CHAPTER-I

REVIEW OF LITERATURE
Work on land is mankind's oldest occupation. Nearly 50 years after independence, agriculture and allied activities continue to remain of great importance in Indian economy. "They are vital to the national well-being as, besides providing the basic needs of the society and the raw materials for some of the important segments of Indian industry, they provide livelihood for almost two-thirds of the work force. The share of the agricultural products in the total export earnings, both in primary and processed forms, is very significant. Over the last four decades, agriculture has made important strides in our country. It has been able to meet the growing demand of the increasing population for their essential need, namely food. The production of food grains increased from 51 million tonnes in 1950-51 to 176.22 million tonnes in 1990-91. This has enabled the country to be, by and large, self-sufficient and to increase the per capita availability of foodgrains albeit slowly, from about 395 gm per diem in 1951 to 475 gm in 1990" (Government of India, 1992b:1).

The moot point is: has the achievement improved the conditions of large and growing mass of our rural poor; and
enhanced their capacity to improve their lot in the long run? When compared to what we need to achieve, what we have already achieved pales into insignificance. The Planning Commission doesn't mince words: it says, "...it is true that there has been a considerable decline in the incidence of rural poverty over time. In terms of absolute numbers of poor, the decline has been much less. While this can be attributed to the demographic factor, the fact remains that after 40 years of planned development about 200 million are still poor in rural India. In 1987-88, the rural poverty line in terms of per capita monthly expenditure was Rs.131.80" (Ibid.:27).

Using the full survey data on household consumption expenditure collected by the National Sample Survey Organisation (NSSO), the Planning Commission, as per the 'official methodology' has estimated 29.9 per cent poor for the year 1987-88 (Govt. of India, 1993:32). This has also estimated poor as 33.4 per cent for the rural areas and 20.1 per cent for the urban areas. These figures have been further revised. Percentage of poor based on adjusted NSS distribution, for the same year was--26.85 per cent (All India), 17.88 per cent (Urban) and 30.02 per cent (Rural). An 'Expert Group' constituted by the Planning Commission in
September 1989, which does not find the procedure (adopted by the Planning Commission) acceptable, has estimated the proportion of poor. The corresponding figures, however, much higher as compared to the officially released estimates. The estimates of the poor for the year 1987-88 are 39.34 per cent--all India, 40.12 per cent--urban and 39.06 per cent--rural (Ibid.:58). S.P. Gupta, as reported in Economic Times, estimates poverty for 1993-94 at 39 per cent (Gupta, 1996).

Taking the period between 1961-91, if we look at the absolute number of agricultural labourers who are usually among the poorest of the poor, has continued to increase. Data from successive censuses indicate the significance of this trend. The Census of India is the most comprehensive source of data on agricultural labourers and the work-force in the country. The definition of 'agricultural labourer' has remained basically unaltered in 1991:

A person who worked in another person's land for wages in cash, kind or share or crop was regarded as an agricultural labourer. Such a person had no risk in cultivation but merely worked in another person's land for wages. An agricultural labourer had no right of lease or contract on land on which he worked (Census of India, 1991, undated:1 xi).

Their number has increased from 31.5 millions in 1961 to 47.5 millions in 1971. The proportion of agricultural
labourers to total workers had gone up from 16.71 per cent in 1961 to 26.33 per cent in 1971 (Dantwala, 1980:18). Their number in the country, excluding Assam and Jammu & Kashmir, has further increased during 1981-1991 from about 55.4 millions (55,436,000) in 1981 to about 73.7 millions (73,752,000) in 1991. The proportion of agricultural labourers among the main workers has also gone up from 25.12 per cent in 1981 to 26.44 per cent in 1991 (Census of India 1991, 1992).

There has been an increase in the size of the agricultural labour force in different parts of the country (see Breman, 1974a; Bhalla, 1976; Nayyar, 1977; Beteille, 1980; Gough, 1981; Parthasarathy and Pothana, 1983; Reddy, 1985; Patnaik, 1987; and others). The increase in the size of agricultural labour force is not merely a quantitative change, but has a qualitative aspect as well. Andre Beteille refers to the increase in the size of the labour force, male and female, as 'probably the most significant feature of the Indian village of the present' (Beteille, 1980:118).

