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Vol 1 Number 3.

WORK & HEALTH

93

EDITORIAL PERSPECTIVE

Ramana Dhara

100

**THE BLACK LUNG MOVEMENT IN THE US
L.R.**

102

POLITICS OF HEALTH AND SAFETY

Anurag Mehra and Sandeep Agarwal

110

ILLNESS AND ACCIDENT REPORTING IN INDUSTRY

Jean D'Cunha, Loy Rego, Mihir Desai and
Vijay Kanhere

126

**HAZARDS OF AGRICULTURAL WORK : A CASE
STUDY FROM PUNJAB**

People's Health Group

REGULAR FEATURES :

Newsclippings on health and medicine : 96;

Dialogue : 130; Review Article : 138

We regret that we had to withhold Ray H. Elling's
article on 'Industrialization and Occupational Health
in Underdeveloped Countries' due to lack of space.

The views expressed in the signed articles do
not necessarily reflect the views of the editors.

ASSAULT AT THE WORKPLACE

Most kinds of work can produce stress and prove to be hazardous. In their efforts to survive and thrive, early humans had to struggle with the vagaries of nature, which, on many occasions, must have proved fatally hazardous to some of them. These hazards, however, would probably not have been perceived as 'work hazards' but as a part of living. Obviously at this stage, there was a difference between 'work' and 'life'. With technological progress, however, survival gradually became less of a constant risk, and human beings settled down to the business of production, the basic means by which they existed and propagated themselves. But the technological progress associated with production had its own built-in problems, which became more apparent after the Industrial Revolution began.

Sickness and absenteeism are two words which highlight the bourgeois perceptions of health. A worker is considered to be 'healthy' when he is 'fit enough to work' and 'sick' when he is unable to 'work'. Under capitalism, therefore, health becomes equated to the ability to produce goods, a concept which dehumanises the worker and reduces him to being just a form of energy for the production process. Contrast this perception of health to that of the World Health Organisation which defines health as a state of complete physical, mental and social well-being and not merely an absence of disease and infirmity.

Wherever a new technology has been introduced the effects of the impact of this technology on ecology and human health have been recognised only many years later. The interval between introduction of this technology and recognition of its effects has, in many cases been highly detrimental to both man and his environment. This situation is likely to continue as long as vested interests exist to promote dangerous technologies in place where general awareness about the dangers of these technologies is limited.

With the increasing complexity of industrial processes, more and more hazards have begun to be recognised. The brunt of these hazards fall primarily on the working-class, the actual producers of goods. When this class is looked upon merely as

a tool in the production process, it is easy to understand why neglect of safety precautions occurs, particularly in countries where surplus work-force exists. It is revealing to examine in this context, two examples of safety standards set by different countries. In the industrially advanced capitalist countries, safety standards are higher and better implemented than in the less advanced capitalist countries. However it is in the socialist countries, whether industrially advanced or otherwise, that safety standards are highest. This is presumably due to the latter's commitment to preventive health care. It must be noted that a physically safe working environment is one of several factors which contribute to achieving work-satisfaction. Other factors include a harmonious 'organisation of work', control over the production process and channels of communication for workers to express their feelings about various aspects of their lives.

Let us take a look at the economics of workplace neglect. For the industrialist, ignoring the provision of a safe working environment means less economic inputs into his industry for the same production output. This saving therefore becomes, another addition to the net profit. A similar situation holds true for environmental neglect. Good housekeeping and a clean environment means more investments something which an industrialist would rather avoid if he can get away with it.

An important issue currently being debated is the question of why two different safety standards should exist for worker and public exposure to hazardous materials. Proponents of the double standards (which exists today) have used four types of arguments as justification for the status quo. These arguments have been questioned by a group from the Center for Technology, Environment and Development at Clark University, U.S.A. (*Science Today*, April 1982). I am briefly presenting the debate as it examines a number of relevant topics in work and health.

1. Proponents of the double standard argue that workers must be involved in production even if it is hazardous because it is for the larger benefit of society. Any attempt to reduce the workers' risk will

result in higher costs for the product, reduced employment opportunities, etc. This is an argument which tries to balance the workers' interest against larger social interests. Opponents of this social utility theory contend that there is no social justice in this view and that the hazardous exposure is being accepted with only very limited knowledge of the short-term effect of these hazards. What will the long term effects be? And are we justified in exposing future communities to these hazards?

2. The next argument uses the premise that certain groups of workers are better able or more specialised to face risks that others like children, pregnant women or the elderly cannot. Though on the face of it this argument looks plausible, the face is that distinctions in workforce are not always clear cut, particularly in developing countries which have child-labour etc.

3. Compensation has been given by employers and even eagerly demanded and accepted by workers exposed to hazardous operations. This has been in the form of higher wages for riskier jobs as well as compensation for damage to health. Very often workers do not know and are not informed that a particular job is risky. This is particularly true of the chemical and dust industries. Even if we accept the principle of compensation, the fact is that the system of compensation is highly inadequate. How many asbestos workers know that they (and their families) stand a chance of contracting cancer as a result of exposure to asbestos fibres? The majority of accidents at work and occupational illness go unreported, so in these cases the question of compensation does not arise.

More importantly one must look at the question of compensation from the viewpoint of social justice. Can a noise-induced hearing loss really be compensated? How does one quantify the compensation for a chemically induced cancer. The problem with this kind of compensation is that it may legitimise the risks imposed on workers. A similar type of legitimisation of protection of workers is used by employers who give the milk-and-vitamin tablets formula as a sop to workers who are exposed to toxic substances.

4. Lastly, consent by workers to accept risks at their jobs is used as a justification for the double standards of exposure for workers and public. As a corollary to this argument, it is also argued that the public is unable to give consent, therefore their exposure must be lower than that of the workers. A closer examination of this argument shows that

truly informed consent cannot really be given by workers. No job-aspirant is ever given a neutral assessment of the hazards of his job by his employer. More significantly for a worker, the decision to take up a particular job is based largely on economic necessity, job security and upward mobility, etc.

The feminist movement has given us new insights into women's work both in and out of the home. For long it had not been realised that family and household work done by the women could be viewed as an essential prop for the man working outside and could therefore be quantified in economic terms. Studies are now underway in India to formulate methods of establishing money values for women's work.

Mental stress from work can be brought on by disruptive work patterns which alienate the worker from his work. Productivity deals, work automations physical discomforts and fragmentation of work, contribute to the workers lack of control over the pace of production and conditions of work and can lead to severe psycho-social problems. These problems are faced even by the socialist societies of today and must therefore be closely examined and tackled.

It is heartening to note that a number of independent left groups are actively taking up issues of health and safety at work and related problems. One must note that work of this nature cannot be done in isolation only by trade unions or scientists but must be done on an integrated basis with the working class, environmentalists, members of the lay public, occupation health experts, etc. to be really effective. At first glance, there may appear to be a contradiction between controlling environmental pollution and the interests of the workers (who stand the risk of losing their jobs if polluting industries are shut down). However, it is imperative to note that here is a common interest between environmentalists and workers who must exert a concerted effort to force industries to clean up their environments both within and without the factory. Even though India is the eighth largest industrialised nation in the world, it is regrettable that hardly any work has been done in our country on work-related problems. Studies done in the US have estimated that 5 per cent of all illnesses are related to occupation. The figure for India cannot be much less and in all probability is greater considering the co-existing problems of poverty and undernutrition, a surplus work-force and almost no provision of safety measures particularly for workers in the unorganised sector.

The world economic order has had much to do with the causation of occupational ill-health. Multinationals have relocated dangerous technologies, e.g. asbestos from their own countries to other poorer nations, particularly, where there is ignorance about these technologies and there is no significant labour movement. There is a pressing need for a global information system which informs trade unions about new data on health risks, and about various news being debated on work-related problems. Neither in the curriculum of medical colleges nor in actual medical practice is there an emphasis on the detection of occupationally caused illness. Even the ESI medical scheme which deals only with workers has not instituted any major effort in occupational health.

The author wishes to thank members of the editorial collective for their comments and suggestions in preparing the editorial perspective.

Ramana Dhara



The lack of concern among workers and their unions, until recently, regarding health and safety at the work-place, the apathy and corruption of the State apparatus. The insupportable and manipulative attitude of the capitalist and managerial class and the acquiescence of the scientific and medical intelligentsia with the ruling class forms the major focus of discussion in the present issue.

Working classes, for an intolerably long period, have now been at the receiving end of the harmful effects of industrial production, that has not only alienated them from the product of their labour but also has abused and assaulted their faculties of body and mind reducing them to objects in the process of production. Health issues related to the workplace environment do not find a priority in the agenda of workers' struggles for their humane rights as participants in the productive workforce, especially in underdeveloped capitalist countries, because their day-to-day survival is still at stake.

Anurag Mehra and Sandeep Agarwal in the *Politics of Health and Safety* discuss this unequal contract between labour and capital and show how the capitalist class has successfully established an ideological framework that individualises the problem of health and safety at the workplace, therefore preventing its graduation into a social issue that could frustrate the profit-maximisation efforts of the capitalist by the issue becoming a central focus of the workers' movement.

The reporting system for occupational diseases and accidents and relevant legislation in India has

been reviewed in the article, *Illness and Accident Reporting* by Jean D'cunha, Loy Rego, Mihir Desai and Vijay Kanhere of the Health and Safety Unit "Bombay". It is pointed out that, in spite of the gross inadequacies in the reporting system, the accidents reported in India are still considerably higher than most highly industrialised countries. As for occupational diseases the reporting is so small that it is negligible, even when studies by various public institutions like ICMR and CLI clearly indicate a high prevalence of diseases like silicosis, byssinosis, pneumoconiosis and asbestosis among others. The various legislations pertaining to work and health have been examined and it is shown how these supposedly pro-worker legislations are openly flouted by the factory owners in collusion with the corrupt protectors and implementors of the law.

It is not only in traditional and modern industry that workers are exposed to health hazards. Agricultural workers too, encounter illness-causing health situations which are peculiar to their work. The People's Health Group, Patiala describe in this article, the various hazards of agricultural work. They point out that these hazards are not so much a consequence of the introduction of new technology, as they are of the prevalent exploitative relations of production.

A. D'Mello reviews the book which has been much quoted by many of our authors in this issue—*Death on the Job* by Daniel Bergman. Although it was published six years ago, the narrative, documentation and analyses of occupational health and safety struggles in the US about work-related health issues of relevance to the growing awareness among activists and health workers.

We introduce a new 'column' *The Printed Word* which with your help can be a regular feature. On these pages, we aim to give readers a glimpse of the health scene as reported in the press. Please help us to keep track of what the dailies (especially the regional dailies) view as news, in the world of health and medicine.

Ramana Dhara
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FORTHCOMING ISSUES

March 1985, Vol I no. 4 : Politics of Population Control
June 1985, Vol II No. 1 : Health and Imperialism
Sept. 1985, Vol II No. 2 : People in Health Care
Dec. 1985, Vol II No. 3 : Systems of Medicine

The Printed Word

newsclippings in health and medicine, january - june 1984

The Health Status

Free Press Journal, 9 Ja : Monkey fever claims 18 lives in Malnad, Karnataka. A cure for the epidemic which has been taking a substantial toll every year since 1952 still eludes the medical profession.

Times of India, 15 January : Nearly all 93 employees of the state pencil units in Mandsur district have been found to be suffering from silicosis.

The Daily, : 87 out of 150 employees of the Golden Chemicals Ltd at Dahisar, one of the largest manufacturers of bichromates, basic chromium sulphates and chromium derivatives in Bombay, are found to have developed perforations in the nasal septum, an ailment induced by inhalation of chromium salts.

The Daily, 15 Feb. : In a span of 3 years, 16 workers of the Asbestos Packing and Manufacturing company in Bombay have lost their lives either because of asbestosis or TB, cancer, and heart ailments caused by inhalation of asbestosis dust. A recent check-up by the ESIS doctors revealed that 40 out of 240 workers suffered from asbestosis with lung function disability ranging from 10 to 75 per cent. The medical factory inspector has not taken any action in the last 20 years.

The Telegraph, 24 Feb. : Mystery disease in Arunachal Pradesh kills 20 in seven days.

The Statesman, 11 Mar. : Over 6,000 cases of malaria were

recorded in 1983 at one centre alone in Calcutta and the total number will not be less than 15,000.

Indian Express, 23 Mar : According to a study conducted by the National Institute of Nutrition, some 600 persons out of 2000 people of 28 villages of Prakasam, Nalgonda and Guntur district of Andhra Pradesh have been crippled for life by a disease named Genu Valgum which results in bow legs. Scientists have linked this to environmental changes following the construction of massive dam at Nagarjunasagar, which raised the subsoil water, increasing its alkalinity, leading to a concentration of trace elements like molybdenum in food grains grown in the soil. These molybdenum-rich foods displace copper in the body leading to the crippling bone diseases.

The Statesman, 2 Apr. : Dysentery toll rises to 628 in West Bengal. The number of people attacked is 12,281, the worst affected areas being Jalpaiguri, Cooch Behar and Murshidabad.

The Statesman, 18 Apr. : According to an Oxfam study, the strange physical disorder (the Handigodu syndrome) noticed in some villages of the Shimoga district in Karnataka is traceable to the consumption of fish contaminated by residues of 'endin', a parthion chemical used in paddy fields.

