugarcane cultivation following improved irrigation. These units are run by electrical or diesel oil powered motors and are owned by some of the larger and better off farmers in the village. During the crushing season they provide jobs for a number of village labourers in addition to some migrant workers from dryer regions. This year, however, these units were banned from working at more than a fraction of their capacity because they are located in the shadow of a sugar factory ten kilometres away and the factory for various reasons, found itself in short supply of cane. The local cane was, therefore, reserved for the factory and the gur industry in the village closed down in spite of its being labour intensive and decentralized.

The trend indeed is towards the supply of raw agricultural produce like sugarcane and groundnut to the large units and buying back processed goods like sugar and oil. The family that ran the bullock powered oil press in Sugao in 1942 was displaced when a mechanical oil crusher was brought to the village. The whole family migrated to Bombay, earned some capital there which they have invested in a small grocery store in Sugao and on which they are attempting to make a living. Their traditional business was displaced by both a change in technology resulting in introduction of more mechanized equipment and stronger marketing links with the nearby urban centres.

No new industry to provide agricultural inputs, to process agricultural produce, or to meet increased consumer needs has come up in either of the two villages. An onion dehydration plant in the cooperative sector was planned near Lapur but was never commissioned. Even if it was completed it would be selling its products to sophisticated clients such as five star hotels in Bombay. All the

perishable agricultural products like vegetables, grapes, roses grown at Lapur or in the neighbouring villages are directly shipped to Bombay and other important metropolitan centres but modern storage or processing facilities have not developed locally.

Consumer Goods

No new consumer goods industry has been established in response to the increased consumer demand. In fact the traditional industries operating on the basis of local demand have been thrown out of business. It would be illuminating in this context to examine the fate of the goat blanket weaving industry in Sugao. In 1940, there were fourteen families involved in blanket weaving in the village and in buying readymade blankets from the region and selling them in far away villages in the Konkan. Wool for the blankets made in Sugao was bought at a regional market in the area. This wool began to be exported and Bombay merchants entered the regional market and bid up the price of wool. The Sugao weavers could not buy as much wool as before with their limited working capital. Their annual output of blankets, therefore, decreased and they could not make the necessary turnover and profit in the business. In addition, there were a group of wool yarn spinners who used to process the raw wool for these weavers but have stopped this industry since they began to make greater profits by selling the raw wool outright to the Bombay merchants. The weaving industry in Sugao is now well nigh defunct, there being only one family completely involved in the business and two others who do it part time. The weavers with their rural based profits just could not compete with the urban market. Weaver families are increasingly sending their men to textile mills in Bombay where they get jobs on powerlooms in the mills.

The case of the blanket weavers in Sugao illustrates the multiplicity of the problems that the traditional artisans and craftsmen have to face. With the advent of more finished and very often cheaper factory products the traditional craftsmen lost the urban market. It is hard for them to retain their hold over the local rural market, partly because people in rural areas are increasingly buying the factory products. It is difficult for the craftsman to produce goods at competitive prices with the factory

industry. Firstly, the traditional craftsman has a problem in procuring the necessary raw material (even though produced locally) in the face of the competition from the urban merchant who is a large buyer, and caters to diversified demand of better income classes and thus easily outbids the small craftsman. The craftsman also labours under certain technical inefficiencies and this often results in wastage of raw material. Secondly, it is more difficult for him to have on hand ready cash with which to buy raw material. The transactions at the village level are often on credit which further locks up his capital. The poor asset position makes it impossible for him to hold any stock on hand and he is driven to distress sale which may result in negative income. Under these circumstances it is no wonder that the household and cottage industry is getting uprooted despite numerous schemes of aid organized through the Government agencies.

One finds similar flows to the city in local industries such as building construction. Although potentially the housing industry can be made rural based through upgrading and improvements of local building materials one finds that the prevalent trend in Sugao is to import materials such as cement, bricks and mangalore tiles or galvanized iron sheets for roofs. Local labour such as carpenters masons and manual labour is used but no materials are manufactured locally. In Lapur, it being a larger and more central place, the brick industry had been developed but there is little else in the way of construction materials manufacture.