While entering into the qualitative changes, particularly the changes in the socio-economic characteristics of agricultural labourers in the contemporary period, it is
important to know the different forms of agricultural labour which involves an employer-employee relationship. The First Agricultural Labour Enquiry (1950-51) explicitly distinguished between two categories of hired agricultural labourers: 'casual' and 'attached'. Attached labourers are said to cover those who are "more or less in continuous employment and are under some sort of contract with employers during the period of employment". Casual workers are simply "workers other than attached and employed from time to time according to exigencies of work" (Government of India, 1954:21). Surendra Patel's 'Agricultural Labourers in Modern India and Pakistan' (Patel, 1952) and Daniel and Alice Thorner's paper 'Employer-Labour Relationship in Agriculture' in 1957 (Thorner, Daniel and Alice, 1962) predate the major technical and institutional changes that have taken place in Indian agriculture. Employer-labour relationships in agriculture have been seen in terms of the relative freedom of agricultural labourers to sell their labour power to employers. Patel's work also talks in terms of the freedom of the agricultural labourers from ownership of the means of production. However, "no attempt was made to analyse the definition of agricultural labourers critically, or to separate them into the different types in which they are generally found" (Patel, 1952:37). The Thorners
For the purposes of analysis, the most important distinction to be made is between those arrangements in which the labourer contracts freely and those in which his bargaining power is abridged. A free labourer is one who is able to accept or reject the conditions and wages offered by the employer. If he wishes he may refrain altogether from working. Once having taken a job, he can decide to give notice and quit. Economic stringency may indeed compel a free labourer to agree temporarily to terms he does not consider favourable. But his basic right to refuse work or to seek alternative employment remains uncompromised.

An unfree, or bond labourer, by contrast, is one whose bargaining power is virtually non-existent, or has been surrendered. Such a labourer does not possess the right, or has yielded the right, to refuse to work under the terms set by his master. Through custom, compulsion or specific obligation, the bond labourer is tied up to his master's needs. He can neither quit nor take up work for another master without first receiving permission.

The fact that a labourer is under contract—whether formal or informal, oral or written—does not tell us whether he is free or unfree. There are contracts which signify bondage and contracts which state in terms of free arrangements arrived at freely. In effect, the contract is merely one form of acknowledgement of whatever relationship exists between the employer and the employee. A free labourer who enters into a contract to work for a stipulated period of time for a certain employer does not thereby surrender his freedom; he is merely exercising it in a particular fashion. The crucial question is whether he can leave unconditionally at the end of the period. If so, will he be in a position to negotiate again with the same employers or to open negotiations with other employers on a basis of unimpaired bargaining power? If he will not be able to quit after completing the period of the contract, there is a reasonable inference that his lack of full freedom
is a continuing state, which already existed before the agreement was entered into. Similarly, if the emoluments provided in the contract are markedly less than the going local rates, there is again a strong suspicion that the relationship is not a free one. On the other hand, a contract freely entered into can serve to protect the labourer as well as the employer" (Thorner, Daniel and Alice, 1962:21-22).

However, Daniel and Alice Thorner had attempted to seven-fold classification which includes the following types of employer-labour relationship:

**Free Labour:** i) Those arrangements between labourers and employers which continue for a year or more; ii) employment for single crop season; iii) short term jobs lasting either for a few days or for a single-operation such as ploughing or harvesting; and v) daily labour in which workers are hired for one day at a time.

**Unfree Labour:** v) Full-time service on an annual or more than annual basis in a dependent status; vi) ‘beck-and-call’ relationships under which labourers must work for a single master whenever he so requires; vii) forced labour in which tenants have to perform a certain number of days of work each year for their landlords at low, nominal, or even no wages (Ibid.:81).
Pranab Bardhan and Ashok Rudra (Bardhan and Rudra, 1980a:1477-1484), retain the conventional distinction of 'casual' and 'attached' with modifications to take care of some important nuances. They refer to the freedom to work for different employers within the contract period and accordingly find a scheme of classification of labourers:

(1) "Totally unattached labourers" (or "casual labourers")—labourers who enter "into a contract with a particular employer for just a single day at a time, different contracts being negotiated on different days, in principle with possibly different employers, the contract for one day with one employer not having any influence on the contract with another employer on another day" (Ibid.:1478).

(2) "Totally attached labourers (or farm servants)"—labourers with contract duration of usually one year, and almost the whole year they have to work full time exclusively for their employers.

