CHAPTER-2

HISTORY OF INDUSTRIALIZATION AND AGRICULTURAL DEVELOPMENT IN PUNJAB: A REVIEW OF LITERATURE

The time-locked conflict between agriculture and industry for development and progress has swung both ways i.e., integration and separation over the past century. This may be encapsulated in the observations of P. Kropotkin\textsuperscript{22} that ‘the greatest sum total of well being can be obtained when a variety of agricultural, industrial and intellectual pursuits are combined in each community; and that man shows his best when he is in a position to apply his usually varied capacity to several pursuits in the farm, the workshop, the factory ...’. the points that favored this form of development reported that rural industries constituted an important source of employment for the farm people\textsuperscript{23}. Rapid transportation means, increased mobility, improved communication all contributed to the urban-oriented pattern of living becoming diffused into the rural areas. At this juncture the advent of industrialization into their lives meant to the rural people newer avenues of employment, an up-scaling of their income and the emergence of a higher level of living and lifestyle. This form of development provided the integration mechanism to the previously dichotomized Gemeinschaft-Gesellschaft or rural-urban ways of life into a new cultural universal "agro-industrial" type\textsuperscript{24}.

Over a period of time it was seen that the process of industrialization did in the ultimate analysis leave its imprint on the rural areas. It ended up affecting all members of the local community in some very definitive ways. The thinking of the past half a century, however, has been definitive about the decentralization of industry. Developing economies can be arrayed on an upwardly mobile scale of

\textsuperscript{23} Robock. 1952. Ibid
\textsuperscript{24} Ibid
pre-agricultural, agricultural, non-agricultural, industrial and non-industrial societies. It is reasonable to think then that India having the larger proportion of its population living in the rural estate would see a larger influx of the industry into the agricultural areas.

The growth of an industrial sector is generally looked upon as a part of a wider process of development of the economy, namely, a transformation from a predominantly traditional, agrarian setup to a modern industrial economy. It can be further stated that a detailed study of the literature on industrial growth in post-Independence India reveals a series of spurts spaced periodically. The initial period of rapid industrialization showed a growth rate of about 8 per cent but slowed down after that as stagnation set in. This phase saw two successive droughts in the mid 60s and the 70s. The industrial rate of growth saw an upward trend whence the 80s saw it exceeding the 7 per cent mark. All these studies establish conclusively, on the one hand, the emphasized agriculture-industry linkages and on the other, do not hesitate to bring forth the empirical results pertaining to the malefic effects of the fast-paced progress in setting up industry without considering the environmental costs.

Rural Punjab shows a unique phenomenon of entrepreneurship where people from diverse class and caste backgrounds are represented. In the era of globalization they are tuned in to the need to expand these industries based activities across families, communities and groups for achieving overall development and empowerment. But the fall out of this emerging phenomenon is the tendency of one community to process the displacement of the other in the bid to make a place for itself. This process has been visible over time in many of the geographically confined areas where the industrial progress has attracted the labor from migrant sources like Bihar, Jharkhand, Uttranchal and Uttar Pradesh to the migrant destination areas of Punjab industrial belts. These migrants have

---

over the period of time become settlers and have begun protesting for a voice and a say in the matters that are of their immediate concern like dwellings, living conditions and overall quality of life.

The original inhabitants of the area, on the other hand, are adamant at having to deal with this new force while it is already trying to come to terms with the results of the rapid paced industrialization process that has taken place in the past decades. The promises of gainful employment, better facilities and improved economic status have been marginally or negligibly fulfilled but the cost extracted in terms of contaminated fields, dwindling crops, poisoned or undrinkable surface and groundwater, dust riddled air particles, in fact a polluted environment as a whole outweigh the benefits, if any, that may have accrued to them. Thus they feel cheated and are unwilling to share what meager resources they have with the 'outsiders'. In the processes of development, this is probably not an isolated occurrence as the experience world wide as also the experiences of other places in the country have shown that unchecked or unmonitored growth of the industrial sector has almost always resulted in a poor deal for the local population. This has been highlighted over and over in the available literature on the subject and verified by some of the leading researchers in the field.

