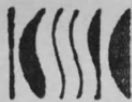


Occasional Paper 142

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**INSTITUTIONAL CONSTRAINTS  
ON RURAL DEVELOPMENT:  
AN EXPLORATORY  
STUDY OF SILK WEAVING  
IN WEST BENGAL**

**Debdas Banerjee**



CENTRE FOR STUDIES IN SOCIAL SCIENCES,  
CALCUTTA

10 Lake Terrace, Calcutta 700029

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**Debdas Banerjee**

**CENTRE FOR STUDIES IN SOCIAL SCIENCES,  
CALCUTTA  
10 Lake Terrace, Calcutta 700029**

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*Abstract*

*The market has expanded both at home and abroad; yet the conditions of production remain unchanged. Capital, though it appears as a coercive social relation, has not been the principal means of production. The household organization of production constitutes the 'core'; yet its independent operation is non-viable. The cost-effective internal organization of the households is linked up with the market by the putters-out, viz. the private silk merchants and the people's as well as non-governmental organizations patronized by the state. The system despite generating considerable surplus has kept the artisan's income depressed. The urban-biased development strategy coupled with feeble representation of the artisans have failed to invoke active state intervention which otherwise would have unleashed the potential of the sector.*

**1. Introduction**

The classic English 'Industrial revolution' which is often equated with 'cotton' tells us that before the 1770s, the cotton hand weavers as a body had not existed, and, by the late 1840s, they had effectively vanished. In three generations, the processes of economic change had first created and then destroyed a new type of labour (see, e.g., Bythell,

1969, chapter 3). Until the inventions of Hargreaves, Arkwright, and Crompton the drawbacks inherent in the spinning process had made it extremely difficult to produce cotton yarn strong enough for a warp. However, the innovations in spinning in the 1770s did not immediately require technological upgradation in weaving in the form of, say, powerloom. The supply of weavers was adequate to work up all the yarn produced by the new spinning machines. By 1800, the slowness of hand weaving relative to improved spinning appeared to be a constraining factor (*ibid*). Nevertheless, powerloom first came to be used on a large scale in the cotton industry in the 1820s, following a number of inventions and innovations in dressing and warping, and in the powerloom-frame itself. The real advantage of the powerloom was that it enabled a manufacturer to predict with greater confidence when an order could be completed, and that it gave him greater control over the materials of manufacture, while, at the same time, the wage costs were kept depressed by employing low-paid women and children, in the factory (*ibid*: chapter 4). The *classic* case, undoubtedly, ought to be evaluated in the proper historical context. But that still provides the point of reference to any evaluation of the conditions of disparate development in the third world.

Silk has a steady demand in the domestic as well as in international markets, mainly in Western Europe and North America. The drastic decline of the industry in Japan, due particularly to the improved standard of living has called forth a new international division of labour and thus brought in opportunities to India to reorganize this industry into a major exportable. Of course, the recent trend in India's exports exhibits an upwardly movement. West Bengal is the second largest producer of silk in India, following Karnataka, and roughly about 30 per cent of her mulberry silk output is now being exported to foreign countries.<sup>1</sup> The processes of production from mulberry plantation up

to the weaving provide employment, paid and unpaid, to about a million of the workforce, in the state. Following the *standard* literature on 'trade and growth', it is usually understood that the expansion of markets would eventually lead to 'reform' of the underdeveloped labour market, in particular, and the upgradation of the technological conditions of production, in general.

Agricultural productivity in the state, however, has slowed down from the *rate* that it achieved particularly during 1980s, due to the comparatively low average yield of land under rice (*cf. Economic Review*; and, field-survey data). The organized manufacturing sector in the state, on the other hand, reflects all the symptoms of stagnation, resulting in large scale shrinkages in employment opportunities (Banerjee, 1982, 1988). The foremost rural industries (see, e.g., for the products of brass and bell-metal, Ghosh, 1994; for products of conch-shell, Sau, *et. al.*, 1993) are also found to have lost their potential to absorb a sizeable part of the rural workforce. Only trading in land-based commodities including fruits, vegetables and flowers, has been able to generate additional employment, to some extent.

Mulberry silk production in West Bengal has a pretty long history. The colonial policy of free import of raw silk from China and Japan, and a simultaneous neglect of the domestic industry which eventually took the shape of a seed-borne and generic disease called 'pebrine', almost wiped out the industry in the state, by the turn of the century. In a later period the war-time demand during the World War II marginally saved the industry while noticeable improvements were observed only in the beginning of 1970s. It is highly labour intensive and is primarily organized by family-labour. Moreover, some branches of silk production are overwhelmingly dominated by 'backward' castes who together constitute the bulk of the job-less people in the state.

Silk is produced, in the countryside and in rural towns, in several

stages such as mulberry cultivation, silkworm rearing, reeling and spinning of cocoons, twisting of the yarn, and ultimately weaving. The 'traditional' methods that are applied in all the activities are labour-intensive. Although the types of lands available in particular places largely determined the location of mulberry cultivation of the older types, in the state, the new varieties of mulberry offer the opportunity to extend the cultivation to other areas also. However, the districts in which the rearing and the reeling activities are mainly located, are characterized by a comparatively high percentage of wage-labour to the aggregate rural workforce. Thus, apparently, the availability of wage-labour in mulberry cultivation, rearing, or reeling activity is not a constraining factor. Further, it is found that the rate of return per acre of agricultural land is highest in mulberry cultivation (if followed by silkworm rearing) among the major crops grown in West Bengal. But what intrigues one is that despite high profitability the magnitude of growth remained substantially low (Banerjee, 1990). The downstream productions viz., the reeling of yarn, and the weaving are also predominantly family-based domestic activities. And, the *rate* of diffusion of improved technology in all the branches of production is extremely low. Moreover, the upward mobility is restricted in the sense that there are only a few instances of household enterprise getting transformed into an establishment.

The Central Silk Board, Government of India, assisted with an International Development Agency (IDA) credit of SDR 113.8 million (equivalent to US \$ 147 million) and a Swiss Development Cooperation grant of SwF 40 million (US \$ 25 million), has been implementing, in addition to the 'routine' programmes, a sericulture development programme in India which began in 1989. There are public R&D institutions entrusted with the job of technological improvement of the sector, and government sponsored autonomous marketing agencies to pro-

vide outlets for the weavers' products. Yet, commercialization has failed to acquire marked traits in the sector as a whole.

The present study, within its limited scope, constitutes only part of a broader project undertaken to elicit the inseparable relationships between the state, market, and social relations that impede/accelerate the growth process. In all of the three sectors of silk production what is *common* is the phenomenon of market failure. An organized market, as it is understood, is a particular type of institution for facilitating the exchange of goods and services *via* a medium of exchange (money), with the distinguishing features that the terms of exchange (prices) are public knowledge, access is open to anyone wishing to trade, and, of course, the agents are individually insignificant. We would certainly focus on the forms of market and exchange that characterize the sector. But attention would be paid more to analyzing the causes of market failures. As Newberry (1989) puts it: 'markets are not costless to organize and operate, and the potential gains from trade on a particular market may not be large enough to justify the emergence of an organized market. Even when the gains are sufficient, it may not be possible for the marketing agent to capture a sufficient fraction to cover his operating costs, and again the market will fail to emerge' (p.267). However, the effective rate of return, on the contrary, is found to be quite high in the underdeveloped markets. Besides, as it appears, rural institutions acquire certain *forms* depending upon the mode of appropriation through extra-economic coercion by the dominant rural power blocks. Such institutions survive as long as they continue to be perceived by the gainers as useful instruments to exploit, and the technological changes that take place are not adequate enough to bring in tension within these; this tension is resolved with the emergence of new institution(s). But, *changes* in the institutions are occasionally contingent upon the *society*, as such (*cf.* Binswanger, *et. al.*, 1993).



The consequences of change are always uncertain. And, risk aversion that typically characterises underdevelopment itself provides sufficient impetus to the preservation of current institutions. As Stiglitz (1989) has pointed out: 'individuals know more about the institutions and conventions with which they have lived in the recent past than they know of others by which they might live' (p.26).

The Gandhian ideology to give support to the village craftsmen towards the desired goal of *Swaraaj*<sup>2</sup> was later integrated to the development strategy that came with the Second Five Year Plan. The content of the Small Industries Policy in the post-independence period, however, reveals that the spirit of Gandhism was abandoned, largely due to the compulsions of the capitalist development strategy (Tyabji, 1989). Gandhi's approach in regard to self-sufficiency, the ideal of clothing village population with *khadi*, and the rejuvenation of village life as a whole was largely replaced by production of *khadi* for sale (commercial *khadi*, as it is called). The latter expanded considerably supported by substantial allocation of funds in the Five Year Plans which included interest free loans, subsidies and rebates, and grants for a larger administrative, supervisory and technical personnel. The production of self-sufficiency *khadi*, however, fell both absolutely and relatively. The actual implementation of the development work in respect of *khadi* and village industries, at the grassroots level, is carried out by registered institutions and cooperative societies. To assess the success/failure of the local organizations it is important to understand the conditions working for and against sustainability of such cooperation.

The current trend towards a diminished role of the state in third world economic activities including rural development activities, more as consequences of increasing debt burden and the corresponding external conditionalities, has stimulated the 'new' paradigm of development economics that reasserts new opportunities for local organiza-

tions and institutions (LOIs) (see, e.g., Nugent, 1993; de Janvry, *et al.*, 1993; Thorbecke, 1993; Uphoff, 1993). These LOIs, in the literature, are considered as potential substitutes for either state or market failures<sup>3</sup>. It is true that many traditional LOIs, historically, originated where the state was virtually nonexistent and markets were imperfect and incomplete. However, the strength and integrity of those LOIs were subsequently eclipsed by the patchy state intervention and the underdevelopment of markets. Of course, the market forces by themselves may not suffice to ensure the success of the development process (Bardhan, 1989). Nevertheless, that is a precondition for the *new* balance between the state, market and society to be economically viable (Streeten, 1993). Why we have certain institutions, and not others, or why these institutions take on the particular form that they do -- are some of the issues that lead us to the search for an 'optimal' balance between the three institutions which would increase 'both the economic returns to, and the political feasibility of, the others' (Lipton, 1993: p.655).

Hardin's (1968) "tragedy of the commons" states that, in the case of commonly owned resources, each individual has the incentive to overuse the resources, regardless of what others do, thereby leading to the destruction of those resources. Only strong and appropriate intervention by the state, according to Hardin, could save the situation. However, the neoinstitutional analysis of local organizations and institutions, using game theory, attempts to dismiss Hardin's contention, without any definite solution though. In these models, monitoring is still crucial. If mutual monitoring is not possible, the monitoring should be by agents accountable to the members. And, as the size and heterogeneity of LOI's membership grow greater hierarchy may be necessary (Nugent, 1993). A norm of fairness which allows the actions to be sequential and everyone to adopt the behaviour taken by others, however, would have been the acceptable rule of the game in a Chayanovian

economy (see Chayanov, 1987). One cannot rule out the rise of the 'economic man' rendering mutual monitoring, or a fair monitoring by an agent accountable to the members of the LOI archaic, particularly after globalization of the domestic underdeveloped economy.

However, a more fundamental problem with the neoinstitutional analysis is that it ignores one crucial aspect of the operation of LOIs. Historically, the LOIs for production, or for marketing, or for both, are found to have taken shape in areas where the markets did not develop. In fact, particularly under the influence of Gandhian ideology, it had assumed the form of a 'movement' against market imperfection and the exploitation by the traders. While the LOIs are few in number in states like West Bengal they are quite considerable in some other states such as Tamil Nadu and Maharashtra. But, generally, those LOIs which are numerically dominated by the upper and middle income-groups of people are found to be surviving for a relatively longer period of time. The success of the sugar cooperatives in Maharashtra, to note, is particularly due to the certainty in the market, government's price support, and, no less important, the monitoring role of the sugar factories. In general, due to market imperfection, the poor cultivators/artisans usually do not come up with any surplus over and above the bare subsistence. Thus, the external source of funds for working capital is one of the essential factors of production. Where land reform has vested rights to assets which are acceptable collaterals, the availability of institutional finance is relatively easier. But even then the mortgaging of the tiny plot of land is the last resort that a poor landowner would try to take on. Eventually, they get interlocked with the private moneylenders who accept various movable assets including such non-marketable assets as 'labour power' and incomplete property rights as 'future outputs' of the borrower. The formation of LOIs may have the approval of the state but such things as collective collateral are not acceptable to

the private moneylenders who always like to negotiate with *isolated* individuals, since their business has no legal cover. Now, if the money-lender has a direct interest in the outputs produced by the borrower, the terms and conditions of lending often may go against the collective interest of the LOI to which the borrower belongs. Otherwise, the high lending-rate is likely to induce free-riding among the members in their endeavour to recover 'costs'.

The methodology followed in the field-enquiry is a judicious combination of participant observation, conversational interviews, and the sample-based study that enabled us to make a quantitative analysis. Instead of adopting the rigorous sampling technique, we relied more on the combination of the three methods of enquiry into a field which has hitherto been explored too little. We had limited knowledge, to begin with, of the *domain* of indigenous economy where economy, society and polity intermingle to resolve into particular processes of production. Thus, a more structured enquiry was thought an incomplete tool of analysis, particularly in the field where informal 'ties' are widespread. Another limitation of the present study is that often our conclusions follow the estimation of 'monetary cost' and 'receipts' when the opaque forms of property and economic relations demand more rigorous economic calculations based on an appropriate system of prices.