Free Press Journal, 24 Apr. : The Gujarat government has decided to close down the 2000-bed civil hospital in Ahmedabad, the

largest in Asia. The killer jaundice has claimed 300 lives including that of 30 doctors.

Hindustan Times, 28 Apr. : More than 5,500 cases of malaria were reported in Delhi since January.

The Statesman, 4 May : Death toll rises to 1,244 in West Bengal. Total number of people stricken rose to 32,409.

Free Press Journal, 10 May : A recent study conducted by the Institute of Genetics and Hospital for Genetic Disease Hyderabad has found that workers in rubber, pharmaceuticals and asbestos factories reveal an increase in chromosomal aberrations like gaps and breaks and chromosomal abnormalities due to mutagenesis caused by the pollutants.

The Statesman, 10 May : Dysentery toll in West Bengal now 1,592.

The Statesman, 19 May : Dysentery toll in West Bengal now 1,875. Total number of cases is now 61,762.

Hindu, 20 May : Gujarat hepatitis toll now 531.

Indian Express, 27 May : Dysentery which claimed 2,700 lives in West Bengal, Assam, Tripura, Orissa, Bihar, UP, Himachal Pradesh, and Rajasthan continues to spread claiming 1,987 lives in West Bengal alone.

Health Policy and the Health System

Deccan Herald, 2 Jan. : An integrated health and family

planning programme is to be launched in Kerala and Karnataka with a credit of \$ 70 million from the International Development Association (IDA) the World Bank affiliates for concessionary lending. The programme which includes the setting up of PHCs with a staff each of three doctors covering a 'block' of about 80,000 to 1,00,000 will benefit 20 million people in Karnataka and 4 million in Kerala. The government of India and the state governments of Karnataka and Kerala will provide \$ 53.8 million for the project which is to cost 123.5 million dollars.

Free Press Journal, 30 Jan. A mysterious loss of eyes from a corpse kept in the cold room and awaiting postmortem at the Irwin hospital and medical college in Jamnagar has been reported.

The Daily, 13 Jan. The Maharashtra Health minister Lalitha Rao has agreed to a proposal to set up a central maintenance department of the health service to be set up for the speedy repair of medical equipment.

Deccan Herald, 2 Feb. According to a study conducted by the Trained Nurses Association of India, in most hospitals one nurse looks after as many as 50 patients and the nurse : doctor ratio is 1:3.

Free Press Journal, 18 Feb. : India, the world's 'largest home of medical manpower' has lost an investment of 144 million dollars in training 15,000 physicians at present working abroad, according to a WHO study.

The Daily, 19 Feb. : The anti-corruption bureau has registered criminal cases against seven Bombay doctors who are panel

men of the ESIS, for cheating the scheme of more than Rs. 4 lakhs.

The Daily, 21 Feb. : 2,000 blood transfusion bottles costing Rs. 50,000 have vanished without a trace from the Lokmanya Tilak Municipal hospital in Bombay.

Free Press Journal, 14 Mar. : A Bill proposing the enforcement of state government control over medical centres run by various charitable trusts was introduced in the Maharashtra Legislative Assembly. It calls for the appointment of not more than three nominees on the governing bodies of the trusts for supervising the working of their medical centres.

Financial Express, 2 Apr. : (Editorial) The five-point strategy of the union health ministry to discourage the migration of doctors cannot be faulted. The earlier ban on medical graduates going abroad for courses already available here has helped to stem the drain. The latest proposal is to ban even the sponsorship for employment abroad of certain categories of doctors whose services are required within the country.

Hindustan Times, 25 Apr. : Sōshit, a legal aid society has moved a petition in the Supreme Court asking the Delhi administration to explain why it should not be directed to take care of the large number of patients dying in the Jayaprakash Narayan hospital in Delhi, while awaiting treatment. The society alleges that patients from neighbouring states are allowed to die because their bodies constitute a valuable 'commodity' for the morgue.

The Statesman : The West Bengal health department has requested the Left front to take

a decision on the continuation of the Community Health Service Scheme in view of the increasing availability of doctors to serve in rural hospitals. The scheme, under which a 3-year medical training is given was introduced at centres a few years ago, when graduate doctors used to refuse rural postings.

The Hindu, 20 Mar. The government of Tamil Nadu plans to popularise the comprehensive health check up scheme introduced in 1978. Anyone can have a comprehensive check-up in government hospitals for Rs. 10 including blood tests, urine analysis, ECG, X-rays and also tests to detect sugar, cholesterol, albumen, and diseases like V.D. The results are usually available the same day and a health index card is given.

Times of India, 23 Mar. : An anaesthetist at the RCF Hospital in Bombay has been held liable for causing the death of a patient due to negligence. The jury ruled in unanimous verdict, upheld by the additional coroner that the anaesthetist had overlooked necessary precautions during the operation.

Medical technology and developments in medical practice

Deccan Herald, 5 Jan. : Screening units in the state hospitals in Karnataka are being phased out with a view to preventing radiation hazard to patients. They are being replaced by safer devices called the Odelca cameras, 6 of which will be imported this year. Six others have already been purchased.

Frees Press Journal, 10 Jan. : 73 machines and instruments are lying idle in different municipal

hospitals and dispensaries in Bombay according to the Municipal Commissioner D. N. Sukhtankar.

The Daily, 12 Jan. : A West German organisation has sent a Rs. 28 lakh gift package comprising X-ray machines, cardiograms, dental chairs, operation tables, ophthalmic instruments, infusion sets, 51 boxes of medicines and an ambulance to be distributed among organisations rendering free medical aid to the poor. The gifts are being channelled through the Shree Gadge Maharaj Mission in Maharashtra.

Financial Express, 2 Apr. : The Chittaranjan National Cancer Research Centre has decided to purchase an electron microscope at a cost of Rs. 20.25 lakhs from Hitachi, a Japanese company. Scientists at the centre have pointed out various violations of the norm.

Indian Express, 5 Apr. : 12 out of the 92 X-ray machines in government hospitals in Maharashtra were not functioning.

Hindustan Times, 10 Apr. : According to a recent WHO report, X-rays were given routinely without medical justification. So used and misused are X-rays that they constitute a major source of exposure to man-made ionizing radiation.

Deccan Herald, 24 Apr. : India would need electronic medical equipment worth about Rs. 1,000 crores to achieve health for all by 2000 A. D. According to Dr. P. P. Gupta, the Secretary to the Department of Electronics, India had produced medical electronics equipment worth Rs. 13 crores in 1982 and was expected to reach Rs. 20 crores in '84-'85.

The Hindu, 26 Apr. : Hospitals attached to five medical colleges in Tamil Nadu are to be provided with dialysers this year, at a cost of Rs. 61 lakhs. The decision was taken in view of the spurt in toxic cases.

The Statesman, 26 May : India's first indigenous body scanner will be ready for installation in September this year at a diagnostic centre in Calcutta. A new manufacturing unit, Uniscans and Sonics will be making six CT head scanners and three CT body scanners in a year.

Hindustan Times, 28 May : A Rs. 16-crore trauma centre is being planned at the AIIMS, New Delhi. It is feared that the setting up of the centre is an excuse to relocate a doctor with the right connections who will be retiring, who has not written a single paper in the last decade and more.

Deccan Herald, 12 Jun : Open heart surgery, including coronary bypass surgery need only cost Rs. 17,000 in India according to Mr. Prathap Reddy the chairman of the Apollo Hospital Pvt. Ltd, Madras which has performed about 100 such operations in less than 100 days, saving the country nearly 12 million in foreign exchange.

Protests, Strikes and Agitations

Free Press Journal, 4 Jan. : Nearly 300 students of the Tibbia Unani Medical College have been on strike since the past one-and-a-half year demanding retrospective affiliation for the past six batches to the Bombay University. Twenty students including eight girls are on indefinite hunger strikes. The College was previously conducting a diploma course in Unani medicine and surgery.

The Central Council of Indigenous Medicine directed the college in 1977 to affiliate with the Bombay University, and permitted the college to start a 6-year degree course (BUMS). The college applied for affiliation, but nothing happened.

Times of India, 21 Feb : Junior doctors went on strike at a Municipal hospital in Bombay in protest of the lack of basic facilities, vital drugs and essential medical equipment (including bandages).

The Hindu, Mar. : The junior doctors of the Government college in Karnataka who were on an indefinite strike to press for improvements in emergency services, drug availability and increase in stipends and other demands have withdrawn the strike on a promise by the Minister to look into the matter.

Indian Express, 12 Mar. : The agitating students of the Unani Medical College in Bombay have finally succeeded in getting affiliated to the Bombay University.

Free Press Journal, 17 Mar. : The Gujarat chief minister Madhavsinh Solanki rejected the demands of agitating medical students and striking doctors (allopathic) for cancellation of the six-month emergency medical course for homeopathic and ayurvedic doctors.

The Telegraph, 18 Apr. : Nearly 3,000 medical students, house staff and registrars and surgeons are on strike in Orissa demanding upward revision of stipends, better equipment and life saving drugs.

The Statesman, 6 May : The 24-day strike of 3,000 medical students and junior doctors in Orissa has been called off in response to

an appeal by a State-level citizen's committee.

Hindustan Times, 18 May : The strike of junior doctors of the nine medical college hospitals in Bihar has entered the fifth day today. Doctors' demands include absorption of all 4,000 unemployed medical graduates in the state health services.

Deccan Herald, 13 June : Homeopathic students of two colleges in Bangalore have ended their fast, which had been undertaken to press their demands for the government take over of the two private colleges.

The statesman, 25 June : The 44-day strike by junior doctors which had paralysed functioning of nine medical college hospitals in Bihar has been called off on an assurance that their main demands would be considered shortly.

The Daily, 27 June : The Maharashtra Association of Junior Doctors has called for a day's token strike today. The strike will involve 4,000 resident doctors and 500 post graduate students. They are protesting against the openings of capitation fee medical college in the state.

Professional bodies in health care

The Telegraph, 2 Apr. : Efforts are under way to get the IMA registered as a union, according to Dr. V. Parameshwara, the convener of IMA's first zonal conference held in Bangalore recently.

Business Standard, 11 January : Inaugurating the 59th All-India Medical Conference the president of the IMA, Mr. J. Mathias opposed any short term or a condensed course as demanded by the Nurses Association of Tamil Nadu who had suggested a condensed course for qualified nurses to qualify as rural medical officers. He was also opposed to the change in the medium of education in medical colleges.

Deccan Herald, 18 May : The Karnataka state branch of the Indian Medical Association, IMA, has taken strong exception to the state government's decision to grant permission for starting a new medical college. The state IMA president Dr. V. S. Achar said as many as 8000 medical graduates were unemployed. The state already has 13 medical colleges. More

institutions are needed to train paramedical workers, but only medical colleges make money.

Deccan Herald, 24 May : The centre may soon amend the Indian Medical Council Act to put an end to the practice of charging capitation fee by medical colleges. At present there is no provision in the Indian medical council act to take prior approval of the Union government for opening a new college.

Deccan Herald, 1 June : The Homoeopathy Teaching Council of India has demanded immediate government takeover of the two private homeopathy colleges in Bangalore.

Deccan Herald, 6 June : The Karnataka state has through an executive order stopped all admissions to aided and unaided medical colleges for '84-'85 pending the framing of necessary rules under the Karnataka Educational Institutions (Prohibition of capitation fees) Bill, 1984 which has been passed by the state legislature and is yet to get the President's assent.

Compilation : P. P.

The news items have been compiled from the documentation files of the Centre for Education and Documentation, Bombay.

'TB and Society' : MFC Annual Meet

The 1985 Annual Meet of the Medico Friend Circle will focus on 'TB and Society'. The dates of the Meet are January 27 - 29 1985 and the venue, Bangalore. For further information contact : Ravi Narayan, Convener MFC, 326, V Main, I Block, Koramangala, Bangalore 560 034.

Book News

Human Stress, Work and Job Satisfaction : A Critical Approach, Occupational Safety and Health by T.M. Fraser

Series no : 50, ILO, Geneva, 1983, 15 swiss francs.

The book discusses man as a system and a system component, the psychophysiology of human stress, the needs and satisfactions of work, the psychophysiology of work and fatigue, stress mechanisms and their manifestations in work and the interrelationship between stress and satisfaction. He ends with a series of remedial suggestions.

The Black Lung Movement In The U. S.

Black Lung Associations and Brown Lung Associations were two Organisations of US Coal miners and textile workers respectively. The bulk of their membership came from disabled workers or their widows and their heroic struggles paved the way for better H & S for all.

Coal mining is a hazardous occupation and one of the earliest unionisation campaigns in the mines gathered momentum in the aftermath of a serious accident. In 1869, an accident in Avandale mine in Pennsylvania killed 179 miners due to the refusal of the mine-owners to build an escape exit. Speaking to the people gathered to mourn the dead, John Siney, President of the Working Men's Benevolent Association (forerunner of the United Mine Workers, said "Men, If you must die with your boots on, die for your families, your homes, your country, but do not consent to die like rats in a trap for those who have no more interest in you than in the pick you dig with". Thousands of people joined the Association that day!

Despite these pledges to work for health and safety, the struggles for health and safety at work were at a low key, with the struggle of the Union for survival, expansion and improvement in terms of employment being more central. As the union grew, the union bureaucracy in UMW became more entrenched. The union had a department dealing with health and safety but this was not able and did not do much to improve working conditions.

