CHAPTER I
REVIEW OF LITERATURE

In this Chapter, we review the literature on the evolution of the Social Security and related legislations, for the working class in India. This historical review will enable us to study the role of the three principal players, viz, Government, employers and employees in formulating the ESI Scheme. We shall also analyse available studies concerning occupational health and Safety and compare them with published ESI records. Studies on the working of the ESIS carried out by independent agencies are also reviewed. These give us valuable insights into the working of the ESI Scheme. The review of literature has helped to raise key research questions which enabled us to conceptualise and design the present study.

SOCIAL SECURITY LEGISLATION IN PRE-INDEPENDENT INDIA

Social Security is a wide term and it is difficult to have a standard uniform definition of the term. The International Labour Organization (ILO) defines it as “the security that society furnishes through appropriate organization against certain risks to which its members are exposed” (Gupta, 1986). It is Social because it represents a collective effort by society. The security is provided in an organized form and therefore is not haphazard. However this definition does not identify the risks against which social security protects an individual. Beveridge has tried to identify some of the risks against which this security provides protection. He states “Social Security is an attack on five giants - Want, Disease, Ignorance, Squalor and Idleness” (Gupta, 1986). Friedlander defines it as “a programme provided by society against those contingencies of modern life, like sickness, unemployment, old age, dependency, industrial accidents and invalidism against which the individual cannot be expected to protect himself and his family by his own ability or foresight” (Gupta, 1986). The Social Security legislation is a part of Social Welfare legislation, which emerged and was evolved during the world wide depression of 1929 when laissez faire did not work well. Due to the late industrialization of the country such legislation also came into being very late in India (Gupta, 1986).

As far back as 1884, workers in Bombay made a demand for compensation in a petition to the Government of India, but nothing came out of it (Rafy, 1998, page 48).
Panandikar and Mukhtar report that “it is true that some generous employers paid compensation voluntarily to their workmen out of accumulation of unclaimed wages, fines, etc but their number was not large” (Panandikar, 1986, page 136; Ahmad, 1986; page 76).

The earliest social security legislation was the Fatal Accident Act of 1855 that provided compensation to dependents of deceased workers (Government of India, 1966, page 9). However to claim compensation under the Act the heirs of worker who died in an industrial accident had to establish that the accident was caused by the personal negligence of the factory owners. It is therefore not difficult to understand as to why this legislation remained merely on paper. Infact, upto the early twenties of the last century there was no statutory provision for assistance to any wage earner for even common accidents of life. No compensation was available for loss of wages during periods of interruption in his/ her income due to unemployment, sickness, disability or maternity. Even in the event of an accident in course of, and arising out of employment, no relief was available (Mallick, 1995). It indeed took a long time for the Indian workers to organize and fight for their rights. This was due to the following reasons: (Gupta, 1984)

1) They had no organisation behind them. Moreover due to their agricultural links many workers did not have permanent interests in industry.
2) There was no dearth of cheap labour, a factor exploited to the hilt by the industrialists.
4) The Government treated industrial disputes as fights between labour and capital, where third party intervention was not considered necessary.

The employers opposed tooth and nail all social security legislation. A remark made by noted industrialist HP Mody in the legislative assembly in 1935 illustrates this point:

“Capital had a right to a reasonable remuneration for what it has put in, and if there is no capital there is no labour ... all those schemes of welfare adopted by more advanced countries which can afford these things, cannot bodily be transplanted into India and made operative.” (Mody, 1935; page 2126)

The constant pressure from the workers, trade unions and the ILO - which at that time was dominated by the socialist countries of the erstwhile Eastern Bloc- and the first
World War and its aftermath (Industrial production was required for political, economic and military considerations and hence strikes harmed the war effort), forced the Indian Government to enact the Workmen's Compensation Act 1923 (Trivedi, 1987; Elling, 1986). Though the interest of the Government and the employers in the passage of the Workmen's Compensation Act was primarily due to the vested interest of profit making, yet the Workmen's Compensation Act can truly be hailed as the beginning of social security legislation for industrial workers in India. This legislation (amended in 1926) provides for disablement and dependent benefit for occupational accidents and diseases, wherein the liability to pay the compensation is that of the employer (Mallick, 1995). It established the idea of absolute risk by abolishing the necessity for the workmen or their dependents to prove negligence or moral culpability on the part of the employer (Gupta, 1986).

Even after the passage of the Workmen's Compensation Act, the employers lobby resisted paying legitimate compensation to the worker after an industrial accident. The Bombay Millowners' Association even asked the Government to modify the Workmen's Compensation Act. It proposed, "Compensation to be limited to Rs 300 and rest of the amount to be paid after deducting the money paid to the workmen during the lifetime" (Indian Chambers of Commerce, 1940; page 560). This clearly shows that the Indian Bourgeoisie was extremely reluctant to give up money to a worker who sustained illness/injury while working for him and merely wanted to enjoy the fruits of cheap labour.

The Workmen's Compensation Act has been criticized as having the following shortcomings: (Gupta, 1986; Singh, 1986; ILO, 1964)

1) There was no provision for compulsory insurance of the employer's liability. It was difficult at times to recover compensation from employers.
2) Every single claim by Workmen was contested by employer and therefore the whole scheme had generated hostility and confrontation between employers and workmen.
3) There was no mechanism for medical treatment of the worker for the employment injury sustained by him.
4) Protracted litigation, delays and difficulties existed in getting benefits. As the employer was required to pay compensation without any fault, there was a temptation on the part of the employers to exploit the ignorance of the workers to escape liability.
5) Employers felt that unilateral employers' liability was detriment from the view of incentive for investment and equity.

We can see from the above that the functional problems in the working of the Workmen's Compensation Act arose principally out of the employers' resistance to his liability towards compensation. In 1927, the ILO adopted a convention regarding Health Insurance. However, the Indian Legislative Assembly rejected the resolution despite opposition by labour representatives on the following grounds: (Mallick, 1995)

1) Conditions in the country were not sufficiently ripe to adopt the conventions.
2) Indian labour had a migratory nature.
3) Indian workers preferred indigenous system of medicine.
4) Dearth of qualified medical practitioners in the country.
5) Resistance of workers to any compulsory deductions from their remuneration.
6) Lack of financial resources.

The Royal Commission on Labour, appointed in 1929, took a fresh look at the question. While noting the difficulties mentioned by the provincial government, it concluded that "none of these... diminished the need of the worker for protection during sickness" and could not be held to preclude the preparation of a suitable scheme. The Commission suggested a general plan for health insurance and recommended that in the initial stages it should be operated as a pilot scheme in selected establishments. The Central Government approved the proposal to introduce a scheme on that basis in places where medical facilities could be made available and the employers and workers were willing to contribute, However, the provincial governments, while endorsing the proposal, pointed out that no experience was available on which even an experimental scheme might be prepared, and the matter was therefore dropped for the time being.