In section 2 which follows we state the selection of the weaving centres. This is followed in section 3 with a brief description of the forms of organizing the weaving activity. Section 4 identifies some of the characteristics of the labour force. Section 5 deals with the analysis of the characteristics of silk weaving. And, in section 6, some concluding remarks have been made.

## **2. Data**

The study is primarily based on data gathered from the survey of

the three most important weaving centres, viz., Bishnupur (in the district of Bankura), Mirjapur and Chawk-Islampur (both in Murshidabad). The outputs of these three centres include almost all of the varieties, known as the 'Bengal varieties', available in the market. However, each centre has its own distinguishing characteristics particularly in regard the organization of production and the output-mix. The market price varies with the 'variety' of the fabrics (*cf.* Appendix Table I). The variation in price is partly explained by the texture of the fabric but more importantly by the quality of the yarn used and the amount of skill involved in a particular fabric. Accordingly, the fabrics can broadly be classified into high, medium and low valued items. Bishnupur is famous for its high valued designed sarees known as *Baluchari*. And Mirjapur's products are usually medium valued and typically stand for the popular 'Murshidabad silk'. On the other hand, Chawk-Islampur specializes in low valued reeled silk fabrics, and, of late, it has also become a growth centre of spun silk fabrics. The latter type of fabrics has been experiencing a growing market at home and abroad during the last couple of years. Unless otherwise mentioned, the source of data/information is invariably the field-survey. One may occasionally notice the lack of information on 'aggregate', 'population', etc. at the micro/macro level. This is, however, a deliberate omission since the available *organized* data are simply not reliable, and we were not able to conduct complete enumeration.

### 3. Forms of Organization

There are broadly two types of entrepreneurs in silk weaving in West Bengal, viz., (a) those who undertake weaving only, and (b) those who own reeling/spinning units and also put out work to domestic weavers. While the former broadly comprises two different types of production organizations, viz. (i) societies, and (ii) private silk merchants (popu-

larly called *Mahajans*) the latter consists of only the societies. The number of weavers who operate independently on owned looms is found to be significant only in Bishnupur. In Chawk-Islampur, which is known for its relatively low valued fabrics, the overwhelming majority of the weavers work under the societies. The participation of the silk merchants in the processes of weaving is found to be significant only in Mirjapur while in the other two centres they have reduced their activities to trading in silk materials only.

The societies, strictly speaking, are not weavers' guilds. There are two Registration Acts in the state guiding the formation as well as the functioning of the societies. The objectives of an 'industrial co-operative society', in particular, include manufacture and marketing of goods by or with the help of its members (ordinary artisans or small entrepreneurs carrying on business of the same kind carried on by it) and providing supplies and services to them and to small producers and entrepreneurs. In order 'to give a healthy impetus and a sense of purpose for the co-operative movement in West Bengal,..... to provide for clean, devoted and efficient management .... to bring about economic and social regeneration including better and happier conditions of living for the weaker sections of the community ...' (Preamble of the West Bengal Co-operative Societies Act, 1983), the law relating to cooperative societies in West Bengal was consolidated in 1983. Every cooperative society existing at the commencement of this Act which has been registered or deemed to have been registered under the Co-operative Societies Act, 1912 or the Bengal Co-operative Societies Act, 1940 or the West Bengal Co-operative Societies Act, 1973 is deemed to have been registered under this Act of 1983. All the members of such a society are equity holders and the *net profit* of the society shall be distributed among its members by way of bonus or dividend.

On the other hand, the West Bengal Societies Registration Act,

1961 allows any seven or more individuals to form a society for *charitable purposes*. The object of this Act is to repeal the Societies Registration Act, 1860 in so far as it applies to West Bengal and to introduce in its place a new legislation with a view to making the Act comprehensive and eliminate various irregularities and malpractices in the management of societies. Any society registered in West Bengal under the Act of 1860 was deemed to have registered under this Act of 1961. However, most of the charitable societies engaged in weaving and/or reeling are found to have floated with members who are closely related to each other, and thus largely constitute family-based business organizations.

The cooperative society is managed by a committee, and the bigger ones have about 30 permanent employees in addition to 10-15 casuals, as office bearers. The superannuation of the permanent employees takes place at the age of 60. All the employees including the 'casuals' are covered under the provident fund scheme. On the other hand, the management of the charitable society is entrusted to a governing body elected by the members. And, unlike the cooperative society, the latter frames its own regulations regarding the overall management of the organization, subject to the approval of the Registrar of Societies.

All these societies (in short, 'khadi') engaged in the production of silk are certified by either the Khadi and Village Industries Commission (KVIC), or the khadi and village Industries Board (KVIB) in respective states (for an outline of the khadi organization, see Appendix I) excepting a few who are directly under the Handloom and Textiles Directorate. These societies have different schemes of the Artisan Welfare Fund (AWF) (like the contributory provident fund scheme for the organised sector employees). While in the societies under the 'Directorate' the member-weaver contributes Rs.4 and an equal amount is

being contributed by the society, the state government, and the central government, respectively, in other societies, certified by KVIC/KVIB, a member pays Rs.8 and an equal amount is contributed by the Society. Further, in the societies under the 'Directorate' the member-weavers are supposed to maintain separate AWF accounts with the Post Office while in all other societies the organization itself maintains the AWF account. All the society-weavers are, however, entitled to receive interests on the accumulated contributions. The society deducts the weaver's part of the contribution from the wages. The khadi society is also supposed to pay to the member-weaver, as 'puja bonus', a sum equivalent to 10 per cent of his/her annual gross wage income from the society. In the better organized societies the weavers are covered under the Group Insurance Scheme.

The societies under the Directorate seem to possess a relatively flexible system of buying of raw materials and selling the finished products. In contrast, the KVIC/KVIB societies are supposed to organize reeling/spinning under their own umbrellas. Only in exceptional cases they could buy yarn from outside but that too only from the certified societies.

The khadi societies have been entitled to loans for working capital at a concessional rate of interest, and used to receive grants for wages and means from KVIC/KVIB till recently. As part of the programme of restructuring Indian economy, KVIC has reorientated its policy and discontinued to advance loans directly, and has also withdrawn the subsidy-scheme for 'wages and means'. Now, the khadi societies have to borrow funds from the commercial banks at an eight per cent rate of interest (or, as fixed by the Reserve Bank of India from time to time) while the 'apex' organization reimburses only half of the gross interest liabilities. The KVIC depends on institutional finance, besides budgetary support for the implementation of its programmes. The KVIC is-



sued, for instance, interest subsidy eligibility certificates to State KVIBs and directly aided institutions for an amount of Rs.234.27 crores in a single year in 1990-91 while KVIC received only Rs.120.61 crores of institutional finance during 1990-91 (GOI, Eighth FYP, 1992-97: vol.II, chp.6). The Eighth Plan admits the necessity to increase the active involvement of banks in funding of KVI programmes and puts emphasis on the reduction of the dependence of KVIC on the budgetary support. It has also been suggested: 'It is also necessary to review the subsidies which are presently being provided for the development of khadi and village industries. The present policy of KVIC to advance loans for the development of village industries to the beneficiary organisations at 4% rate of interest also needs to be reviewed in view of the hike in the lending rates of commercial banks' (GOI, Eighth FYP, 1992-97: vol.II, p.136).

It seems the cooperative societies, in particular, are reeling under several constraints, and consequently the conditions of production becoming grey. First, KVIC issues periodic circulars on the prices of raw materials, wages for particular types of work, and also on the prices to be fixed for the produced goods, which the KVIC-societies are supposed to follow. For instance, in the case of fixing the price of yarn, at which the societies are supposed to transact, KVIC takes into account the stipulated wages for the various categories of workers engaged in the processes of reeling. And, those rates of wages often vary from the wages at which private reelers employ hired workers. According to the Silk Khadi notification, the revised rates of wages for reeler and turner, which became effective since December 1, 1992, in West Bengal, are Rs.22 and Rs.21 per day, respectively. The current market wage rates, however, in the main reeling centre in Kaliachak, for instance, are comparatively high. Generally, for an average daily output of 400-500 gms of warp yarn, or 750-950 gms. of weft, a reeler in a private unit in

Kaliachak gets Rs.26, and a turner Rs.27, (when the period of employment is relatively longer otherwise the wages are more) excluding the 'provisions' *in kind* offered by the employer, the market value of which would not be less than Rs.1.50. By comparison, the Society-rates have been fixed on the basis of a daily output of 380-425 gms of warp, or 500-520 gms. of weft yarn, in 8 hours of labour. However, the comparatively low wages does not deter supply of labour in a labour-surplus situation. The factor that really affects a Society is the higher costs of production as compared to private reeling. This perhaps explains the negligible participation of the Khadi Societies in reeling, as such. There are other non-market factors, too, which have been analyzed in a separate study (Banerjee, 1994).

The cost of inputs, the wages for warping, weaving etc., the A.W.F. at the rate of eight per cent, and an *ex-gratia* at the rate of ten per cent add up to the prime costs. The total value of a fabric is then being determined by adding a margin of 25 per cent on the latter, which is to be retained by the Society. The retail value is, however, fixed by adding 0.5 per cent as insurance charges, and, in case of loans taken from banks, 1.5 per cent as the charges for bank finance, on the total value.

The outputs of the Society are usually marketed through own retail sales counters approved separately by KVIC. The societies having no such sales counters usually sell the output to other KVIC-societies at a 12 per cent rate of discount. There is no bar on selling the output to private wholesalers. However, the latter are not entitled to the *commission* (at the rate of 12 per cent). This makes the private traders uncompetitive in the market with the Society's products. And, hardly any private wholesaler is found to be marketing the Societies' products in the domestic market. In the Khadi outlets in Calcutta the retail prices are 4 per cent higher than that in the weaving centres, on account of 1 per cent as entry tax, and 3 per cent as transportation. Thus, if a fabric

is exported to Calcutta from Chawk-Islampur for sale, and then for some reasons is being re-exported to Bankura the price, at the latter, would be eight per cent higher than that at Chawk-Islampur.

Apparently, the *pricing* of the KVIC-Society is quite rigid. Beginning with the prices of cocoons (till recently when the regulated markets of cocoons have started functioning) up to the retail prices of fabrics the society is supposed to follow the price-chart *fixed* by the Eastern Zonal Certification Committee of KVIC, at Calcutta. However, the societies are found to be operating within a 'range' around the *regulated* prices.

The official Cocoon Purchase Committee (CCPC) used to determine the *Kakeme* cost<sup>4</sup>, and the Committee, among others, was well represented by the societies. The system of pricing by the apex body, however, discontinued (since 12th March 1992) following the set up of a few regulated markets for cocoons by the state department of sericulture (DOS) in the districts. By dint of an almost oligopsonistic bargaining power KVIC/KVIB had been effective in depressing the *kakeme* rate. The price-chart prepared by the KVIC normally remains effective for a considerable period of time. If the *kakeme* rate had increased considerably in-between that would have affected the *pricing* of the KVIC-society. The KVIC, with the argument that the societies would face problems of marketing their outputs, used to put pressure on the CCPC to lower the *kakeme* rate, to the extent possible. The *balance* had to be accommodated by individual societies. This is no longer the case, now.

The yarn prices, of course, vary according to the quality while the price-chart prepared by KVIC mentions only one *set* of prices for warp and weft. Accordingly, the retail value of any particular fabric produced by a society is fixed. However, the retail prices of the Society-products at the Khadi retail sales counters hardly conform to the KVIC

regulated prices. The *difference* is partly explained by the texture of the cloth.

The main outlets for the Society-products include the showrooms like *Tantuja*, *Tantusree* of the West Bengal Handloom and Powerloom Development Corporation Ltd. (WBHPDC), and West Bengal State Handloom Weavers' Cooperative Society Ltd. (Apex Society), as well as the Khadi Samities. Most of the Society-outputs are transacted on-credit, the repayments take three to seven months and even longer than that. As a result, the societies encounter acute problem of working capital. The KVIC does provide 'soft' loans but the formalities take long time, and hence the Societies quite often have to borrow funds from the informal credit market at an exorbitant rate of interest, at times of crisis. Thus, not all the societies are well-grounded to provide yarn to all the members in volumes that would be adequate for their full-time employment in looms for a 'gainful' period of time, in a month or year. Besides, when the yarn prices move upwardly the volume of inventory of the Society declines by a corresponding proportion. And given the limited volume of working capital at its disposal, this entails further shrinkage in employment of the member-weavers. Sometimes the curtailment of production, by a Society, due to the rising prices of yarn is a deliberate decision which follows from the fact that they could not instantaneously *fix* the fabric prices accordingly.

The organization of production of the silk merchants (*mahajans*), on the other hand, may appear as that of a master-weaver but actually their forms of operation are more akin to that of a merchant. The weavers under these putters-out do not enjoy any kind of social security benefits, let alone the 'puja bonus' or *ex-gratia* payments. Depending on the conditions of the market the investment-portfolio of the mahajans changes. Although they carry out trading in silk yarn and finished materials, and also take part directly in the processes of weaving in

some of the weaving centres, the *share* of the respective activities changes quite frequently. They, however, do not dissociate themselves completely from 'manufacturing', wherever they have participated in it. The *alienation* from manufacturing would make their position more vulnerable. By dint of the system of putting out they have been able to manipulate the output *mix* according to market signals. This assumes particular significance when the *mix* contains *non-standardized* articles.