It was only the sixties that the movement for better working conditions took off. The focus became the struggle to get pneumoconiosis- "black lung"- recognised as a compensable disease. State and federal government authorities had for decades denied that coal dust was a hazard and caused disease. In the early sixties diseased workers and some socially active doctors began to tell other workers of the dangers involved. "When we found out what was actually going on," says Bill Worthington, a leader of the Black Lung movement, "we began to get pretty angry. Coal Companies were making millions of dollars off us, and when we got too sick to work, they said we had "miners asthma" for which there was no compensation."

In November 1978, Consolidated Coal Company, Mine No. 9 in Farmington, West Virginia, blew up killing seventy eight miners. Judith Henderson, widow of miner Paul Henderson recalls, "It was cold and snowy that November 20th morning when I had turned the morning news on and heard the world

that were to begin a terrible nightmare. The rumour that there had been an explosion was confined, and all but 21 on the midnight shift were trapped. This was where my husband worked and where the nightmare began. We waited, hoped, prayed that our men would be saved, but in vain. On the 10th day they announced the mines would be sealed because the Company Officials felt that no human life could live after this time."

The UMW leadership took advantage of public sympathy to press for a federal mine safety law, ignoring the issue of Black Lung compensation and Occupational health - believing it would jeopardise the passage of a safety law. The Black Lung (BL) movement received a spurt in the membership and an added thrust after the Farmington disaster. The various state Black Lung Associations together with Associations of Disabled Miners and widows along with progressive physicians and lawyers pressed for BL compensation and controls on Coal dust.

In January, 1969, the Virginia (where Farmington mine is located) BL Association was formed and in February and March of that year, 42,000 of the State's 44,000 miners walked off their jobs, pressing for a new law. They marched to the State Capital and demonstrated in front of the State Legislature brandishing blackened lungs obtained from autopsies of pneumoconiosis (Black Lung) victims. The strike hailed as "the most important political strike in modern labour history" forced the first state compensation for Black Lung in West Virginia.

In December 1969, came a new federal law, the Coal Mine Health and Safety Act of 1969, a comprehensive bill dealing with Black Lung compensation, exposure to coal dust and safety. It specified that coal miners, or their widows, could apply for permanent black lung benefits regardless of when they had quit the mines. Benefits were paid from federal tax revenues and at first 60 percent of the applicants won the benefits. The law also created a federal inspection system to enforce safety and coal dust standards.

The passage of the Act gave new strength to the BLAs. Retired miners and widows who had successfully secured benefits began to lead others through the social security maze, and consolidated themselves into effective country-level organisations. A coalition of such groups was formed for tackling specific national level political battles like the

passage of a new law, seeking to relax the medical eligibility requirements under BL benefits. The Black Lung Benefits Act was passed in 1972, under which a miner who had worked for 15 years underground was presumed to have compensable black lung, if he was totally disabled by lung disease, regardless of what X-Ray findings indicated. However, the social security administration was successful in reducing claims success rate from 60% to 16%.

Yet, despite limitations in the implementation of the Act, the black lung revolt has resulted in half a million families getting some financial benefit. The annual payment of a billion dollars is twenty times the total paid out for Occupational Disease for all other workers. Conditions in the mines too have improved, with annual coal mine accident deaths falling from 260 to 132 between the year 1970 to 1974.

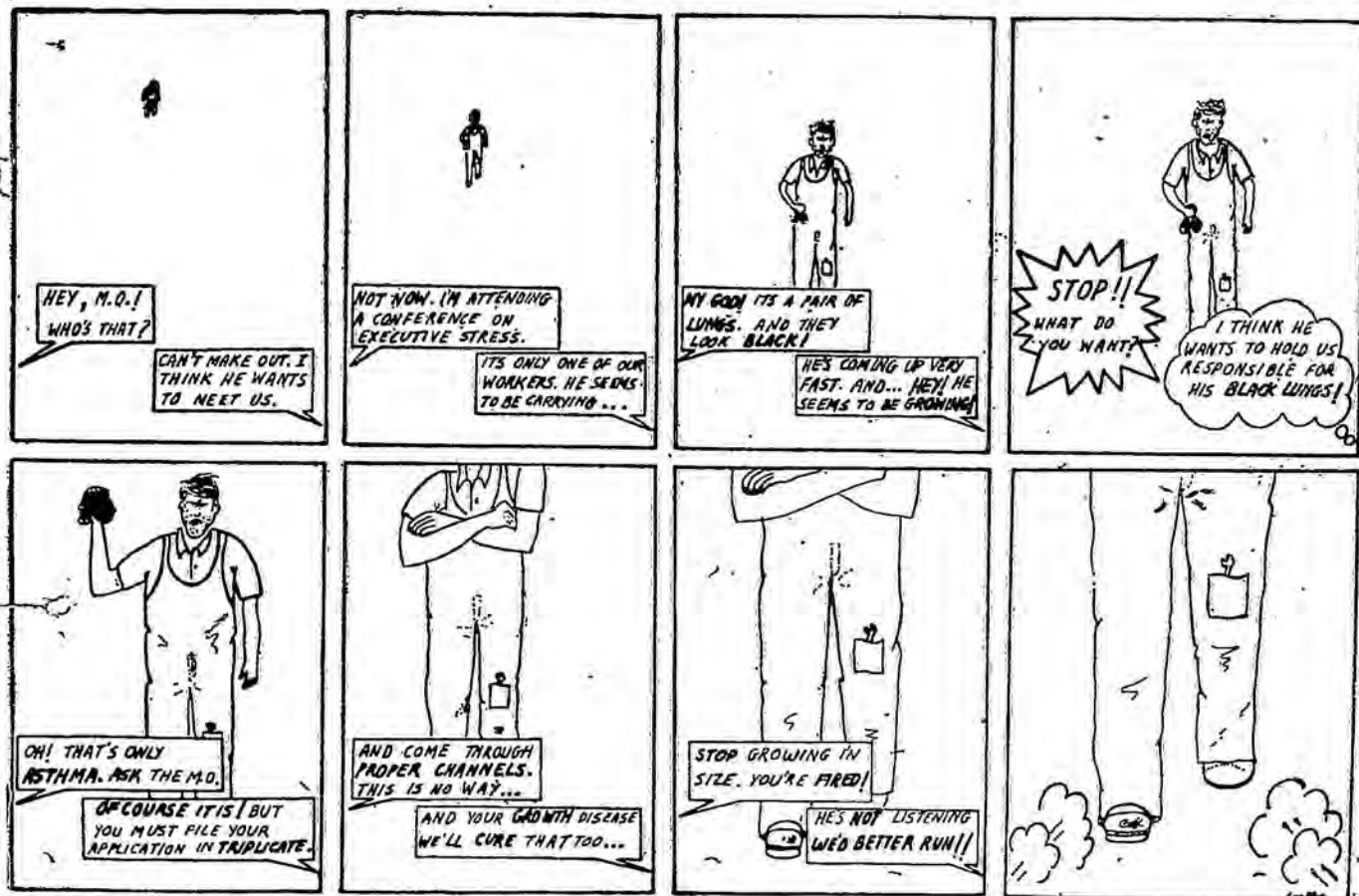
The initiative for the BL movement was taken outside UMW, by the force of rank and file pressure. As a conscious organising strategy, partly determined by the nature of the issue, it was the old retired workers, many already ill, who were in the leadership and therefore, free from threat of company reprisals. The movement developed new strategies and a language of its own, with folk songs written about their work lines by many BL members. Two of the

songs (reproduced in this issue) were written by an 83 old miner who had spent 40 years in the mines. The use of songs reflects the mass nature of the movement.

In most chemical-caused diseases, exposure is limited to a section of the work-force and very often, unless there is a vigorous educational campaign, it becomes difficult for people to recognise disease as work-related. Once the health effects of coal dust were understood, the obvious and widespread nature of the hazard was one of the reasons of the relative success of coal miners securing compensation for Black Lung. Due to the peculiar nature of the Industry, the position of the miners vis-a-vis the owners was strong. Demand for coal is high, and most coal is manufactured in mines owned by large companies with large unionised work-forces. The public too was sympathetic to the obvious hazards of the job and miners have repeatedly demonstrated their capacity to strike and shut down the mines. These factors can be identified as favouring the emergence of the Black Lung revolt.

The BL Movement changed the face of the Union movement in the mines as well as paved the way for health and safety to become an issue on the agenda of Union struggle and legislative action.

-L. R.



Politics Of Health And Safety

anurag mehra and sandeep agarwal

The unequal contract between labour and capital under the hegemony of capitalism results in the neglect of the workplace environment leading to innumerable hazards to the health of workers. The capitalist class and its associates, like scientists, technocrats and doctors, who have monopolised the knowledge pertaining to work processes and its consequences for the working class, have also successfully promoted a model that deals with the problem of health and safety as an individualistic and not a social phenomenon. The working class on the other hand has failed to counter this ideology, especially in backward capitalist countries, because their social and economic conditions do not permit them to go beyond their struggle for better wages.

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Work Relations and Occupational Health

“... labour is the workers' own life activity, the manifestation of his own life and this activity he sells to another person to secure the necessary means of subsistence. Thus his life activity is for him only a means to enable him to exist. He works in order to live. He does not even reckon labour as a part of his life, it is rather a sacrifice of his life” (Marx)

The social (contract) between labour and capital grants to the owners of capital the right to maximise their profits at the cost of labour. But to the workers, it guarantees only the means to reproduce their labour power, that is, their capacity to work. The worker is thus reduced to an appendage in the production process, yet another part of the profit making machinery that must be kept 'running' smoothly. For the worker it is not a question just of wages but of his whole experience of work which is hazardous, stressful and monotonous and leads to his physical and spiritual impoverishment. It is at this point of confrontation that labour struggles for better working conditions and organisation of work, and capital tries to minimise its cost of production by minimising its investment in health and safety and restructuring of work, thereby making it more monotonous and less skilled.

The unequal nature of this contract in favour of capital can be clearly seen from the fact that workers have little control over the conditions of work provided to them. At the point of selling their labour power workers lose a large measure of control over their health. They are ensured only wages, not the guarantee of healthy working conditions. In resisting this direct sale of health included in the sale of labour power, the working class struggles against the hegemony of capital at the workplace. Under conditions of commodification of labour power, of which health is a part, any working class demand related to occupational health is a positive assertion of its humanity.

Redefining Occupational Health

We will now examine how capital's definition of occupational health is incorporated in the outlook of bourgeois medicine itself - which lays a claim to being value free, objective and socially neutral.

But first let us look at some of the assumptions of modern medicine itself. The concept of a disease bases itself on the idea that disease is a result of biological agents and their assaults upon the body. The centre of conceptual focus is the organism. The social conditions - poverty, underdevelopment and the consequent everyday living conditions - under which diseases spread, biological pathogens grow and attack malnourished bodies are rarely the point of a doctor's attention. Likewise, this has led to the concept of technological intervention upon the body - drugs, thereby, medical aids - to destroy or cure diseases. Medicine thus believes that with more and more medical technology it can cure or control a diseased body. The social conditions themselves are not touched as the primary causatives; rather their study and elimination is not a doctor's forte.

Within this context of medical ideology then, a disease is reduced to its biological symptoms and cure is reduced to a set of technological tools. The social environment of human beings who suffer, is thought to have very little to do with disease and disability. Therefore health is seen in the individual not exhibiting any overt biological symptoms of a disease. The focus is on the individual, his body which has remained functional in doing what is expected of it, despite adverse conditions.

The medico-technical definition of occupational health then, would have us believe that a worker's health is merely his capability to be functional in performing his work. Indeed its origins lie directly in current medical ideology, presented above, which defines health only as an absence of disease or

disability rather than as a positive state of well being. Such an approach inevitably leads to obscuring the large range of damaging conditions to which workers are exposed but to which they have, by sheer necessity, adapted in a very perverse manner in the sense of somehow managing to live with them. But more than this a definition of occupational health of this sort serves a profoundly political purpose. It serves to absolve capital and management of their responsibility in creation of so much misery at the workplace which according to some medically 'established' notions, can be declared non-medical and hence not relating to health at all.

Our purpose here, then, is to point out that we should reject this idea of occupational health and replace it by a more comprehensive and broad notion of health which transcends the narrow idea that ill health is something that can be obviously seen and that which generally requires serious medical intervention. It is only then that long range health disorders, problems of work-derived stress and anxiety, the not so immediately apparent everyday discomfort and alienation of the workplace, monotony and repetitiveness, a lack of creative exercise and the intensity of work will become problems of occupational health. It is only this that will take occupational health beyond the realms of conventional toxicology, industrial hygiene, safety engineering and even so called industrial psychology.

All this brings us to the definitive thesis that the question of occupational health and safety is not primarily a matter of technical definitions nor is its resolution a matter of relevant control technology. It is primarily a question of the social relations of production which finally determine the social conditions of work and thus in a very direct way an outcome of the existing balance of class forces.

In essence, therefore, the question of what constitutes occupational health, its status, and recognition, primarily arise out of the process of class struggle and not out of any technical notion of health or the availability of advanced technologies. And so it follows that a resolution of this question is possible only through class struggle where immediate manifestations are the working class struggles for better working conditions. The struggle for better and shorter working hours and working conditions is therefore identical with the struggle for the achievement of health in relation to work.

Having thus established our conception of occupational health, we should proceed to examine some

of the ways in which reality on this issue is distorted and falsified.