The provincial labour enquiry committees set up from 1937 once again discussed the problem of health insurance and supported the recommendations of the Royal Commission, with the result that the matter was raised at India's First Conference of Labour Ministers held in 1940. The Conference concluded that the idea of constituting a sickness benefit fund was appropriate and that further action should be initiated.
The All India Organisation of Industrial Employers and the Employer’s Federation of India, at a joint conference held in September 1940, approved the principle of sickness insurance on condition that there was a tripartite contribution, the legislation was enacted on all-India basis and made applicable to all important industries and government undertakings and that similar legislation was adopted concurrently in all the Indian states (autonomous princely states).

At the Second Conference of Labour Ministers, held in January 1941, the atmosphere for discussing the question was more propitious. There was encouraging support from employers, workers and the provincial governments, and it was decided that a preliminary actuarial examination should be made in order to draw up a scheme based on contributions from employers and employees. It was, however, subsequently realised that in the absence of any statistical data, no actuarial examination was possible. On the other hand, data of the type required could not be secured until a sickness insurance scheme had already been operating for some time. This was truly a “chicken and egg” puzzle, but a beginning had to be made somewhere. The Government Actuary considered that a scheme covering a few selected industries might be drawn up on an “intelligent guess” basis and could be implemented with a view to gaining some experience and gathering the necessary morbidity data. Accordingly, a tentative scheme for sickness insurance for factory workers—covering, in the first instance, only cotton and jute textiles and heavy engineering industries—was submitted to the Third Conference of Labour Ministers held in 1942; and the Government decided to appoint an expert, assisted by a committee of actuaries and a panel of advisers to work out the details.

The renewed interest it showed in the preparation of a health insurance scheme for industrial workers was partly due to the publication of the Beveridge report in 1942 in UK, the discussion of the 1943 Wagner–Murray–Dingell Bill in the US, and the social security proposals being made at the time in Canada. With the general tendency in other countries to plan social security measures for the post-war period, and partly too as a result of mounting pressure from trade unions for positive action, the Government of India could not remain inactive and resolved that the introduction of health insurance should not be delayed any longer. (Wadhawan, 1997, page 479)
So it was in March 1943, after some 15 years which had been spent rather fruitlessly in enlisting the cooperation of the various interests concerned and deciding whether to give priority to establishing morbidity statistics to introducing and experimental scheme, the Government of India took the first decisive step by appointing Prof BP Adarkar to prepare a scheme of health insurance for industrial workers. While Adarkar was working on the scheme, the Government also appointed a Health Survey and Development committee under the Chairmanship of Sir Joseph Bhore to make a “broad survey of the present position in regard to health conditions and health organisation in British India and to make recommendations for future development”. The committee set up an industrial health subcommittee to consider the question of providing overall medical and health care to industrial workers. Adarkar was able to draw on the advise not only of the subcommittee but also of employers’ and employees’ organisations and the panel of actuaries that had been set up to help him work out the financial structure of the scheme. On 15 Aug 1944, he submitted to the Government a scheme of health insurance for workers below a certain wage ceiling in three major groups of industries: textiles, engineering and minerals and metals (Adarkar, 1944). The scheme was intended to provide medical care and sickness benefit for insured persons.

Adarkar believed that, while measures had to be taken to keep down the incidence of sickness, the scheme should not be saddled with responsibilities legitimately belonging to other branches of social insurance. He emphasised the need for simultaneous adoption of schemes providing for unemployment insurance and old age pensions, besides such measures as regulation of wages, strict enforcement of factory laws, health, education and improvement of environmental hygiene. He considered that correct and reliable medical certification could be secured only under an integrated scheme and that a medical service controlled directly by that institution could be expected to make constant efforts to reduce morbidity rates by adopting the necessary preventive measures. He also thought that the development of Industrial medicine would be possible only if the medical service was structured in that way. Finally, he made a strong plea for integrating maternity and industrial injury benefits into the scheme and for replacing the WCA and the State Maternity Benefit Act by a single comprehensive Social Insurance Law (Wadhawan, 1997, page 489).
Regarding Employment Injury, Prof Adarkar noted: (Adarkar, 1944)

"I am of the opinion that the present Workmen’s Compensation Act should be scrapped and replaced by a scheme of insurance against industrial disability; covering both industrial accidents and diseases. This is necessary not only in the interest of the workers but also in the interest of solvency of the present scheme which is closely interrelated to the subject matter of the Workmen’s Compensation Act both in regard to medical treatment and payment of cash benefit. This is a superficial view which considers that the two are separate and naively suggests that the Workmen’s Compensation Act should be left where it is”.

He proposed a comprehensive integrated scheme providing medical treatment and cash benefits for sickness and employment injury for specific perennial factories. The scheme was to be administered by the insurance institution itself and not to be entrusted to the State Governments. The Report was considered by the Tripartite Labour Conference in Oct 1944 and later by the Standing Labour Committee in Mar 1945. It was reviewed by experts from ILO who suggested the following three main modifications: (Mallick, 1995)
1. Separation of the administration of medical and cash benefits
2. Integration of maternity and workmen’s compensation in the health insurance scheme.
3. Extension of the scheme to all perennial factories covered by Factories Act and also to non manual workers.

Based on these suggestions the Government modified the Adarkar Scheme and on 19 April 1948 the ESI Act was passed whose Preamble reads: (Mallick, 1995)

“An Act to provide for certain benefits to employees in case of sickness, maternity and employment Injury and to make provisions for certain other matters in relation thereto.”

This scheme is run by contributions from the Government, the employers and the workers and administered by a Corporation called the ESI Corporation. While all other activities are run directly by the ESI Corporation, the medical care component of the scheme is run by the respective State Governments (ESI Corporation, 1997a). This is a significant departure from the recommendations of the Adarkar Committee which had recommended an integrated Medicare cum compensation scheme managed centrally by an
autonomous Corporation. We will take up further discussion on the ESI Act in one of the sections below.

To sum up, the study of the evolution of labour legislation in British India gives us some understanding of the social and economic factors and processes that either promoted or hindered the improvement of health of the working class people in India. This also helps us to understand the impact of the larger social processes upon health of industrial workers, because health legislation as a social institution is determined by larger power relations in a stratified society (Trivedi, 1987). Just as, "The roots of illness of the working class people lay in the organization of economic production in the social environment", the legislation for health is also rooted in the social process (Engels, 1969). History has shown that legislation and social security in industry has come about not due to growth in knowledge or due to a philanthropic attitude of the employers or the Government but due to a continuous struggle between conflicting interests that led to social and political upheavals.