(3) "Semi-attached labourers (Type I)"—these labourers "are attached to an employer for part of the year, but for the major part of the year they have the freedom to work for other employers" (Ibid.:1478).
(4) "Semi-attached labourers (Type 2)--they are obliged to work for the employer whenever called for a stipulated number of days in a stipulated period" (Ibid.:1478).

(5) "Semi-attached labourers (Type 3)--they are obliged to work for the employer whenever called for an unstipulated number of days over an indefinite period" (Ibid.:1478).

As Bardhan and Rudra say, "these terms and conditions of labour contracts involve (a) duration of contract, (b) basis of payment, (c) frequency of payment, (d) medium of payment, (e) specifications of the nature and hours of work, (f) interlinkage with other contracts in credit or land relations with the employer, and (g) freedom to work for different employers" (Ibid.:1483).

Bardhan and Rudra have recognized that there can be various obligations due to the employer by a labourer i.e. a) allotment of land; b) current consumption loans; c) and old debts. Bardhan and Rudra's semi-attached labourer of Type-3 which, they say, is similar to Thorner's description of `beck and call' relationship, is unfree; the labourer may or may not be free to sell his or her labour power to other than a specific employer at particular periods of time. Their data showed the estimated proportions of total farm
labour families that are casual, fully attached, or semi-attached for their sample of 100 villages in West Bengal, carried out in 1979, while for all villages taken together, 83.6 per cent of all farm labour families were causal, 10.9 per cent were fully attached and 5.5 per cent were semi-attached. Nevertheless, the importance of attached and semi-attached labour were higher in the 'highly advanced' villages than in the 'not advanced' villages.

Jan Breman's (Breman, 1974a) study on the decline of the hali system of attached labour in Gujarat whereby the farm servant had bound himself by indebtedness to a farmer, reveals the emergence of 'free' labour in Indian agriculture. He had indicated the connection between the commercialization of agrarian production and the disintegration of hali system and had suggested the alteration in use of labour was not so much the consequence of the Green Revolution, but rather resulted in this. The decline in the prevalence of this system, took place over a period of many decades:

"There was certainly no sudden turn in the relationship... nor is it readily conceivable that such an important institution in the social and economic life of a large part of the agrarian population should come to an end within such a short period of time" (ibid.:68).
While describing multiple factors contributing to this decline he visualised the disintegration of the system as being rooted in changes, among other things, in the drastic change in the cropping system and as a result the landlords no longer needed to use permanent labour.

Katheleen Gough (Gough, 1981) had identified three broad categories of agricultural labourers in the village of Thanjavur in the early years of Independent India. They were:

a) **Pannaiyals** - the farm servants of the former 'untouchable' castes who were also the lineal descendants of the landless labourer. These farm servants were bonded by debt to landlords but they could free themselves and gain some degree of mobility only by repaying the debt or being 'forgiven' it.

b) The second group, who were also farm servants, consisted of the middle ranking castes and their relative superior caste position which had consequent effect on the labour-employer relationship, placed labour at a more privileged position.

c) Casual labourers who constituted the most sprawling of the three groups.
The cause of the rise of such casual labour force could be attributed to several socio-economic factors like population increase which was enhanced by return migration, particularly from overseas; further fragmentation of small landholding; favourable legislation securing the interests of such labourers.

Gough's another study in Thanjavur in the late 1970s (Gough, 1987) helped identifying the important features of change which may be summarized as follows:

1) A 'dramatic rise' of casual labourers in both of her study villages.

2) On the one hand, the number and proportion of attached labourers had greatly declined, on the other hand the number and proportion of casual labourers had greatly increased.

Moreover, "the agricultural labour population had become less pre-capitalist and more proletarianised" (ibid.:289-90).

While attempting to identify and classify a few of the major variations of unfree labour, H.V. Nagesh (Nagesh, 81) emphasized that "we should remind ourselves that labour has never been free and it has always been in bonds, more so in
an agrarian set-up" (ibid.:A109). He had categorised unfree labour on a spectrum from the least unfree (casual/day, contractual and exchange) to most unfree (slavery, bonded labour, agrestic tenurial labour) (ibid.:A114).