The Scientificity of Safety Standards

In this regard it is illuminating to examine an instance of how a dehumanised 'science' has as its content, quite explicitly, a partisan point of view in favour of 'Capital'. The 'science' under examination is industrial toxicology in general and the so called 'safety limits' for various industrial chemicals in particular. In professional terminology it is more commonly referred to as 'Threshold Limit Value' - TLV for short. Essentially it refers to that average concentration of chemical present in the environs of the worker beyond which it becomes dangerous to the worker's health — calculated by assuming a daily dosage of fixed exposure time. The dubious nature of this concept can be demonstrated at a number of levels. At the level of ideology the whole notion of such a quantifiable concept arises from a top-down approach to health, wherein the effort is to bring down the chemical concentration of exposure to acceptable limits rather than its exact reverse where the effort is to keep the level of exposure as near zero as possible. This will be clearly seen when we, later on, examine the history of TLVs in USA.

Above and beyond this, the decision as to what constitutes a health danger in the long and short run, the method of assessment and quantification are all extremely suspect. It would perhaps be correct to state that with management-oriented professional experts the values obtained would be much higher hence more damaging to health than those obtained by a bottom upwards approach. The USSR presents a completely obverse case in this respect when compared to USA, in regard to safety limits. The attempt here is to keep concentrations as low as possible with stringent requirements on the 'Maximum Allowable Concentration' (MAC) In fact, in the USA, the lobbying that accompanies the acceptance of a legal limit, clearly brings out the political nature of the compromise the TLV represents, rather than being an objective and scientific concentration value. As an illustrative case study (quoted in Berman 1978) the history of the asbestos safety standards in USA serves to substantiate the points made above. The National Institute of Occupational Safety and Health (NIOSH) after screening through scientific data recommends a safety limit. Public hearings are then held to debate and decide upon an enforceable and permanent standard. This is the normal, time consuming and expensive procedure that is followed.

Since the 1920s the asbestos manufacturing industry has been aware of the hazards of asbestos and its connection to asbestosis and lung cancer. This however has not deterred the industry in expanding and promoting the use of asbestos even till today. The hazard is compounded by the fact that workers carry home with them asbestos dust and fibres on their clothes and person which can then affect sections of the public. The first propaganda strategy the industry adopted was to promote medical research to dispute asbestos hazards. A number of studies and data therein was suppressed and distorted till 1955 when the connection between cancer and asbestos was unequivocally established. Very promptly scientists from all of the biggest manufacturing establishments disputed this without citing any evidence to the contrary. In fact, till 1960, 63 papers on the health hazards of asbestos were published. Of these 52, which were published independently of industry, showed a positive connection between asbestos and cancer, and the rest 11 studies sponsored by industry presented opposite conclusions. The independent studies remained in scientific and technical journals, inaccessible to the public at large, and the major decisions on standards were left to the industry and a compliant government.

In 1970, with the passage of Occupational Safety and Health Act (OSHA) and the public furore created by some enlightened professionals, some scientists independent of the industry recommended a standard of 2 fibres/cm³ of air (not larger than 5 mm in length for 8 hrs. a day). Many pressed for a total ban on the use of asbestos. In this atmosphere, since industry based denials of the hazards no longer had public credibility, the strategy was changed. The industry gradually took over financial control of most of the research relating to asbestos in a bid to monopolise all research and thereby minimise criticism of asbestos use. There was a sudden spate in publicity and the flow of funds, leaving hardly any asbestos research untouched by industry-control. And even though the industry continued to flout the safety limits, even in the public eye, pressure was brought upon the government by labour to accept the standard of 2 fibres. The US government caught between the pressures of industry and pre-labour lobbies, declared 5 fibres as a temporary standard and initiated public hearings for fixing a permanent one as industry representatives at the hearings claimed that many US plants would have to be shut down if the lower standard of 2 fibres was accepted. The government hurriedly asked a private consultant to study the health effects of concentrations ranging from 2 to 30 fibres and the cost of reducing concentrations to

industry. The cost of lives of the workers and the public were not considered but more than that "such economic calculations were to become a permanent part of the standards making". The government policy was that "the cost to employer of meeting any new occupational health standards must fall within an economic range acceptable to industry". The accepted standard of 5 fibres was reduced to 2 fibres as pressure mounted but by now the NIOSH had recommended a safety limit of 0.1 fibres (1976).

Industry has reacted in many ways to these regulations. Many firms have sold over. Some others have shifted over to Mexico, Taiwan and South Korea where there are no legal limits to asbestos pollution. Many companies have paid out fabulous sums of money as compensation through lawsuits. However the president of one of the companies persisted in insisting that the problem was a technological one 'This is an industrial hygiene problem, not a problem of the public. (Berman 1978).

At the level of soundness of concept, there are numerous flaws in the notion of a TLV. For instance, it does not cater to workers who may be hypersensitive to certain chemicals or who are genetically deficient in withstanding the onslaught of such workplace pollutants. The calculation assumes that the people at risk are all healthy young men, rather than women of childbearing age and elder people who have already suffered serious damage to their health. A further examination of the methods of assessment reveals even more significant facts which are, more often than not, relegated to the realm of more scientific controversy. TLVs are commonly arrived at by controlled experimentation on rats, rabbits and the like, and the consequent statistical analysis of the experimental data. These are then extended to apply to human guinea pigs - an extrapolation that has no basis whatever other than the fact that it is chosen as a basis precisely because none other exists, and one is needed to legitimise a certain level of workplace hazards if industrial production is to remain economically feasible. An illustration will make this clear. The teratogen 'thalidomide' dose required to effect a mouse is 31 mg/kg. of body weight whereas that for a human being is 0.5 - 1.0 mg/kg of body weight. If the mouse dose is extended on the body weight basis to apply to human beings, consequences can be disastrous. Still there exist a millions of chemicals for which this distinction may not be known so precisely. They must be taking their daily toll in laboratories and factories. Moreover, TLVs refer to concentrations of isolated chemicals

individually. The synergistic effects, that can result by a mixing of a number of chemicals together are not incorporated into the concept thereby making it even less representative of the hazards at the workplace.

The sanctity of science thus bestowed upon such concepts as TLVs is rather the attempt to project, as socially neutral and objective, knowledge which is overtly political.

Occupational Disease :

Yet another example of the ideological influence, in occupational health, of capital can be seen clearly when it comes to defining what constitutes an occupational disease. For a disease to qualify as being work-derived, the normal bourgeois provision in law is to prove that the disease has exclusive and unequivocal work-related origins. This indeed is a monumental task. Often it is impossible to perform since there are many diseases, not necessarily occupational, which have a lot of symptoms in common with the occupational disease. The confusion between Byssinosis (a disease derived from inhalation of cotton dust; it affects the lungs and the respiratory system) and chronic lungs disease, is a classic example. Company doctors or management oriented safety staff have often used this confusion to mask the hazardous and disease producing effects of contaminated cotton dust. One medical inspector of factories commented, "All those with respiratory troubles in a textile mill need not necessarily be the victims of byssinosis. Their standards of nutrition and living environment and habits may have caused the disease, which may appear like byssinosis." (quoted in Berman, 1978). That this confusion is to some extent objective, is not derived. The above statement as a matter of facts may not be wrong in itself. The point however is that it is the starting assumption of all pre management studies.

Another ploy employed by the management is to simply give the disease a different name. In this process the blame of the disease is shifted from the condition of work to the person suffering from it. An American doctor, for instance, has this to say about byssinosis. It is best described as a 'symptom complex' rather than a disease in the usual sense. We feel that this term may be preferable, first, in order not to unduly alarm the workers as we attempt to protect their health; and secondly, to help avoid unfair designation of cotton as an unduly hazardous material for use in the textile industry, raising the fear the engineering control of it may be costly and that it may be better, therefore, to switch to some less costly

material. (Quoted in Berman, 1978). The intention to protect cotton manufacturers profits at the expense of the workers' health could not be clearer. And it is also clear that the choice whether byssinosis is a disease or not, becomes a matter of political outlook, not just scientific information.

Some Aspects Of Industrial Accidents

Management theories of accident, which pose as objective sciences, are a sophisticated mixture of fact and fiction. Despite numerous variations, one theme is central to them - that workers' carelessness is mainly responsible for the majority of injuries at the workplace; that the sole capability and initiative to undertake preventive measures lies with the management. Safety, as such finds little attention in management circles. We will examine some aspects of these theories and their practical and ideological role.

The extreme form of such an outlook can be seen in the behavioural models of accident causation. The reason for accidents are thus seen in the accident-proneness of individual workers. Accident-proneness a phrase carved sometime in the early twenties, immediately became popular among industrial psychologists who claimed that workers are doomed to be tension and anxiety ridden, and therefore liable to carelessness at the workplace. Industrial psychologists, at great pains, have defined various kinds of nervous disorders existent in workers and their correlation with actual incidence of injuries. (Table overleaf)

In spite of the usage of sophisticated psychological terminology, this theory very faithfully reflects the inherent attitudes of owners and managements, that workers are ignorant, careless, destructive and inferior. One does not find many overt references to such models today.

Another model pictures accidents as a culmination chain of multiple events. It is claimed that there is no single identifiable reason for accidents but a host of factors operating simultaneously. Safety films are made which depict situations that make an accident look really like an accidental occurrence. A machine goes out of order. A maintenance person tests the machine, opens the guard and then leaves it running while going for a cup of tea. The cleaner passes by, accidentally dropping some piece of scrap on the gangway. An unsuspecting office clerk hurriedly crossing the gangway, steps over the scrap piece, trips and lands his hand into the unguarded running machine. Then a question is raised wisely as to who is responsible for the injury. The movie usually ends with prescriptions amounting to less carelessness and

Occupational Syndrome	Clinical or Dynamic Diagnosis Associated
Accident Syndrome	Impulsive characters anxiety reaction
Moonlighting	Compulsive personality, often with marital problems
Pulmonary insufficiency ("pneumoconiosis", "emphysema", "chronic bronchitis")	Depressive reaction, anxiety reaction, psychophysiological reaction (asthma)
Women employees	Physiological cycles
Grievance proneness	Paranoid personality, compulsive personality, depressive reaction.

Source : Powles, W. E. and W. D. Ross. "Industrial and Occupational Psychiatry" in *American Handbook of Psychiatry, Basic Books, 1966*

more safety consciousness on the part of workers. There are obvious ideological purposes which explanations of this kind serve. To a worker, it obscures the fact that most accidents occur because of unsafe work design, unguarded machines, faulty equipment and high work intensity. It also absolves the management of its responsibility. More than that it puts the blame on the workers, thereby preventing any protest on their part.

H. W. Heinrich, a US expert, did a massive study of 75,000 accidents and concluded that a distinction should be made between accidents and injuries. All accidents, according to him, do not lead to injuries. On the contrary they go unnoticed till a major injury is caused. He estimated that for every major injury, there are 29 minor injuries and 300 accidents without causing injuries. He, while advocating preventive measures, classified about 88 percent of the 75,000 accidents as caused primarily by "unsafe action" (unsafe action is defined as a departure from the established work procedure). The percentage thus classified can vary widely depending on the investigators opinion about the extent to which physical conditions reasonably need to be modified to prevent injury. This choice is clearly political for technically, it is impossible to have a sharp dividing line. Cases which are normally identified as blatant examples of unsafe action on the part of workers can also be seen in the context of improper safety training on the one hand and increasing work intensity, monotony, fatigue, alienation on the other.

Safety engineers strongly advocate their case before the managements by professing that it is cheaper to

prevent accidents in the long run. Terms like 'loss control' and 'damage control' are used to give this notion a scientific sanctity. It is maintained that accidents not only cause injuries, but also loss of property, loss of man and machine hours, stoppage of work etc.; the management therefore must invest in preventing accidents out of their own wish because they will profit by this. This is a major argument given by industries to project their self interest in taking up safety measures. Needless to say, at its very outset, their dehumanizing calculation betrays its ideological character. Cheysler Corporation of US actually did this calculation and concluded that with the costs of an accident. In a country like India, since compensation is negligible, there is no reason for companies to install safety measures, unless strong union pressures exist.

The problematic of accidents can be questioned at yet another level. Accidents are defined as notifiable only when the injured worker does not report for work within 48 hours (in India). This is in keeping with a bourgeois notion of health which believes in functionality, fatigue, sprains, aches, nicks, cuts, burns, minor eye injuries, loss of consciousness—all these form an important part of working life but are never included in accident figures. It is not surprising that even by conservative estimates, if these injuries are accounted for, accident figures will multiply at least tenfold. These aspects of quality of work are of prime concern for the workers. Cuts on hands during assembly, muscular strain and aches due to improper work-place design, specks of dust in the eye during grinding may go unnoticed by those who

don't work with machines directly. The present design of workplace is machine-centred, directed towards maximization of productivity. Even though a more safety-oriented design may not cost much the outlook sometimes of the designer and industrial engineers does not permit them to give importance to safety. Workers, of course, are not granted any role in the design activity.

The present day managements try to impress upon the workers and the public at large that workplace health hazards have been reduced drastically with improved technologies and automation of production. Accident statistics are offered to confirm this. But such innocuous claims, in fact, serve a distinctive ideological function. Long range health hazards, problems of stress and monotony, the quality of working life, all are kept into the background while displaying of glittering success in accident control. By hiding long term health hazards, management attempts to lend credibility to the gradualist theory of occupational hazards, where slow technological changes are seen as determining factors in reduction of health hazards.