#### 4. The Labour Force

Bringing together hand workers into large workshops is by no means a characteristic feature of silk weaving in West Bengal. The majority of the silk weavers are employed in the traditional putting-out system of production. They work on their own looms in their own house, using materials obtained from the Society, or the mahajan. And, they use to receive piece-rate wages from the putters-out, according to the type and volume of work done. Thus, in this type of organization of production the key role is being played by the *agent* who actually put-out the work to the individual weaver. There is no powerloom in the state. Moreover, such phenomenon as that a master-weaver having a number of looms, employing journeymen and apprentices is non-descript, except in Bishnupur.

The head of the family is normally responsible for the execution of the work obtained from the putter-out, and the 'subordinate' members of the family, i.e. the women, children and old people are being organized by the 'head' in an informal manner to ensure the completion of the work. For the subordinate members, however, this is a domestic by-occupation; the other adult male members also take part in weaving. Most of the jobs of processing of the yarn (degumming, bleaching, colouring for the coloured fabrics, and winding the weft) are normally being done by other members including the children. The office

of the Society or the *gaddi* (office) of the mahajan is usually located in close proximity to the weavers' sheds thus the transactions of the materials do not entail any considerable work-loss for the weaver who himself is supposed to do that. The weaver, however, by dint of his ownership of tools is not an 'independent manufacturer', any more like an agricultural labourer who owns a sickle. The weaver's freedom is limited to the extent he has free access to raw materials. The 'independence' of the weaver who owns a loom and also work with owned yarn is largely subjected to the conditions of the output market. It is the silk merchants who provide marketing channels for bulk of the output produced by independent weavers.

Accordingly, the weavers could be stratified in order of their specific entitlements to 'income'. The economic conditions of those weavers who are 'gainfully' employed under the societies seem to be better than those who are 'tied' to the mahajans. On the other hand, the economic conditions of the weavers those who distribute their own labour-time between the put-out job (by the societies and/or mahajans) and independent production with owned yarn, however, remain ambiguous. Nevertheless, the socio-economic conditions of the weavers, as a whole, have become more vulnerable since they are, in general, divorced from agriculture. The joint-production of agricultural and the domestic 'industrial' goods, as is understood, has negative impact upon the productivity of the latter. But, de-peasantization also has not proved to be worthwhile due particularly to structural deficiencies.

##### 5. The Weaving

The locational specialization in the variety of silk fabrics, however, is not a direct consequence of the resource-base of the putters-out in the respective weaving centres. Some of the varieties like Baluchari or Jamdani have acquired the *status* of legend. The origin, downfall

and the rejuvenation of those 'legends' in some cases are spread over centuries. And, the rejuvenation, of a variety, like that of its emergence had always been subjected to the 'human embodied' knowledge of the society. The folk tales on the emergence of these three (selected) weaving centres, in particular, and on the conditions of weaving in the past, run in numbers. These elements of 'tradition' have, in fact, kept alive instead of hindering popular initiatives to develop newer products as well as processes.

Bishnupur is famous for its brocaded<sup>5</sup> designs and richly coloured bordered sarees known as *Baluchari*. The latter has been experiencing brisk demand from mainly urban elite consumers for about last 10 years. As a result, the number of looms engaged in the production of Baluchari increased from 150 in 1991 to about 400 in 1993, in Bishnupur. Most of the looms added to the existing strength are, in fact, old and switched over from other types of cloth-production. The output, in turn, has increased from about 400 Baluchari sarees per month in 1991 to about 1600 per month in 1993. There are altogether three cooperative societies and one charitable society. Notwithstanding, most of the Baluchari weavers are found to be unconnected with those. Another characteristic feature of Baluchari weaving is that about 10-11 persons are associated with one active loom, which seems to be highest among all the varieties of silk fabrics produced in the state.

The entire requirements of warp yarn used by the common weavers are imported from Karnataka. However, the charitable society, one of the few exceptionals among such organizations, directly runs reeling units in Malda and puts out Malda's warp yarn to the weavers in Bishnupur, also. The kind of warp that is used in Bishnupur, according to the weavers, is not being produced in the state. Our enquiry, however, suggests that there exists an information-gap between the producers and the users. The state-run filature unit at Madhughat, in the dis-

district of Malda, produces close substitutes of the Karnataka - warp, and is capable of catering to the demand of the Baluchari weavers. For the weft, however, these weavers turn to Malda. They keenly gather information on the success/failure of the cocoon 'crop' in Malda.

Jacquard looms<sup>6</sup> (throw shuttle type) are used in the weaving of *Baluchari*. Most of them are of nineteenth century vintage, mostly from Manchester, but are still in working condition. This particular loom is predecessor to the computing machines in a great way. This loom is accomplished with weaving designs simultaneously. The setting up of the loom for a particular design is, however, very complicated.

Each loom is used to weaving a particular design generally for five to six years, and sometimes even for ten years. The infrequent changes in design is due particularly to the following factors. First, there are only five designers in Bishnupur who among them share the entire local demand for 'designs'. It takes considerable time to complete a design. For instance, the drawing of a single - coloured design itself takes about two months. It is then transferred to cards through the system of punching; this is done manually and by using a crude punching instrument. Punching of at least five thousand cards (for a single-coloured Baluchari) itself takes about three months. A bi-coloured design drawing along with card punching takes six to seven months. Secondly, the cost of design is also quite high. For a single-coloured design the artist charges between Rs.1,500 and Rs.2,000. A card puncher takes about Rs.1,400. Added to these is the cost of the cards which is not less than Rs.2,000 per design (at the rate of Rs.40 per 100 pieces of cards). The total comes to about Rs.5,500. Similarly, for a bi-coloured design, the total initial costs would be about Rs.10,500. There are other miscellaneous cost-items like loom-setting (warping, shedding<sup>7</sup>, etc.), loss of loom-time due to the fact that at least two full working



days are required for loom-setting. Thirdly, as the designers are not educated formally and have no formal training in art they solely depend on their imagination mostly stemming from the stories of *Ramayana*, *Mahabharata*, and the calendar pictures. Their capacity to generate 'new' designs, which may satisfy changing customers' choice, is naturally limited.

The adoption of Jacquard loom in Mirjapur during the last six to seven years is an uncommon phenomenon, as compared to Bishnupur, and draws particular attention to the dynamics of 'human-embodied' technology. Usually, the designs on sarees are developed, in Mirjapur, in the ordinary wooden throw shuttle type looms fitted with 10-12 treadles. About six to seven years ago, a seventy-year old weaver went to Bishnupur as a casual visitor and was surprised to find the Jacquard looms in operation there. The designers in Bishnupur are particularly quite secretive of their trade and thus he was not able to gather detailed information on crucial aspects of the Jacquard loom weaving. Notwithstanding, his close observation of the operation of the loom itself later enabled him to construct a Jacquard-type loom of 100 hooks<sup>8</sup>. The old man himself had drawn a design and transferred that on the punch cards. And the first loom in Mirjapur successfully started operation with the yarn supplied by the Society, there. This innovation is, of course, the outcome of the person's organic involvement in the sector, and the motivation to improve the quality of the 'traditional' fabric produced there.

Technologically, the Jacquard loom is superior to the ordinary looms which are used in Mirjapur, in many respects. First, the capacity of the ordinary loom is restricted only to *simple* designs. Secondly, the motion required to be imparted to the heald by means of a treadle (the 'shedding motion') being operated by the 'movement' of the legs inside the pit is less frequent in Jacquard compared to that in an ordinary

loom, which certainly reduces the labour-time of the weaver. There are 10-12 treadles in an ordinary loom used for developing designs on sarees whereas in the 'Mirjapur - Jacquard' it is only one or at the most two treadles that produce the same or even finer designs. Thirdly, Jacquard loom minimizes costs on account of loom-setting(warping) since a particular type of fabric is produced in relatively larger volumes. An ordinary loom, on the other hand, remains inoperative for a couple of days in-between the completion of a 'batch' and the beginning of weaving of the next 'batch'. Quite often the Jacquard loom is set with such a volume of warp that the weaver would be able to make a continuous operation for about six months. This is a great advantage, at least, so far as the utilization of the family labour is concerned since 'continuous' operation for a considerable period of time renders 'economics' in this respect, in various ways.

However, the diffusion of the Jacquard loom is very slow since, with most ordinary materials only, a locally crafted loom (of 100 hooks) costs about Rs.7,000, in Mirjapur. Moreover, there are other additional initial costs like that for punch cards, etc. These together makes initial investment almost prohibitive to the common weavers. Extreme poverty leaves little scope for self financing/'internal financing' by the artisans. And, credit and insurance needs are found to be crucial. Still the initiative shown by the 'pioneer' in Mirjapur has not dampened. A younger weaver has recently crafted a 300 - hook Jacquard loom. There are altogether three Jacquard looms in Mirjapur.

Of the three hundred and odd weavers in Mirjapur, about two hundred are engaged in weaving directly under the fifteen putter-out silk merchants or mahajans. The mahajans, for any particular fabric, often put out yarn in much less quantity as compared to the societies, and thereby impart a particular texture to fabrics (Table 1). Besides, the quality of yarn, particularly the weft, supplied by the mahajans quite

often is inferior to that of the Society. The silk merchants, in general, thus have a competitive edge over similar kinds of Society's products, in the indiscriminating market where the buyers are not well informed (Table 2).

**Table 1**

Mirjapur: the average amount of yarn being put out to weavers, for a single piece of particular fabric, by the Society and the silk merchants, respectively

Variety of sarees	Total amount of yarn (gms.)		Warp yarn (gms.)		Weft yarn (gms.)	
	Society	Mahajan	Society	Mahajan	Society	Mahajan
Design satin -	530	375	230	175	300	200
Karial -	600	525	250	225	350	300
Jamdani -	500	450	200	300	150	300
Plain satin -	500	325	200	300	150	175
Inchee saree -	-	300	-	125	-	175
College Par -	-	285	-	110	-	175
Funki saree -	500	320	200	140	300	180
Check anchal -	600	525	250	225	350	300
Baluchari -	600	575	250	250	350	325

**Table 2**

Mirjapur : a comparison of the cost of production of various fabrics under the Society and the mahajan, respectively

<b>Silk fabric (saree)</b>	<b>Cost of production (Rs.)</b>	
	<b>Society</b>	<b>Mahajan</b>
Design satin	920	520
Karial	1300	690
Jamdani	980	600
Plain satin ( <i>Garad</i> )	640	330
Inchee	530	190
College Paar	550	290
Funki saree	650	330
Check anchal	960	620
Baluchari	1140	800

*Notes:*

- 1) The cost of production includes (i) value of yarn, (ii) cost of bleaching and colouring (*Mahajans* do not pay for these over and above the wages), (iii) depreciation cost at the rate of Rs.40 per saree for the Jacquard loom only, as paid by both the Society and mahajan.
- 2) In calculating the value of yarn we have considered only one 'set' of prices for warp and weft, for both the Society and the mahajan's products, as prevailed, on an average, in July 1993, in Mirjapur.
- 3) The 'figures' in the Table are 'average' values only. Costs vary according to the texture of the fabric.

The variation in the cost of production between the two types of organizations is largely explained, as stated earlier, by the amount of yarn used per saree. The 'price gap' would enlarge further if the variation in the quality of yarn that are being used by them was taken into consideration. Moreover, the silk merchants reduce the quantity of yarn per fabric as soon as the yarn price goes up and thus manipulate the costs of production of the relatively higher price-elastic fabrics. Besides, the wages paid by the silk merchants are also comparatively low while the Society pays, say, Rs.400 for a piece of *Jamdani*, and Rs.406 for a *Karial* the silk merchants pay Rs.225-300 and Rs.273, respectively (Table 3). Moreover, the Society reimburses the costs incurred by the weaver on bleaching and colouring materials which the mahajan does not. The latter also enjoys an additional advantage of flexible wages unlike the Society whose wage rates are *fixed* by the apex body. The mahajan usually does not increase wages when the market prices of silk fabrics increase but a rising cot of yarn is generally being counterbalanced by a reduction in the wage rates. The conditions of the weavers 'tied' to the mahajans seem to be more vulnerable as they are, unlike the Society weavers, not covered under any social security scheme.

**Table 3**

Mirjapur : the piece-rate wages paid by the Society and the mahajan, respectively, for the selected items

Silk fabric	(in Rs.)			
	Society		Mahajan	
	Wage	For bleaching and colouring	Wage	For bleaching and colouring
<b>Saree :</b>				
Design satin -	300	47	200-275	Nil
Karial -	406	47	273	-
Jamdani -	400	47	225-300	-
Plain satin -	82-93	25	60-75	-
Funki -	90	25	70	-
Check anchal -	275	42	200	-
Baluchari -	400	52	300	-

These notwithstanding the silk merchants dominate a sizeable part of the weaving sector. Out of the 40 weaver households selected at random, in Mirjapur (in July 1993), 24 households were found to be exclusively working with the silk merchants while only four households weaving exclusively for the societies. The distribution of the 40 sample households according to the mode of operation is as follows :

<i>Mode of operation</i>	<i>No. of weaver households</i>	
Under the societies	-	4
Under the mahajans	-	24
Independent	-	1
Society <i>plus</i> Mahajan	-	9
Society <i>plus</i> Independent	-	1
Society <i>plus</i> Mahajan <i>plus</i> Independent	-	1

The mahajans by dint of their easier access to loanable funds play a crucial role in the livelihood of the weavers; provide consumption loans at *free* of interest to most of the weavers. Secondly, the mahajans put out warp in quantities which are required for 18-20 sarees, and weft yarn only for two-three sarees, at a time. The weaver finishes two-three pieces of cloth, drops the same to the mahajan, and in return gets wages and weft for the next 'batch' of production. To the weavers, this is a labour-saving arrangement as it enables them to economize on labour particularly in the pre-weaving jobs like processing of yarn, and warping. This system adopted by the mahajans has, in fact, created a different kind of problem for the societies. To mainly manoeuvre the weavers, the societies also put out the amount of yarn that is required for 18-20 pieces of saree (or, nine to ten *standard* lengths of fabrics), at a time, to a single weaver in spite of the fact that due to resources crunch they could not provide *adequate* employment to all the members. Thus elements of discrimination and discontent breed in the cooperative form of organization while the mahajans strengthen their socio-economic position. The reason for disintegration closely follows to what Hardin (1968) has argued as 'tragedy of the commons'. According to Hardin, each individual has the incentive, in the case of commonly owned resources, to overuse the resources, regardless of what others do, thereby leading to the destruction of these resources. Here, the *demand* for the commonly owned resources (mainly, yarn) by each member-household is determined by the owned number of looms. And, in the short-run, the volume of working capital available to the Society is also given. However, the greater the number of looms owned by a particular household the quicker is the turnover as compared to others, and hence relative overuse of resources by this household. The cost burden of collective action thereby falls more disproportionately on the poorer households having less number of looms leading to inequali-

ties of income. On the other hand, dissociation faces 'threats' of uncertainties in the underdeveloped markets. The private putters-out, to the extent they actively participate in the production process, do provide an alternative organization in the present market conditions; and, the societies face threats of desertion.

