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WORKSHOP
ON
INTERNAL MIGRATION IN INDIA
PERSPECTIVE AND POLICY OPTIONS

IMPACT OF IN-MIGRATION ON INDUSTRIAL DEVELOPMENT
IN A MIDDLE-SIZED TOWN OF GUJARAT

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1- CONTEXT AND OBJECTIVE OF THE STUDY

1-1-The migration approach.

Taking migration in the process of urbanization and industrialization as the main topic of our research, two different - though complementary - angles of approach could be suggested.

In the first approach, industrialization taking place in urban areas would be considered as a major pull factor for migration from rural areas or less developed urban areas. From this angle, migration studies can aim to appraise the attraction effect of the urban labour market, and determine the extent to which townward migration is a response to industrial development.

From the other angle, migration is considered as a major factor of urbanization and industrialization process : migration then can be analysed in order to appraise its impact on urban growth and industrial development, and more broadly on urban population and economic dynamics. Here the migrants are considered as actors of the urbanization process, as dynamic agents who are in a position to influence this process, and not only as passive agents merely responding to pull factors (and/or push factors if this is examined in relation with the socio-economic conditions prevailing in the place of origin).

From the viewpoint of the migrants themselves - and more precisely the labour migrants, as our purpose is the interaction between migration and urban industrial development - one important question to be examined is : how and to what extent have the migrants been able to benefit from the industrial development process to which they contribute, either as entrepreneurs, or as part of the labour force.

The paper presented here fits in essentially with the second angle of approach suggested, while focussing on migration towards middle-sized towns. Now, what is the particular significance of this choice for research on migration and urbanization in the Indian context ?

1-2-Role of middle-sized towns in urbanization and development in India

Urbanization in India is characterized by two main features. On the one hand, the level of urbanization is relatively low, with 24 per cent of population being urban in 1981, which means that the population is, and will remain in the medium-term, predominantly rural. On the other hand, the urban scene is dominated by big metropolises.

In such a context, the development of small and middle-sized towns constitutes a challenge, not only for achieving a more balanced pattern of urban settlement, but also for promoting rural transformation. Therefore, small and medium-sized towns are expected to play an important and positive role both in rural and urban development (BOSE 1984). And this hope underlines the policies of dispersed industrial development and urbanization,

launched for the last twenty years in India (NATH, 1986).

As the elaboration of town and country planning should rely upon well documented studies, there is obvious relevance in paying great attention to the dynamics of small and middle-sized towns. Moreover, in order to appraise the role that these towns are likely to play in regional development, it seems important, first of all, to investigate their capacity to attract migrants and to settle population in relation to their economic functions, and secondly, to understand what migrants can expect in settling down in such towns with regards to their social and economic strategies.

1-3-Significance of circular mobility

In the approach suggested above, migration is used as a preferential tool to analyse the urbanization process. However, apart from migration in the strict sense of the word, i.e. population moves which involve a change in usual place of residence, or, if one considers only in-migration in a specific town, population moves from outside which involve a relatively permanent residence in the town, it is necessary to take into account the circular mobility. Following ZELINSKI (1971), circular mobility can be defined by a large variety of moves being generally of short distance, repetitive or periodic by nature, but having in common no intended permanent change of residence. Due attention should be paid in particular to temporary labour moves and commuting.

With reference to the dynamics of small and middle-sized towns, the role of circular mobility proves to be essential. As shown by RICHARDSON (1982), many of the functions carried out by small towns are oriented towards rural areas (to stimulate agricultural productivity and trade, to provide rural population with urban services, to generate employment opportunities outside agriculture, to provide infrastructure to set-up agrobased industries...). Thus, if a small town succeeds in one of its main functions vis a vis rural population, namely supplying it with non-agricultural employment opportunities, it will lead less to an increase in urban in-migration and more to circular moves (daily, weekly, seasonal ones...). Circular mobility towards towns can reveal the intensity of the relations between town and countryside, and proves to be a good indicator of the degree of integration of the urban economy in the rural hinterland.

In the Indian context especially, the relatively low level of urbanization, in spite of high rural population densities and increasing pressure on agricultural land, encourages an investigation of the role of circular mobility as a substitute to permanent migration to the towns (RACINE, 1988). The high proportion of rural households in which one or several members pursue non-agricultural activities outside their villages, has also been underlined by BREMAN's studies (1980) in South Gujarat.

Therefore it appears that in a study on migration and urbanization, and more particularly in the case of small and middle-sized towns, it is essential to replace migration within

the various forms of spatial moves affecting the study town, especially including temporary labour moves and commuting.

1-4-Objective of the study

Coming back to the more limited scope of this paper, we shall investigate here some of the issues raised in the preliminaries, in the case of a fast-growing medium-sized industrial town. More precisely we shall examine two main questions. How has in-migration affected the process of industrialization in the study town, and what specific role has commuting played? How have in-migration and/or absorption into the industrial sector affected the economic status of the migrants or commuters themselves?

While focussing on labour migration (of workers as well as entrepreneurs) in the industrial sector, we obviously do not intend to embrace all the facets of the migration and urbanization processes. Within the limitations of this paper, we would mainly attempt to better grasp the consequences of migration and commuting in the branch of economic activity which constitutes the leading sector in the study town. However, in order to better appraise the role of the industrial sector, we shall first present an outline of migration and of the structure of the urban labour market.

Before examining the selected questions, a brief presentation of the study area and the source of data is also necessary.

2 - THE STUDY AREA

This project is based on the case study of a fast-growing middle-sized industrial town, namely Jetpur, in Gujarat. Gujarat has been selected for this research as it is one of the most urbanized states in India (with the urban population accounting for 31 per cent of its total population in 1981, as compared to 24 per cent for India), and also one of the most industrialized states [1]. Therefore, it is a region where the problems of urban and industrial development prove to be particularly relevant for study. Before presenting more specifically the selected town, it seems important to give an outline of the economic characteristics of the sub-region in which Jetpur is located, namely Saurashtra, and in which most of the migration and other circular moves affecting this town are rooted.

2-1-Saurashtra

The region of Saurashtra, the western peninsula of Gujarat, includes six districts [2], and accounted for 9.58 million inhabitants in 1981. The rate of urbanization virtually remained unchanged from 1961 to 1981, at around 31 per cent. Thus, though this rate is higher than the national average, the rural population is still largely predominant.

However, notwithstanding the stability of the aggregate level of urbanization in the region as a whole, the small and middle-sized

towns, especially towns with population between 10,000 and 50,000, have grown at a higher rate than the average (see JOSHI V.H., JOSHI B.H. AND PARMAR B., 1988). This raises the issue of the growth rate of employment generation in big towns. The underlying structural change is said to reflect rural out-migrants' preference for small and middled-sized towns, because of their proximity to their rural hinterland, in a social context where familial bonds and caste relations maintain their predominant influence. Moreover, it is suggested that industrial policies, both at the level of Gujarat State and of the Central Government, which have promoted programmes of dispersed industrial development; have allowed certain medium-sized towns, especially those surrounding the big towns, to act as a buffer between the traditional rural sector and the modern industrial sector emerging in bigger cities.

In spite of an indisputable industrial development, the economy of Saurashtra is still dominated by agriculture. Most of the labour force is employed in this sector : 57 per cent of the male working population, and 81 per cent of the female working population in 1981.

Commercial crops, predominantly groundnut and then cotton, represent an increasing portion in the agricultural products. As far as food crops are concerned, the main ones are millet, sorghum and wheat.

Irrigation facilities have progressed, however, Saurashtra being a drought-prone region, the agriculture is still subjected to the vagaries of climate. Scarcity and irregularity of water resources remain a major concern.

The industrial sector is dominated by small scale industries, and its structure is characterized by the coexistence of modern and traditional sectors. The spatial distribution of industrial development is unbalanced, with a concentration in some nodal points, especially in Rajkot district (where Jetpur is located), and stagnation in other areas.

As regards social change, the outstanding development is "the emergence of the Kanbi cultivators as a dominant middle order caste in Saurashtra" (JOSHI, 1989). At the origin of this process, there are the land reforms and tenancy acts of the post-independence period, which gave full occupancy rights and ownership to the former tenants-at-will (especially the Kanbis) who were working on the lands of local rulers.

2-2-Jetpur

The town selected for this study, Jetpur in Rajkot district, exemplifies mono-industrial development based on a traditional activity, the dyeing and printing of textile (essentially cotton saris). Dyeing and printing of textile was a traditional craft whose origin in Jetpur could be traced to the beginning of the 19th century. However, the industry in its present form has developed since 1947, with the introduction of the technique of screen printing which gradually replaced block printing [3].

The dyeing and printing industry in Jetpur has undergone considerable development, with the maximum expansion occurring from the mid-sixties to the mid-eighties.