DEVELOPMENTS IN LABOUR WELFARE AND SOCIAL SECURITY IN INDEPENDENT INDIA

Labour Welfare

The dawn of independence led to the adoption of the Industrial Truce Resolution in 1947, for the reconstruction of the country's economy. The resolution emphasised that labour welfare was essential for industrial amity. The Directive Principles of State Policy in the Indian Constitution make it imperative for the Government to frame labour welfare policies. Articles 38-43 of the Constitution were framed accordingly (Aggarwal, not dated, page 3-4). However, the Indian Bourgeoisie ensured that even in independent India, despite the proclaimed aims of a welfare state and the socialistic pattern of society, the state power and planning process was mainly used by the employers for their benefit. Therefore, since the concerns of the bourgeoisie were overriding for the Indian State, the latter's self proclaimed goal of socialism could have had little meaning for the workers (Trivedi, 1987, page 116). The industrialists have always viewed compensation of industrial injuries as increasing production costs and thus reducing profits. This lobby being strong and influential has forced successive Governments to toe its line as can be seen from the First Plan document which states:
"In an underdeveloped economy, the labour class cannot build for itself a better life except on the foundations of higher levels of productivity to which it has itself to make substantial contribution" (Government of India, 1951). The inherent contradiction is apparent. Workers are expected to make sacrifices to increase productivity, (while having no control on the production process) which in turn has little to offer them but, ironically will generally make the employers richer. It has to be understood that industrial production and productivity is a function not only of Labour but a whole range of factors like management efficiency, technology in use, timely replacement and maintenance of equipment, investment in modernisation, expansion, etc being crucial determinants. There have also been cases where improved productivity in the factory has led to workers being declared surplus subsequently. This has happened after signing incentive schemes designed to step up productivity at the shop floor, which led to greater production but owing to management failures (such as sales going down and inventories going up), the managements presented the Trade Unions with the demand of workers being surplus. Thus, naturally Trade Unions view productivity- incentive schemes with suspicion (Indian Labour Conference, 1999, page 19).

The logic advanced for the passage of the Factories Act 1948 and the Mines Act 1952 was, “Working conditions need to be improved to increase production and get the best out of workers”. The successive 5 year plans too aimed to increase production, guard against indiscipline, stoppage of production and indifferent quality of work. The 3rd Plan unequivocally stated that “nor laws nor conflict nor State intervention can help the working class. Only dynamism of economy can help the workers” (Trivedi, 1987).

Prior to the 6th five year Plan emphasis was only on the protection of workers against accidents. In the 6th Plan, protection against occupational diseases was added, prompted by the development of the chemical and various process industries. Environmental conservation and protection was also mentioned in the 6th Plan. The 7th Five Year Plan (1985-90) further emphasized the importance of industrial safety, probably also inspired by the accident at the Union Carbide Plant in Bhopal in 1982. However, promotional services were restricted to surveys, research, training in hazard identification and inspection, without any emphasis on how to attain improvements at the workplace. Actions in these Plans were mainly of a legislative and academic nature. The majority of
labour acts and regulations were concerning the organised sector and do not cover the non formal sector (Ory, 1997, page 49).

While India has umpteen labour legislations, the problem lies in their implementation. Employment of many short term workers (who are outside the registers) and division of the firm into small companies are well known methods of avoiding enforcement of labour legislation. Duration of work is another ‘entry point’ for escaping legislation. For example Provident Fund concerns workers who work more than 60 days within a period of three months, while enforcement of the Factories and Disputes Acts depends on a closed work period of 240 days or more. Needless to say, many employers have found ‘creative’ solutions to escape these requirements. Ory states that a labourer can remain a temporary or a casual worker at the same place for years with short breaks (Ory, 1997, page 50). In addition, Qadeer and Roy point out that the State Factories Inspectorates are unable to enforce legislation as they are overloaded and sometimes collude with the employer. It is not surprising then that “Despite the low priority given to health issues by Trade Unions, it is obvious that while the employers neglect important health problems, workers have been the main agents of redressal of whatever health and safety problems have been resolved. The law and the government machinery have played only a marginal role in this” (Qadeer, 1986).

Dhara has analysed the reasons for neglect of Occupational Health and Safety issues by the Trade Unions. According to him, for most part of the half century of organised labour in India, unions had dealt primarily with two issues- wages and benefits; and employment protection. Switching from these issues to occupational hazards was problematic as the unionists had become very familiar with the former. Hazards issues also required a certain level of technical knowledge. For most unionists, schooled in law or social sciences, technology related issues, like occupational hazards or impact of new technology on labour, were quite alien and discomforting. Wage and employment protection issues make labour act as a consumer, viz, in return for work, labour was paid a wage to buy existential requirements. Occupational hazards issues require a different approach. Labour has to act not as a consumer, but as a producer, to influence technology choice and production process decisions, areas so crucial to hazards abatement. Since Indian labour had never in the past acted as a producer, it found it all the more difficult to
do so now. Like other technology related issues, occupational hazards require high information inputs and access to shop floors. Unionists lacked both. There was nothing in the law which permitted them to conduct a shop floor walk-around inspection. Lacking the internal resources to tackle occupational health and safety issues, unions turned to professionals for help.

In the early-1980's such help was not readily forthcoming as the number of professionals working on hazards issues were few, and those willing to work with unions even fewer. Nevertheless, a few formal investigations were conducted by small teams of professionals and union activists. Some of the first investigations to be conducted were cases of lead poisoning in paint shops of engineering and electronic industries in Bombay and Hyderabad; fugitive ammonia leaks in a Thane chemical plant; physical injuries in engineering and textile plants in Bangalore and Bombay; ionizing radiation hazards in Hyderabad and asbestos exposures in the docks and some asbestos plants in Bombay. The investigations did not always progress to completion. Access to equipment and laboratory facilities was difficult. For example, no laboratory in Hyderabad would do blood concentration counts for want of sufficient number of requests in the city. One Hyderabad group had to send water samples abroad for ionising radiation counts as access to such facilities in India proved difficult. Unions often lost interest in occupational health issues as a wage or some other immediate issue took precedence. Managements often threatened retrenchment if safety issues were raised. After expressing keen interest, a study in one engineering plant in Bombay, was put aside in favour of a crucial wage negotiation. The study had indicated a high probability of lead poisoning amongst some of the plant workers. In another group of small asbestos cloth weaving factories in Bombay, the managements threatened closure if the union raised occupational health issues. Most of the investigations also remain unpublished (Dhara, 1989, page 7). Given the limited contributions of governmental agencies and Trade Unions in safeguarding workers health, it has been advocated that the current status quo can only be changed by the capacity of the workers themselves to organize and fight for those choices which are the most conducive to their overall health (Ory, 1997, page 49).

The era of ‘globalisation’ in the developing world has provided a new concept in labour exploitation, viz, setting up of Export Promotion Zones (EPZ). India is shedding its
trade barriers and opening up economies. The import substitution policies are giving way to export led growth. Thus, certain enclaves where free trade is allowed are being set up. These are called EPZ. 27 million people work in 850 such zones in the Third world. 80% comprise young and unmarried women with no rights. No labour laws are applicable to these EPZ, which by itself appears to be a gross violation of human rights. In developed countries, cost of production is high due to strict legislation. Employers are forced to provide good wages and other facilities to workers. But in these EPZ, in India, the Government is only interested in earning foreign exchange. State Governments are therefore advertising advantages of low cost labour and conflict free labour relations in these EPZ. They point out that as Trade Unions do not exist in these EPZ, entrepreneurs can easily get cheap unskilled labour. The managements therefore need not invest in Occupational Safety, Health or Labour Welfare since Inspectors are banned from visiting EPZ (Indian Labour Conference, 1999, page 11).