On the Impact of Industrialization

The observations of Jain26 [1981] strengthened the observations of the field whence it was declared that "For some time now, developmental architects have realized that large projects may impact [positively or adversely] the lives of the communities that live in proximity to the project site". Social science analysts like Geertz (1963) have argued against the imposition27 of western models of industrialization and advocated careful examination of the relationship between values, cognitive patterns, social organization and industrialization process rather

---


than a crude opposition of ‘traditional’ and ‘modern’. According to him some traditional pattern of social or group organization may facilitate the development of new economic activities while others obstruct, but in each case the specific characteristics of the community concerned must be considered.

The inter-connectedness between technology and social organizations emphasizes the need for a careful investigation into the sociological and institutional characteristics of the society where the new technologies are to be incorporated. Indiscriminate introduction of foreign technologies or even those thriving well in cities cannot create a satisfactory impact on rural societies. For this reason E F Schumacher (1972-73) advocated the introduction of ‘intermediate technology’\textsuperscript{28}. It suggests the adoption\textsuperscript{29} of labor-intensive, small-scale technologies, compatible with efficient production and as low capital investment as possible with a view to maximum employment currently. This stream has been followed by Sen (1975), Behari (1976), Tandon (1977), Puri (1987) etc.

Behari (1976) suggested that the industrial regions\textsuperscript{30}, prototypes and commercialization of newer technologies evolved in sophisticated set-ups and adapted in an entirely different environment from that of their origin. The problems of such adaptation are not less serious than those of innovations. For the purpose of rural adaptations, scientific talent of the country would have to be mobilized in a radically different manner. Then only would scientists be able to help to convert stagnating rural regions into an innovative decentralized sector. Similarly, Tandon (1977) was of the view that in the first phase of development the traditional and intermediate technologies may work together, but later should gradually replace the former. After analysis of large volumes of data published by the UN agency and Government of India he concluded that an employment


\textsuperscript{29} ----- Small is Beautiful. London: Blond and Briggs Limited

oriented strategy of industrialization should not only aim to provide jobs but should also maximize output, conserve foreign exchange and improve the distribution of income. Puri (1988) also emphasized on such technology which makes possible mobilization of labor force of productive use. It should be cheap, labor intensive and provide for the maximum use of indigenous raw material.

Gadgil (1964) proposed the spatial diversification of rural industries and according to him rural industrialization must be planned around centers in the countryside. Thus, the emphasis on the locational approach to the problem of rural industrialization. The distinction made by Saith (1991) between alternative approaches to rural industrialization / diversification proves useful here. The location approach defines rural industry by location in a designated rural area. His approach defines rural industrialization as a policy instrument to reduce urban industrial concentration. Through specific government policies, the relocation of urban industries to rural centers is encouraged, as is the establishment of new industrial enterprises in rural areas.

Papola (1981) emphasized on the planning of industries mutually supporting each other and using and providing certain common facilities for the promotion of skills like entrepreneurial training, economy, raw material procurement and marketing that would prove effective in industrial development of a Backward Area. Pandit (1985) argued that industrial break-throughs in backward areas depended to a large extent on the proper selection of industrial activities in relation to the available potential skills of that particular region.

---

32 D.R Gadgil. 1964. Notes on Rural Industrialization. Artha Vignan. VI:1
In sharp contrast to the above, Rothermunds (1991) in his critical assessment of the impact of industrialization on regional development showed that the location of industry does not necessarily benefit backward regions. Dunham (1991) also shared the same view and envisaged that agriculture may stimulate industrial expansion, it is not always local industry which benefits and when the industry is local, it is not necessarily small-scale nor indeed labor-intensive.