Today the number of printing units is approximately 1200, all belonging to the small scale sector [4]. Since the entire process of production is manual, the employment generation capacity of this industry is considerable : its maximum capacity is estimated at 40,000 by Jetpur Dyeing and Printing Industries Association.

3 - SOURCE OF DATA

The case study referred to here is part of an ongoing research project on the urban development, industrialization and migration processes in Indian medium-sized towns. The findings presented in this paper are based on primary data from our own demo-economic surveys. The system of investigation adopted combined several levels and angles of observation : the town in its regional background, the industrial establishment, the household, the individual (entrepreneurs as well as workers). Several types of approaches and surveys, quantitative as well as qualitative, were also conducted. The variety of the observations aimed at a better grasp of the different facets of the processes of urbanization and migration.

The field observations were carried out in Jetpur from October 1987 to May 1989, in four phases.

The first phase consisted of a preliminary qualitative observation, in the form of interviews conducted in Jetpur with local dignitaries, officials and industrialists. It enabled us, in particular, to identify the different types of spatial and labour mobility induced by the industrialization process in this town.

The second phase consisted of a quantitative survey on migration and economic activities, by means of household schedules with a limited number of questions, most of them close ended. It aimed at describing the population according to its demographic, socio-cultural and economic characteristics, and at providing information on out-migration from the household.

The population covered by the household survey included the population of Jetpur urban agglomeration, as well as the population of the surrounding villages, in order to take into account the great number of commuters working in the printing industry. A 10 per cent sample of households was drawn, covering all blocks of the urban agglomeration and of five villages situated within a radius of eight kilometres around Jetpur. A systematic sampling was carried out in every block on the basis of a direct counting of the households, with the help of detailed maps previously designed. About 2400 household schedules were filled in from January to April 1988 [5].

The third phase of observation focussed on the textile printing industry, which is the predominant sector of activity in Jetpur. The unit of observation was the industrial establishment, 50 of which were randomly selected from the list of the Industrial

an exploding growth rate (9.6 per cent on an average from 1971 to 1981, and 17.3 per cent per year from 1981 to 1988). Jetpur and Navagadh together constitute an urban agglomeration of around 113,750 inhabitants (1988 estimates) [7].

The evolution of the sex ratios shows that the population has an increasing numbers of males, which is usually an indicator of male-dominated labour in-migration.

4-2-In-migration in Jetpur urban agglomeration

The impact of in-migration in the development of Jetpur urban agglomeration can be appraised by examining the proportion of non-natives in the urban population (table 2) [8]. In the total population of the agglomeration, the non-natives account for 44 per cent and in the employed population alone for 55 per cent, as the employed labour force participation rates prove to be considerably higher among the in-migrants than among the natives, for males as well as for females (table 3). This suggests that labour migration has played a major role in the development of the urban economy.

The geographical origin of the in-migrants is essentially regional : 86 per cent were born in Saurashtra, and among them nearly half in Rajkot district (where Jetpur is located) (table 4). Besides, 60 per cent of the in-migrants come from rural areas (table 4).

From the point of view of its population dynamics, Jetpur appears as a regional urban centre deeply rooted in its rural hinterland.

4-3-The working population of Jetpur urban agglomeration: importance of the dyeing and printing industry and impact of in-migration

The dyeing and printing industry is the most important sector of economic activity for the population residing in the urban agglomeration: 44 per cent of the employed population is concentrated in this sector (table 5). However, female workers are almost excluded from the dyeing and printing industry : they represent only 2 per cent of the persons employed in this branch. If only the male employed population is considered, the impact of the dyeing and printing industry becomes even more striking : this sector gives employment to almost half of it.

The differential impact of in-migration in the urban employed population according to the branch of economic activity is shown in table 6. Though the proportion of in-migrants in the dyeing and printing industry is high and noticeably higher than the average, or more precisely for the male employed population (56 per cent against 51 per cent respectively) [9], the contribution of in-migrants proves to be proportionately stronger in some other sectors, especially in construction and in transport and communication.

Not surprisingly, the development of the dyeing and printing industry in Jetpur led the entire urban economy and gave impetus

Association, corresponding to a 10 per cent sample. Extensive interviews with the concerned entrepreneurs were conducted in November-December, 1988, in order to collect both qualitative and quantitative information pertaining to the migration and occupation histories of the entrepreneur as well as the setting up of the establishment, its economic characteristics and employment details.

The fourth phase followed a qualitative approach, at the micro social level and focussed on the workers of the printing industry. It was based on in-depth interviews conducted with 64 workers, drawn from the individual file of the household survey, following the method of quota, in order to represent the different categories of workers with respect to their occupational group in the industry, as well as their place of residence and geographical origin. The interviews aimed at reconstructing the detailed migration and occupation histories, and at better understanding the reason for in-migration and the choice of the town - or the reason for not migrating and the preference for a rural residence in the case of commuters, the process of insertion in the urban labour market - including the working conditions, and the nature of the relations maintained with the native place. This last survey took place in April-May 1989 [6].

As the processing and analysis of the data collected are still going on, this paper should not be considered as one stating conclusive results, but rather as a presentation of preliminary findings providing support for reflections and pointing out directions of research for further investigation.

4 - POPULATION GROWTH, IN-MIGRATION AND STRUCTURE OF THE URBAN LABOUR MARKET : OUTLINES

4-1-Population growth (table 1)

The considerable expansion of the dyeing and printing industry in Jetpur over the last forty years has been associated with the accelerating population growth of the town, indicating high and increasing in-migration.

The census data show that the population boom in Jetpur started after 1961. The population of the town increased from 31,186 in 1961 to 41,943 in 1971 and 63,074 in 1981, which corresponds to a growth rate of 34.5 per cent during the first intercensal period and of 50.4 per cent during the second one. In the same period, the Gujarati towns belonging to the same size class as Jetpur in 1971 (namely class III with population ranging from 20,000 to 49,999) recorded an average growth rate of only 32.6 per cent from 1971 to 1981.

The population growth of Jetpur has continued at an increasing rate after 1981, as shown by the estimates based on the 10 per cent household survey conducted in 1988 : 4.2 per cent per year on an average from 1971 to 1981 and 5.7 per cent from 1981 to 1988.

Today, the urban and industrial spread of Jetpur also includes an adjacent village, Navagadh, which has developed into a suburb at

to the other branches of activity which have also absorbed large numbers of migrants.

However, if one focuses on the in-migrant employed population, it should be underlined that 45 per cent of this population is engaged in the dyeing and printing industry, and 53 per cent of the male employed population. In terms of volume of employment opportunities provided for the in-migrants, the dyeing and printing industry indeed plays a strategic role.

4-4-The working population of the surrounding villages: importance of the dyeing and printing industry and impact of commuting.

The structure of Jetpur labour market and the specific role of the dyeing and printing industry in employment generation and population attraction cannot be fully appraised by limiting the scope of the study to the working population residing in the urban agglomeration; it is necessary to take into account the population residing in the hinterland, in order to apprehend the phenomenon of commuting, which proves to be vital in the case of Jetpur.

The household survey conducted in 5 villages surrounding Jetpur shows clearly that the urban labour market is also an important source of employment opportunities for the rural population. In the surveyed villages, which are located within a radius of eight kilometres around Jetpur, 22 per cent of the total employed population commute daily to work in the urban agglomeration, and this percentage amounts to 35 per cent for the male employed population (table 8).

The distribution of the rural employed population by branch of economic activity shows more precisely the high contribution of the dyeing and printing industry to the livelihood of the village people. In the rural sample 21 per cent of the total employed population, and 33 per cent of the male employed population, are engaged in this sector (table 9).

The interviews with the industrialists revealed that the zone of influence of the Jetpur industrial labour market extends up to 25-32 kilometres around the urban agglomeration (see part 4.5). Therefore, the rural survey, which was limited to the first eight kilometre circle (due to feasibility considerations, especially time and cost constraints), cannot provide us a representative measure of the attraction effect of the Jetpur labour market on the population of the entire hinterland. In particular, the intensity of commuting from the surrounding areas is expected to be negatively correlated with the distance to Jetpur, as an increasing distance means also increasing cost and time of daily transportation.

Nevertheless, the rural survey illustrates the decisive impact of the Jetpur economy on the nearby villages, and shows the extent to which the rural population can be dependent for its living on the employment opportunities supplied by the urban industrial labour market.

4-5-Total employment generation by the dyeing and printing industry and its components : Vital role of commuting

In the previous two sections we have tried to appraise the impact of the dyeing and printing industry on the working population of the urban agglomeration on the one hand, and on the working population of the nearby villages on the other. We shall attempt now to estimate the total employment generation by this industry, as well as its different components.