An NGO has reported high incidence of musculoskeletal disorders, repetitive strain disorders and stress related ulcers in these EPZ. Reporting of health abnormality promptly leads to dismissal from job, without any compensation. The NGO recommends that there is an urgent need to ‘do away’ with this glaring subsidy on workers rights (PRIA, 1999). Ironically, a Comptroller and Auditor General of India (CAG) report has shown that these EPZ have allowed the entrepreneur to make profits at the cost of not only the workers but also the Government. It shows that exports of EPZ in 5 years upto 1996-97 were only Rs 13653 crores, whereas the sum of imports and custom duties foregone on them by the Government totalled Rs 16461 crores (Indian Labour Conference, 1999, page 11). No wonder these EPZ have been dubbed as “Employer’s Profit Zones”.

Social Security

Though the ESI Act was passed in 1948, the same was implemented as late as 1952 only, initially solely in Delhi and Kanpur covering only 1.2 lac workers (ESI Corporation, 1998). But before the scheme could be implemented serious objections were, however, raised by the employers, particularly those belonging to Kanpur, on the ground that factories situated in other areas and in the manufacturing of same articles would not have to undergo any such burden and the factories of the implemented areas would lag behind in competitive market and would be financially handicapped. The objection was
considered and the Act amended in 1951 to add ‘Transitory Provisions’. It was provided that as long as the Transitory Provisions were in force, all the owners of factories or establishments to which the ESI Act applies shall pay the employers’ contribution, whether the scheme was brought into force in any particular area or not. This was intended to avoid such competitive handicaps to any region by spreading the employer’s share of the cost of the scheme equitably to all employers in the country (Mallick, 1995). The Study Group on Social Security set up by the Ministry of Labour and Employment in 1958 was highly critical about the working of the Scheme (Government of India, 1958). It noted that while the original pattern of the schedule was to take 2/3 of the burden of costs from the employers and 1/3 from the employees but by a curious arrangement the ratios had been reversed by the Transitional Provisions (Qadeer, 1986). It recommended that the Employers should contribute more (Government of India, 1958). The Transitory Provisions however continued for long and were repealed only in 1973 though, the ESIS Review Committee had recommended their dropping way back in 1966 (Mallick, 1995; Government of India, 1966, page 9).

As regards quantum of contributions made by the State Governments on the running of the Medicare component of the scheme, this has been reduced drastically. The ILO had recommended that the State Government should contribute 2/3 of the cost (Bhatnagar, 1985). However, on passage of the Act the State Government was made to pay 1/3, which was reduced by an amendment to 1/4 in 1954. Surprisingly, in 1958, when the Medicare benefit was extended to the families of insured workers, the State Government contribution further dropped to only 1/8 (Government of India, 1966, page 9). The State Governments are as it is committed to providing free health care to all its subjects. Hence the rationale behind the State Governments contributing such a small amount for Medicare of workers and their families is beyond comprehension. As per the Act even the Central Government is to contribute 2/3 of the administrative costs of the scheme only for the initial 5 years. Interestingly, though now the Centre continues to control the running of the scheme by appointing its Chief Executive officer and the Financial Commissioner, but it does not pay a penny towards the running of the scheme. Some of the other significant amendments to the original Act are:

1) Contribution by employers and employees: The employer’s contribution was delinked from the employees in 1984. With effect from 01 Jan 97, the employer’s contribution
has been fixed at 4.75% of the wages of the employee, and that of the employee at 2.25% of his wages (ESI Corporation, 1997b).

2) **Wage ceiling of employee for the purpose of coverage:** In 1948, it was Rs 400 (Mallick, 1995). At present all employees drawing up to Rs 6500 are covered (ESI Corporation, 1997b). Also, now the Corporation itself is empowered to amend this ceiling without resorting to amendments in the Act (Mallick, 1995).

3) **Definition of Employment Injury:** This was governed by the definition given in the Workmen’s Compensation Act till 1966. Thereafter, a new definition of Employment Injury has been inserted in the Act which is, “It means a personal injury to an employee caused by accident or occupational disease arising out of and in the course of his employment, being an insurable employment, whether the accident occurs or the occupational disease is contracted within or outside the territorial limits of India” (Mallick, 1995).

4) **Occupational Diseases:** These are covered under the term ‘Employment Injury’. In 1984 the existing list of occupational diseases in the Third schedule to the Act was substituted by a revised list as adopted by the ILO in 1980. Subsection (1) of Section 52A was also inserted which lays down that (Mallick, 1995)

   a) “if an employee employed in any employment specified in Part A of the Third Schedule contracts any disease specified therein as an occupational disease peculiar to that employment, or

   b) if an employee employed in the employment specified in Part B of that Schedule for a continuous period of not less than six months contracts any disease specified therein as an occupational disease peculiar to that employment, or

   c) if an employee employed in any employment specified in Part C of that Schedule for such continuous period as the Corporation may specify in respect of each such employment contracts any disease specified therein as an occupational disease peculiar to the employment, the contracting of the disease shall, unless the contrary is proved, be deemed to be an ‘employment injury’ arising out of and in the course of employment.”

5) **Definition of Factory:** By the latest amendment of 1989, it has been brought at par with the definition given in the Factories Act (Mallick, 1995). However, it is pertinent to note that no attempt has been made to extend the Act to seasonal factories and the vast unorganized sector (including agriculture labour) despite the Act containing an
enabling provision under which the Government is empowered to extend the provisions to other classes of establishments- industrial, commercial, agricultural or otherwise (ESI Corporation, 1997a).

6) Dropping of Accident Safeguard Provisions: Prior to 1966, the Act provided the right to the ESI Corporation to recover damages from the employer or to be indemnified in cases where employment accidents occurred due to lapses on the part of employer in providing statutory safety measures and guards. This was deleted. It sounds illogical that the employer has been exonerated under the ESI Scheme from his statutory lapses and violation of safety provisions. Contrast this with the Workmen’s Compensation Act. It has been seen that the Workmen’s Compensation Act which had a basic pro-labour strength that lay in making the employer liable for injury and disease suffered by the worker, also became its major vulnerability within the capitalist social fabric. The Workmen’s Compensation Act being principally occupational oriented had accident prevention as one of its aims. It was intended not merely to provide the injured workman or his dependents with compensation but also to induce the employer to take active measures to prevent accidents by penalizing him financially when they occur (Elling, 1986; Singh, 1986). However as per the present ESI Act the employer is not bound to be vigilant about his duties towards safety promotion.

The other important Health related provisions in the ESI Act are: (Mallick, 1995)

1) The Corporation is empowered to promote measures for the improvement of the Health and Welfare and for the rehabilitation and re employment of insured persons who may have been disabled or injured. The expenditure for this will be borne by the Corporation.

2) In case the Corporation considers the incidence of sickness among insured persons excessive in an establishment by reason of unsanitary conditions due to neglect of the owner to observe any health regulation, then the excess sickness benefit is to be borne by the owner. For this the Act empowers the Corporation to conduct an enquiry into the matter.

The ESI Scheme has made significant progress as regards coverage and opening up of infrastructure for the running of the Scheme (Tables 1.1 and 1.2). However there have been reports and studies indicating that all is not well with the functioning of this Scheme.
The Study Group on Social Security set up by the Ministry of Labour and Employment in 1958 was highly critical of the functioning of the scheme. It noted that the feeling among the workers was that they were not getting the full worth of the contributions made by them. It also brought out that in the first 10 years, the Scheme hardly made any progress and the main reason for this was the uncertainty regarding the future. So, it stated that the Corporation has merely kept on accumulating surplus funds without providing requisite services (Government of India, 1958).

