

**Modernity, Modernization, Development:
The Karur Industrial District**

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1. Hypotheses, Aims of the Research and Theoretical Reference Framework

The theoretical aim of this research study is the analysis of the industrial development of the district of Karur (Tamil Nadu, southern India). This was achieved through the empirical application of the theoretical framework and of the tools provided by the 'new' modernistic approach, which we will explain later, and its attempts to understand the differentiated responses of civilization to the modernization processes. To be precise, we have tried to evaluate if the case in question could be analyzed through the analytical categories offered by Eisenstadt's intellectual project and by his comparative study of historical societies and civilizations¹. This was done in order to evaluate our work hypothesis, which we will explain further on in this chapter.

It is increasingly clear that development theories seem to be incapable of providing answers and interpretations that are incisive for processes already under way. Within the sphere of economic globalization, there are many local/global trends that have produced series of phenomena that it is difficult to set and ascribe to strict interpretative plans such as those provided by the 'Modernization Paradigm'². Even the most recent theoretical tendencies appear insufficient when they have to provide suitable answers to precise development requests from economically developing countries. On the other hand, 'concrete' interventions seem to come mainly from the reproduction of typically western processes and dynamics, which have in various degrees 'filtered' from local policies and from cultural endogenous processes. Even local economic operators themselves increasingly more often claim the possibility of grasping the opportunities really offered by world markets. The classic Theory of Modernization has shown that it is based on categories that are increasingly more difficult to apply, especially by virtue of the frequent refusal, of the local situations, of the process of modernization in itself. Technologies, science, progress, development are the almost universally accepted 'key words' of modernity [Latouche, 1995: p.26]. However, if modernity understood as the 'point of arrival' is strongly pursued, the same cannot be said for modernization and for the western-centric categories of development which do in fact increasingly meet with resistance and refusal.

Eisenstadt's approach forms one of the most interesting attempts at critical revision of the Theory of Modernization. It acknowledges some contributions

¹ Eisenstadt, 1965; 1969; 1972; 1974; 1982, 1985; 1986a; 1986b; 1986c; 1990; 1992a; 1992b; 1992c; 1997.

² Among the contributions of the traditional classical theory of Modernization Hoselitz, 1960; Almond, Coleman, 1960; Black, 1971; Organski, 1970; Pye, 1965; Rokkan, 1982; Flora, 1975; Lerner, 1958; Deutsch, 1961; Rostow, 1960; 1962; Gerschenkron, 1965; 1976; Hoselitz, 1960; Inkeles, 1974.

of the 'alternative'³ theories and strives to link the 'macro' level of the structural characteristics to the 'micro' level of the strategies of the actors, in particular of modernizing élites. The main contribution of Eisenstadt's theoretical elaboration and intellectual production consists in going beyond the typical dichotomy of the main theories regarding the processes of *modernization* - tradition/modernity⁴. In the same way the assumption on the basis of which the processes of modernization would lead to changes that are similar in societies that are profoundly different from one another is also superseded, so much so as to cause a convergence towards the model of European development. This means acknowledging and exploring the possibility that a modern social order develops from different types of societies [Eisenstadt, 1990: p.17].

According to Eisenstadt the specific form of modernization varies from one context to another depending on various factors⁵. The continuous interaction of these factors fixes the specific cultural reinterpretations of modernity and indigenous tradition, causing the development of various meanings, programmes and institutions, as also the specific policies of economic development. Eisenstadt's intellectual path underlines that these new cultural programmes are not generated either by the development of traditions, by the intrinsic evolutionary potential, or by the mere placing of societies in the international system, but by the continuous interaction between the cultural premises of the various societies, between their historical experiences and the impact of modernity and their incorporation in it. The responses to the situations of change are not shaped by the 'natural evolution potential' of the societies, or by the replacement of their traditions in the new international spheres, but by the encounter and the *feedback* between those aspects and the different modern international systems. While urbanization, industrialization or

³ Bendix, 1967; Gusfield, 1967; the theorists of *dependencia* among whom Frank, 1967; 1970; Cardoso, Faletto, 1971; Sunkel, 1969; Steinhagen, 1966; Myrdal, 1971; the theorists of the *World System* Wallerstein 1974; 1979; 1980; 1982; 1984a; 1984b; 1985; 1995a; 1995b; Braudel, 1977.

⁴ In Eisenstadt's meaning, the terms *modernity* and *modernization* stand respectively for both the modern cultural programmes, with its symbols and values (for example, democracy, individual freedom, etc.), and for the spread of innovations at technological, economic and socio-demographical level. Modernity therefore indicates a type of civilization, with specific characteristics, while modernization is the dynamic, procedural dimension, or simply the transformation of a society in the 'modern' sense [Eisenstadt, 1997: p.41]. This distinction makes it possible to speak of modernization without modernity in those situations in which structural innovation is not accompanied by a morphogenesis in a democratizing sense of the societies involved.

⁵ a) the point of entry of the society in question in the new international systems and the dynamics begun by these processes; b) the technology and economic formations existing in this society; c) its fundamental cultural premises, especially the configuration of the main élites that organize these conceptions and control their application in social relations; d) the indigenous traditions that respond to the situations of change and the potential for innovation of the élites.

the spread of modern communications are processes that are common to all societies, the concrete institutional responses tend to vary considerably, obviously in close connection with the basic conceptions of the social or political order which have developed within them.

Although modernity has spread to a large part of the world, its spread has not therefore led to a sole type of ideological and institutional response. Rather it has produced many basic variants, which constantly develop their own dynamics, all closely connected but not the same [*ibid.*: pp.44-45].

By virtue of such theoretical premises, modernity appears as an encounter between different cultures and societies. Eisenstadt does not look at the process of modernization as the final goal of all known societies, as the peak that expounds its common evolutionary potential. The European experience of this process would in fact represent the most accomplished and significant expression. Modernization and modernity are rather examined by Eisenstadt as a specific type of civilization, which originated in Europe and spread, in its economic, political and ideological aspects, throughout the world or almost, especially after the Second World War. This process unhinged the symbolic and institutional premises of the societies involved, causing new possibilities and new options. These reactions led to the development of a great number of modern and modernizing civilizations, united by many characteristics but at the same time, also profoundly different from one another.

According to Eisenstadt, the changing process thus has a conformation that is not linear, and there is no universal model of social evolution. While possessing different resources and capacities, societies reach the same level of differentiation through different historical phases and processes. Eisenstadt introduces the concepts of 'multiple modernity', 'pluralization of modern', 'polycentric modernity', in the definition of a polycentrism that has in itself a prospect of globalization that does not consider only markets but also civilizations. This is done in a perspective according to which, within an international political-economic system, any country could pursue its own development model.

Modernization thus appears as a process, or a series of processes, with a common basis that generates similar problems. Increasing differentiation, social mobilization, collapse or weakening of tradition and of cultural parameters pose fundamental problems for the societies onto which they are grafted: problems of regulation and of integration of the different groups that continuously emerge and of the conflicts that necessarily increase between them, and problems of development of new points of collective identity that combines in itself, in some way, tradition, modernity and change [Eisenstadt, 1974: pp.324-325]. The institutionalization of social orders causes special

modalities of social differentiation and of institutional dynamics. This process is demonstrated in the three essential components: a) the level of distribution of the resources between the different groups of a given society, that is to say the type of division of work that predominates; b) the institutional entrepreneurs or the élites available or in competition to mobilize and structure such resources and organize and articulate the main groups created by the division of work; c) the fundamental cultural orientations that pervade the activities of the aforesaid elites.

Eisenstadt's orientation has therefore as its reference point the evolutionist theory, even if it shows a clear tendency to 'modernize it'. It is precisely for this reason that his contribution is criticized also by other internal revisions to the Theory of Modernization⁶. Nevertheless, this 'new' modernist reflection demonstrates the modern vitality of the Theory of Modernization seeing as how it bears in mind some categories: above all those connected with the 'local policies' and with the endogenesis of the development processes, which were to a great extent ignored by the Paradigm of Modernization.

The instrumental 'use' of the theoretical reference frame of Eisenstadt consents us, even if with much caution, to describe development phenomena in which, if on the one hand we can speak of destruction of pre-existing structural models of life, of consumption, etc., on the other they are processes which show a distinct endogenous nature, deriving to a great extent precisely from the local desire for modernity.

The hypothesis that accompanies the investigation is constructed around this theoretical set-up: the realization of the endogenesis of the formation/development of the industrial district⁷ of Karur, fruit of a local

⁶ In fact, even while showing that it is sensitive to the plurality of local policies and the procedures of these towards and through modernity in relation to the various answers to the challenges of modernization, it still seems to consider modern western civilization univocal, ignoring the diversities of even industrial societies which involves the existence of 'alternative reference societies' and of 'epicentres of modernity in movement' [Tiryakian, 1966; 1985; 1991; 1992]. Moreover, it does not adequately study the analysis of the 'confines' of the different state bodies within the international system [Martinelli, 1998: p.106].

⁷ An industrial district is a local cluster of small and middle-size enterprises, all specialized in a productive activity, which benefit of particular competitive advantages generated by the same community [Fabiani, Pellegrini, Signorini, 1998: p.69]. It is a socio-territorial body characterized by the active presence of a community of people and of a population of factories within an area that is naturally and historically enclosed. It is not an accidental multiplicity of factories. Each of these tends to be specialized in one or more or in some phases of the productive process. The district is therefore an example of local achievement of work division that is neither scattered in the general market nor concentrated in one or in a few factories. [Swaminathan, Jeyaranjan, 1994, p. 13]. As regards the debate relative to the *clusters* and industrial districts, we refer to: [Weber, 1929; Marshall, 1961; Mishan, 1971; 1992; 1993; Piore, Sabel, 1984; Lundvall, 1988; 1993; Pyke, Becattini, Sengenberger, 1990; Colletis,

version of the *modern*. This was the result of a ‘selection and interpretation’ [Eisenstadt, 1997: p.21] (not directly ascribable to external factors) of a modernity conceived – like the analyses provided by the reference theoretical framework – as profoundly different and independent from the modernization process.

Starting from an objective problem, the pollution of the Amaravathy river (which crosses the district of Karur), due to the outflows from the increasing number of dyeing units present along its banks, our investigation has two specific objectives. First of all, through the analysis of a concrete case in an area of southern India, to critically evaluate the possibilities of small and middle-size enterprises to obtain growth and competitiveness using an industrial organizational structure which has been of great interest in recent international discussion: the ‘industrial districts’ model⁸. We make ‘instrumental’ use of this first specific objective, seeing as how it will be necessary to demonstrate the general theoretical objective and the hypothesis.