Management Monopoly over Information

Thus one of the ways in which Capital seeks to secure its domination over labour is by monopolising and controlling the flow of information relating to work. This is also true of information regarding health hazards and safety, especially if such knowledge can become a threat to profit.

As a case of outright concealment of true facts, the beryllium industry in the US provides a typical example. For almost twenty years industry and the Atomic Energy Commission had claimed worker exposure to beryllium was harmless. Only after the death of a worker was this notion challenged. One of the pioneers of occupational medicine Dr. Alice Hamilton wrote of her findings, "With rare exceptions, industry and insurance companies withhold data on occupational disease—its character and incidence. This fact has great influence on the acquiring of knowledge of industrial illness in other as well as the beryllium-using industry in the US". The conclusions placed responsibility for beryllium poisoning with private industrialists. One of her own students wrote, "A few consultant doctors and industrial hygienists, by their publications, talks at professional societies and appearances in court, appear to have been used by some members of the beryllium industry to further what are considered legitimate economic ends." (Hardy, 1965).

We have seen in the case of asbestosis, the active dissemination of false information and aggressive promotion of research to generate this kind of information by the industry to dispute the actual hazards which were becoming known to the scientific community. In cases where adverse opinion is not strong, companies prefer to keep silent on the hazards of materials in use. For example, in two Mexican border towns employees of the US firm Amatec, engaged in the manufacture of asbestos, heard about the hazards from news accounts and not from their employer. (Castlemen and Vera, 1982). Nearer home, in Bombay, a fertiliser unit uses casual workers to perform necessary tasks in the most polluted points in the plant — where even regular workers refuse to tread. Apart from the very weak position of casual labourers, their ignorance and illiteracy helps the management in stifling whatever little resistance they may have to offer in the face of such barbaric assignments. The plants continue to pollute heavily but at the expense of a number of casual worker fatalities. Another example of the political helplessness and the exploitation of ignorance of contract workers is in the textile industry where they handle waste or clean machinery - both operations where cotton dust exposure is the highest. And according to the medical inspector of factories, 'This way quite a large group of textile workers prone to byssinosis go undetected. It is precisely ignorance of this kind, deliberately perpetrated by managements, that allows them to violate health and safety regulations blatantly.'

This practice of concealment, of cultivations of systematic disinformation, stems from a more general philosophical outlook of the management - the concept that workers have to be managed and controlled. Braverman's seminal critique of the capitalist organisation of work sums up the essence of the process, "It becomes essential for the capitalist, that control over the labour process pass from the hands of the worker into his own. This transition represents itself in history as the progressive alienation of the process of production from the worker and to the capitalist it presents itself as the problem of management" (Braverman, 1979).

The effects of 'scientific' management on the working class are manifold. Firstly the origins of work related stress lie in the deskilling of the worker, the destruction of his craft and the consequent division of labour wherein he performs monotonous, repetitive operations; the separation of execution and conception of work leads to a management monopoly over creativity. Even more

significantly it has led to the isolation of the worker behind an information barrier. His awareness and natural curiosity with regard to his work have been bullied into an indifference towards the science of his skill. Since he no longer participates in the totality of the process of production but only as a component part, he no longer feels the necessity of knowledge other than learning the most basic operations. The worker, who at one time, had his own craft journals, today needs the help of the professional to decipher the mysterious language of technology, medicine and law.

Management monopoly over knowledge is acquired at a more sophisticated level through the control over the specialities such as occupational medicine, industrial hygiene and safety engineering. One of the major political functions of such disciplines has been to mask overtly political knowledge as being socially neutral. The dominant ideology that the management inculcates within these disciplines is its own. This is made easier by the fact that most doctors are recruited to industry from private practice and start out with the anti-worker attitudes common to their class background. Furthermore by according them a low status in the management hierarchy of power, their urge for identification and conformity with management views and practice is intensified. Knowledge, thus restricted through these mechanisms in the hands of a pre-capital class becomes an instrument of power and manipulation. As one spokesman of the industry put it in relation to workers' health: Our aim is "to keep a check of the workers' health while telling them as little as possible." (Berman, 1978)

The Ideological Function of Law

It is a common feature of bourgeois governments to enact laws which are progressive in content but which are never implemented properly. A number of reasons can account for this.

Firstly, such legislation and this is true for a number of regulations also, significantly those relating to health and safety - remains largely unimplemented because the enforcement agencies created to implement them are given very few powers. Whatever little exists as an enforcement structure is not only class based but also corrupt and bureaucratic. But that is only a part of the story. The second, and more important reason lies in the protective function of state in bringing such legislation into force. It projects the state as an authority which is above all classes and legally legitimises a certain level of anti-working class institutions and activities. It also helps to estab-

lish a certain measure of control over information and data which aids the state in regulating the issue in question in favour of capital (which it dominantly represents). To give an obvious analogy the state intervenes to 'protect' tribals with its whole machinery of police, forest officers and magistrates, from the clutches of 'extremists'. This protective function need not be carried out so forcefully and at times, offering the illusion of 'progressiveness' is enough to contain protest movements which in fact may be demanding much more.

Even though progressive legislation relating to health and safety in India or even elsewhere, represents an advantage to the working class and is often used by activists to their gain, the structure of factories, inspectorate, its powers, the status of occupational health and safety legislation as well as regulations, bear out above aspects of such regulations. At the level of legislation an important point needs to be made. Such 'progressive' legislation is often flaunted in propaganda for its pro-worker content while not mentioning that pretty little is actually being done to enforce it. Minimum wages are therefore paid on paper; thousands of bonded labourers are released every year and the nation has perhaps the cleanest and safest factories in the world!

Health and Safety Policy : US vs Sweden

The most incisive demonstration that health and safety issues are political comes from a comparison of the ways in which different governments with different ideologies respond to such issues.

As Navarro rightly asserts, it is class conflict and the balance of forces between capital and labour that dictate the policies of a nation - states, rather than any technical state of development in the knowledge of related disciplines or the attitudes of professional experts or the so-called 'national character traits'. An analytical comparison of two countries namely US and Sweden will make this clear. (Navarro, 1983)

From 1932 to 1976 the Social Democratic Party has been in power in Sweden even though in its own internal configurations there occurred changes from mild, legalistic evolution towards socialism to that of social reformism with the framework of capitalism it remained quite responsive to the pressures of the working-class and the middle, clerical and professional classes. On this situation capital has sacrificed its stinginess in short-term matters to safeguard its long-term profitability.

Consequently workers have a far greater control over their work in most respects and notably they are

adhered to. Managements tend to listen to factory inspectors and implement their suggestions for fear of closure.

In contrast, in US, almost every indictment by the factory inspector is hauled to court: The antagonism between state safety agencies and the industry is sharp and clear. And quite often owners get away with safety violations either for free or for an amount which is much less than that required for preventive measures.

These differences stem not, contrary to what American Professor Kelman says, from the assertive nature of American people and their respect for individual rights, as against the much more cowed down and submissive-to-authority Swedish counterpart, but from the differences in the political outlook of the two regimes and the relative proximity to labour and capital.

There are some distinctive features in the above comparison. In Sweden the working class has acted as a coherent whole, in forcing the government to pass a large number of health legislations, and has consistently favoured the formation of laws and acts rather than indulge in private agreements with the owners at the level of the enterprise or craft. On the other hand, in the US the mode of individual agreement is prevalent which effectively neutralises the collective bargaining power of labour as a class. Even in the official setting of standards it is lobbying and bargaining that decide the level of compromise rather than a collective pressure from the working class. And to complement this on floor and plant level Swedish workers have much greater powers including the refusal to work and much greater access to the enforcement agencies than their American counterpart.

Monetary Demands and Occupational Hazards and Safety

Whenever labour demands betterment of working conditions, capital's standard response is to bargain by offering monetary benefits in exchange for that irreversible loss of health. This strategy followed by managements is straight forward since the cost of such compensatory payments is often far lower than the cost to actually improve the working conditions. For instance an extremely dirty asbestos plant in the US was fined a paltry 210 dollars for having violated the OSHA standards by a large margin! (Berman 1978).

The relationship of monetary demands and health and safety demands becomes very complex at the

level of organised struggle by the working class. To begin with, therefore, a distinction must be made between health and safety demands which talk of changing the actual working conditions and health and safety related demands which propose some other mode of exchange, i.e. stake a claim in the form the incentives or benefits in lieu of the occupational hazards. The myth that management perpetuates is to confuse between the two and in the ultimate analysis substitute the latter for the former. In promoting this myth capital exploits a number of other falsely held beliefs, for instance the inevitability of pollution and hazards as being inherent to all kinds of technology. The natural implication is that the only way in which hazards can be paid for is by monetary compensation. By making monetary benefits and allowances the exclusive point of bargaining, managements use compensation ideology firstly, to save on costs and secondly to contain more authentic and dangerous forms of working class protests. Altogether, it gives to the management a licence to pour out its hazards and effluents into the work environment. By institutionalising discontent over health and safety within the framework of its own ideology, Capital seeks to assert its ideological hegemony.

Unfortunately this ideology of compensation and insurance, which seeks to blur the distinction between when compensation should be demanded and when not, breeds quite easily in labour surplus economies of the Third World and the West. In the under-developed countries where wages are meagre, unemployment and consequent job insecurity looms large, the working class is often forced into positions of weakness. In such a milieu even the demand for minimal compensation payments can be a militant victory for workers. However, in nations like the US too unions have to fight against the fear of loss of job. But wages are not that meagre and militant union leadership, rank and file activist and the workers themselves have insisted on actual changes in working conditions. An enlightened working class has insisted on compensation as a minimal demand and a change in working conditions as an ultimate objective. This and only this will ensure that Capital cannot indulge in the unbridled purchase of health of labouring human beings.

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(Contd. on page 125)

ILLNESS AND ACCIDENT REPORTING IN INDUSTRY

A Review of Statistics and Legislation in India

jean d'cunha, loy rego, mihir desai and vijay kanhere

Abuse of workers' well-being at their workplace is a characteristic feature of industrial capitalism, especially backward capitalism, where workers' consciousness about health rights is submerged under the burden of immediate survival. The problems and manipulations associated with reporting (in fact gross under-reporting) of occupational accidents and diseases, the inert nature of laws pertaining to health and safety at the workplace, the collusion between the management protectors and enforcers of the laws and the medical profession; and the workers' and their unions' apathy towards this issue are highlighted by the authors who are members of the Health and Safety Unit, Bombay.

While the deaths in the communal riots in Bhiwandi, or the casualties in Punjab, shock the country and emphasise the horror of events, the fact that everyday, at work, many are wounded and some people die, due to industrial accidents and occupational diseases (IA and OD) produces few headlines and no danger signals. The workplace is becoming a battle-field, with casualties as severe as many a modern war; and despite this genocide of so many workers, the problem of health and safety at work is far from being a front line area of social and political concern and action in India. Exploring possibilities for action thus becomes necessary.

The first step in acting on a problem is to know about it, and understand its dynamics correctly. It is important, therefore, to know the extent of IA and OD in the country, the reasons for its occurrence, and the perceptions and attitudes of the government, public bodies, industry, workers and unions to the problem.

In this article we attempt an examination of the statistics available with the government, make an estimate of accidents and diseases actually occurring and identify and discuss the reasons for their occurrence. However, in the absence of an organized health and safety movement by workers in India, the poverty of documented information on the same is inevitable. Our perceptions of the problem are thus tentative and impressionistic as they are based on a limited number of observations and interviews with workers.

Occupational Accidents and Diseases : A Statistical Profile

Every year, in India, 3-4 lakh people are injured and about 800 of them lose their lives due to industrial accidents. Table I shows these figures for 6 years. From these figures it becomes obvious that for this period, 1126 persons were injured and 3 persons lost their lives daily, due to industrial accidents.¹ In Maharashtra alone, one fatal accident

occurs on the average every two days, while in Uttar Pradesh, once in three days.

Accidents cause an absence from work due to temporary disablement. For a sample year 1980, on the basis of available figures, accidents resulted in 3,322,829 (3.3 million) mandays absence from work due to disablement (ILYB 1981). Whereas 21.3 million man-days were lost due to strikes and lockouts (industrial disputes) during this period. (PBLs, 1982, 1983)

This means that there is a daily absenteeism of 11,076 workers due to industrial accidents, and on an average it takes 10 days for a person to recover from his accident. And the above figures pertain only to industrial accidents, those occurring in factories, excluding those workplaces like ports and docks, Railways and Mines. Table II shows casualties occurring to employees in Mines, Railways and Ports and Docks. Including these casualties makes the picture far more alarming raising the daily toll to almost 5 fatalities and 1228 injuries.²

Certain states have a larger incidence of accidents. Six states Maharashtra, West Bengal, Gujarat, Madhya Pradesh, Tamil Nadu and Uttar Pradesh, with 62.5% of total factory employment, accounted for over 80% of the injuries. Rather than conclude that industries in these states are more hazardous, the statistics probably reflect a relatively better rate of reporting. But it is clear, however, that injuries themselves are on the rise. In Maharashtra, which today has the highest share of injuries, while employment rose by 40% during 1961 to 1978, injuries rose by over 100% (Nair, 1982).

Different industries have different rates of accidents, some industries being inherently more hazardous. Five industries, textiles, basic metal and metal products, machinery (manufacture), chemicals and transport equipment, with just about 60% of the total factory employment, account for over 80% of the

injuries. Textiles, the oldest industry in the country, with 24% of the total employment has the highest share (54%) of the injuries. In fact, injuries in the textile industry have increased by 626% between 1951 and 1978, while in that period, employment has grown by only 38% (Nair, 1982).