Some recent theoretical studies have brought the locational dimension more explicitly into analysis (Ranis and Stewart, 1993). In most theories agriculture was seen to play a subsidiary role, of mobilizing surpluses of food and raw-materials, labor and savings for financing industrial growth. Mellor (1976) examined agricultural production, through effects of linkages with non-agriculture and found it could stimulate expansion of productive and employment intensive, small-scale rural industrialization. Similarly Bharatiya (1975) was of the view that traditional industries can make a real contribution to the planned economic development of the country. Empirical studies made by Rao (1987) also revealed that traditional cottage industries with somewhat improved technology could make an effective contribution to the planned development of the country.

Thus, a full listing of the objectives of rural industrialization would include the generation of employment, higher productivity, good wages, skill formation, agricultural development and positive spin-off for the agricultural population as well as those who were directly engaged in rural industry. For the industrialization of backward regions, not well off in respect of markets and materials, planning is to be laid on a sound footing. A manpower survey must first identify the special trades of the people of the region. On the basis of such a survey industrial activities should be selected depending on the available local resources and

---

skills. The technologies introduced should be integrated with the rural social fabric.

Impact Assessment: Case Studies from India and other areas

The impact of industrialization has been realized wherever it has taken place. Where on the one hand it has brought enormous benefits to hundreds of millions of people, on the other hand, it has created various socio-economic and environmental problems. A number of surveys were organized by Government agencies and various people to know the impact of industrialization on human societies. Here are some of the case studies of the areas, which were influenced by industrialization from India and abroad.

Brena (1960) on the basis of his explorations suggested that small-scale industries have brought an overall change into the social order because of the emergence of middle class entrepreneurial group. It appears as a fundamental change in the hierarchy and structure of society. This was supported by some studies conducted in Howrah (West Bengal) and Bombay by the UNESCO Research Centre. In Howrah it was found that 26 out of 40 employers in small engineering establishments and 74 per cent of the total number of workers came from castes that were traditionally agriculturalists and fisherman. In the Bombay survey 85 per cent of the entrepreneurs in the art silk industry were advanced caste Hindus and Jains. These findings reveal a high degree of correlation between social structure and entrepreneurship in small-scale industries. Kuthiala (1973) examined the social effects of industry on a representative sample of villagers who were pushed into the industrial labor force at their rural base. He investigated the fact that economic difficulties were the predominant factors for compelling villagers to take up industrial employment.

In 1975, McEwen, who conducted his research study in rural Bolivian communities, delineated\textsuperscript{40} the characteristic social features of this community in different ecological regions of the country and identified their major problems of health and disease. He also analyzed striking contrasts between the political features of these communities. Then, Kripashankar (1979), studying the potentialities\textsuperscript{41} of growth of industrialization in Ghazipur district of Uttar Pradesh, found that in the recent past only those units in the small-scale and tiny sectors have developed fast which were vertically linked with the units in the large scale sector. Horizontally placed units in the small sector normally could not survive because of the stiff competition from the organized sector.

Papola (1982) examined the alternative approaches to rural industrialization and provided a frame work\textsuperscript{42} for the assessment of the role and potential of different industries in the development of rural areas and in the industrial development of the country. He worked in some of the villages of eastern Uttar Pradesh.

Srivastava (1984) confined his study to the consideration of those strategies\textsuperscript{43} of industrialization, which can lend a helping hand to the drive for elimination of unemployment. In this study, “Rural Industrial Development”, an attempt was made to frame a strategy for tackling unemployment through industrialization. Nearer home Pandit (1985) propounded that in Punjab and Haryana, footloose industries\textsuperscript{44} played a distinctive part in accelerating the tempo of industrial development in a region which was otherwise lacking apparent locational advantages in terms of materials and markets. His case provides a typical example of such a region.