The second specific objective regards the study of the effect of the liberalization of the Indian markets on the labour, on the organization of production and, more generally, on local society. To be more precise, the impact, both in terms of opportunities and of social costs, of the globalization process on the district in question, the economy of which is integrated in the local, national and global market. As a corollary to this second objective, we investigated how this development and social change process can be positioned in relation to the sustainability of the process itself.

Courlet, Pecquer, 1990; Becattini, 1990; Becattini, 1990b; Brutti, Calistri, 1990; Storper, Harrison, 1991; Crevoisier, Maillat, 1991; Camagni, 1991; Maillat 1991; Garofoli, 1992; Rasmussen, Schmitz, Dijk, 1992; Dore, 1992; Knorringa, Cox, 1992; Schmitz, 1992; Scott, Storper, 1992; Nadvi, Schmitz, 1994; Schmitz, 1995; Locke, 1995; Rabellotti, 1995; Nadvi, 1997; Schmitz, 1997; Becattini, Menghinello, 1998].

⁸ This is a theoretical reflection that is particularly flourishing in Italy in reference to the so-called ‘Third Italy’ (Regions of Umbria, Marche, Emilia Romagna, Friuli-Venezia-Giulia, Veneto, Trentino Alto Adige and Toscana [Humphrey, Schmitz, 1995, p.3, note 1]) which, up to a few years ago, was showing a rapid and dynamic growth, constructing important market niches and offering new possibilities of non-agricultural employment. This was different to what was happening in other parts of Italy, such as the South (‘Second Italy’) and the North-West (the ‘First Italy’). For an ample treatise on the question, please refer to Bagnasco, 1977; Becattini, 1979; Garofoli, 1989: p.82; Goodman, Barnford, 1989; Pyke, Becattini, Sengenberger, 1990; Sforzi, 1990: p.77; Becattini, 1990: p.164; Becattini, 1990b: p.145; Garofoli 1992; Humphrey, Schmitz, 1995: p.4; Rabellotti, 1995a: p.30; Humphrey, Schmitz, 1996: p.1860.

2. Methodology of the Research, Survey Techniques and Research Difficulties

To achieve our objectives, we had to investigate through what routes, with what historical-evolutionary modalities the systems and dynamics underway in Karur emerged and were established. This we had to do in relation to the changes in the competitive scenarios and considering structural combinations of endogenous and exogenous variables.

The main methods of research that we applied were fundamentally investigation and participative observation. An analytical observation of the phenomena under way, supported by data, was therefore an integral part of the research methodology. This made it possible both to arrive at knowing the facts and of discovering their inter-relations.

We generally used non-structured, flexible and open-ended interviews of a stratified random-sample. It was not possible to use a pre-defined and precise sample, seeing as how it was sometimes impossible to reach some interlocutors without the assistance of intermediaries. Nevertheless, it was possible to meet the actors of the process in course, privileged witnesses, *and key informants*.

First of all, the interviews that provided us with most information, allowing us to 'feel the pulse of the situation' were those carried out on two sections of the population, not always necessarily separate: those who are benefiting from the industrial development process and those who, on the other hand, are being damaged by it.

Among the latter, mostly owners of small plots of land, we mainly found farmers who see their harvests become poorer, due to the pollution produced by the industrialization process. These often tend to become themselves industrialists. But we also found farm-workers and associations (mainly of women) witnesses of serious pathologies deriving from the use of the river water.

Although it is practically impossible to determine the damage to agriculture in monetary terms, we obtained some data, which was however completely unofficial and impossible to demonstrate. In this stage, we were able to avail of the assistance of local activists who accompanied us during a large part of the field work, carrying out work of translators and introducing us to environments that would be otherwise difficult to access.

Numerically those who benefit from the industrialization process are certainly in the majority. In this case also, we interviewed numerous workers, dyeing industries owners, exporters, representatives of local banks, associations, etc.

The second type of sources regarded the governmental/ institutional level, while the third type was those of an academic nature, from which we were able to obtain a large quantity of information, concerning existing literature regarding the industrial districts in Tamil Nadu or, more generally, in India. It was possible in some cases to access data from surveys made by governmental and non-governmental bodies.

The empirical ‘use’ of the theoretical reference framework, like the analysis of the extent to which the ‘model’ of the industrial district could effectively be applied for ‘capturing’ the situation of Karur (our first specific objective), was possible through a research orientated on various levels.

a) In relation to our theoretical objective, we fixed the structural-value change in course in the district in question as our reference point for the investigation. This was done in order to understand if there was quantitative and qualitative growth, what kind it was and through what critical phases. The high number of interviews, the conversations, the observation of the phenomena and some bibliographic sources allowed us to establish an initial ‘ideal type’. This was instrumental in the construction of a theoretical framework able to integrate the parts of the process in course. The analysis of the social actors and of the levels of knowledge of the social categories that contribute, consciously or not, more than others to the process of development in course in the district was an essential phase of the investigation. In this stage it was necessary to identify the ‘typical’ and ‘atypical’ subjects of the change phenomenon, trying to understand their aspirations, how they reacted to the events of the district, what their relationship was with the past, present, future and the *systemic* nature of modernity. With the data collected we then tried to ‘construct’ the descriptive, interpretative picture of the path of development of the area, assuming the social-territorial dimension as the key to interpreting the industrialization process. This we did by analyzing the gradual formation of the background that provides the productive *know-how* to the enterprises and also the entrepreneurial capacities, the infrastructures, institutions, values, senses of belonging, while always keeping in the foreground the perception of the change in progress of the social actors. Therefore we also had to bear in mind the history and geography of the area. A long-term history of continuity and rupture, that in part follows the paths of European industrialization and in which a correspondence between ‘area cultural patrimonies’ and types of production is achieved [Rullani, 1999: p.6]. In this history, different forms of organization of production change and overlap over time, internalizing responsibilities in the large verticalized enterprise or spreading them with the radiation of the installations.

b) With regard to the specific objectives of the research, the investigation aimed at identifying the paths along which growth takes place and the phases of development for the district in question, while clarifying some points. In particular the historical roots of the district itself – in order to understand if its formation could be related to a period of protection from external competition (i.e. import substitution policy) or if, on the contrary, it might have depended on ‘global forces’ – and its integration with the farmer economy and regional life, with an emphasis on ‘self-employment’ and on entrepreneurship.

On the basis of the characteristics that emerged from the empirical investigation carried out in Karur, we analyzed the phenomenology in question within the sphere of the categories offered by the analysis and by the current international debate relative to industrial districts. It was necessary to try to understand if these dynamics were in some way ‘orchestrated’ by the large-scale industries (LSI) or if rather they occurred between units of similar dimensions. This permitted us to recover the local and territorial dimensions of the process of industrial development in course while emphasizing its endogenesis. At the same time, it was found to be essential to observe 1) the role of the local traders, 2) that of some associations which facilitate cooperation between individual units and 3) the results of the designated welfare plans of the institutions (local and national government) [GOI, 1991; GOTN, 1992] to facilitate and promote this form of industrial development. It was therefore a question of opposing the ‘self-help’ initiatives to the national and local policies, to try to grasp the relevance of the possible absence of intervention by the institutions.

But, over and above the analysis of the industrial district itself, it was obviously impossible to neglect the study of the nature of the local social environment, the ultimate reason for the reciprocity and trust established between the production units. This therefore is also the social-regulating mechanism that mediates between competition and co-operation within the cluster. First of all, the analysis of the influence of the social environment (social-cultural identity and ‘networks’) on the inter- and intra-industrial relations formed a necessary step for evaluating if the district of Karur corresponded to the ‘model’ of an industrial district.

Subsequently, we worked on an investigation of the organization of the production, in order to evaluate the possible development of specialization and division of work among the units, both as a vertical production chain, and as horizontal cooperation. In this regard, the investigation was directed at establishing if this cooperation gave rise to sharing of technical know-how and,

possibly, what the mechanisms of local cooperative learning were and if this cooperation tended towards a mutual or asymmetrical dependence. Furthermore, if the cooperation was based on the awareness of needs that were really felt, resulting then in combined actions or if it emerged on a more casual basis. To this end it was necessary to investigate if Karur had a range of factories and a network of suppliers of materials, spare parts, traders and exporters. This investigation allowed us to evaluate in the field the effective operativeness of 'flexible specialization' (par.3), measured by the technology used, the type of goods and services and the innovations in products and production methods. Similarly, the division of the labour among the factories, determined from the 'sub-contracting' relations (par.5) among the enterprises of the informal sector or between them and the regularly registered plants.

We also analyzed the modalities of the formation of the 'collective efficiency' (par.5), gathered thanks to the analysis of the endogenous variables and constants (the role of local policies, of the socio-economic situation, of the innovators – 'men with capital and men with ideas' -, of the political changes) and of the exogenous variables and constants (government incentives to the SSI; Indian legislation and the macro-economic guidelines in course since 1991; the role of international buyers)⁹.

c) Finally, in relation to our general objective, in order to evaluate the effects of industrialization on the society of Karur, we had to consider the most obvious dysfunction of the process underway. The pollution of the Amaravathy river is the cause of social costs that can be evaluated in terms of pathologies, economic loss, and problems in the world of work. The environmental impact was measured thanks to the cooperation of a centre for biological analyses of Coimbatore that examined the water samples of the river. The social effects of this pollution emerged rather on the one hand from interviews of those directly involved, that is to say, farmers, farm-labourers, common people (consumers of polluted agricultural products) and, on the other, of the owners of industries and workers, that is those who can be considered as the 'materially responsible' for the environmental disfigurement but, at the same time, also as victims. We also met and interviewed the authorities of the local and national government responsible for environmental protection. Finally, we were able to repeatedly visit and see for ourselves the places affected by the pollution, in particular irrigation canals, tillable fields and many factories.

The problems encountered during the empirical investigation were basically of two types: the objective absence of data and of methodological nature.

⁹ According to Van Dijk [Van Dijk, 1992: p.45], collective efficiency can be measured through the comparison of the economic results of the factories in the communities of the SSI with those which work individually. It was not possible in our case, because nobody in Karur operates individually.