There are occasional attempts by the weavers also to break of the exploitative ties with the mahajans in the putting out system. Sometimes they are able to mobilize adequate working capital required mostly for yarn, or obtain those on-credit from the reelers. Yet the nonavailability of 'free' marketing channels brings them again under the yoke of the mahajans. Usually, the cloth prices do not fluctuate in accordance with the changes in the prices of yarn. The price of silk fabric, when sold to the mahajan by the independent weaver, usually increase at a lower *rate* than that of the yarn. By contrast, the decrease in the former as compared to the dwindling yarn price, has always been proportionately larger. This makes independent weaving quite risky and uncertain.

We have tried to estimate the monthly wage income per loom (Table 4) on the basis of the *capacity* of a weaver and the full-capacity supply of yarn by the putter-out. It reveals the significant variation in income between the two groups of weavers. The disparity is even larger, since the costs incurred by the weaver on bleaching and colouring materials are not reimbursed by the mahajans. Further, the comparison of the wage costs as a proportion of the retail prices of the outputs of the society and the mahajan, respectively, may show the comparative pattern of labour utilization. While the wage cost remain fixed the retail price of any particular fabric varies widely depending on the texture or designs (or both) of the fabric. This makes the calculation of the *ratios* on the basis of an average price tentative yet a fair approximation of the phenomenon. Table 5 shows that wage cost as a proportion of the



retail price is consistently higher for the Society than the mahajan, for any type of fabric.

**Table 4**

Mirjapur : monthly wage income per loom, under the Society and the mahajan

Silk fabric (saree)	Production per month <sup>1</sup> (no. of pieces)	Monthly wage income <sup>2</sup> (Rs.)	
		Under Society	Under Mahajan
Design satin	6	1800	1260
Karial	3.5	1421	956
Jamdani	4	1600	1080
Plain satin	7	574	455
Inchee paar	7	490	364
College paar	10	750	700
Funki	7	630	490
Check anchal	5	1375	1000
Baluchari (cheaper variety)	3	1200	900
Jacquard	3	1800	1500

- Notes : 1) The figures represent the working to *capacity* of a weaver provided there is a continuous supply of yarn.
- 2) Excluding the payments made for the bleaching and colouring costs. Moreover, this is only an approximation and directly proportional to the supply of yarn by the putter-out.

From the weavers' point of view, however, the 'share of wages in the retail value of the fabric' has little significance since the labour-time required for weaving of the different textures of fabric produced.

there, does not vary to the extent that would have explained the differences in the *actual* wages paid by the society and the mahajan, respectively. Thus the conditions of living of those weavers exclusively working for the mahajan get worse as compared to the society-weavers. This further aggravates due to the fact that the mahajan often cut back production when the price of yarn goes up, resulting in reduced aggregate wage-income of the weavers.

**Table 5**

Mirjapur : wage cost, and the cost of yarn as a proportion of the retail price of the fabric of the Society and the mahajan, respectively

Silk fabric	Wage cost <sup>1</sup> /Retail price(%)		Cost of yarn/ Retail price(%)	
	Society	Mahajan	Society	Mahajan
SAREE :				
Design satin	28.6	19.1	41.1	28.2
Karial	32.9	18.8	40.4	29.0
Jamdani	34.6	24.5	35.8	30.0
Plain satin	10.2	8.1	45.2	33.4
Inchee paar	12.7	9.4	51.0	24.9
College paar	11.9	11.7	47.8	36.5
Funki	10.5	9.7	43.0	35.6
Check anchal	26.2	16.0	46.2	33.6
Jacquard	43.2	32.7	35.0	28.1
Baluchari	31.3	21.9	35.9	29.8

Notes : 1) This includes, to the mahajan, the wages paid, and the cost of depreciation for the Jacquard loom. To the Society, on the other hand, this includes the costs of colouring and bleaching, depreciation of the Jacquard loom, wages, and the A.W.F. @8% and ex-gratia @10% (on the wages paid).

The product-mix is also being determined by the putter- out, most likely in response to demand conditions. If the weaver was allowed to decide on its own he would have produced only the Design satin, or else Jamdani sarees in order to maximize his *income* (cf. Table 4). But for the equilibrating agencies like the Society, the silk merchants the income per loom is much less in Mirjapur than would otherwise have been as apparent from Table 4. Our survey on the monthly income from weaving, as reproduced in Table 6, shows that 19 out of the 40 households owned only one loom and their income did not exceed Rs.1,500 per month. The state of affairs was not much better for those

**Table 6**

Mirjapur : the distribution of the 40 weaver households (sample) according to monthly wage-income, and the number of owned looms

Monthly wage-income (Rs.)	Distribution of households according to the number of looms owned			
	One	Two	Three	Four
Up to 500	2	-	-	-
500-800	7	2	-	-
800-1100	6	1	-	-
1100-1500	4	4	-	-
1500-2000	-	3	2	-
2000-2500	-	-	2	-
2500-3000	-	-	-	3
3000-3500	-	-	1	1
3500-4000	-	-	1	1
<b>TOTAL :</b>	<b>19</b>	<b>10</b>	<b>6</b>	<b>5</b>

who owned two looms. The low income with more than one loom is mostly explained by the fact that the other loom (looms) is(are) not being operated simultaneously. It is rather kept 'ready' to start production of the new *batch* in quick succession. Moreover, higher income with more than one loom has to be *discounted* in case the additional loom (or looms) is(are) operated by hired weaver(s). The average family size of these 40 households is found to be six. Thus, the per capita income of an average weaver seems to be hovering around the 'poverty line'<sup>9</sup>.

**Table 7**

Mirjapur : the distribution of the 40 (sample) households according to the number of hours spent daily for weaving

<u>Labour hours</u>	<u>Number of weaver</u>
Up to 7	2
7 - 8	8
8 - 9	18
9 - 10	10
10 - 11	2

In fact, the *actual* earning of wages from the putters-out is even less than that shown in Table 6. The wage income per head per day of about nine hours of intensive labour (Table 7) being as low as Rs.15-20, the practice of 'saving' a part of the total yarn supplied by the putter-out for a specific volume of fabrics, has become a common phenomenon. And the putters-out know about it. They supply yarn by weight and take back the fabric whose weight must be equal to the weight of the yarn supplied *less* the stipulated rate of discount allow-

ing for the losses due to *processing* of warp yarn, mainly. Actually, the loss of weight in the processing, mainly deguming, bleaching, and polishing of the thread is made up, by the weaver, with the starch (used as 'filler'). The amount of warp thus 'saved', very little of course, is then combined with the purchased weft to produce fabric that yields additional income. Tentatively, if a weaver produce four Jamdani sarees with the yarn supplied by the putter-out, in a month, he could easily save such an amount of warp that is adequate for an additional Jamdani. Incomes from the latter are added to the weaver's *actual* wage income and shown in Table 6. This *practice* is, however, a common phenomenon in all the weaving centres where the putting-out system is in vogue.

The survival of this industrial outwork, however, crucially depends on that part of the labour being spent by other members of the weaver family, mostly the women (except in warping) which remains unpaid. The pre-weaving processing, such as winding, deguming, bleaching, warping, shedding and, if necessary, colouring, takes about 32-48 hours per piece of cloth, depending upon the 'variety'. While, for instance, Karial or Jamdani requires about 45 hours, the Baluchari about 48 hours, the processing of yarn for a piece of plain satin or Funki saree takes about 32 hours. And, on an average, the subordinate members spend about five hours in a day on this work. Generally, the self-employed female members begin the work after lunch and continue till dusk. And this informal intra-familial division of labour has got the formal approval of the system of production. The violation of the 'rules', like say the subordinate members accept paid employment elsewhere, would only disrupt the household's target of production.

The resource crunch of the societies in relation to the large number of artisans, provisions of yarn for whom have to be made in sufficient quantities so that they are employed for a certain *minimum* number of man-days, in a month, and, the silk-merchants' 'spirit' for im-

mediate profit gains, in general, have resulted in the production of low valued fabrics in ever larger quantities. The weaving of a Karial requires about 78 man-hours, a *Jamdani* requires about 70 man-hours of labour whereas only 36 man-hours roughly would be enough to produce one Plain satin, or a Funki saree. Thus the production of low valued articles provide relatively quick returns on the limited resources put into circulation. Of the 40 weaver households (out of a population of about 300 weavers), in Mirjapur, it is found that only 18 weavers are particularly engaged in high valued materials like Karial, Jamdani, or Baluchari (its quality though inferior to Bishnupur's). Only two weavers are found to be engaged exclusively in the weaving of Karial while three are in Jamdani (Table 8), and none in *Baluchari*. Among the 18 weavers, most are found to be producing various 'mix' of the high, medium, and the low valued fabrics like plain satin, or Funki saree, etc. Since the latter type of fabrics is not yet *standardized* there remains enough scope for manipulation of the texture and thus tuning costs on yarn. This is usually done in two ways, by varying, (a) the number of warp threads, and (b) the quality of either warp or weft, or both. All these add up to nothing but a degeneration in the texture of cloth, as such and which is very likely to be counter-productive.

Table 9 shows that the average (paid) labour time required for weaving of a particular fabric is not directly proportional to the cost-price ratio. Jamdani, for instance, requires about double the amount of labour for an Inchee saree yet the cost of production of Jamdani constitutes 65.6 per cent of the retail value as compared to 62.2 per cent for the Inchee saree, produced by the Society. The cost-price ratio shows (Table 9) that the Funki saree weaving is most profitable to the Society what the Inchee saree is to the mahajan. But since the profitability is estimated on the working capital only, this must take into account the period during which the capital remain 'blocked'. This allows us to

**Table 8**

Mirjapur : the trend of weaving of high, medium and low valued sarees

<u>Variety of silk saree</u>	<u>Number of weaver</u>
1. Karial <i>plus</i> others (but not Jamdani or Baluchari)	- 5
<i>of which, only Karial</i>	- (2)
2. Jamdani <i>plus</i> others (but not Karial or Baluchari)	- 9
<i>of which, only Jamdani</i>	- (3)
3. Karial <i>plus</i> Jamdani <i>plus</i> others (but not Baluchari)	- 2
4. Baluchari <i>plus</i> others (but not Karial or Jamdani)	- 1
5. Baluchari <i>plus</i> Karial/Jamdani <i>plus</i> others	- 1
6. Design satin, only	- 5
7. Design satin <i>plus</i> others	- 19
8. Design satin <i>plus</i> others ( <i>ex.</i> Karial, Jamdani, Baluchari)	- 9

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**Table 9**

Mirjapur : labour-hours required, the cost-price ratio, and the surplus generated per hour of weaving of selected fabrics

Silk saree	Average labour -hours required for weaving per piece <sup>1</sup>	Cost of production <sup>2</sup> as percentage of the Retail value		Retail value less Costs/Labour-hours (Rs./hr.)		
		Society	Mahajan	Society [a]	Society [b]	Mahajan
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Design satin	46	65.9	47.3	10.39	9.22	12.61
Karial	78	68.8	47.8	6.41	5.47	9.70
Jamdani	70	65.6	54.5	7.37	6.34	7.14
Plain satin	36	54.2	41.5	15.11	14.70	13.00
Inchee	35	62.2	34.4	9.17	8.81	10.31
College paar	27	58.3	48.2	14.67	14.17	11.52
Funki	36	52.2	45.2	16.61	16.16	11.02
Check aanchal	54	68.9	49.6	8.07	7.16	11.67
Jacquard	99	72.4	60.8	5.16	4.07	6.52
Baluchari	101	63.3	51.7	6.54	5.83	7.40

- Notes:*
1. Unpaid labour hours for winding, deguming, bleaching, colouring, and warping have not been considered in column(2).
  2. This includes: costs of yarn, bleaching and colouring materials, depreciation for Jacquard loom, and wages.



3. The figures in column(5), i.e. *Society [a]* do not include the costs incurred by the Society on account of A.W.F. (at the rate of 8%), and *ex-gratia* (at the rate of 10%) on the wages. However, the figures in column(6), i.e. *Society [b]*, have been calculated after *adding* 18% to the payments of wages.
4. The 'ratio', and the values shown in the Table should be treated as indicative since we have considered only the average prices of the yarn as well as final products.