Nair's article shows that both fatal and non-fatal industrial accidents have been rising over the last 30 years. Fatal injuries rose by 225% from 248 in 1950 to 806 in 1980 and non-fatal, even more sharply by 393% from 76,000 in 1950 to more than 355,000 in 1980. He argues further that this cannot be explained as a result of industrial expansion alone, as accidents have increased relative to the rise in persons employed and increase in the number of factories. While the number of factories has increased by 388% from 32,000 in 1951 to 125,000 in 1978 average daily employment has risen by only 120% from 3000,000 in 1950 to 6500,000 in 1978 (Nair, 1982).

A comparison of rates of accidents in India and other countries is also revealing. During 1976, the number of accidents per 100 workers employed in all manufacturing industries was India (60.2) UK (34.8) and USA (24.74) (CLI)

While some statistical experts challenge the validity of the above due to different methods for reporting accidents in different countries, comparison of fatal accident rates reveals the same trend. The figures of number of fatal injuries per million man hours worked during 1979 and 1980 are (PBLs, 1982, 1983)

	1979	1980
USA	0.03	—
UK	0.03	0.03
Japan	0.02	0.01
Yugoslavia	0.07	0.08
India	0.15	0.15

Thus accident rates in India are far more than many industrialised countries.

This alarming magnitude of accidents is according to various experts, however, a gross under-estimation to say the least, in view of the numerous cases that go unreported.

Occupational Diseases :

Accidents are only one of the industrial killers. Occupational diseases are another one and compared to accidents are far more insidious in their onset and therefore often just not perceptible. And yet, in terms of damage to health, they are as fearsome, perhaps more so.

Turning to the disease chart, Table III, shows the number of cases of occupational diseases reported all over India for the period from 1960 (last year for which statistics are available). 639 cases have been reported during these 21 years giving an average of a paltry 30 cases a year.

Table IV shows the break-up of the 98 cases of diseases reported during the period 1976 to 1980 (detailed statistics only available for this period). Out of 22 types of occupational diseases notifiable, only 11 of these have been reported during this period. Of those un-reported are such well known killers like Byssinosis, Brownlung which all textile workers are prone to, and Carbon disulphide poisoning (in rayon plants) which, as Padmanabhan's study (Padmanabham, 1983) "the Gas Chamber of the Chambal" showed, affected many workers. Noise induced hearing loss, one of the commonest and most widespread disorder has also gone unreported. And among the reported diseases only one case of asbestosis was reported in five years, when during this very period, an American asbestos company John-Mansville went bankrupt due to successful compensation suits filed against it by its workers. (Castleman and Vera, 1982).

The geographical spread of these cases indicates that out of the 22 states and Union territories, only 8 states report any cases at all. There are no cases from industrially advanced states like Tamil Nadu and Andhra or from Madhya Pradesh, Uttar Pradesh and Kerala.

Table V shows the number of cases reported under the Workman's Compensation Act 1923 for the years 1966 to 1979. A total of 1159 cases were reported during these 14 years, an average of 83 cases reported a year. For the 10 years for which break-up is available, of the 710 cases reported, 303 people died and 395 were permanently disabled. These cases cover only five states out of the 22 states in the country, implying that no compensation for OD had been paid during this 14 year period in states like Maharashtra, West Bengal, Tamil Nadu or Uttar Pradesh. Of the 6 states from which there are reports, Kerala and Orissa report in 1 year only, Madhya Pradesh twice, Andhra Pradesh in 7 years. Karnataka is the only state reporting every year. In fact 90 percent of the OD reports are from Karnataka.

There are 22 types of diseases which are compensable under the Workman's Compensation Act 1923, for the period in question, though this has been raised to 34 since July 1984. For the years 1972 to 1980, during which period detailed statistics are

available, all 642 cases reported are that of silicosis. 638 of them are from Karnataka. The other 21 diseases therefore, have never been reported or compensated.

Table VI shows the incidence of various notifiable and compensable diseases identified in the Indian environment by research studies, and indicates that 6% to 44% of workers under study are affected by various OD. To overcome the complete absence of data on national incidence of diseases an attempt is made to estimate the same from the studies done. Even conservative estimates of a few diseases from a few workplaces reveal that thousands of workers have been affected. For one disease in one industry only (silicosis in potteries) we get an estimate of 1845 cases, which is itself more than the total number of cases, reported for all diseases (1798) under both, the Factories, and Workmen's compensation acts for the relevant periods under study.

Let us consider the cases of asbestosis, lead poisoning and byssinosis - 3 dreaded and rampant diseases separately.

Asbestosis : Our estimates indicate about 1500 workers suffer from this disease nationally among those working in manufacture of asbestos cement and its products alone. Thus, workers handling finished products in other locations are also affected by disease, for which no estimate has been made yet. Only one case is reported to date under the Factories Act. In the West, because of the campaign by workers, supported by the general public, detection of asbestosis cases have increased and working conditions have been improved and yet in 1978 US Health authorities estimated 5000 new cases of asbestosis due to past exposure would be detected annually till the end of this century. (Audyogik Jeevan 5 March, 1982)

Lead Poisoning : Our estimates indicate over 500 workers to be suffering from this disease nationally in one industry alone-storage battery manufacture (Chakravarti and Dhar, 1981) Since the industry uses 40% of the total consumption of lead in India, the total figure for lead poisoning itself are likely to be much higher. Only 10 cases have been reported from Bihar, while not a single case has been reported from any of the factories or states where the study (Table VI) was carried out.

Byssinosis: Our estimates reveal that 37 thousand people are affected by this disease from cotton textile manufacture in the organised sector alone. Those working in cotton ginning, power looms and

other types of textiles are excluded from this estimate. Their inclusion would raise the figure still higher and yet not a single case of byssinosis has ever been reported.

All these are but a few cases of positive 'death on the job' the proportion and intensity of which is reaching astronomical dimensions.

Why Does This Happen ?

The decapitated worker that emerges from impoverished and dehumanising work and living conditions is the legacy that industrial capitalism has handed down to us. That the wheels of such a system are propelled by profit, needs no further elaboration. In its competitive bid for survival and capital accumulation, newer production processes and products are introduced with 'cost-criteria, gaining an edge over 'health, safety and worker welfare criteria.' The increasing monetary stress, fatigue, decreased creativity, skill and control of newer work processes are evidences of the above. The numerous toxic-chemical agents, biological agents (fungi, bacteria, parasites), physical agents (noise, extreme temperatures and humidity, radiation, abnormal airpressure, weightlifting, repeated motions, shocks and vibrations) and mechanical agents, which are callously introduced at the workplace lead to further impoverishment of a worker's life. All this again is consistent with the principle of generalized commodity production, where the worker is perceived as a commodity and his capacity to labour commanding a price. Hence in a labour surplus capitalist economy, any depreciation in the health and wellbeing of a worker, arising out of his work and living conditions and leading to a drop in his efficiency and productivity at work, may be overcome by a replacement from the industrial reserve army.

Attitudes to Health and safety : The State Workers Unions and Management

It is a paradox that though the Directive Principles of State Policy guarantee the health, safety and well-being (including occupational health and safety) to every citizen, government's attitude to the problem has been callous. There is no well established Industrial Health Service Agency for occupational diseases in India. While the objectives and policy measures of government health programmes have been geared towards control and eradication of communicable diseases, curative and preventive health services in rural areas via Primary Health Centres, training for medical staff, government's

treatment of occupational Health and safety has been stepmotherly. What is also worth noting is that very little emphasis is accorded to occupational health and safety in the medical syllabus and in the training of medical personnel.

The State's piecemeal treatment of the problem of occupational Health and Safety is further reflected in four pieces of legislation allegedly designed to ensure the health and wellbeing of the worker.

The law regarding health and safety of workers in India, like the law in any other country must be viewed from three angles :

(a) The underlying principles behind the whole gamut of health and safety laws (In India this is achieved through the Employer's Liability Act, 1926)

(b) A set of rules defining duties meant to be imposed so as to reduce the risks i. e. the preventive angle (The Factories Act, 1948, The Mines Act etc.)

(c) The instrument to secure forms of compensation for the employee in which the rules governing liability are formulated and interpreted largely after the event, to determine the fault and then to align damages or other forms of compensation, according to the measure of the injury, i. e. the curative aspect. (This is represented by the Employer's State Insurance Act, 1958 - ESI Act and the Workmen's Compensation Act, 1923). But ultimately, law is, what law does, and hence it becomes extremely relevant to examine these laws not only with respect to their scope and formulation, but also with respect to the extent and nature of their implementation. It is also necessary to determine the governing ideology behind these laws, the extent to which they protect the worker and changes that need to be made in these laws.

The Employer's Liability Act 1926 : Prior to 1926, the governing ideology, as reflected in laws, or lack of them, was that whenever an employee, a natural autonomous individual, chooses to enter into a contract of employment with an employer - another natural autonomous individual - the employee is presumed to accept all the risks involved in the employment. The natural consequence was that an employer could not be held liable for any injury suffered by the employee even if it was due to the horrendous and thoroughly unhygienic working conditions. A further underlying principle was that in case the contract of employment imposed some liability upon the employer, he could avoid it, if the injury caused had resulted from a co-

worker's or another person's negligence. This is what in legal parlance was known as the doctrine of common employment. The Employer's Liability Act abolished both these principles establishing a new and progressive principle that no employee could be presumed to have accepted any risk involved in any employment. The Act does not stop here but further prohibits any Agreement which puts even partial responsibility of an employment risk on the worker. The act also abolished the concept of common employment. The resulting consequence of this Act quite simply is that the risks involved in Employment are altogether the employer's responsibility and neither a contrary agreement with the workmen nor the negligence of a co-workman can change this position.

Though the Act as such is a radical departure from the earlier concept, it still leaves much to be desired. It is curative in nature, as it lays down the principles regarding the remedies available to the workers subsequent to the infirmity or disease but does not lay down any principle regarding the prevention of unsafe working condition. Guarantee of healthy working condition is not even laid down as a principle.

The Factories Act, 1948 : This is the only act of general applicability which is preventive in nature. It allegedly provides for positive action to be taken by the employer to ensure a safe place of work. The act however remains a paper tiger. It provides various facilities and protections to the workers at the shopfloor without affording either the worker or the Unions a right to demand the same. The workers cannot directly take a factory owner to court even if he violates all the provisions of the act. The grievances are funnelled through the Inspector of Factories. This a classic example of taking away with the left hand what is given by the right. The act and the rules which run into 300 pages or more do not contain guidelines for procedures in which grievances may be brought to the fore. There is no mention whatsoever as to how workers are supposed to demand what is due to them.

The officially recorded statistics on occupational accidents (O.A's) are based on accident reports received under the Factories Act, 1948 by the factories inspectorate, while that of occupational disease (O.D's) are based on reports received under the Workmen's Compensation Act, 1923 and the Factories Act, 1948.

The introduction to the Section on O. D. in the Labour Year Book (Compiled by the Labour Bureau,

Simla), reproduced with monotonous regularity every year, notes in a tone of bureaucratic statistician's irony- "The available information regarding the incidence of O.D's is rather scanty". Horrifying though the figures for accidents are (see Tables I and II), these statistics present a picture far from the true one. The reporting of OD's has actually declined over the years while 267 cases were reported during the five year period 1960-64, only 98 cases were reported during the five year period 1976-80 (See Table III). This occurs despite the fact that the Factories Act, 1948 lists 22 O. D's which are notifiable under Section 89, making it obligatory for the factory managements to furnish information of O.D's contracted by their employees to the Chief Inspector of Factories (CIF). This section of the Act also requires any medical practitioner attending on persons suffering from such cases to the CIF concerned. However, the above mentioned facts do not represent a decline in the incidence of O.D's but rather the increased inefficiency, ineffectiveness and corruption among those responsible for reporting cases and implementing the Act, right from the doctors to factory managements and Inspectors.

The character of the Factory Inspectorate and theESIS is best exemplified by the stand taken in the case of Rajagopal, a worker from the Asbestos Company, Hindustan Ferodo, a subsidiary of the British Multinational Turner and Newall (CED, 1983). While Rajagopal was clearly found to be suffering from asbestosis by Sion Hospital, Bombay, ESI and various private practitioners found him to be suffering from Asthma while the verdict of the Medical Inspector of Factories (MIF) Maharashtra was that he was suffering from "acute bronchitis" (Behara, 1983). When a writ petition was filed in the Bombay Highcourt, he only obtained the additional relief of a freshly formed ESI Medical Board, not even composed of specialists in OD's, which gave a verdict of 'Chronic Bronchitis' (CED, 1983), and this during a period when a research study of CLI (See Table VI) showed a 36.5% Percent incidence of asbestosis.

The Directorate General of Factory Advisory Services (DGFAS) says "Many of the Factory Inspectors are not in a position to effectively discharge their functions". This contention bears truth.

The Medical Inspector of Factories (MIF) and Certifying Surgoen (CS) are two authorities under the Factories Act charged with the responsibility of monitoring occupational health, among other functions. In particular they are responsible for medically exam-

ining workers, working in 20 scheduled hazardous operations - approximately corresponding to work places where workers may contact the notifiable diseases.