With regard to the lack of data, the recent formation of the district of Karur led to the absence of official information concerning the number of inhabitants and indicators on labour and schooling. What were however available were the figures of the last census which dated back to 1991. From this it was partially possible to obtain some information on Karur. Similarly, there are no studies available concerning the local labour situation. It is impossible to know exactly the number of factories and workers in Karur because, for the most part, the units are not registered in order to avoid the legislation relative to labour (the official figures would therefore be incomplete) nor is the exact number of employees of each unit declared, again for the same reason. Finally, there are no previous studies on the district in question, which represents a very recent phenomenon in full expansion.

The problems of a methodological nature regarded the interviews. Basically no government official was spontaneously willing to provide us with those few official figures available, often offering questions of 'security' as the reason. Similarly, the workers of the cotton dyeing factories were obviously reluctant to speak sincerely about their employment conditions in the presence of their employers or, in any case, during our visits to the factories. Finally, the simple fact that we were not locals and had to use translators may have altered the effective behaviour that was the object of the investigation. It was therefore sometimes useful to substitute the interviews with informal conversations.

3. The Area of the Research Study. The District of Karur

The district of Karur, formed on 30 September 1995 from the tripartition of the Tiruchchirappalli district, offers many resources and constitutes an example of remarkable growth and development [GOTN, 1996]. The city of Karur, capital of the district of the same name, is situated on the banks of the Amaravathy river and has a flourishing market of agricultural products (curcuma, peanuts, hot peppers, onions, etc.). At the moment, the most widespread crops are sugar cane and rice.

On the base of the census of 1991 [GOTN, 1991b], the district (which covers an area of 289,557 hectares) has a population of 852,164 inhabitants (427,218 men and 424,946 women). 73,418 persons (37,445 men and 35,973 women) inhabit the urban area, with a flow of over one hundred thousand commuters who arrive daily from the surrounding cities and rural areas. According to this source there are 178,278 persons involved in farm work (78,114 men and 90,164 women), 36,991 who work in family-run industries and 12,371 involved in trade. Those not inserted in the world of work number 30,871, but this number would include (the conditional is a must) only children and the

elderly and not the unemployed, given the absence of the latter in the district¹⁰. According to other sources, there would be about ten thousand unemployed due to the increase of the business competition which has caused the closure of many local industries¹¹.

Small-scale endogenous industrial activity¹² is by the far the most important sector. There are mainly three types of industry present here: 1) textile industry, especially cotton dyeing units; 2) industry of polyethylene monofilaments (mosquito nets); 3) construction of bus coachwork and fittings. Although closely connected with the expansion of the industrial sector, the flourishing property market also deserves to be mentioned [*Indian Express*, 1996: p.2] as does the building activity¹³, which is hectic and often illegal¹⁴.

The textile sector is undoubtedly the most important of the three industrial sectors. Karur is in fact famous above all for its dyeing factories and hand looms, which produce income of approximately 8 billion *rupees* per year [*The Hindu*, 1998: p. 5] between exports and the local market (this last also covering the sales in other states of southern Asia, such as Pakistan, Bangladesh, Nepal)¹⁵.

Almost every building here has a finance company, a textile shop, and an office for property advice. Basically, Karur is a hectic city teeming with commercial activity and every day many Indian and foreign entrepreneurs visit the city in search of business.

Thanks also to the traditional commercial past of the city (there are historical proofs that import-export activity was already active 2500 years ago and that textile products already formed an important part of that trade [*Indian Express*, 1996: p.1]), the administration of the district is optimistic concerning the possibility of providing considerable economic growth and of obtaining abundant foreign exchange with the exports. These are mainly channelled through the ports of Chennai or Cochin and, if requested by the buyers or in cases of urgency, by air.

The production of bedspreads, blankets, tablecloths, handkerchiefs, pillowcases, aprons, quilts and quilt covers, curtains, upholstery, etc., is the main activity here. Hundreds of thousands of families are involved in this

¹⁰ Interview of the secretary of the *Centre of Indian Trade Unions* for the district of Karur.

¹¹ Interview of the president of the *Karur District Chamber of Commerce and Industry*, Karur.

¹² There are no multinational companies (MNCs) or 'joint ventures'.

¹³ Interview of the former *Counsellor of Labour Municipality* (dalit), Karur.

¹⁴ Interview of the *Consulting Civil Engineer, Arasi Builders P[Ltd]*, Karur.

¹⁵ Interview of the lawyer who is an expert in legal and historical questions connected with the expansion of industry in Karur.

business and many are the houses containing a loom or where, in any case, finishing touches are added to the products directed towards foreign markets. Although there are no official figures regarding the number of units involved in dyeing or spinning, nor about the number of persons who move in the orbit of this production, it is thought that there must be approximately twenty thousand hand looms [*ibid.*], a like number of power looms, and about three hundred thousand people who make their living from activities that are more or less related to textile production¹⁶. It is however impossible to estimate exactly the number of industries (seeing as how they are very rarely registered¹⁷ and that they are usually of artisan dimensions), or the number of the employees: official sources speak of about 1,500 between dyeing plants and units where bleaching is done, 10,000 employees, perhaps 15,000 exporters.

The capacity for development of this area is truly fantastic. Many funds have been set aside for the transport sector by the central government and by the local authority. There are also projects for renewal of all the main road and railway routes to remove any obstacles to this growth.

Government intervention is clearly directed at intensifying the presence of small-scale industries, by simplifying and lessening the procedures for setting up new enterprises. The plan of the administrators is in fact to guarantee an industrial development in Karur that is similar to that of other Indian areas, as, for example, the state of Haryana.

This extraordinary process of economic growth is an example of how an unorganized labour market can transform an industry by adopting 'flexible' production models. The literature on 'flexible specialization'¹⁸ documents extensive contemporary and historical differences in industrial organization

¹⁶ Interview of the Secretary of *Karur Consumer and Environmental Protection Committee*, Secretary General of the *Federation of Green Movements Tamil Nadu* and Editor of *Karur's Consumer's Voice*. In regard cfr. also ILO, 1993: p.27.

¹⁷ The registration of a factory in the *States Directorate of Industries* takes place on a voluntary basis and permits the entrepreneurs to avail of government incentives [Indian Overseas Bank, 1992: p.4]. The necessity to obtain a licence faded following the Industrial Policy launched in 1991 [GOI, 1991].

¹⁸ Originally invented by Piore and Sabel [Piore, Sabel, 1984], this term was used to describe those new forms of organization of industrial production that differed from the model followed since the post-war period. At micro-level, flexible specialization incorporates the shift from the dominant system of mass-production – in which the key variables are stable markets, the reduction of the cost factor, scale economies – to more diversified and constantly changing production processes, in which flexibility and innovation form the focal points [Rasmussen, Schmitz, Dijk, 1992: pp.2-5]. This has ramifications at micro-level. Here flexible specialization is used to describe a new type of industrial organization, that is able to provide answers to the growing requests for innovation and flexibility. At this level, flexible specialization is understood as the manufacture of various products destined to markets in continuous movement [*ibid.*].

and the particular role carried out by small-scale industries. These are not the fruit of a recent success story, spurred on by factors connected to the segmentation of the advanced market or that of computer technology, factors that are difficult to produce or transfer into the PVS. The industrial progress took place where the 'small' units got together and where particular forms of professional relations were produced. The co-existence of small and large enterprises – a founding element of the path to regional development – translates both into phenomena of subjugation of the former with respect to the latter, and into mechanisms of positive interaction, not only because of the transfer of *know-how*, etc., but also because of the incubating action of personal initiative carried out by the larger units.

These are trends accompanied by value and structural modifications of the social tissue able to involve the entire local population and make the social costs produced fade into the background. The majority of these small industries, which rarely have direct connections beyond the local sphere, have become subject to the pressures and influence of global competition but to a great extent owe their existence indirectly to opportunities created by these forces.

As regards relations with foreign markets, we must distinguish between direct and indirect export. The exporters of Karur (which more often than not are also producers) often have no direct contact with the foreign buyers¹⁹. This phase takes place through exporters based in metropolises such as Mumbai. In other cases, western importers operate in such an extensive way as to even have offices in India. Furthermore, sometimes, the latter do not sell these materials in their countries but send them to other importers of other PVS after a stopover in the main world ports. Thanks to their offices in India, these 'global' traders can monitor the quality of the product and channel specific orders to specific producers²⁰. The small-scale dyeing units, with which foreign importers indirectly do business, would not be able to trade directly, due to a lack of capital, prestige and contacts.

The demand that comes from the industrialized companies has led both to a process of differentiation among the small units, and to an increase of the transactions managed by Indian exporters. This too has facilitated the process of starting up an industry, even where initial capital and commercial contacts are lacking²¹.

There are four types of sellers in Karur:

¹⁹ Interview with the president of *Karur Manufacturers Exporters Textile Association* and *Goodwill Enterprise*.

²⁰ Interview with the exporter of textiles *V.S.N.C. Narasimha Chettiar Sons*, Karur.

²¹ Interview with the president of the *Karur District Chamber of Commerce*.cit.

- a. elling agents, retailers: they buy from the factories at prices that only allow small profit margins and then retail them;
- b. hose who act on behalf of other wholesalers and offer a way to avoid interstate taxation by putting a number of orders together in a single lot;
- c. iddlemen, who place orders, provide the brand and retail the products in the rich urban centres;
- d. erchants specialized in exports who operate on the same basis as the middlemen.

In the case of the last two types, these are often large industrialists whose activity is not limited to sales. In this case, factories who do not impose their own brand (in Karur, normally no one does so) accept the specific requests which come from the buyers who then apply their own brand while maintaining just the *Made in India*.

If it is true that the merchants make considerable profits, it is also true that the Karur factories obtain good earnings from their close association with the merchants. The producers who are able to avoid one or two stages of the productive process can increase their profits thanks to the mark-up obtained with a higher sale price, when they retail directly or sell to the wholesaler.

The exporters have established a thick network of contacts, both of foreign buyers and of local agents who then, in their turn, export. Now, however, it is the foreigners who go directly to Karur since its fame of 'furnishing service production system' has spread.

4. Modernization of the Industrial Organization: Collective Efficiency in Karur

Schmitz crystallizes the overall advantages of collective action [Schmitz, 1994] in the concept of 'collective efficiency', defined as 'the competitive advantage that derives from the joint action of external local economies' [Humphrey, Schmitz, 1995: p.9]²².