As mentioned above, according to the estimate provided by Jetpur Dyeing and Printing Industries Association, the maximum employment capacity of this industry would approximate 40,000. This figure includes employment in ancillary industries (sari finishing units, screen manufacturing units, dye manufacturing units), and includes all the types of work and status in employment, entrepreneurs as well as workers, employers, self employed workers as well as employees and unpaid helpers. Maximum capacity also implies the maximum employment which would be generated provided all the units function at their full capacity.

However, it must be pointed out that these optimal economic conditions have not been fulfilled for at least the last five years, due to economic difficulties faced by the industry, which were increased from 1985 to mid-1988 by the adverse effect of severe drought (DUPONT, 1989-a).

Based on the 1988 household survey, the working population employed in the textile printing industry (including ancillary units) and residing in Jetpur urban agglomeration was estimated at around 16,500 : around 2000 entrepreneurs and 14,500 hired workers [10]. To obtain the actual employment generation of this industry, the commuters living in the surrounding areas should be added to these figures. According to the survey of industrial establishments, the proportion of commuters within the workers [11] of the dyeing and printing industry would approximate 50 per cent, coming mainly from villages located within a radius of 25 kilometres around Jetpur, but also from towns even bigger than Jetpur, up to 32 kilometres away [12]. Therefore, the number of commuters in Jetpur dyeing and printing industry would approximate 14,500, and the total employment generated 31,000, which is still considerable. This estimate is coherent with other data provided by the industrial association on the number of units and their processing capacity.

As far as commuting is concerned, the findings based on the survey of industrial establishments strengthen the results of the rural household survey about the role of commuting for the population of the hinterland, and furthermore they reveal the whole magnitude of this phenomenon and its vital role for the urban-based industry.

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The geographical origins of the population settled in the urban agglomeration already showed that Jetpur was a regional centre deeply rooted in its countryside; from the economic viewpoint as

well, this growth centre proves to be highly integrated in its hinterland.

The strategic role of the dyeing and printing industry for the economy of the town as well as its valuable impact on the surrounding areas have also been underlined. The next sections of this paper will focus on this industrial sector, in order firstly to appraise more specifically the role of in-migration and commuting in the process of industrialization, and secondly to examine the extent to which the migrants or commuters have benefitted from their absorption into the urban industrial labour market.

5 - ROLE OF IN-MIGRATION AND COMMUTING IN THE INDUSTRIALIZATION PROCESS

In this section the role of the in-migrant entrepreneurs and the contribution of their investment capacity to the urban industrial development will be first of all examined; then we shall analyse the contribution of the migrant workers to the industrial labour force, with the specific role played by the inter-state migrant labourers and the specific function of the commuters.

5-1-Contribution of in-migrant entrepreneurs

Here we consider the entrepreneurs of the dyeing and printing industry (including its ancillary industries), on the basis of the results of the 10 per cent household survey which covered a sample of 215 entrepreneurs, completed by the analysis of the in-depth interviews with 50 entrepreneurs.

- migration streams

Though the majority of the current entrepreneurs (57 per cent) are natives of Jetpur urban agglomeration, the contribution of in-migrants is significant (43 per cent).

Moreover, in a historical perspective, the first artisans to have introduced the tradition of dyeing and printing in Jetpur at the beginning of the 19th century were in-migrants. They were invited by the local ruler of Jetpur, along with various artisans and traders, in order to promote the economic expansion of the town. In 1813, the first families belonging to the Khatri community were called from Kalavad in Jamnagar district to develop dyeing and printing craft and trade in Jetpur (BHAGVANLAL SAMPATRAAM, 1868). They were followed by other Khatri artisans coming from textile printing centres located in the neighbouring districts of Junagadh and Amreli. And the pioneer in the setting up and promotion of the screen printing industry in Jetpur since 1947 was a direct descendant of the first Khatri family which arrived more than a century ago. Many of the present entrepreneurs who are natives of Jetpur are descendants of those who migrated several generations ago, bringing with them the technical as well as entrepreneurial skills necessary to the development of the dyeing and printing industry, and transmitted from one generation to the other.

Coming back to the contemporary development of the dyeing and printing industry in Jetpur (since 1947), the migration streams observable among the current entrepreneurs show that the geographical origin of the in-migrants is still mostly regional (Table 10).

Most of the in-migrants came from Gujarat (80 per cent), moreover all the native places of the Gujarati migrants are concentrated in Saurashtra. Rajkot district (where Jetpur is located) accounts alone for 40 per cent of all the migrants' native places, and the adjoining districts of Junagadh and Amreli for 27 per cent and 7 per cent respectively.

Some caste-based distinctions are discernible. All the Kanbi entrepreneurs are natives of Rajkot, Junagadh or Amreli districts. Among migrants from states in India other than Gujarat, only a very few entrepreneurs can be mentioned, coming from Rajasthan, Maharashtra and Uttar Pradesh, and belonging to traditional trading communities (Vaniyas, Luhanas). Last but not the least, there is a significant group of entrepreneurs natives of Sindh in Pakistan (13 per cent of the in-migrant entrepreneurs), who arrived soon after the Partition; they are essentially Khatri who were already engaged in dyeing and printing activity in their place of origin.

Though the Jetpur dyeing and printing industry has attracted many non-native entrepreneurs, the entrepreneurial dynamics at the basis of the industrial development of the town proves to be deeply rooted in the region, with 91 per cent of the entrepreneurs (natives or in-migrants) belonging to Saurashtra.

As far as the rural/urban origin of the in-migrant entrepreneurs is concerned, the majority of them, 59 per cent, come from urban areas.

Pertaining to the year of in-migration, apart from the significant stream of Sindhi-Khatris who arrived between 1944 and the early fifties, the in-migration to Jetpur speeded up after 1960, during the best period of expansion for the printing industry. The in-migration of the Kanbi entrepreneurs is clearly more recent than that of the Khatri entrepreneurs: most of the Kanbi in-migrants (22 out of 26 in the sample) came since 1970, while a large majority of the Khatri in-migrants (30 out of 42) came before 1970 [13]. (Table 11).

The various migration streams reflect the contemporary history of the development of the dyeing and printing industry in Jetpur. At the outset the industry was promoted by Khatri entrepreneurs for whom dyeing and printing is an ancestral activity. The promising economic prospects of this industry then attracted many other entrepreneurs, who did not necessarily belong to the traditional communities of artisans or traders. Among the newcomers the Kanbis, a traditional caste of cultivators, took an increasing part in the industrial development of Jetpur.

Today, the Kanbi entrepreneurs represent the majority group in the dyeing and printing industry (42 per cent of the entrepreneurs), followed by the Khatri who lost their leading position (34 per

cent), and the Vaniyas who form a noticeable, though minority, group (8 per cent) [14].

The contribution of the in-migrant entrepreneurs in terms of human resources is not a mere question of demographic weight, but also of differential impact and skills.

As regards the age structure, the in-migrant entrepreneurs prove to be older than the non-migrant : only 25 per cent of them are less than 30 years old, as against 50 per cent of the latter (table 12) [15] which has to be related to the history of the migration streams.

Pertaining to the level of education, the in-migrant entrepreneurs seem more educated than the non-migrant : 47 per cent of the former have studied beyond the 10th standard, as against 36 per cent of the latter [16], (table 13).

Besides formal education, the in-migrants are often equipped with entrepreneurial acumen and technical skills, or experience in trade (see part 6-1).

- investment

The role of the in-migrant entrepreneurs is not limited to their contribution in terms of human resources.

In certain cases, the entrepreneurs' migration to Jetpur is also accompanied by a transfer of capital. The initial investments made by the in-migrant entrepreneurs in the dyeing and printing industry were not systematically realised, even partly, with funds raised outside Jetpur, in the migrants' native place or any other place of previous residence. The entrepreneurs' migration and occupation histories show that in many cases the initial funds were raised with the savings realised from economic activities carried out in Jetpur itself before the setting up of their printing unit, supplemented by bank or GFSC [17] loans if necessary.

Nevertheless, the contribution of external capital to industrial investment through transfers made by the in-migrant entrepreneurs should be underlined while examining the role of migration in the industrialization process.

In the case of migrant entrepreneurs belonging to traditional trading communities (Vaniyas, Luhanas) or to the Khatri families traditionally engaged in the textile trade, the capital required for the initial investment in the dyeing and printing industry, or at least part of it, was often raised with the profit made in the trading activities already carried out in the family before settling in Jetpur.

In the case of the Kanbi entrepreneurs, the transfer of capital was from agriculture to industry. These were the entrepreneurs coming from farmers' families who developed cash crop agriculture, especially after 1969 with the bank nationalisation policy, which provided easy access to financial facilities. Eventually they

benefitted from the progress of irrigation facilities and managed to set aside surplus from agricultural incomes. This process took place in particular in the surroundings of Jetpur, in the command area of the Bhadar irrigation dam and canal, where irrigation facilities supplied since 1966-67 allowed the farmers to make good profits from agriculture and reinvest them in the dyeing and printing industry. Since they own agricultural land, the Kanbis also have the option of selling a plot of land to raise the required capital.