Of the 26 States and Union Territories for which statistic (1980-81) are available, 10 have no MIF at all while the remaining 16 have only 29 MIF'S totally. (Industrial Safety Chronicle, 1984). Of the 21 States and Union Territories for which figures (1980 81) are available, 12 have no CS's at all, while the remaining 9 have 15 CS's. (ILYB, 1982). While understaffing clearly indicates government's apathy, considering the technical incompetence and inefficiency of these authorities, one is uncertain about what purposes the mere appointment of additional inspectors will serve. Furthermore, the meagre remuneration too inhibits the incentive to honest work.

It is no wonder then that in 1979 out of 1,22,931 registered factories 79,258, i.e. 64.47 percent were inspected. (ILYB, 1982)

Again the channels for the Factory Inspector to come to know of infringements like underreporting are non-existent since workers or unions do not have any statutory right or responsibility to report accidents. Where the Factory/Medical Inspector come to know of such cases informally, there are more lucrative methods of tackling the situation. This is evidenced by the fact that only a fraction of the anyway very few prosecutions are about under-reporting of CD and OA (See Table VII).

There are those factories too who submit no annual returns at all (about 35% according to one estimate) and therefore do not report OA's or OD's. (ILYB, 1982) Here too prosecutions are unheard of. Apart from this, the penalties provided for erring employers are so meagre, that even the employers who are brought to book continue to blatantly flout the law. Not only does the implementation of the Factories Act leave much to be desired, its scope and formulation too is ridden with infirmities.

A factory as defined under the Act includes those places employing 10 or more workers and having a manufacturing process with the use of power, or places employing 20 or more workers without power. Thus with the large extent of sub-contracting in India, there are an increasing number of small scale industries which do not fall within the purview of the Act. They are not statutorily bound to comply with the act and therefore do not report OAs or ODs. The construction and Transport Industries too do not report OAs under the Act, though they are

the most hazardous and accident prone. The definition of a "factory" thus excludes a major portion of the working class in India from the scope of the Act.

The act extensively deals with cleanliness, lighting, protection from dust, fumes etc. But in most of these categories the reasonably practical measures to be taken are left to the management's discretion. This extends even to the fencing of machinery, where in spite of numerous detailed provisions being laid down it is the management that ultimately decides what is practicable and reasonably safe.

The Act also lists 22 diseases, now raised to 34, since July 1984, as notifiable diseases. The diagnosis of a notifiable disease has to be reported to the concerned authority who must ideally act immediately. However, the act provides only for curative measures. The worker has to wait till he actually and indisputably contracts a disease, which at times may even be fatal. Nothing can be done if merely symptoms of the disease, howsoever strong, are observed. Again numerous diseases, like skin diseases are excluded from the schedule of notifiable diseases. Problems like strain, backache and the like are not taken into account as they are not considered to be serious occupational hazards.

Furthermore, the State Governments are invested under Section 90 of the Factories Act, with wide powers to direct an enquiry into any case where a notifiable disease has been or is suspected to have been contracted in a factory and "may, if it thinks fit, publish, this report or extracts from it." These powers have rarely been exercised and when they have, the Government taking advantage of the 'may' in the provision, has "thought it fit" to let such reports gather dust on shelves.

Thus due to the way the law is structured and the ineffective structure existing for its implementation, it remains a toothless monster, guaranteeing little or no protection to a worker's health and safety.

The Workman's Compensation Act, 1923: This Act is designed to provide compensation for OA's and OD'S.

That labour power in a capitalist society is a commodity is most sharply evident in the Workmen's Compensation Act. A table in the act stipulates a measured sum of money to be paid for various injuries. The human body is clinically divided into various organs and sections of organs and predetermined amount is provided as compensation for the loss of each section (See Table VIII).

This may appear to be a detailed and minute synthetic analysis of the loss of earning capacity of a workman. But this analysis indicates a totally dehumanising and utilitarian approach towards the workman. Each small tip and portion of his body is valued purely in monetary terms. Each part of his body contributes a stipulated amount to his earning which was to be equally compensated if he loses that part. The worker is thus viewed not as a human being but as a factor of production. In the event of an accident, which ideally should never occur, the employer must be compelled to provide alternate employment to the worker in addition to monetary compensation. Further the employer must be made penally liable for every accident that occurs. But above all there must be a stringent enforcement of safety norms. These suggestions arise from the content and manner in which the Workman's Compensation Act is implemented, because, under the present framework, the labour power of a worker is considered only as his means to economic survival and not as a life activity which distinguishes a human being from other living beings. Even with respect to the monetary aspect, all workers are considered together regardless of the peculiar life situation of individual workers. Monetary compensation is paid irrespective of their family needs, nature of job, promotional prospects etc.

Again a workman is entitled to compensation only if he is bedridden for a minimum of three days leaving numerous other injuries which affect the worker during the course of employment beyond the pale of this Act. The thinking behind this provision appears to suggest that a workman is injured only if he is unable to produce commodities; on the other hand, if the injury does not hamper the production of commodities, it is no injury.

Under this Act an employer is not held responsible or liable if a worker wilfully removes his personal protective equipment or any other safety mechanism provided. This is of special importance in Indian Factories, where in a few factories that provide safety equipment the equipment is often of a sub standard quality or unfit for use. It is often even found to cause further occupational hazards-for instance masks provided are often times so clumsily and badly designed that within no time of wearing them, the worker begins feeling uncomfortable or breathless.

Again the reportings of OAs and ODs for compensation under this Act is grossly short of actual occurrences. In 1979, 91 cases of OD's were

reported under this Act. They were all silicosis, cases from Karnataka. Two of the 91 workers who died as a result were compensated with Rs. 8000 each, while the other 89 workers who were permanently disabled were paid Rs. 1890 each. (ILYB, 1982)

This serious under-reporting is once more indicative of the lethargy, incompetence, and inadequacy of the enforcement agency, the corrupt collusion between factory managements and the lacunae in channels for collection and compilation of data and the definition of injury in the Act.

The Employees State Insurance Act : The Act provides an employee with sickness, maternity, disability, benefits and the like. It applies to factories using power and employing 20 or more workers. Even in these factories, it covers only those employees earning less than Rs. 1000/- per month. The Act does not apply to seasonal factories and of the factories that remain, the Government is vested with the power to grant exemptions. Thus like the Factories Act, it excludes a large section of the workforce from its purview.

An Employee State Insurance Board, acting like 'the big brother', is formed under the Act. A Standing Committee and other local boards are further constituted under this. The Board consists of 40 members five of which are surprisingly worker representatives. This is comprehensible in view of the fact that they are not elected even by a farcial contest, but nominated by the Central Government. The 40 members include two medical persons as well, nominated by the Central Government; so much for an act that deals purely with medical aspects.

The Act provides for a joint contribution by the employee to be paid into a common fund. All employees governed by the ESI act must be compulsorily insured. Four types of benefits are available to them viz (1) maternity benefit, (2) disablement benefit (injury or disease in the course of employment), (3) dependants benefit (in case of death of an employee due to injury in the course of employment), and (4) medical and funeral benefit. The funeral benefit of course cannot exceed Rs. 100/-.

These benefits however cannot be availed of unless an employee has contributed for atleast 13 months to the common fund. In the event of an injury in the course of employment, occurring within 13 months, for instance, of his employment, he is not entitled to any benefits under the Act.

The Corporation is empowered to demand more money from an employer if it believes that an unhy-

gienic factory environment or violation of health regulations is raising the incidence of ill-health to a proportion higher than what it should be. It, of course, has no right to enforce the stipulated health and safety norms. Again medical benefits which are paid in cash require indisputable proof of illness. Evidence beyond a doctor's certificate is needed to establish that a worker was ill.

Also benefits under different heads cannot be claimed simultaneously. What this implies is that if a woman on maternity leave falls ill, she has to choose between the maternity benefit or the sickness benefit. She cannot encash both. Further, a worker entitled to benefits under this Act, cannot claim them under any other Act, including the Workmen's Compensation Act. Besides, prolonged illness of a worker may result in his employer dispensing with him lock, stock and barrel.

In the case of a dispute, various courts have been constituted under this Act. Red tape, nepotism and bureaucratic delays are all that the functioning of these courts offer to employees.

Finally the ESI Scheme functions with little or no infrastructure to provide even basic medical treatment. Most workers thus regard it as good for obtaining a bogus medical certificate but useless to cure any illness, let alone occupational disease. A perusal of these acts reveals that they do not even perform the role of paper tigers. A bare reading of them suffices to indicate (a) that they exclude a major portion or segment of the workforce from their scope (b) Workmen are not granted sufficient rights to enforce the privileges occurring to them, (c) the privileges themselves are few and far between (d) the personnel in the enforcement department are not socially committed, nor are they technically equipped or numerically adequate to grapple with problems.

Furthermore, corruption and a management-oriented ideology that permeates the enforcement agency, prevents the rights and privileges of the workers from becoming a reality. Within the management frame of thought, a worker is perceived as a machine who must keep on functioning. In a country like India where the supply of such a 'machine' outstrips demand, the enforcement agency does not care a straw to ensure the functioning of 'the Machine' nor does it care for its breakdown.

To conclude one may assert that though the laws are far from adequate, there are certain rights and

privileges granted to a workman, which if enforced can help ameliorate their situation. The irresistible conclusion is that in a country like India the struggle for enforcement of these rights is as important as the struggle for better laws.

Let us now turn our attention to workers and management who are directly concerned with the problems of occupational health and safety.

Workers

Workers' perceptions and responses to the problem of occupational health and safety is noteworthy. Consistent with the notion that oppressed groups adopt the ideological formats and practices of the oppressor, workers and unions too, have internalised Management concepts and values concerning health and safety. Health is viewed by them as the absence of disease rather than general physical fitness and well-being. It is perceived as a private issue dependent on each individual being's physiological and psychological makeup and the unique ways in which they respond to disease-causing agents like germs and microbes. The vehement emphasis by management on a worker's unsafe action as the primary cause for workplace accidents also individualises the issue of safety. Cure, within this framework, for the injury or the malfunctioning organism is supposed to restore health. This too becomes privatised. Again health and health services are not recognized as rights but commodities whose availability depends on the individual's purchasing power. All this only serves to mask the social and political roots of health, shifting the onus of health and safety to the individual worker. Collective struggle by workers for better health and safety conditions, facilitating greater worker control over the work process and thus upsetting the balance of power between labour and capital within the overall political struggle is thus curbed.

Worker's internalisation of such a perspective cannot be merely attributed to a management conspiracy. It serves to also create for workers possibilities and guidelines for human action giving rise either to an attitude of peace and acceptance or to struggle against existing health and safety conditions. Workers response to occupational health and safety thus covers a wide spectrum ranging from stark ignorance to powerlessness, apathy, individualism and consumerism rising consciousness and a desire to struggle.

In a third world country like India, the combined effect of a dust-infested work environment together with poverty, malnutrition, insanitary living conditions, environmental pollution, alcoholism, smoking

and drug-intake, brings about a synergistic effect, causing so called classical occupational disease like pneumoconiosis in coal miners and asbestos workers, byssinosis in cotton textile workers and bagassiosis in sugar-cane crushers. A worker thus often finds it difficult to discern between ill-health caused due to poor living conditions and his occupational environment. For example, at a recent workshop on occupational health in Bombay, the comment of a socially conscious trade union activist working in a Kanpur textile mill is telling "We definitely feel uncomfortable working amidst cotton fibre and high relative humidity. Many of us have T.B., which we always assumed was due to our living in slums and poor living standards. But only after this doctor here told us of byssinosis do we know that it is the cotton fibre which is disabling us".

Again certain occupational diseases like cancer are slow and insidious in their onset, and manifest themselves after a long time, often towards the end of the worker's career span or after he retires. He thus remains unaware of the damage done to him in the course of his work, eliminating all possibilities of struggle.

The worker is often ill-informed or ignorant of the products and materials he handles and hence unaware of the impact it is likely to have on his health. Even if he is mildly conscious that his work environment is responsible for the deterioration of his health, he lacks precise knowledge regarding the specific nature and extent of damage to his health or the medical remedies he can resort to. He thus, for instance, succumbs to milk or poly-vitamin prescriptions by managements as a panacea for respiratory problems caused by inhalation of zinc fumes and dust. Due to his own backwardness or his preemption from technical and engineering know-how regarding industrial health and safety, he is not only unaware of the precise health and safety, status of his work place but also the available pollution control measures, possible safety mechanisms and safer substitute materials that management can very well introduce. He thus swallows the management bait, particularly that advocated by the chemical industry management that work hazards and pollution is inevitable and bearing with one's lot is the only alternative.

Again in the wake of unemployment and tight economic constraints, acquiring and maintaining a job is of foremost importance to a worker, regardless of health hazards at work, even if he is aware of them.

In the much exploited unorganised sector, the demand for unionisation and higher wages assumes precedence over health and safety. The fear of termination of services in the event of being declared medically unfit by the medical inspector of factories often inhibits workers from demanding medical examinations or raising health demands.

The organised and better paid workers though in a more objective position to take up health and safety issue, have by and large failed to do so. If an incentive scheme (productivity linked wage or piece rate) is under operation the workers may themselves not report minor injuries and just continue working, sometimes even without first-aid. If there are group incentives for production or even safety (award for million man-hours worked without an accident), group anxiety to acquire the bonus may pressurise the injured worker not to report the accident but to resume work as soon as possible after first-aid. Health and safety is thus preempted from being taken up as an issue.