²² The definition of the advantages that enterprises can obtain from mutual active cooperation provides an instrument that permits outlining the circumstances in which groups of factories acquire the characteristics of an industrial district, and denotes the advantages that these obtain from belonging to a *cluster* [Schmitz, 1994; Pedersen, 1994]. Among others, see: Marshall,

The debate concerning 'collective efficiency' in industrial clusters 'rests' on two basic assumptions. First of all, the benefits derive from the cooperation between enterprises that are vertically specialized, in the form of flow of goods, services and information. This cooperation can occur between small enterprises or as sub-contractual relations between large and small enterprises. The benefits of such cooperation include the ability to exploit scale economies beyond the dimension of individual enterprises, the ability to specialize and diversify production – thus attracting a vast range of customers – and a more rapid diffusion of innovation through links and labour mobility among enterprises. The nature of these relations can vary from exploitation to strategic cooperation.

The second source of advantages that a cluster can enjoy is horizontal cooperation between small enterprises. This makes it possible to fulfil large orders, in the form of development of services, joint labour markets and second-hand equipment markets, or more formal organizations of small enterprises with the intention of creating lobbies. These forms of cooperation are based on joint interests and not on horizontal specializations among the enterprises.

The Karur industry is subdivided in terms of products, and therefore of market: the local market, which can avail of generally poorer quality textiles, and the foreign market, which is profoundly sub-segmented on the basis of specific requests of the individual importing nations. As it is mainly a matter of 'sub-contracting'²³, the possibilities of accumulation have increased, not however without the imposition of regulations regarding the production conditions

1919; Weber, 1929; Hotelling, 1929; Christaller, 1933; Lösch, 1954; Camagni, 1991; Pyke, Becattini, Sengenberger, 1990; Pedersen, 1994].

²³ The term 'sub-contracting' indicates those agreements in which a party (enterprise, company, etc.) requests another to undertake, independently, the production of a phase, or of the entire productive process, of an order that the first received, even while completely assuming the responsibility with regard to the customer [Harris, 1982: 23]. It differs from the simple supply of materials or semi-processed components to the extent that there is an effective contract between the two parties which specifies exactly the tasks. [Watanabe, 1971: p.54]. 'Sub-contracting' refers to a type of relation between factories in which the great units procure components, material to be assembled and products of various kinds from small factories [Nagaraj, 1984: p.1435]. In some cases it is associated with 'Job-Working', in which a 'mother' factory supplies the necessary raw materials to the small-scale unit/s ('sub-contractors'), which return them after having transformed them into the form requested on the basis of a prearranged agreement. These transactions are not occasional or casual matters but form part of permanent and cooperation relations. 'Sub-contracting' was born mainly to avoid the legislation in labour matters [ILO, 1992: p.41], to fragmentate the organizational power of labour, to control its processes by dividing the market of the LSI into markets of SSI which evade trade union representation, to minimize and control labour costs, obtain flexibility, assure an adequate supply of labour, and overcome the risk of instability of demand.

(designs, materials, dyeing, and finishing touches) by the buyers. This permits the units to improve from a qualitative viewpoint: both the impetus and the means for this improvement were brought about precisely through contact with international agents. On average, all the great exporters began their activities as producers for the local market, then acquiring experience and the contacts necessary for turning to the international markets. Between the small local market and the 'global' market there are many middle-size factories which address the local market but with superior quality products.

In this process, the use of 'Job-Contracting', or 'Job-Working' is fundamental. These are terms that describe the passage of work *between* or *within* specialized factories in the different phases of the production process, like a contract job organized through traders. These organization forms were possible in an industry that lends itself particularly because of its production modalities, characterized by distinct and spatially separated phases. In Karur the accumulation of capital was not transformed either into sophisticated dynamics of work or in investments in machinery. Still less, as a result of the introduction of the latter, into a decrease of the possibilities of employment or in the demand, by employers, of expert personnel with particular specializations. A reason for this characteristic is that the 'horizontal network' between the factories of the industry provides an attractive, decentralized, alternative and that the owners of the factories in this way avoid the problems connected with direct control over a large work force and, therefore, the risks of the possible union and solidarity of the workers [ILO, 1992: p.42].

The small factories are specialized in different phases of the production process. The middlemen, that is to say, those who receive an order and then deal with the export, usually also provide the raw materials and sustain all the expenses. They give yarn and obtain, after processing, cloths. They pay everything, from the electricity to the workers' salaries. Once they have obtained the coloured cloth, it is cut and sewn. This can be done directly by the exporters or by other phase workshops. Dyeing and cutting are done, however, on the basis of a specific request of the market towards which the product is directed. The entire process begins only on specific orders.

'Job Working' therefore acts as a mechanism that facilitates accumulation. On the one hand it permits small units to specialize in different phases of the production process; on the other it avoids vertical integration for the LSI, allowing expansion of production with low investments [Cawthorne, 1993: p.11]²⁴.

²⁴ This form of accumulation has been defined 'amoebic capitalism' [Cawthorne, 1993: p.3], in reference to the tendential division into separate production units which accompanies the industrial expansion. The strategic factors in the process of capital accumulation (by industrialists and those who yearn to become them) are: a) the relatively low accumulation of

The production structures therefore undergo fragmentation, both in organizational terms and as regards space, and the accumulation of capital becomes more concentrated without the centralization of the production processes.

This organizational form is a reproduction of a 'pre-existing model', but it is 'hybridized' with local cultural structures. The production chain is, in fact, a reproposal of western trends ('the owner provides the raw material to technicians who complete the job') but with some differences caused by particular traditions and local policies. The phases of the production processes are distributed and accepted on a contractual basis. However these are informal agreements, unwritten contracts [Neelakantan, 1996: p.6]. The costs of transaction are thus reduced, even while not losing out on security, seeing as how any possible unilateral breaking of the agreements produces a 'social sanction', inevitably leading to the loss of trust by the entire sector with regard to the offender²⁵. The problems of quality control, or those relative to trust, are not therefore a real concern, thanks to the long-term bonds of cooperation among the factories. However, as we have already seen, this is not synonymous with absence of competition. The high number of factories imposes constant updates in production and continuous attempts to win contracts: trends which, up to now, have caused refinement and improvement in the quality of the products²⁶.

Orders are therefore based on fiduciary relations and the contractual informality contributes to maintaining the costs of the products competitive. This, together with the quality of the *output*, acts as an incentive to foreign buyers and compensates the long delivery times that quantitatively large orders entail.

'Job Contracting' assumes the form of 'Out-Contracting'²⁷, when the factories pass work to one another, and of 'In-Contracting'²⁸ when this process is

initial capital necessary for starting up this type of activity; b) the easy access to credit; c) the type of technology in use; d) the nature of the work force in a sector of the industry that is not regulated; e) the way in which 'Job-Working' permits small factories to produce and put goods on the market and of maintaining its productivity without a high expenditure of capital [*ibid*].

²⁵ Interview with Prof. S. Neelakantan, cit..

²⁶ Interview with the president of *Karur District Chamber of Commerce*...cit.

²⁷ *Out-Contracting* takes place between units specialized in different phases of the production process and work force and makes it possible for factories to make choices concerning the degree to which they want to vertically integrate the various moments of the production process [Cawthorne, 1995: p.47]. It provides guarantees both for small and large industries. For the latter it minimizes the necessity for vertical integration within the factories themselves, while, for the former, participation in the network gives access to international markets. Conditions are thus created for the birth of 'competitive cooperation' [Schmitz, 1989] since

entirely commissioned by a sole exporter or by one industrialist [*ibid.*]. In both cases the costs for entering the industry for the small units are minimized, just as the costs of investment for the large factories are minimized. 'Job-Working' can therefore be considered both as a more or less vertical integration of the production process under a single ownership (and at the same time, a more or less direct control of the work force), and as a flexible system of 'network' labour from which the owners of the small units in particular benefit.

There are two different tendencies among the large factories in Karur. The first is that of gradually distancing themselves from direct involvement with industrial production and organizing the factories in such a way that the owner/manager assumes the responsibility for the commercial aspects of the factory (mainly the marketing). The second tendency is that of heading towards a concentration of the main production processes and maintaining general control over production²⁹.

5. Multi-centric Modernity: The 'Social Embeddedness Approach'

The recovery of the territorial dimension in the analysis of the industrial economic processes (the 'Social Embeddedness Approach') emphasizes the endogenous interpretation of modernity and modernization. The European experience has demonstrated that the birth of industrial districts was not the result of a local or regional industrial strategy but followed two phases: spontaneous growth and institutionally sustained growth. Policies therefore encouraged and motivated the dynamism of the districts, but did not give rise to them [Schmitz, Musyck, 1994]. The 'spontaneous' nature of their formation, and the use – conscious or unconscious – of the opportunities provided locally, are in fact the distinguishing elements of the industrial districts, quite apart from the success that they can obtain [Piore, 1990: p.55].

The economic relations that have derived from *clustering* are 'socially connected' [Granovetter, 1985]. This means that the social relations existing between the local agents are central in supplying the base for trust in the economic relations. That is to say, the social capital, reflected in the local civic conditions in the regulations of the community, is considered as being of

participation in such a 'circuit' increases work possibilities. Furthermore results similar to a production typical of LSI can be obtained while however avoiding the problems and expenses.

²⁸ Like *Out-Contracting* this also originates a division of the phases of the production process, but in this case within the factories. *In-Contracting* is another form of production that permits the owners of the large units to evade the responsibility of a detailed management of the individual activities.

²⁹ Interview with a textile exporter,..cit.

fundamental importance in the ‘choice and selection’ of the *modern*, so facilitating cooperative behaviour [Bazan, Schmitz, 1997; Putnam, 1993]. This emphasis on fidelity, on trust, on social capital, on culture and on the social environment in general has been a recurring theme in modern literature concerning industrial districts [Lorenz, 1988; Harrison, 1992; Sabel, 1992; Grabher, 1993; Scott, 1995]. In this sense, we speak of *ethno-industrialization* [Bouchara, 1987] and of *thickening of industrial and social interdependencies* [Becattini, 1987: p.5].

The interaction between economic activity and social culture is very important and influences the characters of the productive structure, relations between persons, articulations between firms, the behaviour of the operators, the professional capacity of the entire area, the processes of socialization and the expectations of the new generations [Garofoli, 1989: p.76]. The adoption of an increasingly more systemic and organicistic structure, able to strengthen the bonds between enterprises and relations with the local environment, is therefore a basic consideration for consolidating ‘local development models’ [*ibid.*: p.80].

The main characteristics of the local community are its system of values, the expression of an ethics of work, of reciprocity and of change. The social networks have an important impact on the work of the individual units, [Nadvi, 1998: p.5]. They facilitate a relational regulation between the factories, they mediate competition and local cooperation, and they can facilitate the historical sedimentation of ‘tacit’ and sectorial knowledge. Even social bonds are however subject to a continuous change process, as much in their characteristics as in their influence on the development of the district.