This process of transfer of agricultural surplus to the benefit of the urban industrial development cannot be attributed only to the migrants' economic strategy. This strategy is prevalent among the entire community of Kanbi entrepreneurs in Jetpur, in-migrant as well as natives, and the in-migrants have contributed their share.

What should be emphasized here is, once again, how deeply integrated in its rural hinterland the development of Jetpur is, more precisely how the urban industrial development has directly benefitted from the progress in the agriculture of the surrounding region.

5-2-Contribution of in-migrant workers and commuters to the industrial labour force.

The demographic contribution of in-migrant workers to the labour force of the dyeing and printing industry is considerable : 58 per cent among the workers living in Jetpur urban agglomeration, and 44 per cent among the workers living in the five surveyed villages. This shows that the villages in the vicinity have also received one part of the labour migrants who were absorbed into the urban industrial sector. The residential choice of the latter can be explained by less expensive options of rented accommodation in the villages, as compared to the level of rents in the urban agglomeration. In addition, in one of the surveyed villages, two big dyeing and printing factories were set up, which recruit essentially inter-state migrant workers who are housed in the premises of the plant itself.

The migrant workers who have settled in the surrounding villages of Jetpur will also be taken into account to examine the characteristics of the migration streams which supplied the labour force to the industrial sector. The analysis is based on the results of the 10 per cent household survey which covered a total sample (urban and rural) of 1764 workers employed in the dyeing and printing industry, out of them 988 in-migrants (i.e. 56 per cent).

- migration streams

Like those of the in-migrant entrepreneurs, the migrant workers' geographical origins are characterised by the predominance of Gujarat (81 per cent of all the in-migrant workers' native places), with a high concentration in the district where Jetpur is located (32 per cent) (table 14). However, as compared to the in-migrant entrepreneurs (table 10), or to the entire in-migrant

population of the urban agglomeration (table 4), the geographical recruitment area of the migrant workers of the dyeing and printing industry shows a significant inter-state migration stream (17 per cent of the migrant workers' native places), particularly from Uttar Pradesh, Rajasthan and Bihar.

Besides, the in-migrant workers are predominantly of rural origin (76 per cent of them) (table 14).

Most of the migrant workers absorbed into the dyeing and printing industry arrived recently : 63 per cent of them since 1980 (table 15), while the entrepreneurs' in-migration was more evenly spread over the last 30 years (table 11). This suggests that labour migration played a strategic role during the most recent phase of expansion of the dyeing and printing industry by helping the industry to face its increasing labour requirement.

The quantitative contribution of migration to the industrial labour force is undisputable, but its qualitative impact should also be examined.

Concerning the age structure, in-migration has not had an important effect on the structure of the industrial labour force. In-migrant workers as well as non migrant both form very young populations, though the in-migrants are slightly 'older' than the non migrants : 66 per cent of individuals below 30 years as against 70 per cent (Table 16) [18].

As to the level of formal education, the in-migrant workers are appreciably less educated than the non migrants : the proportion of illiterate is almost double among the former (28 per cent as against 15 per cent) (table 17) [19]. This could be related to the geographical origins of the migrants, coming mainly from rural areas or, for inter-state migrants, from regions less developed than Gujarat. In any case, apart from the clerical workers and sales workers, for whom formal education is important, but who represent only 7 per cent of all the workers of the dyeing and printing industry, the skills required to work in this industry are acquired through apprenticeship and training in the factory itself.

What is more important than formal education, is the fact that the migrant workers may have some specific skills or other "qualities" in the eyes of the industrialists, which may even result in preferential recruitment to the migrants' advantage. This is the case of the inter-state migrant workers, whose specific function in the industry will now be examined.

- specific function of inter-state migrant workers

The significance of the recruitment of inter-state migrant workers was initially revealed during the preliminary round of observation in Jetpur. This is a relatively recent and still limited type of recruitment, which is however indicative of a new economic logic, and likely to lead to a reinforced trend. Since the mid-seventies, some industrialists have started recruiting workers from states other than Gujarat, mainly from the northern densely populated

states of Uttar Pradesh and Bihar, and from the bordering state of Rajasthan. Most often these workers are recruited through intermediaries, contractors or recruiting agents. They are male adults and teenagers coming to Jetpur without their families, and the duration of their stay in Jetpur depends directly on the duration of their engagement, which is of a temporary nature. They are housed in the premises of the plant itself, and therefore, they are not at all integrated into the urban population. They also return periodically to their native place for one or several months, usually every year.

It was not easy to carry out a survey of these temporary migrants who live on the fringe of the common urban residential system and moreover are very mobile. This led us to consider all the industrial zones as possible residential areas, and include them in the field of the household survey conducted at the place of residence of the individuals. Moreover, in addition to the 10 per cent sample survey, we took the opportunity of a systematic checking in all the factories to conduct an enumeration of all the workers living in the factories and collect a first set of basic data on this sub-population [20]. The information presented here is based on this survey completed by the in-depth interviews conducted with some of the inter-state migrant workers and their contractors, as well as with the industrialists resorting to this kind of recruitment.

The population of inter-state migrant workers living in the factories, which was enumerated in January-April 1988, amounted to 1113, which would represent 4 per cent of the estimated total labour force of the dyeing and printing industry. This figure can be compared to the estimated number of inter-state migrant workers based on the 10 per cent household survey, namely around 1,635 [21], or about 6 per cent of the estimated total labour force.

The difference is due to the fact that not all inter-state migrant workers are housed in the factory premises. Some of them have arranged for independent accommodation, sometimes virtually at the gate of the factory, in insalubrious rooms, over crowded, with housing conditions not necessarily better than those of their fellow workers living inside the factories, and unable to escape from the control exercised over them by their contractor. Besides, some inter-state migrant workers have also come independently of these organised channels of recruitment.

However, these figures should be considered as a minimum estimate of the employment potential of the dyeing and printing industry for this specific category of workers. On the one hand it is quite likely that some teams of workers living inside the factories have been missed out, due to possible misinformation leading to omission [22]. On the other hand, in case of slackness in the printing industry, if no more work is available, these inter-state temporary migrant workers leave Jetpur, especially as they do not have any proper residence there, nor their families. Their presence in Jetpur being exclusively attached to their working contract, they return to their native place or go to other places in search of work. Now the household survey - and the enumeration - took place in the last year of a three year period of drought which severely affected the textile printing industry, and many

teams of temporary migrant workers left Jetpur at that time - half of them according to some industrialists' estimates. This was confirmed by interviews conducted after the 1988 monsoon, which brought great relief to this industry and allowed the recruitment of inter-state migrant workers to resume at a higher pace. Taking these two factors into account (omission and fluctuations), the actual share - apart from economic crisis conditions - of the inter-state migrant workers in the total labour force of the dyeing and printing industry could be estimated at around 10 per cent.

Nevertheless, the role of the inter-state migrant workers extends beyond their demographic weight, which remains still modest. The inter-state labour migration to Jetpur corresponds to well defined channels of recruitment, with occupational specialization according to the region of origin of the workers : in particular printers from Rajasthan, workers for ironing and folding the saris from Uttar Pradesh and Bihar. The latter fulfil a specific function in the process of production of the printing industry, which explains the origin of this migration stream. In addition to the usual techniques of pressing and folding, the Uttar Pradeshi and Bihari workers perform an exclusive finishing technique called "bamboo roll" or "Benares roll" [23] which has been used traditionally in Benares for a long time. It was introduced in Jetpur in the mid-seventies, in order to supply the Calcutta market with saris specially fit for the consumers' tastes. The technique expanded in Jetpur factories along with the growing importance of the Calcutta market among the marketing places of Jetpur saris, and was subsequently accompanied by an increasing migration stream of workers from Uttar Pradesh and Bihar. As the "Benares roll" technique is not known by the local Gujarati workers, the migrant workers from Uttar Pradesh and Bihar hold the monopoly for this type of work, which secures them a niche in the industrial labour market of Jetpur.