Urban-Rural Integration

With the commercialization of crops, a villager both sells his product to the city and buys his inputs there. In the process he becomes more closely linked into the urban complex. Rural demand is thus being increasingly satisfied by products of the factory sector. With improved bus and truck service, villagers have gained better access to the city and are now accustomed to getting more goods and services there. This applies to even the poorest in the village as is seen from the daily purchases of the Lapur agricultural workers. What is bought by them matches, soap, sugar, tea, cloth, a few utensils and perhaps a cup and saucer—are mostly products of the factory industry and not of local traditional or agro-industry. The villager who is not able to

convert to commercial crops is left stranded because he starts needing things from the city but has no way of earning the cash for their purchase. Migrating to the city for work and sending money home is one of the solutions for such villagers. As we mentioned earlier, many of the investments in housing, land and agriculture in Sugao are made with the remittances and accumulated savings of such migrants. However, remittances to the village come not only in the form of money, but also in the form of necessary and luxury goods. Soap, cosmetics, cloth, kitchen utensils, even tea and biscuits are sent from Bombay to Sugao further depressing the local demands.

The rationale for promoting rural industries was that they would contribute to rural development by forging backward and forward linkages with the local economy. Examining the rural industries in Sugao and Lapur it was found that few new industries have come up and those that have, like poultry and dairy in Sugao, have minimal forward linkages to the rural economy and in the case of poultry few backward ones either. Both industries are totally locked into the urban market. In the sphere of animal husbandry it was found that access to resources was a critical constraint in expansion of this activity by the poor groups who are already intensively exploiting whatever resources they can obtain in order to augment their meagre incomes. If their participation is to be increased it will be necessary to provide them with more resources than they are currently making.

Conclusion

What then are the implications of all this for rural development? Given the present trend of commercialization of crops, distribution of land and other assets in the village and the present resources base, it is unrealistic to conceive of building up rural industries that utilize local products to meet local demand. Just as the urbanites preferences lead him to buy imported goods whenever possible so also the villager's preferences lead him to buy the products of the city whenever possible. From our case studies it is apparent that with the growing integration of the rural-urban economy, the traditional industries are on the decline; few new industries have appeared and they are either location-tied because of their weight-losing, bulk-losing nature, or prefer the

village location because of the owners inherited land assets. To succeed, a rural industry has to latch into the urban economy and make a profit from urban money. There is either not enough surplus in the village, to allow the industry to thrive or what surplus there is, is already largely flowing to the city. One must, therefore, accept that a successful rural industry may not develop many forward or backward linkages with the villages around it and come to terms with the limited role that rural industries can play in rural development.

TABLE 1
BALUTA PAYMENT OF CEREALS TO ARTISANS IN SUGAO AND TWO ADJACENT VILLAGES¹

<i>Year</i>	<i>% of total agricultural production of cereals given in baluta payment</i>	<i>% share of baluta payment going to those artisans servicing agricultural production²</i>	<i>% share of baluta payment going to those artisans servicing household needs³</i>	<i>% share of baluta payment going to those artisans servicing the village⁴</i>	<i>% share of baluta payment going to those artisans catering to religious needs⁵</i>
1937-38	7.04	2.35	2.27	1.76	0.66
1959-60	3.69	1.56	1.52	0.21	0.40
1966-67	1.83	0.86	0.79	0.04	0.14
Amount given in baluta payment in 1966-67 as a % of amount given in baluta payments in 1937-38	25.99	36.59	34.80	22.73	21.21

1 Table derived from a stratified sample of 86 farmers in Sugao and two villages around it (28 farmers from Sugao) in 1937-38 and same farmers followed up in 1959-60 and 1966-67.