Streef Kerk (1985, 2001) conducted his research in South Gujarat for many years. He analyzed the manner in which entrepreneurial small-scale industrial production emerged in an overwhelmingly agrarian society characterized as under-developed. The study revealed the transition from pre-machine manufacture to capitalist industry in South Gujarat between Tapi and Vapi. The culture of hierarchy and structure of inequality, together with the lack of income, determined the character of capitalist transformation in Gujarat and local capitalist modernity.

On a more academic scale social anthropologists of the ilk of Vidyarthi (1970), Sachidananda (1985), Mandal (1985), and Srivastava (1988) have conducted their classic researches in tribal communities to know the changes which occurred in them when they came in contact with the non-tribals. They realized that industrialization had accelerated the process of change in tribals. Sachidananda and Mandal (1985) in their study concentrated on some problems created by industrialization in the areas in and around Jamshedpur and Ranchi. They recorded the aspects that brought about the loosening of tribal solidarity, the weakening of family and kinship ties, the debilitation of the traditional mechanism of social control and the overall loss of typical character. The appearance of maladies like beggary which were hitherto unknown in tribal society and the rising tide of juvenile delinquency and criminal propensities - all these were the product of the clash of values between tribal peasant social structure and emergent of industrial ethos.

In “Rural Industrialization in a Modern economy : A study of Traditional and Metal crafts of Alwar”, Puri (1987) attempted to empirically examine as to what extent the tertiary sector could provide self-employment to the rural poor. He emphasized the technology which made possible the mobilization of the labor force for productive use and provided for the maximum utilization of indigenous raw materials. Then Srivastava (1988), in his study, conducted a survey of the socio-economic problems of the tribal district, Bastar, in Madhya Pradesh. He was concerned that industrialization had indelibly affected the economy, social systems and material culture of the tribals and had been instrumental in leading them into several problems like crime, exploitation of women, land indebtedness etc.

Kumar (1989) in his Study, “Rural Industrialization in India”, attempted to analyze the problems of rural industries in nine villages of three blocks of a district in the Telangana area. His study brought out the facts that entrepreneurship was emerging from all caste groups but in the case of non-manufacturing activity it was the forward caste group who were experimenting with certain new ventures. The creation of employment opportunities is circumscribed by the techniques adopted by the entrepreneurs. In the case of the study area it was observed that the landless people were the ones who were exploiting the renewed employment opportunities to the maximum rather than the land owners who had sold off parts of their landholding under the fallacy that they could depend upon the factories to give them and their progeny assured employment.

49 N.K. Puri. 1987. "Rural Industrialization in a Modern Economy : A study of Traditional and Metal crafts of Alwar"
Expansion of Industrialization in the Rural Sector

Rothermund\(^{51}\) (1991) in his study, attempted to portray the regional disparities in India in terms of some major economic and social indicators. While Gopal Krishan (1995) in his research paper on Punjab's industrialization has observed that Punjab has remarkably expanded. It has been diversified in composition and had dispersed over space. Knorringa (1996) analyzed the compulsions of highly skilled workers-cum-entrepreneurs belonging to the Jatav community in a situation of unrelenting labor surplus and a background of social exclusion. It is an attempt to analyze the process of actions, operation, the motivations and opportunities as well as the compulsions in the small-scale shoemaking industry in Agra.

Ray (1997) in his study of wool-based industries in Rajasthan sought to examine employment and wage structure adopted by these industries in the small and decentralized sector. His analysis brought up the fact that very low wages were paid to the workers and that there was discrimination in terms of wage payment to women. No system existed to compensate the female workers for the extreme form of drudgery they were undergoing or their exposure to the various occupational activities.

In 1999, Siddiqui studied two sugarcane-cultivating villages in Uttar Pradesh. His study examined empirically the ‘New Technology’ and the process of differentiation of peasant households in Muzzafarnagar district in western Uttar Pradesh. The ‘new technology’ brought about considerable change to rural economy and its spread was not limited to large landowners but it had also percolated to the middle and smaller landowners. Tiwari and Jain (1999) examined the levels of education, conditions of working place and housing facility for the workers engaged in the unregistered parts of the informal sector in Agra.