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estimate the value of surplus (value *less* the costs of production) generated per hour of *paid* labour in weaving, both for the Society and mahajan, as the relevant index of profitability.

Table 9 (columns 5, 6 and 7) shows the *variation* in the rate of surplus according to the type of fabrics and, the production organizations. It is found that although Karial, Jamdani, Jacquard saree, or Baluchari requires longer labour-hours the rate of surplus is much lower compared to fabrics which require less hours of labour. The disproportionality, in general, between the 'labour content' of a fabric and the rate of surplus, irrespective of the organizations of production, is largely determined by the characteristics of the output-market. This has been persisting for a considerable period of time. Thus, the market does not provide much inducement to reallocate resources towards production of 'superior' fabrics.

Further, the rate of surplus being appropriated by the Society is consistently higher, for all the fabrics, than that by the mahajan. The weaving of the Funki saree yields a surplus of Rs.16.61 per hour of labour, to the Society; and, which is *highest* among all the fabrics being produced under this organization. By comparison, the highest *rate* of surplus that accrues to the mahajan from the weaving of Design satin is

only Rs.12.61 (Table 9, column 7). The unique contribution towards A.W.F. as well as *ex-gratia* hardly makes any change in the Society's position in this regard (Table 9, columns 5 and 6).

The utilization of the available capital, however, by the Society or the mahajan, has no direct correspondence with the relative profitability of the different types of fabrics. The societies concentrate in the production of sarees, such as Funki, Check aanchal and, to a limited extent, Karial. The weavers under the mahajans, on the other hand, are found to be heavily engaged in the weaving of Jamdani, Design satin, and Plain satin. Of the 24 weavers, those who were working exclusively under the mahajans, seven used to produce Jamdani, while design satin and plain satin are found to have engaged six and eight weavers, respectively. In other words, the range of products of the mahajan's is relatively wide and includes sarees such as Baluchari, Jacquard sarees, and a few Karial.

The societies with their limited volumes of working capital in relation to the numbers of artisans under their fold rather prefer to have more frequent *circulation* of the available capital than on concentrating in the longer 'gestation' areas. The relatively skilled group of weavers those who are in search of *stable* employment for a longer period of time has naturally mobilized around the mahajans, even if the latter do not provide them with any social security measure, let alone the comparatively low wage-rate. Some of the weavers distribute their labour-time on both of the mahajan and the Society's job, depending on the intensity of labour required for the particular job. For instance, a weaver family may be found to have been weaving Jamdani for the mahajan and less time-consuming Funki, or plain satin, etc., for the Society. Of the three weaver families, who together owned four Jacquard looms, two attain both the societies and the mahajans, and the third one the mahajans, only. Thus, the 'regrouping' of the weavers in Mirjapur is

not a direct consequence of the differential wage-rates. Rather, it is the objective of maximizing gross (annual/monthly) income that largely explain the 'inter-sectoral' mobility of the weavers.

The fact that about 200 out of the 300 weaver households in Mirjapur are employed directly under the mahajans and working at a comparatively low wage yet they have no effective union against their masters does indicate the weak bargaining position of these weavers. They have become only a marginal element in the productive process and are liable to be often unemployed or underemployed, and thus they could do little to inconvenience their masters by withholding their labour. Because of their habitual poverty they feel little temptation to migrate, also. Almost all of the 40 weavers who happened to be landless as well replied that they are unable to do any other productive work. And the relatively elders among them said that at that age it is very difficult to adapt to a 'new' work-conditions. The additional advantage in the handloom weaving industry is that it served largely to occupy part of the family for part of the time; father, mother and children could all share in the work which would be carried on in the home itself. The traditionality of the family occupation may explain the sociological reasons behind the 'immobility' of this labour force particularly when almost all of them consider weaving as unremunerative. But the fact that despite having complete information on the conditions of work in this sector there is still new additions to the existing labour force. The cumulative total age-distribution of the 40 weaver households in this sector shows that two families had installed handlooms only about two years ago, four during last seven years, 14 during last 15 years, 23 during last 20 years, 30 during last 30 years, and 37 during last 40 years while the remaining 3 families are found to be engaged in the activity for more than 60 years. Of course, the new entrants into this sector are weavers by caste. But since they are at their 20's, and most of them are

educated (at least high school-passed), and since their family had discontinued the job long before, there was necessarily no 'pull' forces for them to re-enter into this business unless some other economic compulsions were there.

Bishnupur, on the other hand, provides a different picture of the sector. As stated earlier, Bishnupur has specialized in such kinds of fabric that have been experiencing a steadily growing market during last couple of years. And, increasingly the 'tied' weavers are opting for independent operation unless otherwise their *bondage* in some forms or other obstructs the 'movement'. The Silk Khadi Seva Mandal (the largest among the societies in Bishnupur) used to produce about 1500-2000 Baluchari sarees per annum, or, in other words, 120-150 sarees per month. Even such a big organization has been losing its recruits of weavers. While the number of looms used for Baluchari and operated under the direct control of the particular society was 48-50 in 1991 it decreased to 35, within two years, in 1993. The participation of the silk merchants in production, on the other hand, is virtually limited, unlike in Mirjapur, to trading in finished products. However, there are a few master-weavers owning a number of looms who operate those with journeymen (*Banidaar*) and apprentices. But the basic difference between master-weaver and the mahajan is that the former depend overwhelmingly on the mahajans for marketing of their produce, and that too on-credit.

These master-weavers, however, have a few similarities also with the method of operation of the mahajans in Mirjapur. They have adopted certain cost reducing technique to make their outputs price competitive. As stated earlier, mainly three varieties of Baluchari sarees are produced in Bishnupur, viz., single-coloured, bi-coloured, and bi-coloured with gold or silver threads. For the latter variety, the societies are supposed to use only that quality of gold/silver threads the prices of

which are not less than Rs.8,000 per kilogram while the master-weavers usually put in threads that cost about Rs.2,200, thereby reducing the costs by about four times on this *item* alone. Similarly, a comparison of the wage-rates of the society with that paid by the master-weavers and, with the gross income of the independent weavers, reveals another source of price-competitiveness of the master-weaver (Table 10). For a single-coloured Baluchari, the society pays Rs.575 as wages and an independent weaver earns about Rs.600. By comparison, a master-weaver pays only Rs.450 for the said variety. Further, the contributions made by the societies towards A.W.F. and *ex-gratia* if are added to the *wages* it would appear that working under them was more remunerative than independent operation.

The *actual* income of the journeyman, on the other hand, is even less than that shown in Table 10, since a part of the piece-rate wage being paid by the master-weaver is shared by an apprentice. Moreover, quite often two journeymen jointly produce one Baluchari. They have their indigenous method of sharing the wage-bill paid by the master-weaver. The weaving of a Baluchari saree could be separated into various 'segments' according to the skill and intensity of labour required, following which the wage is shared on the basis of 'who does what'. For instance, 250-275 cards together constitute one *bunch (hala)*. Weaving through these cards would add up 3.5-4 inches to the saree. And, the wage-bill is shared in such a way that, say, weaving of one *hala of aanchal* (border) carries approximately Rs.4. However, this system of wage-sharing is strictly informal and varies from units to unit. The complexity appears to be more in sharing the *bonus*. After protracted negotiations the journeymen have been able, since 1989, to earn the entitlement to 'production bonus' annually at the rate of 8.33 per cent.

The productivity of both the loom and the labour in Bishnupur is higher than that in Mirjapur since, as it is found, the labour-time re-

quired to produce one piece of single-coloured Baluchari in the former is more than half of that in the latter (cf. Tables 9 and 10) in spite of the fact that only 'inferior' variety is produced in Mirjapur. In fact, the distinguishing characteristic of Baluchari is that the labour-time required for pre-weaving processing is proportionately more than weaving. Here again, the product of Bishnupur could be differentiated from that of Mirjapur on the basis of the labour-hours spent on the pre-weaving processing. In Bishnupur, one single-coloured Baluchari saree requires, on an average, 115 hours of labour for processing the yarn itself and, winding, warping, denting, healding, drafting, etc. By comparison, the aggregate labour spent on the same does not exceed 50 hours, in Mirjapur. Here, the *time* required for fixing a 'design' on punch-cards to the Jacquard loom has not been included since the same design is repeatedly used in a large number of sarees.

If a Baluchari weaver employ hired worker(s) for pre-weaving processing, a large part of which is otherwise done by *unpaid* family members mainly women, that would entail an additional expenditure of not less than Rs.150 per saree, irrespective of the *variety*. The job of pre-weaving processing, thus, if were paid for by the weaver himself, the piece-rate wage of the Society reduces to a level which is almost identical to that of the master-weaver. And, by this yard-stick, independent weaving turns out to be comparatively more remunerative. However, as stated earlier, for a single-coloured design, the total initial investment required is about Rs.5,500 apart from the costs of yarn and other complementary expenses. These together acts as a barrier to becoming independent for many of the 'tied' weavers.

In fact, the steady demand for Baluchari during last couple of years has enabled some of the 'tied' weavers to accumulate the required 'funds' to venture into independent operation. A Baluchari weaver is normally able to produce six single-coloured, or four bi-coloured, or three bi-

coloured with silver/gold threads sarees, per month. And the corresponding wage-incomes, under the society, come to around Rs.3,450, Rs.3,800, and Rs.3,600, respectively, while the same under the master-weaver are Rs.2,700, Rs.3,200, and Rs.3,000. Thus, the weavers' conditions of living in Bishnupur are remarkably different from that in Mirjapur.

**Table 10**

Bishnupur : the labour-requirement for pre-weaving processing and weaving, the wages paid by the societies as well as master- weavers, and the *income* earned by the independent weavers from a single piece of fabric, as in November 1993

Baluchri saree	Labour-hours required for pre-weaving processing	Labour-hours required for weaving	Piece-rate wage(Rs.)		Net income <sup>3</sup> of the independent weaver
	(hrs.)	(hrs.)	Society <sup>1</sup>	Master-weaver <sup>2</sup>	(Rs.)
Single-coloured	115	45	575	450	600
Bi-coloured	130	63	950	800	900
Bi-coloured with gold or silver threads	115	90	1200	1000	1200

- Notes :
- 1) Excluding the A.W.F. and *ex-gratia* payments.
  - 2) Excluding the payment of bonus at the rate of 8.33% on wages.
  - 3) According to the statements made by a number of independent weavers. This is nett of current expenses, only, and requires to be discounted for the *cost* of invested capital.

Baluchari also enables the investors to garner relatively large *margins* of 'profit'. It is evident from Table 11 that a piece of bi-coloured saree with silver/gold threads yields as high as Rs.2,830 to the society having its own retail outlets while a single-coloured saree does about Rs.870, net of aggregate costs of production. Since the societies sale the produce through the Khadi 'chain' of retail shops, the calculation of the *margin* of profit is relatively easier than that for the master-weavers. The latter usually take their outputs to the local silk merchants and hence the retail price, for them, does not reflect the price actually fetched. In fact, the master-weaver earns a fraction only of what is shown in Table 11 (column 9) as remuneration for 'supervision'. This distinguishes a master-weaver in Bishnupur from the silk merchants in Mirjapur. So long the silk merchant charges only a 'reasonable' commission for the service rendered in the form of marketing the produce the organization of production by master-weavers would effectively compete the societies. The comparatively low prices of the outputs of the master-weavers, or the independent weavers as compared to the Society's even after allowing for a *margin* for the differences in quality, certainly is the competitive advantage of the group of non-Society manufacturers. But for the underdevelopment of certain institutions the 'advantage' fails to transform into 'gains' to the latter.

However, the output market, as envisaged by many who are directly related to the sector, is perhaps approaching the demand-saturation level unless the designs of the Baluchari are changed. The societies could take lead in developing and invest in 'new' designs. And, so long they fail to perform in this *role* the unequal distribution of gains among the major participants in the processes of production would hardly be considered as conducive to growth. There are ways of reducing costs of production substantially but they are beyond the financial capacity of the individual weavers. For instance, computer aided design



**Table 11**  
 Bishnupur : the *difference* between the average retail price of a Baluchari and its costs of production  
 (values in Rs.)

Baluchari saree	Retail market price (as in November '93)		Cost of production <sup>2</sup>		Price less Cost/labour-hours (Rs./hour)	Margin of 'profit'		
	Soc.	Oth.	Soc.	Master-weaver		Society	Master-weaver	
	(2)	(3)	(4)	(5)	(6)	(7)	col.(2) - (4)	col.(3) - (5)
(1) Single-coloured	2400	1825	1530	1390	19.33	9.67	870	435
Bi-coloured	3200	2475	2220	1890	15.56	9.29	980	585
Bi-coloured with silver/gold thread <sup>1</sup>	7500	3250	4670	2380	31.44	9.67	2830	870

*Notes*

- 1) The considerable difference in the retail prices of bi-coloured with silver/gold threads is due to the amount and quality of the threads used. The Society put in 300 gms. of threads at the rate of Rs.8,000 per kg, while others usually apply 200 gms. of thread at the rate of Rs.2,200 per kg, per saree.
  - 2) This includes, for the Society, the value of yarn, costs of bleaching and colouring materials, wages including A.W.F. and *ex-gratia*, depreciation of the Jacquard loom and other appliance like punch cards paid at the rate of Rs.110 per saree. For the master-weaver, this includes the value of yarn, wages to the journeyman, depreciation at the rate of Rs.110 per saree, the costs of colouring and bleaching materials, as well as other costs of pre-weaving processing.
  - 3) Soc. = Society; Ouis = Others.
-

(CAD) would not only speed up the process of designing but would also greatly reduce the card-punching time. As the cards could easily be duplicated the entire costs of designing would be distributed among the weavers. Of course, the CAD would directly reduce employment in designing but, in the aggregate, the net employment would increase by engaging the looms more effectively and in greater numbers.