In the context of industrial districts, favourable social consideration, at the basis of which lie trust and loyalty, can be acquired within the sphere of business relations [Schmitz, 1995]. This reflects Marshall’s analysis [Marshall, 1919: pp.164-165] on the basis of which, as the size of a community grows, trust becomes less ‘habitual and instinctive’. In other words, it assumes a conformation that is more typical of business relations. Fundamentally, the bonds within social networks pass from a basis of ‘transmissibility’ to one of ‘acquirability’. Solidarity constructed on effective social bonds (*Gemeinschaft*) lessens in importance in favour of that of the group, based on the division of work and on contractual relations between isolated individuals who pursue personal interests in virtue of long-term business transactions (*Gesellschaft*) [Tonnie, 1963: *passim*].

But empirical experience goes further and suggests that this distinction eludes two ‘key-points’. Firstly, that there are important connections between acquirable bonds and those transmitted; secondly, that different bonds provide

different types of services and that the importance attributed to these services changes with the evolution of the cluster [Nadvi, 1998: p.29]. The aspects of the transmission of social bonds therefore remain important to the organization between and inside the factories of the cluster, even when the acquired bonds are on the increase. The latter are sustained and strengthened by the former, which means that the business reputation is 'embedded' into the social context. Social networks are therefore not only important in themselves, but also in terms of their effective influence on the production of the district.

With respect to change, the dichotomy 'community/society' cannot therefore fully grasp the situation of the industrial districts. While the types of bond change, the relations and social identities maintain their importance and continue to extend their influence over the cluster. The networks that regulate contracts may not be sufficient to have the information circulated and, with the development of the sector, the functional demand made to the social networks also alters and therefore the models of social bonds change [*ibid.*: p.5].

The 'Social Embeddedness Approach' does not however imply social or cultural determinism. Social bonds and regulations are not fixed in time but subject to a continuous process of evolution and connected to the technical and economic development on which they themselves act [Granovetter, 1985]. At the same time, socio-cultural values do not necessarily act in a homogeneous manner on the entire cluster. They can legitimize exploitation practices, hidden cooperation between different sections of the cluster, and even strengthen pre-existing asymmetries [Knorringa, 1996; Smyth, Kapadia, 1995]. By acting as barriers to the entrance of new actors, social networks can intensify prevailing socio-regional inequalities and, as a result, prevent the full growth of the cluster, limiting the flow of qualified personnel, capital and new ideas. A homogeneous culture and one that is 'internally orientated' can therefore render the local agents vulnerable to exogenous pressures [Grabher, 1993: p.24].

The social-cultural environment fundamentally influences the work of a district and its institutional structure in three ways [Nadvi, 1998: p.7]. First of all, a) through the sedimentation in local areas of specific and inter-related historical-cultural factors, which directly generate processes of development that can be individually outlined due to their specifications [Garofoli, 1992: p.3]. These factors include the religious/cultural attitudes that influence the *ethos* of the dominating work and sustain relations between the factories. Secondly, b) through the effect of social bonds and socialized production relations, which lower transaction costs providing the bases for trust, social reputation and reciprocity in relations between factories. The fact of being socially embedded within a community provides the basis for the constant 'provisioning' of information concerning the market. It also generates an implicit code of

behaviour, incorporating rules and sanctions, that regulate both social and production relations within the industrial cluster. Hence emerges a regulatory mechanism for relations between the units within the community and socio-cultural identities. The social environment therefore supplies a localized system of values and attitudes that has an impact on production relations, especially in terms of the ways in which possible conflictual tendencies are mediated, as well as of the type of sanctions that guarantee the agreements made between producers. 'Social sanctions' do in fact strengthen the limits of socially accepted commercial behaviour within firms and between factories. Loss of reputation inevitably leads in fact to the isolation of the production networks and to the resulting impossibility of continuing the work. A reputation for honesty in business is therefore highly valued and is constructed over an extensive period of time. Where commercial and social 'exit costs' [Hirschman, 1970] are sufficiently high, the effects on reputation can serve to strengthen cooperation between factories.

c) Finally the social milieu influences, and is itself influenced by the process of innovation and technological change. Within the dimension of the industrial district technology is an endogenous category directly linked to the factory in which it is located. Clusters therefore carry with them an element of 'tacit knowledge' concerning technology, skills, processes and products, often typical of a given community and generally accumulated over a long period [Nadvi, Schmitz, 1994: p.32]. Given that innovation and technological progress are evolving and systemic (not atomistic) processes which construct interactions between users and producers [Lundvall, 1988], such technical cooperation requires commonly accepted codes of behaviour, information channels and mutual trust [Humphrey, Schmitz 1996; Putnam, 1993; Zucker, 1986].

6. Endogenesis of the Textile Industry in Karur

The most particular aspect of the industrial development of Karur is that, although the authorities are now intervening to control and orientate the direction of this change, its origin was not fruit of a government strategy or of large investments in the sector [Neelakantan, 1996: p.2]. Except for the increase in the level of schooling (which helped to intensify the nature of this process), the role of the state in these changes was absolutely marginal [*ibid.*]. Even less so was it a case of a development encouraged from the outside, while it did, rather, obey local dynamics.

There are historical proofs according to which the commercial activity of Karur in the textile sector can be back-dated to over 2500 years [*Indian Express*, 1996: p.4]. But it was towards the end of the 1940s, after the Second World

War, that there was a boom in the traditional production of bedspreads, a *business* dominated by the Hindu and Christian *Kaikola Mudaliar* families. In the same city, the trading classes – mainly *Komutti Chettiar* and *Nattukkottai Chettiar* – were the most wealthy. The rich of the rural areas - mainly *Goundar*, *Totthia Naicker* and *Velala Mudaliar* – maintained their own positions of prestige through the value of their lands [Neelakantan, 1996: p.2].

In 1948, Annamalai Mudaliar, a textile magnate, was one of the richest men of Karur and the main seller of yarns, a commodity that was scarce at the time of the *boom* of the city. A strike in his factory degenerated into a clash with the police forces: the crowd set fire to the warehouse and with it a lot of the cotton yarn. The result was a decrease in the production of bedspreads. A company that had been formed in 1940 exploited the favourable circumstances by procuring yarn on the black market, so getting around the scarcity. The company subsequently split up and *Amarjothi Textiles* was born. An important moment was the first reported attempt to export the textiles of Karur to England by G. C. Valesamy Chattiar in 1949, but no more is known about this [*ibid.*].

The change from ‘going on line with goods’ sales to that of ‘distribution with samples’ greatly reduced transaction costs. In the ‘on-line’ system, the products had to be stored and transported to the warehouses in the various cities of the north. Then a representative of the company had to go to the various cities, take all the bedspreads and all the samples and fulfil the requests with the products contained in the warehouse. With the other method, with the ‘selling with samples’, the representative had to bring with him only the samples to be shown, with greater simplicity. The orders were then satisfied through subsequent despatches. The factories which adopted this system in that period were many, but the first - the *Amarjothi* – managed to ‘capture’ the market of Bombay and remain there until the mid 1970s. Another company, *Anar Textiles*, dominated the market of Delhi until the same period.

The *going on line with goods* method disappeared from Karur towards the end of the 1950s. The years 1957-58 saw the beginning of exporting to France and Australia. At the same time the first telex was installed in Karur. The system used for obtaining information about the American markets was that of financing the journeys of students (mostly in engineering) who had already obtained a fellowship from United States Universities. These in exchange sent information through which contacts were established for exports. From the mid 1960s Karur textiles began to be exported to the USA, England, Australia and African countries.

Increasing internal demand and entrance to the international market produced an increase of manufacturing activity and the birth of numerous factories. New

articles and new designs were introduced and, at the same time, workers' salaries were increased³⁰.

The dyeing of yarns, for which Tiruppur had natural advantages thanks to the chemical composition of its waters, was transferred to Karur and became the main activity of the city. In order to obtain increasingly more skilled workers, industrialists offered them percentage shares in the firms. In this way, over time, skilled workers were able to accumulate profits and begin their own activities or invest in the *partnership* on an equal level with the owner [*ibid.* p.7].

Towards the end of the 1970s the export market had become completely competitive. New designs and new models were introduced, together with new methods for increasing productivity and new machinery. The communications revolution, and the possibility of remaining in contact in real time with the buyers scattered throughout the world, clearly had positive effects on profits.

The 1960s saw the birth of financial corporations and the intensification of money loans, a practice that was already widespread since the 1940s, especially in the urban area.

The financial corporations are more or less joint organizations. Ten, fifteen partners can invest limited sums (10.000-20.000 *rupee*) and the organizer a larger sum. Each partner can be so also of other financial groups (indeed this is frequently the case) and can mobilize to obtain money on loan or deposit (using his formal and informal contact networks and his own caste network) at rates of interest that are variable and currently between 12% and 18%. Loans are usually at rates that vary between 28% and 36% [*ibid.* p.4]. Finally, in this case also, local tradition plays a front role. Access to credits is in fact practically guaranteed to anyone on the basis of trust. Loans are easily granted to all those who are open and ready for this kind of industrial 'adventure'. It is not necessary to provide any kind of guarantee to obtain financing for starting up a dyeing plant³¹. The financial corporations obtain information on the possible beneficiary of the loan, especially on his skills (that is if he is a master dyer or not) and if there is someone who can guarantee for him (for example other industrialists). Intermediations in high-risk markets obviously require security for the person who deposits that he will receive his money back with interest and without risk. Hence the importance of the trust placed in the beneficiary of the credit. This process awards the most enterprising investors.

³⁰ Interview of the *Chairman Karur Thiruvalli Dyeing Enviro Ltd, Member of High Level Committee (Environment and Forest T.N.)*.

³¹ Interview of the president *Karur District Chamber of Commerce..cit..*

No single financial corporation can loan the entire sum necessary to an entrepreneur, but six, seven, sometimes a dozen corporations simultaneously grant financing to the same person. If he is successful, the credit offices receive their money back with good interest; otherwise there are risks. When the factory becomes stable the rates of interest decrease³².

The dynamics of the entire region of Karur, in a certain sense, depend therefore on the financial corporations. These have had such success because the costs of transaction in the organized market are very high and, in a dynamic environment, where everyone is trying to ascend as swiftly as possible, they provide a way to achieve one's aspirations.