Kanpur and Puri. Based on the findings of the study they found that a majority of manufacturing workers in Agra and Puri were illiterates, while in Kanpur, a majority of workers were educated up to the 10th standard. Within the non-manufacturing segment, a majority of the workers in Agra (about 23.40 per cent) and in Kanpur (26.94 per cent) were found to be educated up to the 10th standard while in Puri a majority of the workers (60.84 per cent) were illiterate. Considering manufacturing and non-manufacturing activities in all cities, the findings confirm the employment of illiterate workers (29.94 per cent) within the unregistered informal segment of the city economy. Also Mukerjee et al., (2001) in their study of villages of Faridabad district of Haryana identified the adverse effects of industrial pollution on agriculture. Field evidence showed that the air pollution from industries is a source of major damage to the farming systems in adjacent areas, thus, disrupting the main source of livelihood of many of the small and marginal farmers.

Taking the debate of impact of industrialization further, Behera and Reddy (2002) examined the environmental impact of water pollution on rural communities in general and on agricultural production, human health and livestock in particular, in four major industrial areas in Ranga Reddy and Medak districts of Andhra Pradesh. He analyzed the impact of industries on human health and sanitation which showed up that the sustained exposure had led to the exposure of the inhabitations to various types of health hazards. It is thus this very study that formed the background against which the ensuing study was envisioned and planned.

Ponnu Swami (2003) carried out a survey of Tiruppur, a little town in Tamil Nadu situated near Coimbatore. There are about 2000 production units in Tiruppur manufacturing a variety of goods such as track suits, sweat shirts, pullovers, blouses, shirts, leggings, pajamas, sports wear, beach wear, shorts and woolen garments for children, men and women. He found out that the very industrialization which had made the town of Tiruppur had also been instrumental in destroying the town and its proximal areas' environmental and ecological balance. The main impact of industrialization was the polluting of the Noyyal River. The Noyyal River had been transferred into a veritable effluent discharge channel by the industries.

Hirsch (1988) in his work in Laos came out with the following findings. The first is the difficulty and ultimate irrelevance and irresponsibility of separating the social from the environmental impact of a project the ecological demands of which altered, both, the livelihood and the cultural base of the people affected. The second is the set of dilemmas raised by the creation and application of global norms to help justify a project in a host country which has poorly established politico-institutional and cultural means of dealing with such norms. The third is the importance of understanding competing agendas in the contexts of wider and longer-term conflicts whether they are resource based or geopolitical.

Truelove (1990) investigated the fact that agribusiness transnationals in the coffee industry established rural mini-aquiladoras in Colombia, employing women at below subsistence wages to produce shoes and garments for export. The year round work of the women subsidizes the wages of male agricultural labor only seasonally. Van et al., (1991b) conducted research in the Vaal

---

56 Cynthia Truelove. 1990. Gender and Industrialization.
triangle\textsuperscript{57}, which is located around 40 km from the center of the city of Johannesburg. It houses petro-chemical, brick, ceramic tile, steel and numerous other industrial operations. In addition, more than 1 million people who use coal for domestic purposes live in the vicinity. An air characterization study indicated that up to 70 per cent of the particulate pollution in the area resulted from coal burning and dust which was linked to the industrial activities and motor vehicles. Similarly Peters et al., (1996) in their research on effects of ambient\textsuperscript{58} air pollution intervention and environmental tobacco smoke on children's respiratory health in Hong Kong have drawn inferences about the effects of air pollution on the children's health in two districts with high and low pollution level. Prevalence of coughs, sore throats, wheezing with asthmatic symptoms and wheezing alone were found in the more polluted district. The frequencies of all the respiratory symptoms were highest among the youngest children (aged eight years and above), higher in boys than girls and higher in children living in the more polluted district. Children who lived in homes where smoking took place also had a higher prevalence of symptoms.