At present, the looms are fully utilized. On every loom, double shift work is continuing for about last five years. Each weaver is fully employed. Even the journeymen and hired workers engaged in other pre-weaving processing work are gainfully employed. Each loom runs for about 16 hours a day. While two other traditional handicrafts, namely, brass and bell metal, and conch-shell are at the verge of collapse the Baluchari has turned out to be the main artisanal occupation in Bishnupur. The readily available labour-force, at least for the lowly paid job<sup>10</sup> of pre-weaving processing, has automatically rendered *cost efficiency* to the industry, without any 'initiative' whatsoever on the part of the entrepreneurs.

The revival of an 'old' craft and its ready demand from a limited segment of the consumers might not have immediately induced the mahajans in Bishnupur to take 'risks' of direct participation in the production. But their non-participation in the manufacturing of more or less *standardized* and low valued plain silk-cloth in Chawk-Islampur draws particular attention. There are about 2,300 looms in Chawk-Islampur area. Excepting a limited few, most of the weavers are dependent upon the 32 societies active in the area. Of these, only five are cooperatives and, the rest are charitable societies. The cooperative societies are relatively large in *size*; the smallest one is having a membership strength of 118 weavers while the largest one having 403 weavers. The charitable societies are relatively small with the number of artisans varying from 15 to 25.

Cloth of both reeled and the spun silk yarn, exclusively, and of various *mix* of the two types of yarn are produced in Chawk-Islampur. There is significant concentration of *spinners*, mostly women, in the area who spin yarn from dressed waste silk and pierced cocoons, manually with *takli* (spindle). This has largely determined the volume of *mixed* silk fabrics produced in Chawk-Islampur. The use of (mulberry) reeled silk yarn, and the spun silk yarn from pierced *tasar* cocoons (called *Katia* yarn) and *mulberry* cocoons (called *Matka* yarn), from *tasar* cocoon peduncles (called *Balkal* yarn), and from reeling silk waste (called *Jhoot* yarn), in varying combinations, brings out wide varieties of fabrics. Even cotton Muslin as weft is combined with mulberry reeled silk (as warp) to produce *silk muslin*, which is mostly used as shirtings. However, to note, although the demand for these otherwise low valued materials is growing in foreign markets the impact is hardly felt locally at least so far as the prices are concerned. The weak trade-growth linkage may be partly explained by the fact that the local societies are not engaged in direct exports to foreign countries.

Out of the 2,300 looms in Chawk-Islampur, at the most 1,000 looms are engaged in the weaving of reeled silk yarn while the rest are in spun silk fabric production. The importance of Chawk-Islampur in the silk production in West Bengal could be gauged from the fact that about 3,000 kilograms of reeled silk, and 15,000 kgs. of spun silk are required per month, in this area alone. This amounts to about 0.216 million kilograms of yarn per annum which is about one-fourth of the aggregate raw silk production in the state<sup>11</sup> (cf. GOWB, 1992-93 : Table 5.6). Thus, this high concentration of weaving of relatively cheaper silk goods typically represents the overall situation of silk weaving in the state.

The societies in Chawk-Islampur usually put out warp yarn to the weavers in quantities which would be adequate for six to eight *stan-*

*dard* lengths of fabrics of, at the minimum, 11 m. x 0.91 m. in size per piece, as compared to nine to ten pieces in Mirjapur. The weft yarn, however, are supplied only for two *lengths*, at a time. In case, the Society could not supply hanked nett silk yarn as warp to the weaver it allows a discount of 60 gms. per kilogram of yarn supplied, as wastage in processing. In fact, the 'wastage' is much less. Moreover, although reeled silk yarn could not be 'starched' it has become a common practice to spray 70-75 gms. of starch on a standard length of fabric, during weaving. The 'set aside' warp yarn are combined with the purchased weft from the market to produce cloth that yields additional incomes to the weaver.

It is found that, in 1992-93, the monthly income of a weaver associated with a charitable society was about Rs.470 (see *Annual Report*, 1992-93, Chandrakanto Lalit Mohan Resham Khadi Samity, Chawk-Islampur). The wages to be paid by the societies for various jobs have been recently revised and made effective from 1st April 1993 (though was supposed to be effective from 1st December 1992). And the income of the weaver is supposed to have increased proportionately. Given the low per capita income in the putting out system, the supplementary incomes from 'saved' yarn merely provide subsistence to the weaver household, almost all the members of which take part in the processes of production at different stages.

The weaving of spun silk yarn, on the other hand, yields higher incomes in two different ways. First, the spun yarn, especially *Matka*, weaving is more labour intensive as compared to reeled silk weaving and, consequently, the wages are also higher. Secondly, the definite need to apply starch for *sizing* of the yarn leaves much elbowroom for yarn 'saving'. Reallocation of resources from reeled yarn to the spun yarn weaving in a significant manner is, however, restricted by the conditions of supply of the spun yarn. The supply of the latter particu-

larly the Matka is limited as compared to reeled yarn. The societies determine the volume of different types of fabric to be produced according to the market conditions. It is also the discretion of the societies: whom (weaver) to assign which job. These together appears to have resulted in 'tensions' among the weavers *vis-a-vis* the societies.

Table 12 shows the maximum pieces of a particular fabric that a weaver is able to produce in a month provided there is uninterrupted supply of yarn, and the corresponding *gross* wage-income. We will come to the issue of *difference* between gross and net income later. Since most of the weavers, here, are working under the societies we have considered only the Society's stipulated rates of wages. It is evident from the *Table* that income varies widely depending upon the type of fabric produced in the loom. Interestingly, the weaving of spun silk, or a blend of reeled and spun silk yarn often pays more than 'pure' reeled silk. It concerns since spun silk yarn are much cheaper than reeled silk. In general, the piece-rate wage for weaving of spun silk fabric, or blended fabric is greater than that for reeled silk fabric. As a result a weaver would be able to earn about Rs. 100 more per month by producing, say, *Matka dhotis* as compared to silk *dhotis*. It seems that the spun silk weaving would soon replace reeled silk weaving in Chawk-Islampur, since the former is much more remunerative to the weaver. In fact, some of the weavers in recent period have discontinued weaving under one of the well-known societies<sup>12</sup>, as the latter could not supply to them spun silk yarn in *adequate* quantities, or anything at all.

Monthly wage-income from spun silk weaving would be around Rs. 1,100 whereas, as reported in the *annual report* of the Chandraokanto Lalitmohon Resham Khadi Samity, 1992-93, the average per capita annual wage income of the *spinners* of matka, balkal, jhoot, katia, etc., during the year, was only Rs. 953. No matter whether the spinners are *part-timers* or not, the phenomenon certainly reveals two important

**Table 12**

Chawki-Islampur : average gross monthly wage income, at full capacity, of the Society-weavers, from the production of selected fabrics

Fabric	Size per piece (in mtrs.)	Maximum no. of pieces produced per weaver per month	Wage per piece (Rs.)	Labour hours required for weaving (hrs.)	wage per hours of weaving (Rs.)	Maximum gross monthly wage income (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>A. Reeled silk</b>						
Plain-cloth	11x0.91	8	77-107	21	3.67-5.10	616-856
----	11x1.15	7	95-132	24	4-5.50	672-924
Dhotis	5.03x1.15	10	54	18	3.00	540
<b>B. Spun silk (Matka)</b>						
Plain-cloth	11x0.91	5	193			965
-----	11x1.30	4	203-252	56	3.62-4.50	812-1008

Saree	5.03x1.17	8	83	24	3.46	664
Dhoti	-	8	78	22	3.54	624
Chadar	2.74x1.32	16	67	15	4.47	1072
---	2x0.91	20	27	12	2.25	540
<u>C. Spun <i>plus</i> reeled</u>						
Silk-Matka						
(Bapta)	11x1.27	6	143	32	4.47	858
Silk-Jhoot	11x0.91	8	89	32	2.78	712
<u>D. Spun <i>plus</i> spun</u>						
Matka-Katia	11x1.27	6	185	48	3.85	1110
Matka-Balkal	--	6	185			1110
Matka-Jhoot	11x0.91	8	117	36	3.25	936

Notes : 1) Wage (rounded-off), as in 1993, varies, in the same category, according to (a) the number of threads used as warp, and (b) the number of ply per warp/weft yarn (e.g., single-ply warp and 2-ply weft, 2-ply warp and 3-ply weft, etc.). We have considered here only that 'quality' of a particular fabric which are commonly produced in Chawki-isiampur.



things. First, the supply of spun yarn is severely restricted by the technique of spinning. Secondly, the high demand of the yarn notwithstanding the supply-inelasticity has not resulted in enhanced wage-income, or increase in the price of the yarn, either. It was found during our survey in 1991 that the price of 'common' (40-45s)<sup>13</sup> matka yarn at the local bazaars, viz., Islampur and Domkal, hovered around Rs.240-250 per kg. The price-chart issued by the apex Khadi Samity, on the other hand, shows that the revised rate (as effective in the state from 1st December 1992) per kilogram of matka yarn up to 60s. -- the cost at which the societies should produce -- is Rs.320-390, depending on the *counts*. Incidentally, a large number of spinners in the area are self-employed, and the societies are hardly engaged in spinning. The re-survey in the villages, such as Domkal Kuthi, Satbaria, in the Chawk-Islampur area, of 34 spinner households during November-December 1993, reveals that they had sold the *common* quality of yarn at the rate of Rs.220-250 per kg. in the local bazaars. The medium-fine variety of 50-55s. fetches Rs.260-300. And, the best of their produce (i.e. 60s. or so) were sold at Rs.330-350. Only four, out of the 34 spinners, were found to be spinning yarn of 60s. or so.

As it appears the oligopsonist societies and their agents in Chawk-Islampur collude and effectively keep the prices in the markets depressed. The huge *margin* between the 'official' price and the local market price is a very 'attractive' source of income to the charitable societies, who are not supposed to distribute the *profits*, and also to the cooperative societies, to whom it accrues in the form of 'unaccounted income'. Thus, there is little inducement, on the part of the society, to invest in spinning excepting that required for window-dressing. In fact, the 'official' price for finer yarn, say, of 60-100s., varies from Rs.423 to Rs.577 and thus perhaps is not inimical to the adoption of improved technology in spinning. Since for obvious reasons the spin-

ning of finer yarn of more than 50s generally requires skill of a high order in manually operated *country takli* the weaving of finer variety of spun silk fabric, in the state, is overwhelmingly dependent upon imports of yarn from other states<sup>14</sup>. Count-wise the spun silk yarn of Chawk-Islampur are mostly 40-55s. While relatively fine yarn say, of 55s., are used in plain-cloth, mainly for shirtings, the sarees or *chadars* are produced with 40-45s.

Table 13 shows that the weaving of blended fabric is more profitable than that of either reeled silk or spun silk, exclusively. Measured in terms of the *balance* of the value *less* the costs as a ratio of labour-hours required to produce the particular fabric, the profitability is found to be highest in the 'silk-jhoot' type of blended fabrics, followed by matka-silk, silk-matka and matka-jhoot *mix* (the *former*, in the blended fabric, is used as warp while the *latter* as weft), in that order (Table 13). While, say, the 'matka-silk' cloth used as shirtings yields Rs.21.31 per hour of labour in weaving the finer quality of reeled silk shirtings fetches Rs.8.48, and the 'pure' matka shirtings Rs.6.88. On the whole, apart from blended fabrics, 'pure' matka is more profitable than reeled silk fabrics. The intensity of labour has little do with the relative profitability of the particular fabric. As evident in Table 13 both the reeled silk shirtings and matka-silk *mixed* shirtings, of the same size, require 48 hours of labour in weaving yet the latter turns out to be about 151 per cent more profitable than the former. Further, a reeled silk saree (of 11m.x1.15m in size) requires about 40 labour-hours and yields Rs.5.52 as 'surplus' per hour of labour whereas a piece of matka saree (5.03m x 1.17m.) requiring only about 24 labour-hours yields almost the same. In fact, the aggregate cost of production as percentage of the retail price is found to be as high as 82-85 in the case of (reeled) silk saree as compared to 35.9 in matka-silk, 66.5 in silk-matka, 48.4 in silk-jhoot, and so on.

Table 13

Chawk-Islampur : the labour-hours required, the cost-price ratio, and the surplus generated per hour of weaving of selected fabrics, per piece of standard size, under the Society

Fabric <sup>1</sup>	Size per piece (in mtrs.)	No. of reed	Aggregate cost of production <sup>2</sup> Retail price (%)	Labour-hours required for weaving	Retail price less Costs/ Labour-hours (Rs./hour)
Silk saree(DT)	11X1.15	1800	81.7	40	5.52
----- (ST)	-Do-	1800	84.6	24	6.12
Silk dhoti	5.03x1.15	1800	71.3	18	10.05
Silk shirtings (TT)	11x1.15	1800	76.1	48	8.48
Matka-silk shirtings(check)	-Do-	1800	35.9	48	21.31
Silk-Matka shirtings (DT)	11x1.27	1800	66.5	32	19.59
Silk-Jhooi shirtings	11x0.91	---	48.4	32	21.66

Matka shirtings	11x1.30	1100	79.7	56	6.88
Matka saree	5.03x1.17	1500	79.8	24	5.54
Matka chadar	2x0.91	---	66.3	12	11.67
Matka-Katia shirtings	11x1.27	1800	78.0	48	10.54
Matka-Jhoot shirtings	11x0.91	---	58.4	36	17.42

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- Notes :
1. In the case of mixed fabrics, the former is used as warp while the latter as weft
  2. This includes: value of yarn, weaving-wage including A.W.F. and *ex-gratia*, and the cost of printing designs particularly in the case of silk sarees and shirtings.
  3. ST = Single-ply; DT = Double-ply; TT = Three-ply. ('T' stands for what is popularly called *tari*)
  4. 'Silk' here refers to reeled silk, only.