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Source: Annual Reports ESI Corporation

The ESIS Review Committee in 1966 also pointed out lacunae in the functioning of the Scheme. Some of its important observations are (Government of India, 1966, page 9):
1) There is slow progress in the provision of medical benefits under the Scheme. This is largely due to lack of enthusiasm on the part of the State Governments.
2) There is long delay in disbursement of cash benefits in case of sickness, disablement or death.
3) Medical benefit provided had glaring shortcomings.
4) A review of the working of the ESI Courts shows that the proceedings are generally prolonged, cumbersome and formal. They follow the common pattern of ordinary civil
Courts which is not obviously suited to a scheme of social insurance where there is more need of promptness.

Besides, the Hoshings’ Committee set up to review the working of the Scheme in 1983 had the following comment regarding medical benefits (Hoshing Review Committee Report, 1983):

"The Committee has formed the impression, on the basis of the evidence tended before it in the form of memoranda and discussions with various parties that the present arrangement for medical benefit leaves much to be desired. There is dichotomy between the State Governments and the Corporation in the administration of the benefit, which has not been conducive to efficiency and has resulted in great deal of dissatisfaction."

The problem areas listed by the Committee include, lack of enthusiasm among doctors and paramedical staff, shortage of drugs, lack of Ambulance services, lack of proper specialist services and lack of any preventive work. It also noted that there were long delays in settlement of claims, after a worker died due to an Employment Injury (Hoshing Review Committee Report, 1983).

A recent report by the Ministry of Labour has come to the conclusion that the Scheme suffers from series of deficiencies and infirmities inherent in the nature of the Scheme itself. It specifically brings out that certain constructed ESI hospitals are lying vacant as the State Government is reluctant to run them (VV Giri, National Labour Institute, 1997).

The present Chief Vigilance Commissioner of India Shri N Vittal, has also highlighted that corruption is rampant in the EIS and the organisation is lax in curbing the same. He cites a classic case in the ESI Corporation where the appointment of an Investigation officer to look into specific charges of corruption took five years. The inquiry took another two years and by then the person proceeded against had retired (Vittal, 1999). As opposed to this the Corporation lays great stress in controlling ‘lax’ certification so that the ‘so called’ malingerers (workers) are weeded out (ESI Corporation, 1983). It is also important to note that though the 5th 5 year Plan had mentioned about extending the ESI Act to the unorganised sector, but till date the same has remained a mere rhetoric (Trivedi,
1987, page 170). Thus vast majority of the working class in India continues to remain outside the purview of the ESI Scheme.

STATISTICS ON OCCUPATIONAL HEALTH AND SAFETY IN INDIA

<table>
<thead>
<tr>
<th>SERIAL No.</th>
<th>INDUSTRY</th>
<th>EMPLOYEES EXPOSED TO RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cotton and Textile</td>
<td>17,00,000</td>
</tr>
<tr>
<td>2</td>
<td>Leather and Rubber</td>
<td>2,50,000</td>
</tr>
<tr>
<td>3</td>
<td>Chemical and Chemical Products</td>
<td>5,00,000</td>
</tr>
<tr>
<td>4</td>
<td>Non-metallic Minerals</td>
<td>2,80,000</td>
</tr>
<tr>
<td>5</td>
<td>Metallic Minerals</td>
<td>5,60,000</td>
</tr>
<tr>
<td>6</td>
<td>Transport</td>
<td>3,00,000</td>
</tr>
<tr>
<td>7</td>
<td>Paper and Printing</td>
<td>2,75,000</td>
</tr>
</tbody>
</table>

Source: ESI Corporation (1997c). Occupational Diseases Centres: A Conceptual Breakthrough in the ESI Scheme

As regards occupational diseases, the ESI Corporation estimates that about 50% of its seven million workers are exposed to the risk of occupational diseases and employment hazards (Table 1.3). It would therefore be logical to expect that the scheme should provide excellent services for diagnosis, detection, treatment, rehabilitation, compensation and prevention of occupational diseases.

However, in practice it has been seen that a negligible number of occupational diseases are detected by the ESI Scheme and hence the provisions regarding the benefits accrued to the worker on contracting the Occupational disease is rendered virtually inoperative (Hoshing Review Committee Report, 1983; VV Giri National Labour Institute, 1997). The Hoshing report on the working of the ESI scheme brings out that many occupational diseases are simply recorded as 'Bronchitis' and as a result workers get no compensation (Hoshing Review Committee Report, 1983). An NGO has reported an interesting case study in which a large number of workers of Textile Mills in Bombay who were actually suffering from Byssinosis were being diagnosed and treated for Tuberculosis for 4 years in the local ESI Dispensary. It was only after the NGO took up the workers cause and "not without more than a fair share of harassment and personal expenditure", did the workers get their entitled disability benefit for the occupational disease (PRIA, 1986a). This illustrates that many a worker must have died or been disabled due to occupational disease without getting his entitled dues from the ESI Scheme.
The fact that compensation and diagnosis for occupational diseases has taken a backseat in this Scheme can also be gauged from the Annual Labour Reports. Till 1980, the National Labour Year books have been reporting cases of occupational diseases under the Factories Act and the Workmen's Compensation Act. With the introduction of specific provisions for diagnosis and compensation for occupational diseases in the ESI Act, it was natural to expect a sound epidemiological national database on such illnesses. But, ironically, the Labour Books have altogether stopped providing such data stating that it does not exist (National Labour Year Books). It appears that the reporting system has been systematically dismantled since the 80's. Qadeer and Roy have shown that there is disparity between the reports of Occupational diseases under the Factories Act and the Workmen's Compensation Act (till the 80's); with the latter reporting higher figures as in the Workmen's Compensation Act the worker had a legal right to take direct action (Qadeer, 1986). But now with the replacement of the same by the ESI Act (where workers rights have been entrusted to the whims and fancies of the ESI Corporation), no reporting of Occupational diseases is done under the Workmen's Compensation Act after 1981. The official reports under the Factories Act are reflected in Table 1.4.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF STATES REPORTING</th>
<th>NUMBER OF CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>1981</td>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td>1982</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>1983</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>1984</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>1985-1994</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>1995</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>


After 1984 (with the exception of 1995), there is no reporting at all. Under the heading of 'Occupational diseases', the Indian Labour Year Books keep on repeating the same line year after year, "the available information regarding the incidence of Occupational diseases is rather scanty" (Jana, undated, page 11).

Studies conducted by various research bodies in India depict that incidence of Occupational diseases is abnormally high. Some of these are listed below:
Sample studies on Asbestos related industries done in 1981 revealed that 30% of the work force had asbestosis (Jana, undated, page 11).

Sample survey on the storage battery industry in 1981 revealed that 9.1% of the workers were having symptoms of Lead poisoning (Jana, undated, page 11).

Though there is no record of the number of coal miners suffering from Pneumoconiosis in the entire coal mine industry, the last of the five official surveys conducted in 1885 found a prevalence of 14.4% in coal mines (PRIA, 1994).