**Conclusive Evidence for the Research**

Wong et al., (1997) conducted various studies\textsuperscript{59} (1998, 1997) in Hong Kong related to Air Quality and impact of pollution on health. The studies found that the overall risks for health effects of pollution including admissions for all respiratory disease, asthma, liver disease, showed higher excess risks for all age groups. Similar findings were made for hospital deaths. The evidence available indicates consistent and strong associations between variations in ambient air


pollutants and bad health outcomes. The evidence suggests that both past and current air quality objectives have not protected several large section of the Hong Kong community from air pollution-related health problems, including particularly very young, the sick and the elderly. Along the same lines Ostro (1999) conducted several epidemiological60 studies (1996, 1999) in Santiago, Chile, which suggest associations between particulate matter air pollution and several adverse health outcomes including premature mortality, and urgent care visits for respiratory ailments.

Sari (1999) in his research on Batam Island (Indonesia) found out that economic and trade liberalization61 have created severe pressure on local environments and human rights. The Indonesian government responded to trade liberalization by relaxing obstacles to investment. Environmental regulation, which was perceived as an obstacle to development was relaxed. As a result economic development took place at the cost of environment and human rights. McMurray and Smith (2001) has examined the impact of globalization62 on health. In particular it has been concerned with the manner in which the wide spread adoption of a liberal capitalist ideal has led to increasing disparities of wealth in Mongolia, Uzbekistan and Marshall Island. Those denied the benefits of economic growth, including improved health care, have been marginalized, and this is turn has negative effects on their health. The study also explores the reasons why marginalized groups may choose to pursue an unhealthy lifestyle, even when alternatives are possible. In-depth interviews reveal perceptions and attitudes that are at variance with popular explanations that their behavior arises from ignorance and cultural preferences can be concluded that several studies which were conducted from time to time to know the impact of industrialization on

human life and the environment have highlighted many environmental impacts as a consequence of industrialization. In addition to environmental problems like pollution of air, water and soil, other impacts were also felt. It is concluded from the above study that there were drastic changes in land use with the rapid paced construction of factories. Areas along the countryside were destroyed and replaced by industrial development.

Thus, it can be justifiably concluded that today we live with the global consequences of industrialization which proved both a boon and a bane to the human endeavor. It is a double edged sword which has both the aspects of god and bad balanced within its own potential. It has lent benefits to mankind in better living standards, improved quality of life and greater life expectancy on the one hand and on the other has shown the debilitating effects that have resulted in the subsequent degradation of the environment and have gone on to pose a serious threat to the health and well-being of individuals and families, and to a large extent, to entire communities.

**Current Concerns:**

During the study period the concerns of the researcher were reflected from time to time in the media’s concern for the environment of Punjab per se and the industrial belt and the contamination of the Satluj river in particular. Headlines like ‘Mandi Gobindgarh most polluted town in Punjab’; ‘Budda Nullah high on toxic metals’; ‘Polluting water, air with impunity’; ‘Ground water Pollution in Nawanshahr’; ‘Industrial Pollution in Ropar District’ were all exposing the impact of industrialization on the natural resources of the region. On the other hand reports were scorching the newspapers on the topic of agricultural diversification, depleting ground water and decreased fertility of the land. For the Kandi belt which was already a poverty stricken and least developed part of Punjab. Once the media had rung the clarion call which scientists of the area for long had been trying to raise, there was renewed interest in studying the effect
of the close relationships and nexus of power among the industrial houses and the local population. Even so the experiences of the inhabitants were never highlighted in any of the media or other investigations. Thus, it became all the more important to go into the long lasting impact that industrialization was having on this belt. It is hoped that the findings of the study would fuel further investigations into the phenomenon of tolerance on the part of the inhabitants and the exploitative and nurtured overtures of those having the financial and political clout to sidestep the right path of action as delineated by the Pollution Board.