The recruitment of inter-state migrant workers presents, for the employers, a second advantage: they constitute a more docile and more easily exploitable labour force. As these workers come to Jetpur exclusively to work without the initial intention of settling down, and in addition from regions less developed than Gujarat, they are not demanding about working conditions and wages, since these will always be better than what they could find in their native place. Though this last remark could apply also to Gujarati migrant workers, particularly those coming from rural areas, in the case of inter-state migrant workers this predisposition is more pronounced due to their specific conditions of migration. In particular it is easier for the employer to impose longer working hours and night shifts to the workers who live within the factory premises itself, as most of the inter-state migrant workers do. As against this, the local workers as well as the migrants settled with their families in Jetpur are reluctant to accept work at night, and as far as the commuters are concerned, night shift is excluded, and, moreover, their working hours are limited to a certain extent by the length of the transportation time or even constrained by bus and train timings. Furthermore, the inter-state migrant workers are generally under the control of contractors and "masters" who set the working hours as well as the wages, and thus release the industrialists from

manpower management problems. Lastly, the local labour trade unions have no impact on the inter-state migrant workers secluded behind the factory gate under "due" control, which is seen as an additional advantage by the employer.

A last advantage, for the industrialists, of recruiting inter-state migrant workers, is the great elasticity of this labour supply. Reduction of manpower in case of slackness is never a problem for the employers in this small scale industry which manages to keep out of all industrial and labour legislation, on the contrary increasing the labour force to meet an additional demand during the peak season is not necessarily obvious. The contract labour system, which prevails in Jetpur exclusively among the inter-state migrant workers, offers a convenient solution to the industrialists. It is the contractors' responsibility to ensure an adequate supply of labour, and in case of an increasing demand, the contractors can recruit easily in the migrants' native state (which is generally also their native state). The recruitment channels and the necessary network of relations are already established, and, in Uttar Pradesh and Bihar particularly, there is a reserve army of unemployed or disguised unemployed which ensures virtually unlimited labour supply - according to Lewis' wellknown model (1954).

Taking all these factors into consideration, some industrialists implement a deliberate preferential recruitment policy for inter-state migrant workers. Though this type of recruitment is still limited within the total labour force employed in the dyeing and printing industry, the specific functions and characteristics of the inter-state migrant workers may allow us to foresee an increasing trend. In this case, the hypothesis of tension arising between the inter-state migrants and the local workers cannot be completely ruled out. There is already a feeling - though not widespread - among the local workers that the recruitment of inter-state migrant workers has a negative impact on the potential improvement of their working conditions and earnings, and also weakens their negotiating power with the industrialists. The germ of resentment could be increased if the local workers have also the impression that their employment might be threatened.

- specific function of commuters

The considerable demographic contribution of the commuters to the labour force of the dyeing and printing industry has already been stated. We shall attempt, now, to examine what specific role the commuters are likely to play in the industrialization process, beyond their vital labour supply.

From the point of view of urbanization and town planning, urban industrialization which relies to a large extent upon the commuting labour force, presents an obvious advantage: the town benefits from this labour force without bearing any additional housing cost, and with a limited burden in terms of civic amenities to provide for this population.

However this specific segment of the labour force has one disadvantage insofar as running the industry is concerned: its

lack of flexibility in working hours, and the fact that it is not available at all times. As mentioned above, overtime and night shift are not compatible with commuting. Moreover, the rural based commuter workers are deeply integrated in the agricultural economy. Those belonging to agriculturists' families continue to participate in agricultural work, and during the peak season they give preference to the familial agriculture, and temporarily stop work in the factory. The temporary non-availability of commuting labour force can negatively affect the dyeing and printing industry. This was especially the case after the 1988 monsoon, the first good monsoon following three years of severe drought in Saurashtra. During the survey of industrial establishments conducted in November-December 1988, all the industrialists interviewed complained about temporary shortage of labour, created by the commuter workers, who were engaged in seasonal agricultural work. This contrasts with the great elasticity of the inter-state migrant labour force, which can in fact partially fill in the shortage in commuting labour force supply : faced particularly with a shortage of printers who form the bulk of the production workers, some industrialists resorted to recruiting printers from Rajasthan, through the already established channel.

The major role of commuters in the industrial labour force - apart from their demographic impact - could be to act as a buffer in case of slackness in this industry and reduction of employment. Our hypothesis is that the commuting workers are the first to be affected by reduction of employment, especially those commuting from farther distance. The inter-state migrant workers can be certainly also severely hit by unemployment, but unlike the commuters, their demographic weight is not sufficient to enable them to act as a buffer. The commuters who constitute a large section of the labour force have the capacity to absorb most of the repercussions of an employment crisis, by filling the ranks of the unemployed workers.

In a situation of employment scarcity, the workers living in the urban agglomeration, in the vicinity of the factories, might have better contacts to enable them to get jobs. Besides, most of the workers in the dyeing and printing industry being engaged on a daily basis [24], if the probability of getting work is very low, the commuters would prefer to stay at home rather than incur daily transportation expenses without any return. The farther from Jetpur the commuters live, the higher the transportation cost borne, and the higher the probability to remain unemployed in their village or town of residence.

Employment data collected through the household survey in January-April 1988, that is during an economic crisis due to three consecutive years of drought, give some support to our hypothesis. Many factories, especially the small-sized units, were forced to close down during the drought, due to shortage of water [25] and slump in demand. The impact on employment was dramatic : according to Jetpur Dyeing and Printing Industries Association, the capacity of employment at that time was estimated at 15,000 as compared to a maximum employment capacity of 40,000. But surprisingly, the number of unemployed workers recorded in the household survey was very low. Among the production workers of the dyeing and printing industry living in Jetpur urban agglomeration and the 5 nearby

villages, only 4 per cent had reported to have been unemployed in 1987 for the whole year or more than 4 months [26]. Unemployment which hit the industrial workers could be partially disguised by out-migration and occupational mobility.

As regards out-migration, the household survey enables us to estimate the proportion of out-migrants who left from 1983 to 1987, from the households surveyed at the beginning of 1988. But, if all the members of a household out-migrated together, they could not be recorded by our survey. Nevertheless, though partial, the data collected can provide some interesting insights. Among the households living in the urban agglomeration and the five nearby villages, the proportion of 1983-87 out-migrants within the total labour force amounts to 4.3 per cent, but if we consider only the production workers of the sari printing industry, it goes up to 7.4 per cent [27]. This shows that the workers from the dyeing and printing industry have been more affected by out-migration than the rest of the working population.

However, there is no evidence of massive out-migration, if one considers the accelerating growth rate of the population of the urban agglomeration from 1981 to 1988, as well as the increasing number of in-migrant workers who arrived in Jetpur since 1985 (See table 15).

As far as occupational mobility is concerned, some workers from the printing industry could have found employment in the diamond cutting and polishing units set up in Jetpur since 1987. We conducted, in April 1989, an exhaustive survey of the diamond cutting and polishing units set up in Jetpur urban agglomeration : 14 functioning units were enumerated with a total capacity of employment amounting to 485 workers, on the basis of their installed equipment in machinery. Obviously this cannot absorb the bulk of the unemployed from the dyeing and printing industry. Moreover, the occupational background of the diamond cutters shows that only very few of them were previously employed in the dyeing and printing industry, as diamond cutting requires specific skills. And apart from this new industry, there was no scope for occupational diversification in the town at that time, as the negative impact of the drought affected the whole urban economy.

Therefore, the hypothesis that the commuters, especially those living farther than the nearby surroundings of Jetpur, are those who were mainly affected by unemployment turns to be a relevant explanation.

The specific function of the commuters in the industrial labour force as "unemployment absorbers" turns to be a direct sizeable advantage from the point of view of the workers living in the urban agglomeration, natives and migrants, and to a certain extent for the urban economy as well, since the main negative impact of unemployment is transferred to the rural areas.

6-ABSORPTION INTO THE URBAN INDUSTRIAL SECTOR AND ITS EFFECT ON THE MIGRANTS' ECONOMIC STATUS.

In the previous section we examined the effect of migration and commuting on the industrialization process, at the macro level. We shall come down now to the micro level, to focus on the migrants and commuters, in order to appraise the effect of migration/commuting followed by absorption into the urban industrial sector on the individual themselves, and more specifically the impact on their economic status. With this end in view, we shall examine the social and occupational mobility, including intergenerational mobility, of the migrants and commuters as compared to that of the natives, for the entrepreneurs as well as the workers.

6-1-Entrepreneurs' socio-economic background.

The findings presented here are based on the in-depth interviews conducted with 50 industrialists, 15 natives and 35 in-migrants.

- A caste-based typology

To portray the main categories of economic profiles and backgrounds among the entrepreneurs, the breakdown by caste is essential, as the entrepreneurs fathers' and grand-fathers' occupations reflect directly the traditional caste-based occupational specialization.

Most of the Khatri entrepreneurs hail from families already engaged in dyeing and printing work for several generations. Their fathers and grand-fathers were initially artisans in block printing or even traditional dyeing, and later turned to screen printing in the fifties in the father's generation, or in the current generation. In such families the entrepreneurs have been involved in the dyeing and printing activity since their childhood, they had a direct experience of the diverse kinds of work performed in this industry and acquired technical as well as managerial skills through their training in the familial unit.