A Study done in 1993, by Central Mines Rescue Station and Indian School of Mines found that 75% residents especially children of miners suffered from airborne diseases and about 65% of miners who worked underground had lung disease (PRIA, 1994).

Shaw and Deshmukh while analyzing the reports of 100 patients referred from medical units of refractories and copper mines concluded that 52% of these workers had silicosis (PRIA, 1994).

Chatterji reports that 97% of women working in a readymade garment factory in Ahmedabad had severe health problems. Complaints of backache, eye strain, dizziness and headache were omnipresent. These reports were confirmed by an indepth ergonomic study conducted by the National Institute of Design (Chatterji, 1990).

A study by Industrial Toxicology Research Centre Lucknow done in 1989, revealed that 14% of flour mill workers surveyed had Pneumoconiosis (Chatterji, 1990).

An NIOH Study in Gujarat's largest glass factory revealed that 187 out of 200 workers surveyed had silicosis. Though these workers were covered by ESI Scheme but getting compensation became an extremely difficult task, as the ESI authorities were most uncooperative and unwilling to process compensation claims. This was despite a confirmatory diagnosis having been made by ICMR's apex occupational health institute viz. NIOH Ahmedabad (PRIA, 1986b).

A study by an NGO shows that 25% of textile workers in Kanpur had symptoms of Bysinosis. NIOH has confirmed that after 5 years of work majority of textile workers will have such symptoms (PRIA, 1986c).

Mahadik reports that in a study on diesel sheds in New Katni, 83% of employees in contact with petrol based products such as lubricants, greases, diesel and chemicals had irritant dermatitis (Mahadik, 1996).

Dionne has hypothesized after various studies that industrial dermatitis accounts for 40% of all occupational illness (Dionne, 1984).
Panda has reported that 58% of workers in a steel industry complained of Tinnitus (Panda, 1996).

An NIOH study on 800 workers in an asbestos plant done recently revealed that 224 out of 800 workers were suffering from more advanced stages of asbestosis (PRIA, 1989).

In a survey on an asbestos cement unit in Faridabad, Central Labour Institute Mumbai, found that 7% of workers were having asbestosis (PRIA, 1989).

A study by an NGO in Orissa revealed that there was extensive prevalence of Silicosis (confirmed by X Rays and Lung Function Tests) in a Refractory Plant. Though these workers were covered by ESI Scheme, but in a majority of the cases, the doctors were labelling the symptomatic workers as Tuberculosis, Chronic Bronchitis or Emphysema. In the case of the lucky ones who were diagnosed correctly, their cases either were rejected by the Special Medical Board or were given negligible disability (PRIA, 1993).

As there is no reliable official statistics available relating to notifiable Occupational diseases under any of the statutory legislations, these independent studies give a fair indication that the incidence of Occupational diseases in India even in the organized sector is on the higher side. On the other hand, the study of the statistics reported by the ESIS in its Annual Reports give no indication of the status of Occupational Health and Safety in the country. The Reporting System does not appear to differentiate between occupational and non occupational causes of disease/injury. Thus, "Accidents, Poisoning and Violence" have been clubbed into one category in its Annual Reports. Similarly no attempt is made to differentiate between Occupational and non occupational causes of Tuberculosis. While this is discussed in detail in subsequent chapters, but it is clear even at this stage that the introduction of the ESIS has in no way helped in generating an Epidemiological database regarding Occupational Diseases and Injuries in the country.

STUDIES ON THE WORKING OF THE ESIS IN INDIA

There have been limited numbers of studies on the working of the ESI Scheme in India. Most of these studies have concentrated on the ability of the ESI Scheme to satisfy the medical care needs of the workers or their families. The issue of monetary compensation is not adequately explored. We discuss four such significant studies on medical care within ESI.
Dr Veer Singh, a Reader of Punjab University conducted an empirical study on the functioning of the ESI scheme. The Study was conducted in the following manner: (Singh, 1986, page 344-349)

- Assessment of the insured employees' perception about the adequacy or inadequacy of employment injury cash benefits and the medical benefit and the complexity or simplicity of the claim procedures prescribed for these benefits.
- Assessment of the functioning of ESI Medicare system through personal visits to and observations of various ESI hospital and dispensaries at some selected stations in the northern region.

The author distributed a small questionnaire followed by structured interviews with 200 workers in 15 establishments in Chandigarh only. Response of only 80 workers could be elicited and the same were processed and tabulated. His results are summarised below:

- 71.25 % of the respondents were unaware of the benefits accrued to them in the case of Employment Injury,
- 2.5% employees viewed Permanent Disability Benefit as adequate,
- Not a single employee views the procedure for claiming Temporary Disablement Benefit as simple,
- 88.75% of employees view funeral benefit as inadequate,
- 66.25% of workers view ESI Medicare arrangements as unsatisfactory.

The author has followed up his study with visits to various ESI medical institutions. He is of the opinion that services in Chandigarh, Ludhiana, Jalandhar, Mohali, Yamunanagar and Karnal are unsatisfactory.

The above study suffers from the limitation that the sample size is small and there is a massive non response. Moreover, administering a prepared questionnaire is not the ideal method of eliciting valid answers from a population, whose vast majority is illiterate. Nonetheless, his findings reflect that the working class in Punjab is not happy with the compensation and Medicare system of the ESIS.

Deepak Bhatnagar has carried out an empirical study on the ESIS for his doctoral research (Bhatnagar, 1985). He has attempted to study the ESIS on the basis of reports of
various committees set up by the Government from time to time. He has also come to the conclusion that the Scheme suffers from serious infirmities, in that the workers are not satisfied with the functioning of the Scheme. He has listed the following reasons for this occurrence:

- Though various Review Committees have made recommendations for the betterment of the Scheme, but the Corporation has failed to implement them. This he points out is due to a conflict of role, power and authority between the Committees and the Corporation. He is of the opinion that lack of adequate power and authority (to the Committees) gave ample opportunities to the Government and the Corporation to shun and reject or even overlook the various recommendations of the Committees.

- The Central Government has not given enough autonomy to the Corporation. He points out that the structure of the Scheme vis-à-vis the power and functional autonomy provided is so poorly balanced, that even after so many decades, the ESI Scheme could not cross the organized sector.

- Lack of cohesion between the Corporation and the State Government in administering of medical benefit has led to the prevailing mess.

- The organizational and procedural weakness in the administration of medical benefit has contributed to inefficiency and poor administration.

- The Scheme pays scant attention to preventive medical care.

- Cash benefit rates are low.

- The adjudication machinery of the ESIC is most orthodox and this harms the interest of the beneficiaries.

This study has the limitation that it is purely based on secondary data. No field studies were conducted by the author to gather primary data. Nonetheless, his conclusions are based on official reports. Findings are revealing and have been echoed by the 1983 ESI Review Committee (Hoshing Review Committee Report, 1983).

The National Productivity Council (NPC) has conducted a sample survey to study the effectiveness of the ESI Scheme in 1994-95. It interviewed 6301 workers and 287 employers across the country (National Productivity Council, 1995). Its findings include:

- 7% workers admitted that they availed sickness/disability benefits on non genuine grounds. These workers are confined more to commercial establishments where the
work environment is hazardous and unhygienic. Poverty and low wages also contributed to this.