7. Elements of Continuity and Structural-Value Change in the urban-rural transformation of the district of Karur

The change of customs underway as a result of the social change has led to an alteration of many habits, traditions and systems of value in the district of Karur. Whereas once group identity was dominant, now politics and the penetration of market forces have eroded this, spreading greater individualism. With respect to the past, individual identity is more greatly established and the weaker classes stubbornly protect their dignity by refusing to accept jobs considered particularly 'degrading'³³.

Over a period of forty years Karur underwent a radical transformation that has both positive and negative aspects. During the years 1940-1950 about 20 millionaires lived in the city. These mainly belonged to the aristocratic nobility or to families traditionally dedicated to commerce. Landowners held all the political, economic and social power. The *Goundar* were numerically the main caste and the *Nayagar*, *Mudaliar*, *Iyer*, *Kandar* and the same *Goundar* reigned supreme and undisturbed in their respective geographical and business areas. For example, the *Nattukkotai*, the *Komutti Chettiars* and the *Nadar* were families that were traditionally dedicated to commercial activities³⁴.

At the moment there are about 200 millionaires in Karur, of which about 20-30 come from families traditionally dedicated to agriculture or commerce. The others are all stories of social climbing, in one way or another [Neelakantan, 1996: p.1].

³² Interview of the president of the *Lakshmi Vilas Bank*, Karur.

³³ Interview of the *District President* del *All India Trade Union Committee*, *Karur District Committee*.

³⁴ Interview of an expert in legal and historical questions connected with the expansion of industry in Karur, cit.

There were few who could boast university studies and only two people had returned from abroad. Of the latter, one had obtained a degree in Cambridge. The deep structural and value changes are testified by the fact that in 1995 at least about one hundred students had studied in the USA, Japan, Australia, Russia or Canada [*ibid.*] and in the years 1940-50 there were practically no women graduates, whereas now all the 'new' rich families, and many of those of the middle class, permit their daughters to continue their studies³⁵.

In 1940-50 the majority of financial loans were aimed at the agricultural sector and those addressed towards commercial activities were granted by the banks or by the traditional moneylenders. The *Lakshmi Vilas Bank* and the *Vysya Bank* constituted the 'organized' sector of the money loans, controlled by the *Nattukkottai* and *Komutti Chettiars* castes. The *Pillais* and *Komutti Chettiars* were those who made loans to farmers, while the *Komutti* and the *Nattukkottai Chettiars* made them also to all the other classes. Nobody lent money to those who wished to adventure into risky investments. The number of those willing to introduce innovations (in investments or in activities of various kinds) was very low, and these were commonly viewed with suspicion and often derided³⁶. At the moment, as we have seen, there are hundreds of financial corporations specialized in loans.

The landowners have, to a great extent, lost their ancient privileges. Although all the communities have had improvements on the social scale, the *Goundar* have assumed the position of privilege at the expense of the *Nayagar* and the *Saiva Mudaliar*, who have lost the traditional facilitations attached to the positions of landlords. This does not mean that the exploitation of workers has ended, but that in the 1940s-50s the latter were without hope and resigned to their condition, in the conviction that destiny had condemned them to that existence. The sudden rise in well being also involved the most depressed social classes however. Even the rural areas derive benefits from this process of change, mainly thanks to the phenomenon of commuting and the remittances from those who have transferred to the city³⁷.

Around the middle of the century the Amaravathy was a perennial river, in the sense that some water always flowed in it, even in the dry season. The bed of the river is now dry for five months in the year and often for seven. The increase of the use of this water for irrigation has led to an increase in the number of collectors, many of which are illegal³⁸. Originally canals, natural flow or *avallati* – that is animal power – were used. Now these systems have

³⁵ Interview of the secretary *Karur Consumer and Environmental Protection Committee...*, cit.

³⁶ Interview of the *District President del Sindacato All India Trade Union Committee...*cit.

³⁷ Interview of Prof. S. Neelakantan, cit.

³⁸ Interview with an expert in legal and historical questions connected with the expansion of industry in Karur, cit.

disappeared and have been replaced by artificial canals and electric or diesel pumps. In 1994 a dam was built on the river. The changes that have come about in the irrigation systems have produced changes in the crops.

The dynamics of this modernization process, still in progress, have not prevented the transmission of tradition. It is however important to observe that, on the contrary to the cities, in the rural areas there is commonly a certain pessimism concerning the possibilities that the future might reserve. The values of the new generations have changed profoundly with respect to those that characterized the previous ones. Many of the 'new rich' have not forgotten their origins and proudly state them. But the very young generations do not approve of this attitude: few admit the social extraction of their parents and manual work is considered humiliating³⁹. Frequenting high schools abroad, at enormous expense, is not necessarily a way to improve academic or job prospects, but it is now a widespread status symbol even among the working classes⁴⁰.

As regards industrial production, the use of traditional techniques in dyeing yarns has not prevented the introduction of chemical agents, but the substitution of natural colours dates to the period of the British *Raj* and is not connected with the much more recent market expansion⁴¹. According to other sources, however, the modernization of the production techniques, in particular the introduction of power looms would be at the base of the gradual decrease of work⁴².

It is interesting to note that, within the sphere of this social transformation, the role played by the trade unions is practically non-existent. This is mostly due to the widespread well being of the workers themselves and their lack of unity. The very fact that the modernization process of the industrial sector has not generated labour-saving but has been accompanied by an increase in labour demand has produced a very weak trade union resistance, due also to threats by the industrialists, of which the trade unionists are often the victims⁴³.

³⁹ Interview with the Secretary of the *Karur Consumer and Environmental Protection Committee*...cit.

⁴⁰ Interview with the president of the *Industrial Estate Entrepreneurs Association*, Karur.

⁴¹ Interview with the President of the *Karur Manufacturers Exporters Textile*...cit..

⁴² Interview with the secretary of the *Centre of Indian Trade Unions*.. cit.

⁴³ Interview with an expert in legal and historical questions connected with the expansion of industry in Karur, cit.

8. *The Secularization of the Caste System*

We previously mentioned the relationship between caste system and industrial development. The 1960s saw the *revival* of the caste associations.

There are therefore two opposing forces operating in Karur: on the one side the caste bonds have been weakened, especially as regards maintaining all those ritual practices relative to ‘purity’⁴⁴. But, on the other, the caste bonds were strengthened for other reasons. The caste network, as we have already analyzed, helps to identify the possible beneficiary of a loan by the financial corporations, guarantees the payment of debts, promotes the recruitment of skilled labour, is a judge in disputes – especially in matters of credit – and helps to identify *partners* with whom to do new business. Whereas at the micro-level, caste prejudices are considered senseless, at the macro level the assertion of community identity⁴⁵ helps in the creation of business interests.

Few status relations of the 1940s were replaced with contractual forms. Although there are no limits for ‘untouchables’ in possible social climbing, and in spite of the fact that the tendency to overcome these divisions is very pronounced especially among the young generations, in the rural areas few allow them to enter their houses and socializing and inter-caste marriages with the *dalit* are only permitted by a tiny number of particularly broadminded families. It cannot therefore be stated that economic development has eliminated the social friction deriving from the caste network. Although the most inhuman practices are disappearing in parallel with economic development the caste system itself has not been weakened. Indeed there is an increase in the tendency to gather in associations and social identity has been emphasized.

Fundamentally, the change in social customs produced by the industrialization process has caused a ‘modernization of local caste relations’: it is not a question of the breaking-up of the ancient ties imposed by cast bonds, but the transformation into new types, especially of a community nature, of the strictness that these impose.

The caste system is therefore the main source of the concept of ‘harmony’ of the district and source of legitimization of the ‘non-organization’ of the work⁴⁶. This process, generally called ‘secularization of the caste system’, on the one

⁴⁴ With regard to the concept of ‘purity’ see Dumont, 1991.

With the growth of the city and of trade the practices linked to untouchability became unused and socializing has gradually become tolerable.

⁴⁵ For an extensive treatise of communitarism see Corsi , 2002.

⁴⁶ Prof. E. Basile, *La società corporativa in una città del Tamil Nadu*, report at the annual convention of the ‘ItalIndia’ Association, Arts Faculty, ‘La Sapienza’ University of Studies, Rome, 12 June 1999.

hand has caused a separation of the caste from the ritual hierarchy of status and, on the other, has conferred on it a character of 'power group', especially within the political sphere. The changes in the sphere of the caste system can therefore be observed on two levels: that of de-ritualization and that of politicization. This has permitted the members of the various castes to acquire new economic and socio-political positions [Sheth, 1999: p.2504].

9. Transformations in Agricultural Work

Everything grows in support of the textile sector (infrastructures, etc.) and the cost of agricultural work has also grown to be one of the highest in Karur. Even the agricultural transformation, the mechanization and introduction of some technologies was necessary to replace the lack of the work force in the fields. Land prices have grown considerably, due precisely to the lack of land itself and the fact that the cotton dyeing factories find, in the rural areas, the water necessary for their operations. The factories deprive the environment and now many are forced to leave the land, selling it all or a part to the factories themselves⁴⁷. Work conditions have improved considerably since the 1950s⁴⁸.

The contractual forms of agricultural work have changed. Originally many large and small farmers had one or two 'attached labourers', labourers who lived with the family of the landowners [Neelakantan, 1996: p.13]. This figure no longer exists and, even where it survives, it does so on the basis of an annual contract paid in advance. The large farmers also had a supervisor for the work carried out on the farm. Various concomitant causes definitively destroyed the system by 1990. But the 'grain servants' remained even if their number is lessening for the same reasons. Compared with the much more widespread occasional work, this employment is secure. Nevertheless, many don't want to be in the service of a landowner around the clock⁴⁹.

The 'attached labour' system thus became unattractive for the workers and unprofitable for the landowners. With the diffusion of new technologies brought by the Green Revolution⁵⁰, the old skills lost their value and the supervision costs became very high because the *pannaya*⁵¹ did not have the

⁴⁷ Interview of S. Janakarajan, Ph.D. Fellow, *Madras Institute of Development Studies*, Chennai.

⁴⁸ Interview of Prof. S. Neelakantan, cit.

⁴⁹ Occasional jobs, in fact, require seven hours a day in exchange for 50 rupees and, obviously, they are without great responsibility.

⁵⁰ On the 'Green Revolution' see Corsi M., cit..

⁵¹ The *pannaya* of the large landowners were divided into two categories: the 'meal servants' lived with the family and received in payment their meals in the house of the landlord. Moreover they were paid with a sack of cereals and with eight-ten rupees a year. The 'grain

knowledge necessary for the cultivation of the 'High Yielding Varieties' (HYV). The need for a lot of water for the HYV led to the introduction of new forms of work, as well as an increase in the contractual power of the workers.