One of the most recent studies by V.K. Ramachandran (Ramachandran, 1990) during 1977 to 1986 in Gokilapuram village and the Cumbum valley in Madurai district, while inquiring into the evolving conditions of life and labour of agricultural labourers (due to the advancement in agriculture) concludes: "without-doubt: the system of wage labour is established and entrenched, and is dominant in most production tasks. Also without doubt: unfreedom and the system of labour service have not withered away or been consigned to the past; on the contrary, they play an important role in the daily lives of agricultural labourers and in production relations. In their socio-economic being, contemporary agricultural labourers recapitulate, as it were, many characteristics of different historical stages through which agricultural labour passed on the road to becoming proletarian" (Ibid.:262).

Breman's another study (Breman, 1985) carried out during 1977 to 1982 in south Gujarat provides a valuable assessment of changing pattern of employment and labour
relations in the contemporary period:

"...the dissolution of the previous relationship of dependence is the consequence of a transition to a capitalist mode of production. A greater problem than the farmers' appetite for subjecting one or more individuals, is that now-a-days they pay little or no attention to the plight of agricultural labourers. On their part, the latter have become conscious of the stigma attached to bondage, and for that reason regard their increasing freedom of movement as a positive improvement. This does not alter the fact that they have lagged behind in a vulnerable position, and have even become socially isolated. In spite of assertions to the contrary, the government fails to protect the landless labourers and to provide them with a minimal security of living...." (Ibid.:312-313).

Studies conducted in several parts of the country indicate the awful conditions of unorganised agricultural labourers. The rural poor with no property whatsoever have to depend on their labour power only to sustain themselves. What are the employment opportunities? Barring agricultural operations they do not have any major sources of employment. Also agricultural operations can give them seasonal employment. Generally, it is accepted that an agricultural labourer finds it very difficult to obtain employment even for six months. Most of the time he is either underemployed or is attending to such jobs that do not give him two square meals a day.
In south Gujarat, as found by Breman, reveals that while farm servants or rojio were kept busy the whole year round, casual labourers or chhuta majur could find work on only 200 days. Nevertheless, due to the seasonal variation in employment opportunities which was also applicable to labourers in permanent service, in quiet periods they were all too often laid off (Breman, 1985:281).

Data obtained from four villages studied by Sudipto Mundle in Palamau, Bihar estimated that a mazdoor or a manual worker in the village that had the highest levels of employment received only 140 days of agricultural work a year, while in another village total employment for a worker in a year on an average was only 68 days (Mundle, 1979:76-77, table 3.32). From the data obtained from two sample villages in Kerala John P. Mencher (Mencher, 1980) pointed out that "it is clear that the amount of work available for agricultural labourers has been steadily decreasing" (ibid.:1784). Data collected by Kathleen Gough, from two villages in Thanjavur district, Tamil Nadu--at two points of time--shows that in one village, the number of days of employment of a male casual labourer declined from 200 days a year in 1952 to between 76 and 180 days a year in 1976-80, while in another village, the decline was from between 160 days and 180 days a year to between 60 and 110 days a year.
over the same time period. It is interesting to note that, of the 140 days about 96 (or a little over three months) were days worked in agricultural sector (Gough, 1987:290). Gough also noted that the days of employment available to women workers had been reduced.

Similarly in Gokilapuram as the study, conducted by Ramachandran, reveals the average number of days of work available per adult worker was about 140 years (Ramachandran, 1990:121). From the data obtained from 110 villages in West Bengal, Pranab Bardhan and Ashok Rudra in 1979, assessed that in four months of the year--Ashwin (the Middle of September to the middle of October), Kartik (the middle of October to middle of November), Falguna (the middle of February to middle of March) and Chaitra (the middle of March to the middle of April)--more than half of the study villages had employed less than half of all the labourers in the village (Bardhan and Rudra, 1980b:1945).

Many studies show that even during periods of work the agricultural labourers do not get paid minimum wages. An evaluation of statewise data on the minimum wages fixed, the number of days employed and the possible income of a labour family if the minimum wages were effectively implemented, etc. and the amount required per year for the household to
remain above poverty line, carried out by K.C. Alexander, analysed "...at prescribed minimum wages of agricultural labourers in no State other than Punjab will be able to have an earning above poverty line" (Alexander, 1980a:18). Further, disparities in the wage rates paid to men and women in agriculture in India is evident in the literature (Patnaik, 1985:22, 1987:102-103). Moreover, "...a woman may earn half the wages earned by a man for an equivalent day's work, but not because her productivity is less" (Sunder, 1981:864).