- 25.65% workers do not avail medical facilities due to poor quality of ESI services.
- 49.29% workers complained of non-availability of medicines in ESI hospitals.
- 37% workers complained of procedural delays in getting cash benefits.
- 50% employers felt that ESIC Scheme has resulted in increased absenteeism.

This was a Government sponsored study and it confined itself to statistical analysis only. It is however, of interest to note that the study showed contrasting views held by the employers as opposed to employees. While, the employees were dissatisfied with the services rendered by the ESIS, the employers felt that the Scheme encouraged ‘malingering’ by giving ‘false certification’.

An NGO called Society for Participatory Research in Asia (PRIA), carried out an exploratory study on the working of ESIS in 1995. It covered 200 workers each from Ahmedabad, Calcutta, Bombay and Delhi who were selected by a purposive random technique (PRIA, 1996). Besides, it involved interviews with ESI doctors and employers. Their findings are summarised as follows:

- There was little awareness among the workers regarding benefits under ESIS. Many workers were unaware of the existence of medical boards.
- A considerable number of workers went to private hospitals as they were dissatisfied with the functioning of the ESIS.
- Doctors almost never asked workers about their occupation, while examining them.
- 71.42% doctors agreed that most of the occupational diseases were identified by them as non occupational.

This is one of the few studies which have dealt with the vexed issue of diagnosis of occupational diseases within the ESI framework. It has come to the conclusion that occupational diseases get a backseat in the ESI Scheme. It is noteworthy to point out that this NGO championed the cause of workers in Ahmedabad and Bombay and by its consistent perseverance managed to get compensation for ‘Bysinosis’ to textile workers in Ahmedabad.
RESEARCH QUESTIONS

Our review shows that the WCA and the ESIS stand out as the two principal Social Security schemes that emerged in the twentieth century. However, there is a striking contrast between the two. While the WCA concentrated only on compensating for occupational diseases and injuries, the ESIS is more broad based. The latter provides medical care to the workers and their families in addition to giving compensation.

The review also shows that whenever a Scheme has multiple dimensions, it consciously or subconsciously allots priorities. This brings us to our basic research question, viz, Has the ESI scheme been able to focus on proper diagnosis, treatment and compensation of occupational diseases and injuries, despite widening its scope and ambit?

Secondly, we have also seen that in a tripartite arrangement like ESIS, the Scheme is subject to pressures from all the three players, viz, the Government, the industrialist and the Trade Unions. The power and clout held by one party can adversely affect the interests of the other parties in this arrangement. This leads us to our second research question, viz, under the pressures faced by it from multiple directions, has the ESIS been able to look after the interests of the workers, while submitting to the demands of the Government and the industry?

If the answers to the above research questions are in the affirmative, then the Scheme can definitely be termed as a step in the right direction. However, if the answers are in the negative, then one has to find out the reasons for this shift in focus. Has the shift in focus taken place due to conflicting interests of the different players? Has the differential power status of the three players contributed to this shift? Whether the shift of focus helped or harmed the interests of the working class?

These are the key Research Questions which this thesis attempts to answer. For answering the above questions it is necessary to grasp the complexity and the dynamicity of the ESI. For this we need an appropriate methodology that permits us to look at linkages and simultaneous shifts and interactions. Systems approach has therefore been chosen as the basic analytical frame for this research.
SYSTEMS APPROACH

Systems concepts evolved along with structuralism and functionalism at the beginning of the last century (Blauberg, 1977). The systems doctrine associated itself with the conception of wholeness (integrative approach) which followed the principle of irreducibility of the whole to its parts, as the whole was understood to have properties more than the sum of its parts.

"Systems theory can be seen in its social philosophy as another variant of organicism- the image of society as an organism subject to growth and decay, which evolves over time into new and more differentiated forms" (Lilienfield, 1978). The holistic thesis of organicism pertaining to organic wholes have been based on five interrelated ideas: (1) the analytic approach as typified by the physico-chemical sciences proves inadequate when applied to certain cases- for example, a biological organism, society, or even to reality as a whole; (2) the whole is more than the sum of its parts; (3) the whole determines the nature of its parts; (4) the parts cannot be understood if considered in isolation from the whole; and (5) the parts are dynamically interrelated or interdependent (Phillips, 1977). Essentially, elements of a system, necessary for its function are both structural and transactional and their degree of interaction is stated in terms of wholeness or nonsummativity, and the increasing complexity of these interrelations during the system process is called equifinality (Datta, 1996).

The organismic metaphor of organizations directs our attention to issues of survival, organization - environment relations, and organizational effectiveness and consequently goals, structures and efficiency become subsidiary to problems of survival and other more biological concerns (Gamage, 1995). It is this organismic perspective that the outputs of a system are seen as the things released when they are no more required for internal systems function (Datta, 1996).

However, products of the systems functions are also present as outputs (Datta, 1996). Very aptly therefore, we can say that the first aim of any organization is not the search for efficiency or profits, but the search for survival, efficiency or profits being the basic conditions for that (Lussato, 1972, page 2).
Though from the above discussions it is difficult to separate the concepts of organizations and systems, the origin of systems theory however was disparate from that of organization theory. Nonetheless, similar to the organization theory, emergence of systems theory proceeded in stages of first, a number of anticipations by philosophers and psychologists and then the full fledged statements of Von Bertalanffy established it as a movement in biology and physics (Lilienfield, 1978).

Starting with the contextualist and organicist approaches of Stephen C Pepper, to Lawrence J Henderson’s Equilibrium and, Walter B Cannon’s Homeostasis, systems theory was established as a scientific movement by Ludwig Von Bertalanffy by his essay “The Theory of Open Systems in Physics and Biology” and his General Systems Theory (GST)” (Lilienfield, 1978).

This general theory of systems incorporated various fields for the scientific control of existing systems of men, machines, materials, money, etc., that is, it formed the basic science of which Systems Engineering, Operations Research, and Human Engineering represent the applied sciences (Bertalanffy, 1971). Thus, the systems approach, in essence, originated concurrently both in biology and modern technology in the form of various types of systems research (Blauberg, 1977, page 32). Albeit, Systems Analysis and its application is considered to have flourished during World War II. The origin and growth of Operations Research in Great Britain was also during the late 1930s in preparation for the Second World War (Lilienfield, 1978, page 103).

A System has been defined as an integrated whole, made of components that are simultaneously independent, dialectically linked and rooted in their socio economic and political context (Dutta, 1994). Thus a System is a group of elements (persons, organizations, equipment, concepts, etc.) that are related in such a way that they influence each other and the behaviour of the elements as a whole. Systems analysis is the examination of various elements of a system with a view to ascertaining whether the proposed solution to a problem will fit the system and in turn effect an overall improvement in the System (Ratcliffe, 1988).

The basic principles of the Systems Approach are:
1) The properties or behaviour of each element in the System affect the properties or behaviour of the whole system.

2) The properties or behaviour of each element, and the way each affects the whole are in turn affected by the properties or behaviour of one or more elements in the System.

3) Since each element exerts a nondependent effect on the whole, a system cannot be understood by analyzing its elements independently, for each element interacts with others and each affects the performance of the whole, and thus; a system is always more than the sum of its parts, because any system exhibits some properties or behaviour that none of its elements can (Ratcliffe, 1988).