This was also the moment when the *pannayal* lost his importance, given that among his tasks was also the division among the labourers of the payments in kind.

A way out from this *impasse* of lack of work was the 'gang-labour contract', still the main form of rural work. It was begun in the 1970s and spread in the 1980s. It is a form of work in which a group, a 'team' of workers carries out a certain agricultural operation, in a pre-established time for payment of a certain sum of money.

Given the specific nature of the times of the agricultural operations and the scarcity of water in the river, the salaries of the labourers were high⁵².

The scarcity of work and the problems of finding labour in the sowing and harvesting seasons strengthened the contractual power of the workers with respect to that of the landowners. In other words, the power of the latter to exploit the workers, even if not vanished, has been gradually undermined.

servants' lived in the house of the farmer and received eight-nine sacks of cereals plus one of rice and 15-20 rupees a year. The *pannayal* was usually the main worker and the supervisor of the work force. He controlled the plowing of the fields, he had some special skills and was treated like a member of the family of the owner, thanks to a relationship which was mostly sincere and loyal with his employer. The 'meal servants' gradually disappeared for various reasons: both because of the increase of the retribution of male work in the city (urban salaries were relatively high and this began to influence the structure of rural salaries), and due to the increase of the work. In fact, the *pannayal* practically worked around the clock and this became a heavy burden. When electricity was introduced and when, for agricultural use, it began to be supplied only at night due to the insufficient quantity generated by the state, irrigation became a mainly nocturnal activity and increased the burden of the work of the *pannayal*. With the introduction of fertilizers and the consequent greater rapidity of growth of the plants, the intensity of the work increased, but the pride in being *pannayal* definitively paled when agricultural machinery rendered their skills obsolete. Finally a change of attitude in the 1950s by the 'meal servants' themselves led to considering work in exchange for daily meals an offence to human dignity.

⁵² This type of contract was introduced in specific, non-repetitive, jobs, such as the harvesting of rice, sugar cane and curcuma; it is very widespread in the cultivations of products destined for trade rather than for direct consumption and, generally, it uses men rather than women. The terms of this type of contract vary according to the conditions of the ground, agreements concerning the intensity of the work and total labour demand. Originally they were stipulated by an 'entrepreneur' of the teams, and the latter only contained members of the same caste. Now, however, there are many groups in which members of different castes work and sometimes they are even organized by a person of a lower caste.

Non-agricultural work has therefore been increasingly developing along these new lines and the traditional 'semi-symbiotic' relation between craftsmen and farmers (typical in the 1940s) has disappeared. Except for a very few cases that still resist, the artisan class has practically disappeared from many villages.

10. Modernization and the Role of the 'New' Entrepreneurial Élite in Karur

We previously saw how, according to the most recent modernist theoretical elaborations, the encounter between the innovative potentials of different societies and the historical situation of interference of other civilizations were of crucial importance in the 'great experience of change' [Eisenstadt, 1997: p.102].

In the particular case of the development process of India, the activities of the various élite groups – which continuously interact in any situation of change in general, and of modernization in particular, creating new bonds and coalitions – create a concrete crystallization of the symbolical and institutional forms that outline the local response to the situations of social change. Not therefore just the fruit of the 'natural' evolutionary potential of Indian society or of the opening up of its traditions, but mainly of the activities of the élites, whose role is therefore fundamental to the extent that they select and reformulate the basic symbolic premises of modernity and crystallize new modern traditions. Their function in the mobilization and structuring of the resources is of primary importance as it is in the organization and articulation of the interests of the various groups generated by the social division of the work. In the same way, the ontological views that permeate the activities of these élites and which derive from the main orientations or cultural codes prevailing in a society are also of primary importance [*ibid.*: p.108]

The extraordinary process of economic growth experienced by Karur is an example of how an unorganized labour market can transform an industry through the adoption of flexible production models: its story is in fact that of those who were able to effect the transition from the tayloristic organization of work to the modern flexible one. The strict hierarchical structure that characterizes the former, in fact, would hardly have permitted a worker to achieve management levels.

Industrialization has hit farming hard, turning into an impoverishment of agricultural production. It did not however cause the impoverishment of agricultural activity and farmers to whom, due to the high value of the land located near the river Amaravathy, it brought wealth⁵³. Many of them, in fact,

⁵³ Interview of Dr. S. Janakarajan, cit.

sold their land at very high prices⁵⁴ to the owners of the cotton dyeing factories and, often, themselves became industrialists, while continuing, in many cases, their former activity. Often, therefore, just ownership of land constituted a fortune.

Industrialization had an immediate effect not only on landowners, but also on labourers, that is to say on the 'landless labourers'. They now have the chance to improve their social position thanks to the many work occasions in industry.

The rapid industrialization process therefore had profound repercussions on local, urban and rural society: there are many who, with a little initiative and funds, manage to transform themselves into entrepreneurs. In this they are facilitated by the almost total absence of controls of licences and permissions by the local authorities. The informal economy, in fact, that originally emerged as the response of small enterprises to the problems associated with urbanization and 'survival' activities of pockets of population on the fringes of society [Hope, 2001: p.30] constitutes one of the most dynamic examples of indigenous activities that produces growth and development. This type of economy does, in fact, include the managerial and professional classes, often coming from the formal economy in search of better living standards and in search of alternatives to the bureaucratized national development models.

There is therefore in Karur an emerging entrepreneurial middle class, with an economic rather than social basis. It comes to the industrial sector attracted by the possibility of offering unorganized and cheap work, without encountering excessively restrictive bureaucratic regulations and limits. These 'new' social actors often tend to increase their prestige and their economic influence by attempting to rise in local politics, a process that was once widespread among the rich landlords. This is a real investment, seeing as how political power is simultaneously converted into economic power⁵⁵.

In some cases, the 'new' entrepreneurs acknowledge the role played by the government, but for the most part they trace their rise to their personal entrepreneurial capacity and to experience, presenting themselves as technocrats who contribute to the economic development of the country thanks to the enhancement of tradition⁵⁶.

The concept of 'hard work' to which all the industrialists whom we interviewed referred, places the emphasis on the value attributed to modernity,

⁵⁴ Approximately 5-6 million rupees per acre.

⁵⁵ Interview of former *Counsellor of Labour Municipality*, Karur, 26 August 1998.

⁵⁶ Interview of the president of the *Industrial Estate Entrepreneurs Association*, Karur, 2 October 1998.

in its aspect of economic development. It also reveals the consciousness of an identity linked to a group of persons which, with their own means, were – and continue to be – the driving force of industrial and urban development. In this sense, as we have already recalled, caste differences and social origins have been overcome, in view of the open recognition of the heterogeneity of the background of the agents of change⁵⁷.

Even if devoid of any security (contract, social security, health expenses, etc.), work in the factories, completely occasional and dangerous to health (inasmuch as often without the minimum requirements for the safety of the personnel), does however guarantee greater earnings and the possibility of rising on the ‘social scale’⁵⁸. Those who began as occasional workers have often become partners of industrialists, in agreements that were born to combine capital and skill. These persons usually do not have a lot of education but their awareness of being able to control their future is high⁵⁹.

In the city, therefore the dialectic landlord/labourer is proposed again in the form of industrialist/worker, but not in a unidirectional manner: it is not a foregone conclusion, in fact, that only landlords become industrialists or that landless become industrial workers.

11. The Social Costs of Industrial Development

In this last chapter we intend emphasizing the problems of an environmental nature and the effects on the local society of the rapid industrial development of Karur.

The great industrial performance of the district and the resulting opportunities that this is producing, is in fact counter-balanced by widespread pollution, a typical consequence of industry. All the same, as we shall see, whereas the social actors are aware of this environmental decay, they do not seem willing to relinquish the fruits of economic growth in the name of environmental protection and of the sustainability of the development of the district.

⁵⁷ Interview of the president of the *Karur District Chamber of Commerce*..cit..

⁵⁸ An unskilled worker earns on average about one hundred rupees in a day as against 50 that he could earn from work in the fields; he works eight hours and not the full number of hours of light. Moreover, the greater earnings makes it possible to guarantee a better education for his children, as often emerged from our interviews. A regularly paid job in the city therefore makes it possible to obtain a better social consideration. Even among the *dalit* communities there are examples of this type, although its contribution to the ‘rags to riches story’ is not very high. Even the managers of the export companies which act as intermediaries with foreign buyers often exploit both the thick network of contacts and their knowledge of foreign languages for escaping to begin their own business.

⁵⁹ Interview of the *District President All India Trade Union Committee*..cit..

Everyone, including the industrialists, generally condemns this malfunction of the modernization process. And, indeed, the very process of modernization is often questioned because of its effects, in the first place those of an ecological nature. But in the name of personal *success* and of all the advantages that this can produce – to put it succinctly, in the name of modernity – there is a widespread tendency to accept such distortions.

The problem of pollution became more intense simultaneously with the industrial boom of Karur. This does not mean that it did not already exist, but its intensity was less and, above all, the awareness of the themes of an environmental nature were less (when not even absent) ⁶⁰.

In industrial terms, Karur may have an uncertain future. The entire area depends on an industry that pollutes and already once, in 1998, a sentence of the *Green Bench* of the High Court of Madras (actually Chennai) virtually ordered the closure of hundreds of units because they were polluting, a provision that was implemented in 1999 to permit the producers to bring themselves into line with the anti-pollution regulations (*Common Effluent Treatment Plants, CETP*).

An inestimable number of units who deal with the dyeing of cotton, and with other activities connected with the textile sector (dressmaking, knitwear, trimmings, packing, transport, trade, etc.), are located along the banks of the Amaravathy river. The quantity of yarns dyed and bleached in this area is about 70% of the total of those processed in the entire Tamil Nadu and from here skeins of cotton leave for the looms of Salem, Dindigul, Tiruchi, Erode, Coimbatore, Tirunelveli and Madurai [*Indian Express*, 1996: p.2].

These processes use a variety of chemical substances and the polluting content of their discharge did not lessened in the 1990s, in spite of the use of alternative dyes introduced following the ban that some European countries imposed on imports of textiles treated with toxic dyes.

The industrial development has not followed any type of model. The units did not install plants for the purification of the water allowing the discharges to flow into the Amaravathy river and its 12 irrigation canals. This meant polluting not only Karur but also the adjacent areas⁶¹.