Apart from employment and wages, the working conditions, working hours and payment of over time are also far from satisfactory. "Those who are permanent labourers have to work from sun-rise to sun-set. Whenever there is urgency they are asked to work for more hours" (Maheshwari, 1986:342). Hari Prakash Maheshwari, in a study of the 150 agricultural labourers around Sikandarabad town in Bulandshahar district of Uttar Pradesh, found that "...working hours are not fixed, sometimes even exceeding more than 8 hours in case of 70 per cent labourers and 65 per cent labourers were reported to have received not even an appropriate payment, for over time work" (Ibid.:342-343).
Though after independence the trade union movement advanced and many workers organisations were formed to protect the interests of the labour class and there are many labour laws covering the matters such as minimum wages, working hours, worker's compensation, employee's state insurance, provident fund etc., but it is ironic that these enactments are more beneficial to some sections of industrial workers than to vast majority of agricultural labourers. In fact, it is much more difficult to organise the agricultural labourer compared to industrial workers because of a number of socio-economic and political factors. However, one of these factors that differentiates these labourers is that agricultural labourers are generally indebted to their employers. The debt incurred are mostly unproductive in nature and thus fail to enhance their repaying capacity. An important index of low level of income and extreme poverty among agricultural labourers is the extent of indebtedness among them and trends therein.

As Qadeer and Roy say, "...it is possible that agriculture, which provides work to 80 per cent of the population, may be causing more death and disease than in industry in terms of absolute numbers of workers affected.... The manufacture of agricultural equipment, tractors, pump-sets,
fertilisers, insecticides and the generation of power are all closely associated with developments on the farm. All of them create their own hazards both in industry as well as in agriculture. In agriculture, as in industry, it is some sections of the work force, like the agricultural labour and small cultivators who directly handle machines and pesticides, who are the most affected by the work hazards" (Qadeer and Roy, 1989:55). The health hazards to which the agricultural labourers is now-a-days exposed are many and varied. With the application of modern technology in agriculture, the health problems which are inseparable from work in the fields and on the farm generally have become numerous and, often, more serious.

A recent study of the effects of the new pesticides--those had been introduced over a period of 15 years or so--on the health of agricultural labourers in the wet-rice regions of India, carried out by Joan P. Mencher (Mencher, 1991), emphasises that the problems of pesticide usage in Indian rice regions pose a serious threat to the health of rural people who already face many other difficulties in their lives. She described:

"...men spraying were using a small piece of cloth, usually a handkerchief, to cover their nose and mouth. However, they were able to breathe easily through the cloth and it is uncertain how
much pesticide they avoided inhaling that day... since everyone walks barefoot, it is clear that they are exposed at least during the first day or two after applying pesticides to whatever residues are present.... Local people almost never attribute ill-health to pesticide use. When we were collecting data on reasons for labourers missing work poor-health was the second most common reason given. The illness reported, apart from the usual respiratory and stomach problems, included some which could possibly have been caused by pesticides, such as severe rashes on the legs, dizziness, headache, pain in eyes, etc. We do not know whether any of these illness are related to pesticides..." (Mencher, 1991:2265)

It is also revealed from Bharat Dogra's study in Gujarat that the protective method used by the labourers was inadequate to prevent the inhalation of toxic chemicals. Hardly labourers were provided with goggles to protect the eyes. 50% of the labourers used a piece of cloth to cover their nose and mouth, 20% labourers did not wash their hands at all while of those who did, 64% did not use soap, which was utterly inadequate (Dogra, 1985:20). Mohan, in his study on 'Pesticides and Physical Disability in India' found a positive significant statistical correlation between intensity of pesticides use per hectare and prevalence rates of deformity of limbs, dysfunctions of joints, amputations and visual disabilities, in rural areas (Mohan, 1985:8-10)

To arrive at the health of the agricultural labourers it is important to focus on their 'life process' i.e. socio-
economic processes. "The matrix created by socio-economic and political factors in a given biological and physical context constitutes the environment" which influence human health (Qadeer, 1990:99-100).