The experiences of other regions could well be the pathfinders of the study area which may not as yet have attained the drastic levels that have been reached by the people of Dombivli. It is an industrial township in Thane district of Maharashtra. Any taxi driver can point it out from a distance. This small town with a big industrial estate, comprising some 50 chemicals units manufacturing dye intermediaries, is perpetually engulfed in smog. For the 100,000 residents, life is worse than hell. “The factories emit gases at night. Any complaint against them will only mean that we lose our jobs,” laments Saroj Panicker, a resident of Dombivli, whose father works in a chemicals factory. This situation is similar to the Bannah village in the study area. A conspiracy of silence is reigning in the area as nobody is willing to raise their voice against the impact of the polluting factors like fly ash, soot, effluents in the water and overall contamination of the land. There have been a number of surveys conducted by the factory owners manage to staunch them. In fact collecting data for the present study was also a Herculean task as one had to be very tactful and persuasive to be able to elicit any information from the respondents.

Though the Maharashtra Industrial Development Corporation (MIDC) is supposed to establish a common effluent treatment plant (CETP) and the industrial units have to treat their effluents, visits to at least 15 units showed that...

---

63 Industry at any Cost. Down to Earth April 15, 2000 downloaded from google.com
they discharge effluents in open fields besides residential colonies. “When it rains
the rainwater brings these chemical in our houses, “says Renuka Patil, whose
house is next door to a factory manufacturing chemicals for a fertiliser plant. S. P
Ahire, a local physician who treats people from within the industrial area, says
the most common problems are respiratory and skin disorders. This too is a
reality for residents of the study area. The medical specialists there have added
asthma and chest infection to the list of common afflictions.

The Maharashtra Pollution Control Board says the air quality here is as
poor as Chembur and central Mumbai. But pollution here is solely due to
industries. “The town has become a huge dumping ground for chemicals units
operating on obsolete technology,” says Rashmi Mayur, Director of the
International Institute for Sustainable Future, Mumbai, who recently conducted a
survey in the area.

In the residential areas surrounding the industrial estates, people keep
their windows and doors bolted at night. There is a fear that factories may
discharge poisonous gases. “Once my husband fainted suddenly after opening
the windows at night,” says Manisha Dubey, a resident. A senior scientific
officer who does not want to be named says: “There are no official complaints
from any residents. But we know for certain that some factories release gases
like chlorine. As the area is densely populated this could be hazardous for human
health, even fatal.” But all officials working in the plants only reiterated one line:
“There is no pollution and the pollution control board has certified this.” The
owner of a factory inside the estate says factories release gases at the same
time, making it impossible for any official on inspection to identify the culprit.

This is also the experience of the study area to some extent because the
people may not know it now but they are being exposed daily to the side-effects
of the contamination and it may not be very long before some or the other

64 Ibid.
disastrous outbreak may result. The other side of the picture is that the factories have licenses, have some manner of management of the waste and the effluents but there is still a large gap between what is desired and what is in place. The treatment plants have to be assayed for their capacity to handle the kind of waste being generated and the Pollution Board too has to swing into action to clamp down on those who are not taking the required steps to manage the situation. Then there is also the surreptitious pouring down of effluents into holes in the ground which have been reported by workers but on terms of strict secrecy that their identity be protected. They reported that the effluents are flushed down the holes away from knowing eyes and when the contamination levels of the ground water are reported to be high they deny any knowledge and in fact set about proving their innocence. They pass on a few sops every now and then to the people who matter like the Panchayat Sarpanch and other influential bodies so that they can carry on gleaning the maximum profits. The literature downloaded from the net and picked up from news clippings highlights these experiences in other regions as well.

The present study is an attempt to explore the impact of industrialization on rural communities in general and human health, economy, social system and agriculture in particular. The details of the impact of the industrialization on the land, people and their health and well being, agriculture and livestock, as also the effect of the presence of these industries on the balance of power in the area has been studied closely in the following chapters.