2 Carpenter, Blacksmith, Cobbler, Ropemaker.

3 Barber, Potter, Watercarrier, Washerman, Butcher.

4 Watchman, village servant.

5 Priest, Astrologer, Goldsmith, Entertainer.

TABLE 2
BALUTA PAYMENT TO ARTISANS IN LAPUR

Trade	Average baluta payment made per farmer					
	1939-40		1960-61		1975-76	
	A	B	A	B	A	B
Carpenter	50.7	91.1	52.3	80.0	18.1	29.0
Cobbler	40.4	71.8	39.5	63.7	13.0	20.0
Ropemaker	9.8	20.2	10.5	14.6	Nil	Nil
Potter	11.6	20.4	12.5	16.7	11.2	14.5

A=Quantity of cereals, viz., wheat, bajra, in kg. paid to artisans in different categories per farmer making baluta payment.

B=Quantity of cereal equivalent in kg. paid to artisan per farmer. Payment made in terms of onions, gur, groundnuts is converted to cereal equivalents.

TABLE 3
BALUTA RECEIVING AND PAYING FAMILIES IN LAPUR

<i>Trade</i>	<i>No. of farmers making baluta payments</i>		<i>No. of artisan families receiving baluta</i>		<i>Percentage share of baluta receipts in the total income of the baluta receiving fami- lies</i>	
	<i>1960-61</i>	<i>1975-76</i>	<i>1960-61</i>	<i>1975-76</i>	<i>1960-61</i>	<i>1975-76</i>
Carpenter	221	61	6	3	61	33
Cobbler	192	70	8	4	40	13
Potter	220	122	7	7	15	9

TABLE 4
ARTISANS IN LAPUR AND SUGAO

Trade	Lapur				Sugao					
	1960-61		1975-76		1942-43		1957-58		1975-76	
	A	B	A	B	A	B	A	B	A	B
Carpenter	6	9	7	9	4	8	5	6	5	6
Blacksmith	—	—	2	2	1	2	2	2	2	2
Cobbler	10	12	9	11	2	2	1	1	2	2
Rope-maker	3	5	1	4	3	3	3	4	5	6
Basket maker					2	2	2	2	4	4
Coppersmith					—	—	—	—	—	—
Potter	10	14	13	15	—	—	1	1	1	1
Weaver	1	1	—	—	14	21	15	17	3	3

A = Number of families.

B = Number of male adults working in the trade.

Note. Although only the number of male adult workers is shown in the table, the women adult members in the family generally help in the productive activity in the case of potters, rope-makers, basket-makers and weavers

Background Information

(A)

	<i>Lapur</i>	<i>Sugao</i>
Total geographical area (in hectares)	2150	1089
Net cultivated area (in hectares)	1567	880
Gross cultivated area (in hectares)	2015	935
Per cent area irrigated	63	23
Electrification (year)	1963	1963

(B)

Area under specific crop as percentage of total gross cropped area

<i>Lapur</i>				<i>Sugao</i>			
<i>Crop</i>	<i>1940-43</i>	<i>1960-61</i>	<i>1974-75</i>	<i>Crop</i>	<i>1942-43</i>	<i>1957-58</i>	<i>1970-71</i>
1	2	3	4	1	2	3	4
Wheat	18.6	29.3	13.4	Wheat	2.6	1.2	1.4
Bajra	38.0	24.3	28.2	Jowar	31.1	33.0	45.7
Total				Total			
Cereals	63.9	60.1	49.3	Cereals	70.0	75.4	70.3
Pulses	9.5	8.3	12.0	Pulses	15.5	13.8	8.9
Onion	5.7	2.4	7.4	Potato	2.1	1.8	3.5
Oilseeds	1.8	18.5	6.9	Groundnut	4.1	2.6	6.4
Vegetables	2.9	.8	3.0				

1	2	3	4	1	2	3	4
			Other Oilseeds		3.7	3.4	4.5
Sugarcane	1.4	1.5	17.0	Sugarcane	Neg.	1.5	4.2
Other Crops	14.8	8.4	4.2	Other Crops	4.6	1.5	2.2

(C)

Year	Population (Census of India)	
	Lapur	Sugao
	(No. of persons)	(No. of persons)
1941	2342	1558
1951	2662	1830
1961	3496	2060
1971	6614*	2602

*Includes seasonal migrant population.