The influence of environment on human health was anticipated by many like Rudolf Virchow, John Snow and Engels, long ago, who necessarily added a significant dimension to the monocausal theorisation of bio-medical perspective. Rudolf Virchow (Virchow, 1849) identified the environmental aspects of disease causation in 1849. John Snow's (Snow, 1965) study in 1854 sought to derive causal affinity between society and epidemic. Engels is probably the first among all, whose work in 1844 which was published in 1845 in German edition brought out the environmental aspects of health (Engels, 1977). Moreover, his work focused on a particular section of the people at the bottom of the class hierarchy. Engels observed:

"...when society (when as here and elsewhere I speak of society as a responsible whole, having rights and duties, I mean, of course, the ruling power of society, the class which at present holds social and political control...) places hundreds of proletarians in such a position that they inevitably meet a too early and an unnatural death, one which is quite as much a death by violence as that by the sword or bullet; when it deprives thousands of the necessaries of life, places them under conditions in which they cannot live--forces them, through the strong arm of the
law, to remain in such conditions until that death ensues which is the inevitable consequence—knows that these thousands of victims must perish, and yet permits these conditions to remain,...that it has placed the workers under conditions in which they can neither retain health nor live long, little by little, and so hurries them to the grave before their time. I have to further prove that society knows how injurious such conditions are to the health and the life of the workers, and yet does nothing to improve these conditions.... That a class which lives under the conditions already sketched and is so ill-provided with most necessary means of subsistence, cannot be healthy, and can reach no advanced age, is self-evident... the manner in which the great multitude of the poor is treated by society today is revolting. They are drawn into the large cities where they breathe a poorer atmosphere than in the country; they are relegated to districts which, by realm of the method of construction, are worse ventilated than any others; they are deprived of all means of cleanliness, of water itself... they are obliged to them all offal and garbage, all dirty water, often all disgusting drainage and excrement into the streets, being without other means of disposing of them; they are compelled to inflect the region of their own dwellings.... All conceivable evils are heaped upon the heads of the poor. If the population of great cities is too dense in general, it is they in particular who are packed into the least space. As though the vitiated atmosphere of the streets were not enough, they are panned into single rooms, so that the air which they breathe at night is enough in itself to stifle them. They are given damp dwellings, cellar dens that are not water-proof from below, or garrets that leak from above. Their houses are so built that the clammy air cannot escape. They are supplied bad, tattered, or rotten clothing, adulterated and indigestible food. They are exposed to the most exciting changes of mental condition, the most violent vibrations between hope and fear; they are hunted like game, and not permitted to attain peace of mind and quiet enjoyment of life.... How is it possible, under such conditions, for the lower class to be healthy and long lived? What else can be expected than an
excessive mortality, an unbroken series of epidemics, a progressive deterioration in the physique of the working population?..." (Engels, 1977:120-123).

The concept of interaction between body and environment determining the state of health and disease, in fact, has been subsequently pursued by many scholars in twentieth century. Hans Zinsser's study of 'typhus fever' first published in 1935 (Zinsser, 1967) treated disease as 'biological individuals' whose biography can be traced through its development over centuries. This was an attempt to take the disease as well as the studies associated with it out of the laboratory into the socio-political realm, and trace its evolution through history.

Rene Dubos' (Dubos, 1959) work on the humanity's search for health took into consideration of many disciplines i.e. biological sciences and geology, meteorology, history, economics and other social sciences as well. Thus Dubos diverted attention from bio-medical aspect to non-medical one.

Goran Djurfeldt and Staffan Lindberg (Djurfeldt and Lindberg, 1975) conducted a study of introduction of western medicine in the village Thayiyr in Tamil Nadu during 1969-70 and concluded that the health situation in village was a
consequence of the prevailing economic and political order; while both the western and indigenous systems of medicine were equally important in dealing with health situation, only a profound transformation in the economic and political structure could give the people of Thayiur the means to improve their health.

Debabar Banerji's study (Banerji, 1982) spread over nine years—1972 to 1981, carried out in nineteen villages from different parts of the country which was an indepth study of poverty conditions and of the processes—socio-cultural, economic and political—which generate such conditions and class had also provided the data base for making a more detailed analysis of linkages of poverty with the ecological conditions, health problems, health culture and access to health services. Banerji described:

"The study thus provided data on various aspects of most overwhelming health problem faced by rural populations in India: the problem of hunger. Poverty also leads to further disintegration and deterioration of the environment and of living conditions—of sanitation, of the quality of drinking water, of shelter, of clothing and being forced to eat wild roots, grass, seeds, leaves and even garbage" (Ibid.:220).