It may so happen that the *variation* in the hourly wage-rate (Table 12) takes into account the volume of labour involved in the job of pre-weaving processing. The wage per hour of weaving varies between Rs.2.25 and Rs.5.50 depending on the fabric produced. By contrast, the *surplus* generated per hour of weaving is not less than Rs.5.52 and goes up to Rs.21.66, excluding the unpaid labour in pre-weaving processing (Table 13). Although the whole of the 'surplus' does not accrue to the putter-out, the cost-price *structure* as fixed by the apex Khadi Samity has, in fact, ensured 'gains' to the putter-out in more certain terms than it is to the actual producers.

The distribution of the 48 selected weaver households according to the number of owned looms, and the corresponding monthly wage-income *net* of all expenditure, in Chawk-Islampur, shows that about 80 per cent of them subsist on a monthly income of Rs.700 at the most, from weaving, irrespective of the number of looms owned (Table 14). Of the 48 households, seven have agricultural lands of not more than 0.33 acre each, five have 0.66 to 1.33 acres. Only two of them have 4.66 and 7 acres, respectively. And, for the rest, there is nothing as such to fall back upon. The expansion of the domestic unit by adding more number of looms to the existing 'stock' is by itself no guarantee for enhanced family-income. Seven households, for instance, owned more than one loom yet their monthly wage incomes did not exceed Rs.600 (Table 14); this amount of income was earned by some of the weavers even with a single loom on hand. Only those *independents* among the selected weavers who were able to mobilize adequate working capital are relatively better placed, in this respect. Otherwise the independent weavers could not be differentiated from the 'tied' weavers, in any significant manner, so far as the wage incomes are concerned.

The main hindrance to vertical expansion of this industrial 'out-

work' is the availability of weaving-hands within the family. The hired worker has not turned out to be 'appropriate' substitute for various reasons. First, the supply of yarn from the Society is highly irregular. The societies in Chawk-Islampur, as stated earlier, usually put out less amount of warp than that in Mirjapur. This entails frequent interruption in the *continuity* of weaving, and hence additional costs for the weaver, particularly on warping, shedding, healding, drafting, etc. According to the managers of the Societies, the available capital as a proportion of the numbers of artisans under them is inadequate. Thus the irregularity of the occupation makes it difficult for the weavers to find 'free' labour to employ whenever required; in weaving as well as the pre-weaving processing. This has, in particular, reduced the supply elasticity of output. Any sudden increase in market-demand, paradoxically, due to the restricted supply of labour, is responded by increased supply of finished materials only at a considerable time-lag.

(?)

**Table 14**

Chawk-Islampur : distribution of the 48 (sample) weaver households according to the number of owned looms and the corresponding monthly *net* wage income

Monthly wage income (Rs.)	One loom	Two looms	Three looms	Four looms	Total
up to 300	4	-	-	-	4
300 - 400	13	2	-	-	15
400 - 500	6	2	-	-	8
500 - 600	2	3	-	-	5
600 - 700	-	6	-	-	6
700 - 800	-	2	-	1	3
800 - 900	-	1	1	-	2
900 - 1000	-	1	1	-	2
1000 - 1100	1	-	-	-	1
1100 - 1200	-	-	1	-	1
1200 - 1300	-	1	-	-	1
Total :	26	18	3	1	48

Secondly, the piece-rate wages paid by the Society are too low to be 'gainfully' shared with a *Banidaar*. This is particularly so as the costs incurred by the weaver for the pre-weaving processing jobs are not being paid by the putter-out. The average labour-hours required for pre-weaving processing of particular pieces of fabrics are shown in Table 15. In fact, in case the Society does not supply twisted and hanked nett silk warp yarn the volume of unpaid labour increases further. The

'imputed' cost of the labour that remains unpaid is, however, shown in the same Table, and is based on the wage-rates in different preparatory work had those been done by hired workers. It is found that the latter as a proportion of the paid-wages is generally higher in reeled silk weaving than in either spun silk or blended fabrics. On the whole, the ratio varies from 17 to 46 per cent, depending on the types of fabrics. Given this quite considerable volume of nondescript labour that are otherwise predominantly done by the family-members, a marginal increase in the wage-rate for weaving would hardly induce a *potential* master-weaver to employ *Banidaar*. Consequently, the capacity to supply is largely determined by the *size* of the weaver-family and the amount of free labour-time available to each member of the family. This overwhelmingly family-based sector of production although dominates local economy in many respects has, however, failed to keep its mark on the labour market as such. It is usually assumed that 'seasonality' makes a production-line *cost-ineffective* primarily due to higher transaction costs of labour. However, in Chawk-Islampur, the occasional demand of hired workers and that too for a shorter period of time, particularly for the job of pre-weaving processing, has not enhanced the wage-rate for the same. In fact, it is found from Table 15 that the hourly wage-rate is generally lower than Rs.2. Since the system of hiring labour on a daily-basis hardly exist in the sector in Chawk-Islampur, and the piece-rate wage predominates the labour market, the hourly wage-rate, as described above, reflects this industrial outwork more properly, particularly when it is compared with the conditions of the agricultural workers, in the region<sup>15</sup>.

On the whole, like in Mirjapur, the low level of income from silk weaving did not dissuade the labour force from undertaking this economic activity in Chawk-Islampur. It is observed that new additions to the existing loomage was not altogether inconsequential during, say,



Table 15

Chawki-Islampur : the volume of unpaid labour, and its imputed cost per piece of selected fabrics

Fabric	Size (in mts.)	No. of reed	Labour-hours required for pre-weaving processing <sup>1</sup> (hrs.)	'Imputed' cost of unpaid labour <sup>2</sup> (Rs.)	Coi.5 as percentage of paid wages <sup>3</sup> (%)
(1)	(2)	(3)	(4)	(5)	(6)
Silk saree(DT)	11x1.15	1800	30	44	33-16
----- (ST)	-Do-	1800	20	36	27-38
Silk dhoti	5.03x1.15	1800	15	25	46
Silk shirtings(TT)	11x1.15	1800	27	44	33-46
Matka-silk shirtings(check)	-Do-	1800	20	40	28
Silk-Matka shirtings(DT)	11x1.27	1800	32	56	39
Silk-Jhool shirtings	11x0.91	---	23	34	38
Matka shirtings	11x1.30	1100	21	47	19-23
Matka saree	5.03x1.17	1500	15	29	35

Matka chadar	2x0.91	---	11	15	22
Matka-Katia shirtings	11x1.27	1800	26	32	17
Matka-Jhool shirtings	11x0.91	---	27	35	30

- Notes :
- 1) This includes: winding, bleaching, warping, etc.
  - 2) Based on the *actual* time required in different preparatory work, and the wage that is required to be paid if the work were done by hired worker. We assume that the Society used to supply twisted and hanked nett silk yarn as warp. Otherwise, the 'imputed' cost would increase further.
  - 3) For the wage-rates, see Table 12, col.4.
  - 4) Actually, winding and particularly warping of yarn that is required for six pieces of cloth (of the sizes mentioned in column 2) at a time, is the 'break-even' point. In the calculation of labour-hours required for pre-weaving processing, as in column 4, we have considered *six pieces* as the average processing, at a time.

last fifteen years, The 48 selected weaver households together constitutes a case in point. These households altogether owned 76 looms. Of these, 46 looms have been installed during last 20 years (Table 16).

To conclude, the khadi societies together, more or less, dictate the prices of silk fabrics in the domestic market by dint of high market-share. In fact, the price of khadi-fabrics generally could be considered as the 'ceiling'. Although the privately produced and/or marketed fabrics are not always strictly comparable to *khadi* the prices of the former

**Table 16**

Chawk-Islampur : age distribution of the (sample) looms

<u>Age of the loom(Year)</u>	<u>Number of looms</u>
Up to 5	2
5 - 10	12
10 - 15	24
15 - 20	8
20 - 30	15
30 - 40	13
40 - 50	1
50 - 60	1
Total :	76

are usually much lower than that of khadi. According to the khadi guideline, the prices are fixed on a *cost-plus* basis. The guideline allows a 25 per cent mark-up on the prime cost<sup>16</sup> to determine the 'total value', and added to it are insurance charges, and charges for bank finance<sup>17</sup> at the rate of 0.5 and 1.5 per cent of the 'total value', respectively, to determine the retail value. Incidentally, the sales tax was abolished in September 1991, and there is no excise duty, either. How-

ever, as shown earlier quite often the market price of khadi is considerably higher than the 'stipulated' price, and hence the retained income of the Society. The magnitude of *difference* between the two *sets* of price, however, does not vary as to whether the cloth is an exotic or a common variety. Usually it is assumed that the exotic variety would yield higher rate of profit due particularly to the premium for 'fancy'. But, under conditions of free market situation very soon the supply comes to term with the specific demand conditions and obliterate the excess profitability. Baluchari being an exotic fabric is supposed to yield the highest rate of return among all the fabrics produced in West Bengal. However, so far as the Society's rate of return from different produce is concerned it is rather the fabrics of reeled-spun *mix*, as a group, that occupies the prime place and Baluchari comes next to that (*cf.* Tables 9, 11 and 13). Moreover, Mirjapur's products, in this respect, would hardly be differentiated from the generally low-valued *items* of Chawk-Islampur. In fact, generally the more *standardized* varieties of silk fabrics are found to be relatively profitable to the putters-out, particularly the societies. Even, the master-weaver organizing production of Baluchari yields a lower rate of return than the mahajan who employs capital in the medium valued sarees in Mirjapur. These together prominently show the kind of *distortions* that characterizes this industrial 'outwork'.

#### 6. Concluding Remarks

The value (at current prices) of the silk produced by the societies in West Bengal increased from Rs.224.4 million in 1990-91 to Rs.229.1m. in 1991-92, and further by a big jump to Rs.260.5m. in 1992-93 (KVIC, Eastern Zonal Certification Committee). Out of the 265 societies in the state, only 18 are co-operatives (Table 17), and they together constituted 35-39 per cent of the annual output of fin-

ished silk of the societies, during 1990-93. In fact, the share of the cooperative societies in the aggregate of societies' outputs declined from 38.6 per cent in 1991-92 to 35.9 per cent in 1992-93. The overwhelming majority of the charitable societies in the state, in general, and in the three central silk producing districts, viz. Birbhum, Malda and Murshidabad, in particular, effectively determines the conditions of silk production. The bulk of the large amount of subsidies and 'soft' loans provided to the societies by the government, through KVIC, have in fact gone to the charitable societies who performance-wise, in so many ways, are indistinguishable from the private silk merchants operating as putter-out. This certainly invokes a review of the government policies to promote silk weaving through the society form of organization.

The khadi programme, in order to effectively organize the poor handloom weavers and protect them from the exploitative mechanism of an underdeveloped market institution has, in fact, proliferated an alternative institution which is not endowed with any visible dynamic element in it. Particularly, the non-governmental organizations (NGO), or in other words, the charitable societies organized by the rural elites reinforce almost the *same* conditions of production as that by the private silk merchants. While the New Institutional Economics, and the international development agencies (see, for example, UNDP, 1993: chapter 5) reassert the role of the people's organizations and NGOs in developing countries it remains unanswered, there: why such types of organizations even after a fairly long period of operation failed to ensure distributive justice to the perpetually wretched conditions of living of the people concerned?

The common understanding is that production costs are high when specialization and division of labour are limited. However, this does not explain the cost effectiveness of the households organization of

production, in general, and in handloom weaving, in particular. In a labour surplus economy, generally, the unpaid proportion of labour, which is nothing but self-exploitation, *congealed* in the commodity produced is considerably high which renders the production line cost effective from the point of view of the market. Our exercise on the *margin* of difference between the cost of production and the market value of a cloth, in fact, may also show the *margin* by which the household organization is capable of absorbing external shocks. However, the *capacity* is severely constrained by the distribution of initial endowments. They hardly generate any surplus over and above the subsistence which would be utilized for working capital. Moreover, they possess hardly any marketable collateral asset which would have yielded the entitlement to seek institutional finance. Since their capacity (loom and labour) to produce remain grossly underutilized under the society form of organization their attempt to replenish that, with borrowings from private credit market expose them further to acute unequal exchange.