The second group of Khatri entrepreneurs have a familial background of trade in textile or saris, and they extended the traditional trading activity to dyeing and printing industry. Before running their own printing unit, these entrepreneurs had a previous work experience in trade, or of management in the printing unit started by their father or other relatives.

This second group of Khatri entrepreneurs is numerically less important than the former. However, textile or sari trade and textile printing industry are two activities economically linked together, and the combination of both is not rare among the Khatri families.

All the Kanbi entrepreneurs belong to agriculturists' families. At the time of the princely states, their forefathers were tenants-at-will on the lands of local rulers. After Independence and following the implementation of the land reforms and tenancy

acts, the Kanbis became landowner-cultivators. The Kanbis engaged today in the dyeing and printing industry represent the first generation of entrepreneurs among their community. Some of them have set up their first printing unit without previous experience of work outside familial agriculture and without any specific training for this new business.

However, more often, the new Kanbi entrepreneurs previously acquired work experience outside agriculture, particularly in sari trade, or in the dyeing and printing industry, as employees (salesman, in management ...), or even as manual workers, to acquire technical skills, especially of dyeing, which is the most strategic operation in the production process.

The Vaniya as well as the Luhana entrepreneurs belong to families of traders - which corresponds to the traditional activity of their caste - but more specifically traders in textile or saris, who maintain direct contacts with the sari printing industry. These entrepreneurs acquired experience in the familial trade, which also equipped them with the necessary contacts to set up their own printing unit.

The entrepreneurs belonging to communities other than those reviewed form a minority and, moreover, heterogeneous group, hence any other representative types of economic profile do not emerge.

- socio-economic mobility

The occupational histories of the entrepreneurs can also be analysed from the viewpoint of social mobility. Out of the 50 entrepreneurs interviewed, 20 previously worked in the dyeing and printing industry as mere employees, either as manual workers (13 of them), or as clerical employees, or in management (7 of them) [28].

As for the entrepreneurs belonging to families who were traditionally involved in the dyeing and printing industry, the expansion of this industry in Jetpur under its present form (using screen technology) enabled the transition from household craft to industrial production.

Undoubtedly the development of the dyeing and printing industry provided opportunities for an upward socio-economic mobility, which could also be illustrated by some spectacular success stories.

A comparison of the migrants and natives' life histories does not show any differential socio-economic mobility or any discrimination. However, as far as the effect of migration on the individuals is concerned, for the in-migrant entrepreneurs, the migration to Jetpur was the prerequisite to allow them to benefit from the economic prospects provided by the development of the dyeing and printing industry. Such opportunities of profitable investment were not available at their native place, in particular for those coming from rural areas or small towns.

6-2-Workers' socio-economic background and absorption into the urban industrial market

The findings presented here are based on the 64 industrial workers' migration and occupation histories, distributed as follows : 10 natives of Jetpur urban agglomeration, 46 in-migrants, 8 commuters, natives of their village of residence. The size and composition of this sample does not allow us to test accurately the differential impact of the absorption into the Jetpur industrial labour market on the workers according to their migration/residential status. However, the object of these interviews was to better understand through a qualitative approach the process of absorption into the industrial labour market, in order to reveal the major trends and bring out the striking features.

- intergenerational occupational mobility

Unlike the entrepreneurs, the industrial workers belong to a wide span of various castes, which does not enable one to bring out a clear and simple typology of their socio-economic background.

The majority of the workers belong to families engaged in agriculture (39 out of 64 in the father's generation and 44 in the grand-father's generation). Their fathers and grand-fathers are/were landless agricultural labourers or, mainly, farmers but rather small farmers, or at least farm-owners whose land could not provide a decent livelihood for all the children, pushing some outside agriculture. And migration - or commuting - appears to be the prerequisite for a sectorial mobility.

Those workers who do not have an agricultural background, generally belong to families of artisans, self-employed service workers, petty traders, and other miscellaneous labourers.

- workers' occupational mobility

As far as the mobility of the workers themselves is concerned, a notable proportion of them (30 out of 64) still had their first experience of work in agriculture, as unpaid familial helper mainly, or as agricultural labourers, which reflects their socio-economic background. And for most of the workers of this group (24 of them), this constitutes the only work experience before entering the dyeing and printing industry. The commuters in particular belong essentially to this category.

The second important homogeneous group (22 out of 64) is formed by the workers who entered the dyeing and printing industry directly for their first job. Among them some in-migrants had work experience in other textile towns.

Only a minority (11 out of 64) had a previous occupation outside agriculture, of varied types.

- entry into Jetpur urban labour market and into the dyeing and printing industry.

As a general rule, for the current industrial workers, natives, in-migrants as well as commuters, the entry into Jetpur urban labour market was synonymous to entry into the dyeing and printing industry : of the 64 workers interviewed, all except one found their first job in Jetpur in this industry.

However, the first job in the dyeing and printing industry was in some cases (17 out of 64) preceded by a period of unemployment, the duration of which sometimes lasted for several months, even one year or more in extreme cases.

It can be noticed that none of the inter-state migrant workers had to face unemployment in Jetpur before entering the dyeing and printing industry. This is due to their specific way of recruitment, most often through contractors who recruited them directly from their native places, or other previous places of work where they had been contacted, or at least through well established migration channels, providing them with the necessary contacts to secure a job in Jetpur.

To find their first job in Jetpur dyeing and printing industry, most of the workers (57 out of 64) benefitted from contacts with or introduction by persons already working in this industry. Moreover, the persons who provided some support were also often from the same caste, or/and the same village or state.

Those who did not get any support - who are not necessarily the in-migrants - went on their own to meet the factory owners, or went to the "Gujari", which is a local labour market in the strict sense of the word, a place where the workers in search of employment gather every morning, waiting for employers - or their intermediaries - to recruit them. Recruitment in such ways does not exclude preferences or discriminations based on caste or community factors.

To sum up, the entry into the industrial labour market relies on the various social networks : kinship and in-law bonds, caste solidarity, village fellow relations, or even neighbours and friends.

- trends in earnings

To appraise the impact of the absorption into the urban industrial market on the workers' economic status, it is possible to examine the evolution of the workers' earnings, and more particularly compare the level of income before entering the dyeing and printing industry in Jetpur, and after. First of all, for a majority of the workers (36 out of 64), the first job in Jetpur dyeing and printing industry represents in fact their first remunerated work, either because they did not have any previous experience of work, or because they were working as unpaid familial helpers (mainly in agriculture).

For the 28 workers who had a previous remunerated occupation (all

of them in-migrants), there is no systematic improvement of the level of income following migration and entry into the dyeing and printing industry. This is true even if the reference point taken for the comparison is not the initial period of apprenticeship or training in this industry, during which the level of earnings may be noticeably lower or even nil. Cases of deterioration in the average level of income between the previous occupation and the first "full-paid" work in the dyeing and printing industry are not exceptional (9 out of 28). Migration took place because, in general, remaining at the previous place would have meant a drastic fall in income due to unexpected deterioration in the previous occupation (loss of job, sudden slump in trade...) which compelled the workers to leave. However, most of these initial declines in income after migration have been followed later on by an improvement.

The evolution of income since entry into the dyeing and printing industry in Jetpur gives a more optimistic view. The majority of the workers (42 out of 64) have followed a regular upward evolution (which should be corrected for the price effect). But it also shows that no worker in this industry, even after many years of employment, is protected from sudden deterioration of his income or employment.

The workers of the dyeing and printing industry in Jetpur are characterised by the precariousness of their employment, and possible fluctuations of earnings. Most of them are engaged on a daily basis and paid according to piece wage system. Even the salaried workers (office workers and dyers) never have the status of permanent workers.

7- SUMMARY OF MAIN FINDINGS AND CONCLUSION

The case study detailed in this paper enabled us to examine the impact of in-migration on the industrialization process in the context of a middle-sized town, namely Jetpur in Gujarat.

The considerable expansion of the local industry has resulted in an accelerating populating growth in which in-migration is an important component.

The predominantly regional as well as rural origin of the in-migrants shows a town deeply rooted in its countryside.

Industry proves to be the leading sector of the urban economy, and has also an appreciable impact on the economy of the surrounding villages. Not only has this sector absorbed large numbers of in-migrant workers, but it also supplies ample employment opportunities to the rural population. From the economic point of view too, the town appears to be highly integrated with its hinterland.

Migration has played a major role in the expansion of the urban economy, by increasing the labour supply as well as the labour force participation rate in the urban population.

Several findings can be underlined specifically regarding the impact of migration in the industrial sector.

The in-migrant entrepreneurs' contribution to the industrial development is appreciable in terms of qualified human resources and transfer of capital. Migration has often accompanied a sectoral transfer of capital from trade or from agriculture to the urban industry. In the case of the study town, the development of the industry has in particular directly benefitted from the progress in the agriculture of the surrounding region.