In other words, the Systems approach is a technique for the application of a scientific approach to complex problems. It concentrates on the analysis and design of the whole, as distinct from the components or the parts. It insists upon looking at a problem in its entirety, taking into account all the facets and all the variables, and relating the social to the technological aspects (Ramo, 1970).

Systems analysis is also defined as the analysis of systems and their objectives with a view to reallocation of resources to improve performance (Skeet, 1973). The goal of systems analysis is to define the significant features of the problem under study and it is used for (1) planning, (2) improved methods of delivery, (3) effectiveness analysis and (4) decision analysis (Skeet, 1973).

Although classical systems analysis and operations research have been highly effective in armed forces, business and industry, their adaptation and application to complex social systems have not been frequent. Like the case of organization theory, Systems Analysis and its sister disciplines such as Operations Research too failed to achieve successful implementation because of an incomplete and often incorrect methodology (Kiss, 1984). It was felt that analysts make assumptions that do not stand up to serious examination. One such assumption was that the "hard" part of a problem which could be expressed in mathematical terms could usefully be isolated from the human and organizational elements and these could thus be eliminated from the analysis (Kiss, 1984).
What has emerged over the last few years is a practical and flexible problem-solving approach of systems analysis and operations research (Reynolds, 1987, page 73-77). In this approach, (1) a delivery system is first analysed and then broken down into smaller, more manageable problems for study, (2) these smaller problems are then investigated not only singly but also in relation to each other to identify possible solutions, (3) the potential solutions can then be analysed systematically and critically, and the most promising selected for testing.

Thus, systems analysis asserts (Gvishiani, 1984): (1) the organic integrity of the subjective and the objective in systems studies, (2) the notion of structure that gives systems their integrity and determines the boundaries making it distinct from its surroundings, and (3) the interdisciplinary nature of the ‘systems effect’ of emergent properties due to the interactions of the system as a whole and the subsystems within it.

The concepts of boundaries and hierarchies of systems have been points of debate till now. As Abbott argues (Abbott, 1995, page 861), “Social entities come into existence when social actors tie social boundaries together in certain ways. Boundaries come first, then entities… An organization is a set of transactions that are later linked into a functional unit that could be said to be the site of these transactions.” Thus, it is mandatory to identify boundaries of any system to be studied, to define it as a system in the first place.

The hierarchical concept, however, is less debated as it is well accepted that hierarchical structures naturally emerge in the course of development from the simple to the complex via fixed intermediate forms. It is also of importance to note that the very notion of a system is hierarchical as it presupposes the unity of three basic concepts: (1) a system as an element of a larger system which conditions its interactions with the environment, (2) a system as an integral entity and, (3) a sum of its own elements or subsystems (Gvishiani, 1984).

The concept of Total Quality Management (Kauzny, 1992) and the theory of Socio Technical Systems (STS theory) (Chisholm, 1986) as applied to organizations of Public Health and Health Care are based on the notions of system with subsystems, congruence, and a flexible and creative problem solving approach with the objective of improvement by
innovation or change. In the case of major changes to be planned either at the macro or micro level and to review results of new interventions in the health service, simplified systems analysis is necessary (Taylor, 1984).

Applied to health and the health services, such changes are more feasible at the level of organizations of the services as, health in the political context is not a revolutionary issue (Roemer, 1976). Therefore changes should be brought about by systems analysis in health service organizations and can be of its structure, technology or manpower.

In other words, the critical dimensions of the health service system are its technical component, its manpower, the organizational structure and its administrative aspect. While these four are in continuous interaction with each other within the system of the health services, these are under continuous influence of the environment in which the health service is set.

The prime factors of the environment or the larger system would be (1) the health problems of the local population that the unit of the health services attempts to serve, (2) the national and local socio-cultural and political setting, and (3) the administrative control from above for example for a district health services the control by the state health administration (Dutta, 1996).

Within this perspective efforts to develop Health Systems Research in India were made. However, from the 1980’s onwards there has been a concerted effort to delimit the scope of Health Systems Research. The Commission on Health Research for Development (1990) had a mandate to survey current research on health problems in developing countries, identify strengths and weaknesses and propose improvements (Commission on Health Research for Development, 1990). It talks of the socio-political factors but when it actually analyses systems, it breaks into essential national health research and international health research partnerships. The former is meant to improve a country’s health system for its specific problems, while the latter in partnership with advanced countries will take up issues in the Third world relevant for human race as such. Thus, in this report the emphasis is on improving research capabilities by bringing in scientific knowledge from the developing countries and on doing research which has meaning for the developing world as...
well. Banerji points out that the report falls short of its mandate. He further states that the interest of international agencies and of affluent countries of the world in ‘health research in the developing world’ is an interesting phenomenon in the field of international health. Reports are tailor-made to suit these interests. This report of the Commission is no exception as it has identified subjects that require ‘extensive study’ without even defining the Health Service Systems (Banerji, 1990).

The contemporary trend in Health Systems Research appears to be to narrow down Health Systems Research to merely Health Service Systems Research. In such a scenario technology based issues get priority and the larger socio-political issues that affect the basic fabric of the Health Systems get elbowed out. Even the WHO has succumbed to this pressure as is evident from the World Health Report 2000. In this report dedicated to Health Systems, the WHO has weighted three indicators of performance and added them up to create a single indicator (WHO, 2000). It is however not clear as to why the WHO felt the need to come up with one synthetic indicator of performance (Navarro, 2000). Most experts in health care agree that assessment of health care systems is not an exact science. As in many dimensions of the scientific project, the barrier between science and ideology is not an impermeable one; on the contrary it is highly porous (Navarro, 2000). Health system policy issues are intrinsically complex. No country has discovered an ideal model and appropriate policies differ widely in different country settings (Feachem, 2000). The WHO Report is however, rooted in the belief that the most important health problems our societies now face can be resolved by technological-scientific medical bullets or interventions, without reference to changes in the social, political and economic environments in which these problems are produced (Navarro, 2000). This view is not correct as in order to improve the performance of a health system it is necessary to identify the factors, internal and external, responsible for its merits and shortcomings (Kawabatta, 2000). The external factors influencing the performance of the Health Systems have been virtually ignored by the WHO in its report.

In the present Study, we are taking the earlier concept of Health Systems Research wherein, Health Systems are viewed in their broader contextual framework, as we firmly believe that the socio-political milieu has a profound influence on the development and functioning of Health Systems. It is thus within this perspective that we consider it
appropriate to conceptualize the ESI scheme as an open ended System where, on one hand the subsystems are in continuous interaction among each other and, on the other hand these subsystems separately and the system as a whole, are constantly influenced by the external environmental factors. The present Study while considering all aspects of the health care delivery system of the ESI Scheme has remain focused on the occupational health delivery and compensation system of the Scheme.
REFERENCES


Ahmad, Mukhtar (1986). Factory Labour in India.


National Labour Year Books.


Ory, FG (1997). Occupational health policies in India, Strategies and methods to promote occupational health in low income countries.

Panandikar, SG (1986). Industrial Labour in India.