The result has been that the water of the river is no longer usable for irrigation of the fields: the fertility of the land has been considerably reduced (almost 5,000 hectares of land have been compromised⁶²) and some pathologies have

⁶⁰ Interview of the Secretary of the *Centre of Indian Trade Unions*, cit

⁶¹ Interview of the owner of a dye factory *Anantha Dyeing*, Karur.

⁶² This is an average of the estimates that emerged from the interviews.

appeared in the direct or indirect consumers of this water⁶³. Since May 1993, following an intensification of the problem, some inhabitants of these areas have begun to invoke the closure of the polluting industries. These agreed to interrupt the discharge of toxic substances into the river and to acquire purification plants with the aid of public funding.

Subsequently some units were ordered to close and, after a prolonged protest of the residents, the local government announced a plan for the installation of the purification plants. The costs of these were to be subdivided between the central and local government (40%, increased then to 50%), the *Industrial Development Bank of India* (40%, reduced then to 30%) and the industrialists themselves (20%). The work, foreseen for 1995, did not begin due to delays in the subsidies. Subsequently, the *Tamil Nadu Pollution Control Board* was charged to draw up a final report on the real situation. Of 608 units, 434 should have been connected with the central purification plant, 167 should have installed their own treatment plants and seven completely suspend operations [TNPBC, 1997]. The interruption of the activities of the dyeing units had repercussions on the textile industry. In

order to guarantee the foreign market, the yarns had to be sent elsewhere to be dyed, so increasing the prices and causing many deliveries to be cancelled. This produced a decrease in employment⁶⁴. The situation of hundreds of thousands of workers employed in the textile industry is indeed precarious. The fragmentation of the phases of the production process means that the interruption of a ring of this chain – the dyeing, precisely, has repercussions on the entire production.

The industrial plants constantly face pressure to lower the pollution coming from many sources. On the one hand are the regulations of the authorities, which formally impose fines, closure or other forms of sanction for those who break the law. On the other are the communities who push for the industries to conform to locally acceptable norms and standards. Many cases are documented of agreements between entrepreneurs and the local inhabitants [Sheoli, Mathukumara, Mainul, 1997: *passim*]. These informal agreements can be based on direct dangers or social pressures. Certainly they can also operate through the pressure of consumers in domestic markets or those of imports, through the impact of the prices of the goods. At the same time, official regulations tend to reflect the power agreements of the local communities and they are not so uniformly applied as the law would impose. Those who would be in charge of the application of the regulations are not immune to the stimuluses of interests at community level.

⁶³ Interview of an farmer and president of the Sukkaliyur *Panchayat*, Karur.

⁶⁴ Interview of the secretary of the *Centre of Indian Trade Unions*..cit..

In the case of India, in spite of the precise laws that regulate polluting industrial discharges meticulously specifying every aspect of environmental control, the application of this legislation remains very scarce. The high level of corruption existing among local inspectors and complex diplomatic procedures render legal suits against the plants that break the law difficult. A second aspect to bear in mind is the extreme administrative temporariness and instability of the organizational leadership of the *Tamil Nadu Pollution Control Board* (TNPCB), which is then translated into a lack of decision [Banik, 2001: pp.120-121].

Our research study was accompanied by two hypotheses, which we tried to verify in order to understand the ultimate reasons for the lack of application of the existing regulations.

We initially thought that the effect of production had greater political and economic weight than the lowering of pollution levels. Basically we thought that it was possible to interpret the lukewarm intervention of the authorities as a well-defined development strategy: that is to say, that this type of *laissez faire* and permissiveness by the local authorities could be interpreted as a method for promoting the development of a sector, a small scale one, which pulls the national economy. Moreover, the effective start-up of the purification plants would require such capital and energy that the resulting rise in prices would lead to the decline of the attempt to reduce pollution and the consequent increase in discharges. But the empirical investigation led to disregarding this hypothesis. The owners of the polluting factories regularly corrupt politicians and inspectors of the TNPCB so that they do not intervene in the environmental problems. The transaction costs are therefore high, exactly what should not happen as a result of the *laissez faire* policy. In our opinion, it is therefore incorrect to directly relate the environmental problems with rapid industrialization, fruit of the pressing request of the global market.

We subsequently tried to investigate the relationship between the increase of production aimed at foreign markets and the increase of polluting discharges. We must premise that the large size installations overall pollute less than the SSI, due to the more restrictive controls to which they are subjected and their investments in environmental protection, but also because the small scale units have less information and less financial resources [Sheoli, Mathukumara, Mainul, 1997: p.5]. At the same time we can expect a similar attitude from those local industries that are more greatly exposed to foreign influence. In the specific case of Karur, in fact, the units that produce for the foreign markets are effectively the less polluting. This is due to the strict control carried out by the purchasing countries on the imported products. The production that constitutes the main danger, and that causes the greatest damage to the environment, is rather that directed at the local markets.

It would basically be mistaken to hypothesize a direct link between globalization and pollution. Obviously, as previously analyzed, production increased considerably due to the liberalization of markets and the pressing requests of foreign buyers. But the dyeing factories, if anything, had to reckon with an increase of international control on environmental pollution which imposed new legislation and the use of chemicals that were theoretically less damaging than those used previously. In certain ways, therefore, exports have had a positive impact, not only on the market but also on the environment. There does however remain the pollution caused by the industries that produce for the local market and which escape certain standards. [World Bank, 1997a].

Even the inspections carried out by government officers are connected with the size of the manufacturing sector, measured with the number of installations present in the state and, surprisingly, not with the characteristics of the installations themselves such as their age [Sheoli, Mathukumara, Mainul, 1997: p.8]. Funds for the inspections seem to have been allocated by the *States Pollution Control Boards*, SPCBs, in line with the perception of the size of the problem. The strong relation between rates of inspection and the degree of 'development' of the districts is interesting, although not surprising. The efficiency of the economic reasoning in identifying the objectives of the inspections by the areas sensitive to the evaluation of damages is relatively high. It is thought that in these areas the entrepreneurs more greatly follow the legislation or that the population uses political channels, or other channels, to push the bodies in charge of controls so that they take measures against those who pollute. It may be that the inspections are more frequent in the richer areas precisely because the chance to provide incentives for the intervention of the inspectors is higher [*ibid.*].

Finally, the ultimate reason for the pollution of the waters of the river of Karur seems to be traceable to reasons of an economic nature. The owners of the industries have in fact generally demonstrated that they are aware of the damage that they cause, and willing to use natural dyes, more costly but not polluting, as long however as these guarantee the same results as the chemical dyes. They are also willing to equip themselves with purification plants. The *conditio sine qua non* that they have demanded is government intervention in the expense. The combination of state incentives for the expansion of the industry and the limitations imposed by the problems of an environmental nature is in fact considered a contradiction⁶⁵.

Personal *success* therefore represents the ultimate reason that leads to accepting such obvious distortions. As a result, even in this case, the process of

⁶⁵ This is a unanimous statement from all the industrialists whom we interviewed.

modernization, although fundamentally criticized, is accepted in the name of the achievement of the privileges that modernity can guarantee.

12. Results of the Research study

Karur is a cluster in expansion the 'driving force' of which can be simultaneously traced to endogenous and global trends. The growth process that develops here is encouraged by industrial initiatives that are typical of industrialized countries but with problems and organizational formulae that are in many ways atypical with respect to those commonly encountered in the most industrially advanced centres.

The area develops as a result of the social permeation of small enterprises, the polycentrism of the settlement, the work ethics, self-organization, local rooting and strong international projection, the capacity to conjugate the use of traditional production techniques and innovation, that is the introduction of 'new techniques' in the organization of production. These characteristics are often considered constitutive elements of a development model, that of the 'Third Italy'. But differentiations and specificities emerge from the different historical-evolutionary routes of the local production systems that compose the regional whole. The choice of Karur to undertake a path in a modern direction originated to a great extent from the local desire for modernity. It was however obtained without the aid of components typical of the modernization process. The aspirations for progress are generalized and produce industrial growth and local relations of solidarity and community, just as those of power and inequality, already present, model the organization and expansion of industrial production.

It is from this background of production activities, of 'molecular capitalism' [Fontana, 1999: p.3] – which is divided into craft workshops, partially integrated factories, small scale enterprises, clustering in industrial districts, strong presence of 'informal' labour – that that great variety of specializations which forms the strong point of the industrial district, is created. This assures it an articulated capacity for response to the short-term trends and transformations of the markets and the basis for the development of paths of production integration between enterprises. If thousands of 'small' units have survived it is because they have learned to make scale economies that are sufficient for competing, by playing on the division of the work with other enterprises, in order to capitalize learning and innovation. In short, because they managed to reproduce paths of industrial development of the European type but with endogenous characteristics.

One of the main effects of this modernization process is a general ‘diffusion of possibilities’ in the sphere of the local social tissue, for those who are able and know how to exploit them. The small units also manage to provide concrete answers to the problem of unemployment, guaranteeing possibilities even to the members of the most disadvantaged social classes.

The impact of this phenomenon on the local development process is significant: scale economies external to the enterprises but internal to the sector which determine a general growth of the per capita income and social improvement. The work force is exploited, but this is often very low skilled labour which, given the simplicity and low cost of the production phases, has the possibility of developing techniques and skills and comparatively easily reproducing the production process. Precarious working conditions and exploitation of the workers, low cost labour, few innovations and relatively low quality of the products, environmental pollution and resulting high social costs are all characteristics of the Karur situation. But, at the same time, manifestations of the ‘high road’ are similarly evident, that is the competition between the units based on the constant attempt to bring improvements to the products. By virtue of the absence of sophisticated technologies, production ‘with high intensity of work’ is perpetuated, but nobody is really at a disadvantage under the profile of opportunities: neither the employers, as long as salaries remain low, nor the workers, given the possibilities of employment and of socio-economic rise. Unemployment is practically non-existent and even the industrialists have every interest in ‘giving in’ to the requests of the workers, especially the skilled workers.

The classical Theory of Modernization theorizes only one path to modernity and the tendential disappearance of diversities during the last *stage of* modernity. The case in question has demonstrated how the spontaneous reproposal of processes that are well known in the European sphere, but which reflect systemic traditions strongly connected with a production system that is ‘anchored’ to quite definite localisms, highlights the existence of multiple modernities, as theorized by the reflection of Eisenstadt. Similarly, the analysis of social costs also demonstrated the limits of the main theoretical-analytical approaches. In fact, even though aware of the problems connected with the pollution produced by the industry, the social actors of Karur show that they are not willing to relinquish the fruits of economic growth, refusing therefore the categories of the modernizing tendencies connected with sustainability but not with modernity in itself.

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