The demographic contribution of the in-migrant workers to the industrial labour force is considerable. In addition, certain migration streams have a specific function in the process of industrialization.

For instance the inter-state migrant workers, though still a minority group, fulfil a threefold function: they perform some exclusive operations in the process of production, they constitute a more docile and more easily exploitable labour force for the industrialists, and they ensure a labour supply with a great elasticity.

Another segment of the industrial labour force indeed plays a strategic part: the commuters. First of all their massive volume helped this industry to face its increasing labour requirement, without imposing on the town any additional housing cost, and with a limited burden in terms of civic amenities. The only inconvenience for the industry is the lack of flexibility in working hours of this labour force and its lack of availability at all times. Last but not the least, the commuters seem to act as a buffer in case of slackness in the industry and reduction of employment: they prove to be the main "unemployment absorbers".

Some observations pertaining to the effect of migration/commuting and absorption into the industrial sector on the individual themselves are also noticeable.

The entrepreneurs' life histories show that the development of the industry in the study town provided opportunities for an upward socio-economic mobility, and migration was often the prerequisite to benefit from this process.

From the viewpoint of workers', prospects seem to be less bright. Admittedly migration and/or absorption into the urban industrial market allowed many youths to get their first remunerated work, and the migrants to find better employment opportunities than what they could have expected by staying in their place of origin. However, the main features of the industrial workers' fate remain: precariousness of employment and possible deterioration of income.

From the point of view of the potential role of middle-sized towns in industrialization and in regional development, this case study illustrates the successful integration of a growth centre with its regional hinterland, in the process of industrial investment and supply of employment opportunities. In Jetpur this pattern of development is essentially the outcome of endogenous dynamics,

which did not benefit from a specifically oriented governmental programme. Nevertheless, this example should encourage the policies of promotion of middle-sized town through small scale and labour intensive industrialization.

However, in the case of the study town, in order to enable the bulk of the workers to better benefit from the industrialization process, a more rigorous implementation of the labour legislation appears a prerequisite to ensure them greater security of employment and thus appreciably improve their working and living conditions.

Table 1
Population growth of Jetpur

year	population	growth rate (%)	annual growth rate (%)	sex ratio (0/00)
JETPUR				
1941	28 406			
1951	28 444	0.13	0.01	
1961	31 186	9.64	0.92	989
1971	41 943	34.49	3.01	957
1981	63 074	50.38	4.16	945
1988	92 934	47.34	5.69	920
NAVAGADH				
1961	1 626			957
1971	2 726	67.65	5.30	910
1981	6 811	149.85	9.59	922
1988	20 810	205.54	17.30	806
JETPUR • NAVAGADH				
1961	32 812			987
1971	44 669	36.14	3.13	954
1981	69 885	56.45	4.58	943
1988	113 744	62.76	7.21	899
<p>source of data :</p> <ul style="list-style-type: none"> - from 1941 to 1981 : censuses - 1988 : estimates based on the 10 % household survey, on the 1/3/1988. <p>The confidence intervals at 95 % of the total population are</p> <p>Jetpur : 90 569 - 95 427</p> <p>Navagadh : 19 062 - 22 689</p> <p>Jetpur + Navagadh : 109 481 - 118 352</p> <p>sex ratio : number of females for 1000 males.</p> <p>The confidence intervals at 95 % of the estimated sex ratios in 1988 are :</p> <p>Jetpur : 900 - 941</p> <p>Navagadh : 743 - 874</p> <p>Jetpur + Navagadh : 869 - 930</p>				

Table 2
Percentage of in-migrants in the population of Jetpur urban agglomeration

	male	female	total
total population	36.9 (6279)	52.8 (5646)	44.4 (11925)
employed pop.	51.4 (3452)	76.3 (489)	54.5 (3941)
source : 10 % household survey - 1988			
() : number of persons in the considered population			

Table 3
Employed labour force participation rate by migration status in Jetpur urban agglomeration

migration status	male	female	total
native	42.4 (3959)	4.4 (2666)	27.1 (6625)
in-migrant	76.5 (2320)	12.5 (2980)	40.5 (5300)
total population	55.0 (6279)	8.7 (5646)	33.0 (11925)
source : 10 % household survey - 1988			
() : number of persons in the considered population			

Table 4
Distribution of in-migrants in Jetpur urban agglomeration by native place

native place	nbr	%
Gujarat:		
Saurashtra: Rajkot district	2 158	40.7
Junagadh dist.	1 289	24.3
Amreli dist.	442	8.4
other districts in Saurashtra	673	12.7
other districts in Gujarat	268	5.1
district not known	18	0.3
other states in India	311	5.9
Pakistan	107	2.0
other foreign countries	32	0.6
place not known	2	0.0
total	5 300	100.0

rural	3 186	60.1
urban	2 045	38.6
not known	69	1.3
total	5 300	100.0

source : 10 % household survey - 1988

Table 5
Distribution of employed persons by branch of economic activity (working population residing in Jetpur urban agglomeration)

branch of activity	male		female		total	
	Nbr	%	Nbr	%	Nbr	%
agriculture	236	6.8	170	34.8	406	10.3
dyeing-printing ind.	1697	49.2	34	6.9	1731	43.9
household ind.	32	0.9	44	9.0	76	1.9
other industries	274	7.9	23	4.7	297	7.6
construction	89	2.6	69	14.1	158	4.0
commerce-trade	688	19.9	42	8.6	730	18.5
transport-communicat.	169	4.9	5	1.0	174	4.4
services	263	7.6	102	20.9	365	9.3
not known	4	0.1	-	-	4	0.1
total	3452	100.0	489	100.0	3941	100.0

source : 10 % household survey , 1988.

Table 6
Proportions of in-migrants by branch of economic activity
(employed population residing in Jetpur urban agglomeration)

branch of activity	male		female		total	
	%		%		%	
agriculture	30.1		78.8		50.5	
dyeing-printing ind.	55.9		64.7		56.0	
household ind.	50.0		77.3		65.8	
other industries	41.2		-		43.4	
construction	78.7		79.7		79.1	
commerce-trade	41.9		66.7		43.3	
transport-communicat.	68.0		-		69.0	
services	58.6		77.5		63.8	
total	51.4		76.3		54.5	

source : 10 % household survey - 1988

The corresponding numbers are given in tables 5 and 7.

* : less than 30 observations

Table 7
Distribution of employed persons by branch of economic activity.
In-migrants residing in Jetpur urban agglomeration

branch of activity	male		female		total	
	Nbr	%	Nbr	%	Nbr	%
agriculture	71	4.0	134	35.9	205	9.5
dyeing-printing ind.	948	53.4	22	5.9	970	45.2
household ind.	16	0.9	34	9.1	50	2.3
other ind.	113	6.4	16	4.3	129	6.0
construction	70	3.9	55	14.8	125	5.8
commerce-trade	288	16.2	28	7.5	316	14.7
transport-communicat.	115	6.5	5	1.3	120	5.6
services	154	8.7	79	21.2	233	10.9
total	1775	100.0	373	100.0	2148	100.0

source : 10 % household survey, 1988.

Table 8
Distribution of employed persons by place of work (working population residing in 5 surrounding villages of Jetpur)

place of work	male		female		total	
	Nbr	%	Nbr	%	Nbr	%
village of residence	410	55.1	406	87.3	816	67.5
Jetpur U.A.	261	35.1	6	1.3	267	22.1
other places	73	9.8	53	11.4	126	10.4
total	744	100.0	465	100.0	1209	100.0
source : 10 % household survey - 1988						

Table 9
Distribution of employed persons by branch of economic activity (working population residing in 5 surrounding villages of Jetpur)

branch of activity	male		female		total	
	Nbr	%	Nbr	%	Nbr	%
agriculture	215	28.9	269	57.9	484	40.0
dyeing-printing ind.	247	33.2	1	0.2	248	20.6
household ind.	3	0.4	13	2.8	16	1.3
other industries	34	4.6	1	0.2	35	2.9
construction	123	16.5	166	35.7	289	23.9
commerce-trade	57	7.7	11	2.4	68	5.6
transport-communicat.	37	5.0	1	0.2	38	3.1
services	28	3.8	3	0.6	31	2.6
total	744	100.0	465	100.0	1209	100.0
source : 10 % household survey - 1988						

Table 10
Distribution of in-migrant entrepreneurs in Jetpur dyeing and printing industry by native place.

native place	Nbr	%
Gujarat :		
Saurashtra : Rajkot dist.	37	40.2
Junagadh dist.	25	27.2
Amreli dist.	6	6.5
other districts in S.	5	5.4
district not known	1	1.1
other states in India	5	5.5
Pakistan	12	13.0
Burma	1	1.1
Total	92	100.0

rural	37	40.2
urban	54	58.7
not known	1	1.1
total	92	100.0
source : 10 % household survey - 1988		