The state, on the other hand, has not been active in penetrating the market. Instead, its role is confined to (a) giving legal recognition to the society form of organization, and (b) occasional distribution of monetary benefits to the societies. Even within the narrow boundaries of *action* the lackadaisical attitude of the state to this industrial outwork has been quite pronounced, not only regarding the review of but also in the implementation of the stated policies. Following the government notifications, the societies allow 'festival discounts' (rebates) on their products which are supposed to be readily reimbursed by the apex body. However, the latter, particularly the KVIB, West Bengal owes a huge sum of money to its affiliated societies on that account which has accumulated over last couple of years. This has resulted in crisis of funds for working capital of those societies. The financial

Table 17

West Bengal: total numbers of societies in the districts (as in December 1993)

District	Total no. of societies		Silk producing societies		Total
	Charitable	Cooperative	Charitable	Cooperative	
Bankura	9	1	2	1*	10
Birbhum	40	3	37	3	43
Bardhaman	23	-	21	-	23
Calcutta	11	1	6	1	12
Hooghly	4	-	-	-	4
Howrah	2	-	-	-	2
Malda	64	2	64	2	66
Medinipur	12	-	-	-	12
Murshidabad	97	11	96	11	108

Nadia	15	-	9	-	15
Purulia	2	-	2	-	2
24-Parganas(N)	3	-	1	-	3
24-Parganas(S)	7	-	1	-	7
West Dinajpur	8	-	8	-	8
<b>TOTAL:</b>	<b>297</b>	<b>18</b>	<b>247</b>	<b>18</b>	<b>315</b>

Source :

Khadi and Village Industries Commission, Eastern Zonai Certification Committee.

Note : a)

We have, however, located 3 cooperative societies in Bishnupur alone, in the district of Bankura, in November 1993.



institutions, on the other hand, are very reluctant to extend credit to the societies whose creditworthiness is being seriously questioned while the apex organization has stopped flowing credit directly to the societies. Consequently, the *system* of transaction-on-credit in the sector as well as the upstream production lines has precipitated with more strength. To note, way back in 1968, the Committee appointed to assess the progress of khadi and village industries, to make recommendations in order to strengthen and expand them, and to suggest any structural or constitutional changes, recommended that emphasis in future expansion of the khadi programme should be increasingly on organizing production in such a way that the element of subsidies, either direct or in the form of management grants and free weaving facilities, is reduced to the minimum possible. This would involve adoption of better techniques of spinning and weaving and reduction of overhead expenses of organization (GOI, Ministry of Commerce, 1968: Chapter VIII). Further, it noted that the emphasis in future 'should increasingly be on the positive<sup>18</sup> rather than the protective aspects of development assistance' (*ibid* : p.93). The Committee also pointed out the need to check the disproportionate increase in the administrative staff of KVIC and KVIBs that led to disproportionate expenditure on administration.

The Eighth Plan document states: 'main objectives of khadi and village (KVI) programmes during the Eighth Plan would be to create additional employment opportunities in the non-farm sector and to ensure increased wages/earnings to rural workers. For this purpose, it would be necessary to reorient khadi programme and identify thrust areas among village industries' (GOI, Planning Commission, 1992: Vol.II, p.135). But the reorientation of the current programme in desirable directions seems to be quite a difficult task since only very limited 'information' on the detailed aspects of the functioning of the khadi societies are available to the otherwise huge sized apex organizations,

viz., KVIB and KVIC<sup>19</sup>. The state of affairs of technical education in the textiles colleges also calls for a review; although handlooms predominate the weaving sector in the state there is little reflection of that in the curricula. Further, when intervention in the credit market seems to be socially desirable it hardly constitutes the agenda of the state. The Grameen Bank in Bangladesh, for instance, has taken initiatives to organize the landless poor into groups of five, and ask each person to guarantee the repayment of a loan to any of the other four members. A combination of collective collateral, close supervision and peer group pressure has resulted in around 95 per cent repayment rates. This is a project in which the Bangladesh government has contributed 60 per cent of the initial paid-up capital, and the rest came from the savings of the borrowers themselves (Ashe and Cosslett, 1989; and UNDP, 1993: chapter 5). On the whole, the power of representation of the artisans being far too weak the sector has failed to evoke more active intervention by the state. And, the post-colonial urban-biased development strategy of the state has, in fact, consolidated the persistent *duality* in the domestic economy. In place of the currently fashionable case for 'state minimalism', or *laissez-faire* what is required is a broad view of democracy, allowing the possibility of state action guided by motives of public interest (Streeten, 1993; Bagchi, 1994).

## APPENDIX I

### The Khadi Organization

The Parliament enacted the Khadi and Village Industries Commission (KVIC) Act, 1956, bringing into existence the Commission on 1st April 1957, as a policy making-*cum*-executive body. The central government has allowed the commission to function independently in matters like planning, organizing and implementing the programmes for the development of khadi and village industries, subject to the 'routine' scrutiny of their Annual Budget proposals. As the central government provides funds to the KVIC for carrying out its statutory functions by appropriation made by the Parliament from the Consolidated Fund of India, the government owes a responsibility to the Parliament to give a proper account of not only the expenditure but also the extent to which the objectives for which the funds are sanctioned by the Parliament have been fulfilled. The Commission has its offices in almost all of the states. There are a number of Standing Committees such as the Certification Committee, Standing Finance Committee, etc. to assist the Commission in the formulation of policies and problems relating to different aspects of implementation. The functions of the Certification Committee and the Standing Finance Committee are specifically laid down in the KVIC Rules, 1957, and the KVIC Regulations, 1958, respectively. The working of the Commission has been assessed periodically by bodies like the Estimates Committee, the Public Accounts Committee, the Khadi Evaluation Committee, the Working Group on Khadi and Village Industries, etc.

Prior to the establishment of the Commission, the schemes relating to the development of khadi and village industries had to be implemented by the All India Khadi and Village Industries Board in close cooperation with the state governments. However, during 1954-55 to

1959-60 statutory state Khadi and Village Industries Boards (KVIB) were set up in all the states. After the reorganization of the states, some of the State Boards were reorganized and a few new ones were constituted.

The actual implementation of the development work in respect of khadi and village industries is carried out by the registered institutions (charitable societies) and the cooperative societies in the various states. A society is free to decide from whom (KVIC or KVIB) it would obtain the *certificate* (of formal approval) which ultimately determines the *direct* source of institutional assistance.

While the Commission provides finance for khadi societies to the State Boards, sufficient legal provisions do not exist in all the State Board Acts to enable the Commission to take adequate executive or legal action in case of breach of agreement or failure to repay loans. The Commission can at best only refer those cases which come to their notice or are brought to their notice in regard to unsatisfactory working to the attention of the state governments, since only the latter can exercise any control over the State Boards. The Commission has no *locus standi* in regard to the enforcement of its requirements. On the other hand, the Parliament hold the Commission responsible for the functioning of the State Boards at least in relation to the funds advanced by them.

Allocations for the khadi and village industries programmes are recommended by the Planning Commission when formulating the Five Year Plan. Similarly, allocations are recommended for the Annual Plan every year which form the basis for the administrative Ministry to frame its budget provision for each financial year. The KVIC which receives grants and loans from the central government disburses, in turn, grants and loans to the State Boards, registered institutions, cooperative societies, etc., for implementation of the programmes.

These apart, the planning and organizing of training of persons engaged in the development of khadi and village industries is one of the most important functions of the Commission. Improvement in the technological conditions of production, and research in this direction also constitute parts of the KVIC - agenda. In fact, there is a Research Committee in the Commission for overall guidance of research in improved technology for khadi, and considerable expenditure has been incurred by the Commission on such research.

**Appendix Table I**

Retail market prices (as in August-November 1993)  
of the selected varieties of silk fabrics  
produced in the three different centres

(in Rs.)

Centre of Weaving	Fabric	Khadi shop	Private shop	
Bishnupur	Baluchari saree			
	Single coloured	2300 - 2500	1750 - 1900	
	Bi-coloured	2900 - 3500	2250 - 2700	
	Bi-with silver/ gold threads	7000 - 8000	2900 - 3600	
Mirjapur	SAREES : (5.03x1.15m.)			
	Design satin	1200 - 1600	1000 - 1200	
	Karial	1200 - 2000	1100 - 1800	
	Jamdani	1200 - 1800	1000 - 1200	
	Plan satin (with border)	975 - 1400	500 - 1100	
	Inchee	700 - 1000	450 - 650	
	College paar	800 - 1100	550 - 650	
	Funki	1100 - 1400	650 - 800	
	Check aanchal	1200 - 1600	1000 - 1500	
	Jacquard	1800 - 1900	1600 - 1700	
	Baluchari	1775 - 1825	1400 - 1700	
	SHIRTINGS:(per metre)	130 - 200	110 - 180	
	Chawk-Islampur	PLAIN CLOTH :		
		Silk saree(DT)(Printed)	605 - 635	--
---- (ST)( " )		475 - 490	--	

Matka saree	650 - 670	--
Matka chadaar(2x0.91m.)	400 - 425	--
SHIRTINGS - (per mtr.):		
Silk(TT)(1x1.15)(Printed)	150 - 157	--
Silk-Matka(1x1.27)(Bapta)	154 - 191	--
Matka (1x1.32)	170	--
Matka-Silk(1x1.14)	145	--
Silk-Jhoot(1x0.91)	118 - 127	--
Matka-Jhoot( " )	136 - 138	--
Matka-Balkal( " )	136	--
Matka-Katia(1x1.27)	210	--

*Notes :*

- 1) The retail prices have been collected from 29 retail outlets in Calcutta, Baharampur (Murshidabad), and Malda town (Malda). Of these, 10 are Khadi retail outlets and the rest are private retailers. The retail outlets in Calcutta are located in areas like College Street, Shakespeare Sarani, Gariahat and Dakshinapan C.I.T. market (Dhakuria), and the list includes only the well known silk emporia.
- 2) Some of the *labels* attached to particular sarees are those by which they are known to the weaver (like, say, 'Funkisaree', etc.).
- 3) In the case of *mixed* fabrics the former denotes the type of warp while the latter is used as weft.
- 4) 'Silk' refers to mulberry reeled silk while all the others referred to here such as, Matka, Balkal, Jhoot, etc. are spun silk.

- 5) ST = Single-ply; DT = Double-ply; TT = Three-ply.
- 6) Till August 1991, sales tax at the rate of 8% *ad valorem* was used to be levied on the handloom products which has been revoked thereafter. There is no excise duty, either.



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## NOTES

1. For data on output, see GOWB, *Economic Review*, 1992-93: p.55, Table 5.6; and, for data on exports from Calcutta (certification centrewise), see *Indian Silk*, various issues. The latter *Source*, however, mentions the quantities exported, in *square metres* only. On the other hand, the *Economic Review* mentions only the quantities of raw silk (in kgs.) produced in the state. Hence, we have used appropriate 'conversion factors' for specific varieties of silkgoods in order to deduce the weights of yarn per square metre of respective fabrics.
2. For discussion of Gandhi's ideas as they relate to economics, see Datta, 1978.
- 3.- Market success, on the other hand, would be assumed as the ability of a collection of idealized competitive markets to achieve an equilibrium allocation of resources which is Pareto optimal (Ledyard, 1987).
4. It is the cost of that quantity of cocoons required to produce one kilogram of raw silk. In other words, cost of cocoon per kg. =  $\text{Kakeme cost/Calculated renditta}$  (or, raw silk percentage).
5. A figured fabric in which the figure is developed by floating the warp thread, the weft thread, or both, and bound in a more or less irregular order. The ground is usually formed of a weave of simple character.
6. In 1805, Joseph Marie Jacquard, a silk-loom designer, invented a

way of controlling the warp and weft threads automatically. He recorded each pattern by punching holes in a string of pasteboard cards.

7. The division of warp threads into two layers to form a shed for the interlacement of longitudinal and transverse threads in a fabric.
8. The Manchester-made Jacquard looms, largely used in Bishnupur, contain 300-400 hooks (and figuring needles). The figuring capacity (in terms of finesse and larger designs) of a Jacquard loom largely depends on the number of figuring needles available.
9. The Planning Commission defines the poverty line as the monthly per capita total expenditure of Rs.49.09 for rural areas at 1973-74 prices, at the national level, anchored on the per capita daily intake of 2,400 calories, with reference to the consumption pattern of 1973-74 (GOI, Planning Commission, 1993) Taking into account the state-specific consumer price index (food and non-food indices combined) for agricultural labourers, (GOWB, *Economic Review*, Statistical Appendix, 1992) the poverty line in 1992-93 in rural West Bengal must be around Rs.200.
10. There are at least ten distinctly different and successive stages of 'preparation' of the yarn including warping, prior to weaving. Increasingly, the weavers are replacing the family labour by hired workers at each of the *stages*, with a piece-rate wage system.
11. I have a strong feeling that the figures of aggregate raw silk production are overestimated in the *Economic Review*, GOWB, 1992-93.
12. Chandrakanto Lalitmohon Resham Khadi Samity.
13.  $\text{Metric count} = (\text{Length in metres} \div \text{Weight in kilograms}) \times 1000$ .
14. According to KVIC, Eastern Zonal Certification Committee, out

of 1000 spinners only 10 spin 80s., and only 2 spin 100s., in West Bengal. The situation was relatively better five years before, according to KVIC.

15. The agricultural wages in this region are particularly low as compared to the average wages prevailing in the relatively developed agricultural regions in the state. For instance, the wage for paddy-sowing is Rs.15 (*plus* tiffin) for a duration of labour from 8 a.m. to 4 p.m., and for harvesting it is only Rs.12 for the same hours of labour and for male workers only (as in 1993).
16. This does not include the interest-cost on borrowed funds.
17. According to KVIC, Eastern Zonal Certification Committee, the accumulated funds out of this often exceeds the annual liabilities of interest payments, and the *surplus* is diverted to the 'Customers' Benefit Fund'.
18. The positive kinds of assistance include : the grants for training, research and technical advice and assistance, and loans for working capital which should be increased according to requirements.
19. Even on the *numbers* of operating societies, let alone other data, the information available to the two organizations differ considerably.

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