In a study of a Tamilnadu village, Sheila Zurbrigg (Zurbrigg, 1984) had attempted to look at continuing ill-
health in India through the life of a labouring village woman, exploring the forces which kept her from adequately feeding and caring for her children and herself. Zurbrigg advocated a shift of attention and efforts of health workers to the poverty--dependency--ill-health dynamics, and suggested how issues of ill-health could be used to strengthen the broader struggle by the labouring poor for health and social justice.

Qadeer and Roy (1989), focusing on the health of workers attempted to examine the socio-economic co-ordinates of their dual environment, the primary determinants of health, in which they work and live. Using secondary data published by the Labour Bureau of the Ministry of Labour and Employment, Government of India, and information on industries of a district in Madhya Pradesh--Shahdol--and its surrounding areas, of which they had first hand knowledge. The authors identified the social co-ordinates of workers' health. They found that "the social co-ordinates of workers health, reveal it to be not merely dependent on medical technology but in fact related to various socio-economic parameters. What is important is the way in which these are ordered. Workers' health is thus strongly affected by decisions about the choice of product, the choice of technology, and the
choice of work force to operate the technology on the one hand, and on the other, by social processes like welfare movements and legal interventions, all ultimately linked to the nature of social stratification and the demands of profit motive and private ownership" (Ibid.:80).

Even the study group constituted by the Indian Council of Social Science Research (ICSSR) under the programme of Studies on Alternatives in Health and jointly sponsored with the Indian Council of Medical Research (ICMR), to study the social aspects of medicine with a view to suggesting reforms which would lead to the improvement in the health status of the people, realised that "Health is a function, not only of medical care, but of the overall integrated development of society--cultural, economic, educational, social and political. In fact, good health and good societies go together. Health also depends on a number of supportive services--nutrition, improvement in the environment and education; and the influence of these services on health status is far greater than that of medical care" (Indian Council of Social Science Research and Indian Council of Medical Research, 1980:148).

When we come to health services, the very structure of health services is determined by political and socio-
economic factors (Starr, 1982). Harry Clever's perspective paper on the political economy of malaria decontrol in India (Clever, 1976) had already reflected that much of the efforts which contributed to the development of public health, including malaria control, could only be understood as a part and parcel of interplay of social conflicts attendant upon economic growth and development.

Similar critics of the health service system are offered by Rosen (1958), Navarro (1976), Doyal (1979) and Turshen (1981) who show how larger social forces, political and economic, shape the structure as well as organisation of public health system.

The health services offered by various organisations seem to nourish an inherent class bias as far as their accessibility is concerned. Qadeer's study carried out in a tribal district of Madhya Pradesh (Qadeer, 1985), Banerji's nineteen villages study (Banerji, 1982) and Djurfeldt and Lindberg's study in a Tamil village (Djurfeldt and Lindberg, 1975) also highlighted, "the marginalisation of the poor in the provision of health services in urban as well rural areas, where health care has become the privilege of the upper and the middle classes" (Qadeer, 1990:99).
From amongst the dual intervention of these social forces at the health service system and yet at the level of determining conditions of life we choose the latter for our investigation. This was so because, the contemporary studies highlight the processes at work that act as barriers to provision of services, but their explanation of the impact of socio-economic forces on living and working conditions and through them on health is limited. Though sufficient interest has developed in this area of research, the efforts largely are quantitative in nature. A current book, *Health, Poverty and Development in India*, edited by Monica Dasgupta et. al. (1996), while emphasizing the role of poverty uses the state level data on infant mortality and finds little relationship between proportion of population below the poverty line and levels of infant mortality rate (IMR). The obvious inadequacy of such analysis lies in the fact that, state level data smoothens out all differentials between classes. While trying to quantify the relationship, they have looked at other studies as well, which attempt to show the relationship between productivity and disease. One of such studies by Basta et. al. (Quoted in Monica Das Gupta et. al. 1996:10) shows that productivity of rubber tappers increased as reflected by the rise in wages earned after treatment for anaemia. Such interpretations tend to lose
the historical and contextual dimensions of the relationship in a backward economy where the developmental process does not ensure public health interventions to improve the health of the poor; the real issue is to understand what are the constraining factors rather than showing that fulfilment of the basic needs improves one's ability to perform.