Table 11
Distribution of in-migrant entrepreneurs in Jetpur dyeing and printing industry by year of arrival and caste

year of arrival	Khatris		Kanbis		all in-migrant entrepreneurs	
	Nbr	%	Nbr	%	Nbr	%
before 1947					1	1.1
1947-1959	8	19.0	2	} 15.4	17	18.5
1960-1969	22	52.4	2		30	32.6
1970-1979	7	16.7	11	42.3	26	28.3
1980-01/03/1988	5	11.9	11	42.3	18	19.5
Total	42	100.0	26	100.0	92	100.0
source : 10 % household survey - 1988						

Table 12
Percentage distribution of entrepreneurs in Jetpur dyeing and printing industry by age and migration status

age	in-migrants	non migrants	total
	%	%	%
15-19	2.2	3.2	2.8
20-24	7.6	22.0	15.8
25-29	15.2	25.2	20.9
30-34	15.2	14.6	14.9
35-39	20.7	14.6	17.2
40-44	12.0	6.5	8.8
45-49	5.4	3.3	4.2
50-54	9.8	4.9	7.0
55-59	5.4	2.4	3.7
60 +	6.5	3.3	4.7
total	100.0	100.0	100.0
number	92	123	215

source : 10 % household survey - 1988

Table 13
Percentage distribution of entrepreneurs in Jetpur dyeing and printing industry by level of education and migration status

level of education	in-migrants	non migrants	total
	%	%	%
illiterate	1.1	0.8	0.9
1st-4th standard	11.9	10.6	11.2
5th-7th standard	9.8	9.8	9.8
8th-10th standard	30.4	43.1	37.7
11th-12th standard	18.5	14.6	16.3
college and above	28.3	21.1	24.1
total	100.0	100.0	100.0
number	92	123	215

source : 10 % household survey - 1988

Table 14
Distribution of in-migrant workers in Jetpur dyeing and printing industry by native place

<u>native place</u>	Nbr	%
Gujarat :		
Saurashtra : Rajkot dist.	320	32.4
Junagadh dist.	232	23.5
Amreli district	64	6.5
other districts in S.	134	13.6
other districts in G.	52	5.2
district not known	2	0.2
Rajasthan	53	5.4
Uttar Pradesh	62	6.3
Bihar	28	2.8
other states in India	28	2.8
foreign countries	13	1.3
total	988	100.0
rural	751	76.0
urban	230	23.3
not known	7	0.7
total	988	100.0
source : 10 % household survey - 1988		

Table 15
Distribution of in-migrant workers in Jetpur dyeing and printing industry by age and migration status

year of arrival	Nbr	%	average number per year
before 1960	18	1.8	-
1960-64	31	3.1	6
1965-69	36	3.6	7
1970-74	67	6.8	13
1975-79	215	21.8	43
1980-84	359	36.3	72
1985-01/03/88	261	26.5	83
not known	1	0.1	
total	988	100.0	
source : 10 % household survey - 1988			

Table 16
Percentage distribution of workers in Jetpur dyeing and printing industry by age and migration status

age	in-migrants	non migrants	total
	%	%	%
10-14	4.0	4.4	4.1
15-19	19.9	21.3	20.5
20-24	23.5	27.3	25.1
25-29	18.7	17.1	18.0
30-34	11.8	12.2	12.0
35-39	7.7	7.6	7.7
40-44	5.1	5.2	5.1
45-49	3.3	2.6	3.0
50-54	2.4	1.4	2.0
55-59	1.4	0.1	0.9
60 +	2.2	0.8	1.6
total	100.0	100.0	100.0
number	988	776	1764

source : 10 % household survey - 1988

Table 17
Percentage distribution of workers in Jetpur dyeing and printing industry by level of education and migration status

level of education	in-migrants	non migrants	total
	%	%	%
illiterate	28.3	15.1	22.5
1st-4th standard	18.8	19.2	19.0
5th-7th standard	23.4	25.0	24.0
8th-10th standard	24.9	33.0	28.5
11th-12th standard	2.8	4.5	3.6
college and above	1.8	3.2	2.4
total	100.0	100.0	100.0
number	988	776	1764

source : 10 % household survey - 1988

NOTES

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[1] In respect of gross value of industrial output, Gujarat ranked second in 1980-81 among all the states of India, after Maharashtra.

[2] Rajkot, Surendranagar, Junagadh, Bhavnagar, Amreli and Jamnagar districts.

[3] A detailed description of the technique of screen printing and the whole process of production is given in : TRIVEDI, 1970.

[4] However, due to the common practice among the industrialists to divide their concern in small-sized units, in order to avoid extra taxes and to escape to labour legislation, these 1200 small scale units correspond only to about 500 distinct individual enterprises or familial groups.

[5] For further information on the household survey see : DUPONT, 1988.

[6] The contribution of the migration and occupation histories to migration study has been developed in : DUPONT 1989-b.

[7] Therefore, whenever in this paper we shall refer to 'Jetpur urban agglomeration' it means including Jetpur out-growth (already identified at the 1981 census) and Navagadh.

[8] In our study in-migration is apprehended vis a vis the birth place. Therefore in this paper the term "in-migrant" means more exactly "life-time migrant" or "non natives" of the area under consideration.

However, the persons born at their mother's native place (or that of another relative) but whose parents were both already settled in Jetpur urban agglomeration at the time of birth, are considered as "native".

[9] The difference is significant at 0.1 per cent level (Chi-square test).

[10] The corresponding confidence intervals of these estimates at the 95 per cent probability are respectively : [15 830-17 191], [13 854 - 15 142], [1758 - 2267].

[11] Workers in the narrow sense of the word, i.e. mostly production workers (88 per cent of the workers of the dyeing and printing industry), a small proportion (7 per cent) of clerical and sales workers, and other miscellaneous workers (service workers, transport workers... accounting for 5 per cent), but excluding the entrepreneurs.

[12] In particular Junagadh (120 416 inhabitants in 1981 and 32 kilometres away from Jetpur), Dhoraji (77 716 inhabitants in 1981 and 19 kilometres away), and Gondal (66 818 inhabitants in 1981 and 32 kilometres away).

[13] The difference between the two distributions is significant at 0.1 per cent level (Chi-square test).

[14] These figures pertain to the dyeing and printing industry including its ancillary units. However if one considers only the sari printing establishments, the Khatriis still constitute the majority group (44 per cent of the entrepreneurs), followed by the Kanbis (34 per cent). On the other hand the ancillary units (screen manufacturing and finishing units) are completely dominated by the Kanbis (67 per cent of the concerned entrepreneurs).

[15] The difference is significant at 0.1 per cent level (Chi-square test).

[16] The difference is significant at 10 per cent level (Chi-square test).

[17] Gujarat State Finance Corporation.

[18] The difference is significant at 10 per cent level (Chi-square test)

[19] The difference is significant at 0.1 per cent level (Chi-square test).

[20] The specific difficulties of observation of the workers living in the factory premises and the strategy of investigation implemented to survey them is extensively presented in DUPONT, 1989-b.

[21] The corresponding confidence interval at the 95 per cent probability is [1492 - 1778].

[22] The migrant workers living in the factories are approachable only through their employer who controls the access to the plant. Thus the factory owner's consent was necessary to conduct the survey. Now the industrialists who do not respect the laws relating to inter-state migrant workers and contract labour, were rather reluctant to allow us inside the factory and collect information. During the survey some cases of deliberate wrong information given by the entrepreneurs or their staff could be detected, but, in case of negative answer while enquiring about

the presence of workers living inside the factory, we did not have the means to check systematically the veracity of the information given to us.

[23] "Bamboo roll" finishing aims to give uniformity to the cotton material : each sari is rolled on a long wooden stick while spreading at the same time a starch solution on the cloth, and remains on it for several hours before going for ironing and folding.

[24] The only categories of workers who are paid monthly salaries are the office workers and dyers.

[25] The dyeing and printing industry is a water intensive industry, large quantities of water being required to wash the saris.

[26] One should mention that the dyeing and printing industry is seasonal. Most of the sari factories have to close during the monsoon, as a humid atmosphere is not suitable for printing and the saris cannot be dried. Irregularity of work and partial unemployment are common features of the workers' fate. Therefore, to appraise the specific impact of the drought on this industry, we have considered here only the duration of unemployment significantly longer than usual.

[27] These proportions are observed proportions, that is without taking into account the effect of mortality. As far as the difference between the two proportions is concerned, it is significant at the 0.1 per cent level (Chi-square test).

[28] These figures do not include the entrepreneurs who started working as unpaid helpers in the familial establishment.

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