Workers also fear plant shut-downs to rectify hazardous conditions in the work environment. This inevitably implies a loss of wages and a cut in overtime payment if any. They thus refrain from raising health and safety demands.

Finally, it is only when facilities consequent on an accident (i. e. paid special leave and compensation for disablement) are significant financially that workers make a particular effort to at least report accidents, however small. In most companies, however, accident prevention facilities are not particularly good.

For the above reasons a number of health hazards never enter the official records of even the factory, in the first place, let alone being raised as an issue by workers.

Health and safety action has however been observed in certain dust prone chemical and engineering industries because of the high and severe incidence of diseases like asbestosis, silicosis and lead-poisoning or serious injuries and deaths resulting from work place accidents. These occurrences have shaken workers into realising the gravity of the situation and the danger to their health and lives.

The workers have resorted to an aggressive propaganda on a specific incident and the hazardous work environment through posters, pamphlets, news-items, gate-meeting and personal talks

with other workers. The Unions have raised demands for medical examination of all workers, inspection and assessment of work environment and the right to obtain medical and factory assessment reports. Pressure has also been put on the management to control pollution and provide workers with personal protective equipment like respirators, masks, goggles, gloves, overalls and safety boots. Safety guards and fencing for machines have also been demanded. Workers have also pressurised the management to set up a Safety division and safety committees within the factory. Even in these industries where health and safety has been taken up as a struggle issue, it has often been translated into a monetary demand in the form of compensation or a hazard allowance. It is interesting to observe that workers in an engineering industry did not use the gloves and protective equipment provided. They sold good quality protective footwear or wore it out of the work environment. Safety guards were removed from machines to complete production quotas in shorter periods and escape from work place. This is symptomatic of the discomfort caused by protective equipment through the long hours of work, lack of adequate awareness regarding safety, habituation to sparse clothing and working in slippers, the prestige and status of using shoes out of work, and an alienation, monotony and boredom which preempts getting away from work as soon as possible even at the risk of one's safety.

Workers and their unions are thus permeated by the corporate culture. They are steeped in individualism, economism, consumerism and bureaucracy. Workers and their unions perceive man as an 'economic man' rather than envisaging the total intellectual, emotional, political and socio-cultural development of the human being. They have also internalised management attitudes and values to health and safety. This coupled with the deteriorating economic situation has prompted unions into preoccupation with day to day problems of workers like wages, leave, reinstatement and the like. Traditional unions have failed to take stock of technological and work process changes that bring in their train new problems and open up new areas of demands. Even if unions are aware of this, a leap from economic demands to health and safety issues would involve demands like change in plant outlay, use of substitute products, installation of safety devices and pollution control equipment. This would mean a greater control over the labour process, essentially a political demand which managements would fight tooth and nail, against

unions who would refrain from stamping too hard on management's toes. Defeat on such demands or neglect of every day problems of workers who have not yet perceived health and safety as an issue could mean loss of workers support or losing out to a rival union. Unions would refrain from this risk.

Health and safety action therefore wherever initiated has been sporadic and timely, coinciding with the occurrence of the catastrophe and petering out with the meeting of demands. It has not yet become a consistent and cohesive class-based movement.

Management

Management's response to the problem of occupational health and safety is broadly governed by cost considerations and the strength of the union. Action has spanned from flagrant abuse of health and safety stipulations of the Factories Act, collusion with officials to punitive measures against workers, to sophisticated ideological and institutional co-optation, to progressive measures which work in the interests of management and appease workers.

Non-registration of factories, failure to submit returns and records to the factory inspectorate, flouting of TLV limits for dust, toxic chemicals, and physical agents, absence of appropriate pollution control measures, use of hazardous materials and obsolete machines, non-provision or provision of substandard personal protective equipment, absence of safety guards and fencing for machines, lack of proper canteen, sanitation and clean drinking water facilities, poor plant layout and bad housekeeping, absence of periodical medical check-ups for workers or regular inspection of factories are but a few open transgressions of the law. This is indeed effected with the active connivance of the factory inspectorate officials through personal and political favours and backdoor cash receipts.

Furthermore, management withholds from workers information regarding the process of production, materials used in production and their effects on health, number of accidents, hazardous locations, pollution control records, toxicity levels, investigative reports of accidents, factory assessment and medical reports and recommendations for improvements made by the factory inspectorate and government agencies.

Health and safety demands are often met with management's emphasis on the inevitability of

works hazards, collusion with medical personnel to give inaccurate medical reports or refrain from attributing a worker's ill health to his occupational environment is yet one more method of containing the workers, placating ignorant workers with medicaments and beverages, or monetizing the demand with a paltry compensation or hazard allowance and cash incentives for accident-free records are often resorted to by managements. Transfers, plant shutdowns, or retrenchment of workers on medical grounds after a medical examination is an oft used preventive measure. Isolationist tactics like transfer of workers, keeping worker off from the plant premises by sponsoring them for out of plant training courses in health and safety, preventing workers from entering other plants during rest intervals or lunch breaks to discuss problems on health and safety is another means employed to thwart worker initiative.

A 1976 amendment to the Factories Act 1948, provides for the appointment of a safety officer in factories employing 1000 workers or more. In Maharashtra, out of 224 undertakings required to appoint safety officers, only 97 officers have been appointed to date. This amendment has brought about a shift in management perspective by incorporating safety in to the structure of the Corporation, thus avoiding too much interaction with outside authorities.

The safety departments which by and large consist of safety officers, assistant safety officers, assistant safety engineers, and other safety assistants are empowered to receive accident reports, investigate causes for accidents and prescribe corrective action. Often these departments lack sufficient and competent personnel. Although the inspection rounds and the issuing out of safety equipment are by and large the only occasions for contact with the workers, safety officers are often prevented from going to the shop floor and communicating with workers. They rarely record workers' complaints during their infrequent rounds. Nor do they investigate specific complaints of workers and unions.

Reporting of accidents occurs in two phases. The first is from the worker and his supervisor to the management. The second is the reporting of the accident by the factory to the FI and the ESIS. Suppression of reports takes place at both levels as we shall see.

When a worker is injured within the factory, he gets first aid from the dispensary or the first aid centre on the premises. A written report of the

accident is sent to the authority in the factory assigned the task of collecting reports i.e. fire office, personnel or Safety department where it exists.

Certain non-external injuries like back-aches or sprains may not even be complained of by the worker, and even when he obtains first-aid and fills up a report, this may not be accepted, the authorities questioning the existence of the injury as well as whether it happened at work. Where the injury is minor supervisors may not allow the workers to leave the shop. The supervisor may even refrain from reporting an accident if he is likely to be hauled up. Often first-aid may be provided in the shop and the worker asked to continue his work. In all such cases accidents are not even reported and hence not recorded. Incentive schemes, group incentives for production and safety may often prevent a worker from reporting injuries. Though in most companies accident benefits are rare, the existence of these may prompt reporting. A number of work place accidents, therefore, never enter official factory records.

On the next stage too, i. e. reporting of accidents to the Factory Inspector and ESI, there is suppression of reports, both by just not reporting certain cases, as well as by toning down the seriousness of the injury or the event, thus falsifying the report. This happens because managements are keen not to have absenteeism, to avoid payment for compensation as well as avoid prosecutions for negligence under various acts; or for even more prosaic reasons like keeping down accident rates to win national or international awards for safety performance. In the absence of statutory rights of workers to report accidents, as well as the non-submission of annual returns by managements, reportage of accidents and hence prosecutions on the same are unheard of. If the Factory Inspector is aware of the occurrence of accidents more often than not he is silenced with bribes of various kinds.

Then at the time of compilation of the OA statistics, only 'reportable' accidents (these resulting in more than 2 days disablement) are included and according to figures for one engineering company, only about 1 accident in 10 is "reportable". Thus millions of minor nicks and cuts, burns, foreign particles in eye, lumps and sprains, with less than 2 days disablement, though reported in the factory go unrecorded in the official statistics.

There is an even more severe under-reporting of diseases as compared to accidents, the causes

lying both in the detection and diagnosis of causes. Accident injuries are directly perceptible and their existence cannot be denied. Secondly, their instantaneous occurrence clearly ascertains the cause and effect relationship between accident injuries and work. On the other hand, diseases are usually systematic malfunctioning, detection of which is time-consuming, the existence of which can be doubted. Since they are slow acting, the occupational origin of a disease, or when this is accepted, its link with a particular work place can easily be denied. Government authorities point out lack of expertise as a cause. This again has its origin in the lack of emphasis on study of diagnosis and treatment of OD in medical education, and in that most doctors, in any case, lack clinical experience of detection of such cases.

As regards reporting of cases to the FI, the responsibility lies with the factory managements and doctors. Factory managements have no interest in detecting OD's and would be keen that such information does not reach the FI or their workers. Medical practitioners are statutorily required to report cases of occupational diseases they detect. The paltry penalty for non-compliance extending to a maximum of Rs 50/- proves no disincentive to any doctor, though needless to say no such penalty has ever been awarded. With those being the agencies statutorily responsible for reporting, it is no surprise that so few cases are reported.

With certain categories of medical practitioners other considerations operate. Doctors employed by factory management function in the interest of managements, and even if cases are detected these are only disclosed in confidential memo to top managements. In such case, particularly in larger companies, hazardous operations may be transferred out to the small scale sector. Other Industrial health or medical consultants are reluctant to certify any illness as occupational diseases, since this may antagonise the company involved and result in his removal from the companies approved panel of doctors and consequent loss of business.

The example of Rashtriya Chemical Fertilizers (RCF) a Public Sector Chemical concern, for instance, raises questions on 'management-medical collusion'. A medical examination in 1983, of 113 of workers of the nitric Acid plant by Dr. S R, Kamat, chest disease expert of KEM Hospital, revealed that 51% of these workers had severe basal scars on their lungs. Dr. Kamat attributed this probably to the occupational environment. A subsequent examin-

nation of more than 600 workers from different plants in the RCF by Dr. Kothari of Bombay Hospital (Rao and Kothari) 1984 showed that only 10 workers had damaged lungs. There was no trace of carboxyhaemoglobin and methaemoglobin in the blood samples and strangely the damage to the 10 workers was attributed due to smoking. This is in glaring contradiction to the previous report. Further Dr. Kothari was a person of management's choice, the latter having succeeded in circumventing the union's demand of a medical panel chosen by both workers and management.

Safety Programmes of the Safety Department

The safety programmes initiated by the Safety Department stress on unsafe worker action as the cause of accidents. Worker carelessness, lack of precaution, and dare-devil tactics attributed to workers are said to be the root to accident causation. In view of raising safety consciousness, safety schemes for workers are actively advocated, thus absolving industry of blame and responsibility and averting demands for workers control over the work process.

While normal medium sized managements resort to minimum compliance with the law, if they cannot bribe the factory inspector, the larger more progressive management, particularly in chemical, petro chemical and engineering industries, are more sensitive to health and safety issues as precautionary measures. The primary focus is on the safety of equipment in order to avoid losses that can accrue from accidents. Expert personnel and agencies may even be invited by management to undertake research studies on the health and safety conditions in the plant and make suggestions for improvement. The reports however remain the management's private property. Competing trends in industry to have accident free records and thus merit national safety council awards are another motivation to improve health and safety conditions.

It must however be noted, that though technical solutions like fencing of machinery and fitting of guards is resorted to with swiftness, basic restructuring of the work environment and work processes is rarely done from the safety point of view. In the final analysis health and safety action by Management is undertaken at management's pace, under management initiative and control, with professional management appointed personnel on the job thus smothering worker initiative at every stage.

Thus tens of thousands of workers are injured in work place accidents. Several more suffer from occupational diseases and keep dying, while no one bothers to notice.

Conclusion

It is thus necessary for unions to begin questioning their management-oriented conceptions of occupational health and safety and begin to clearly locate the roots of occupational diseases and accidents, link with pro-worker specialists and institutions/centres on health and safety in India and abroad as well as workers in other industries in India or abroad must be created. This will help the acquisition of information with respect to one's own industry as well as other industries. It also helps build support structures and co-ordination between workers of various industries prior to and during a struggle. Furthermore, a struggle for stringent implementation of the laws needs to be made. The demand for a comprehensive law specifically relating to health and safety may also be raised. The law must be changed to involve workers and their unions in the process of detection and reporting and providing direct access from them to the factory inspectorate and other public agencies and institutions concerned with occupational health and safety. It is necessary for workers to demand formally created channels in their unions to monitor accidents and ill health at work and demands for personal protective equipment, safety mechanisms or even basic restructuring of the work process may be raised (whenever and wherever possible).

Finally, it must be stated that a meaningful change can only come about through a revolutionary transformation of the capitalist social order and the constitution of a 'genuine workers' "State" that will ensure safe working conditions and a disease-free work environment. The formation of such a state is however a long term goal, the movement towards which can in part be initiated by certain concrete short term actions on health and safety here and now. This can become the the springboard for a consistent and consistent and consolidated health and safety movement in India within the framework of a generalised revolutionary struggle for health and safety.

(See tables overleaf)

TABLE I

Year	No. of industrial injuries	No. of Fatal accidents
1976	300,319	831
1977	316,273	690
1978	347,016	776
1979	316,481	852
1980	356,341	806
1981	390,783	843
Annual Average during this period	337,869	799

Source : Indian Labour Yearbook 1977-81.

TABLE II

	Total for period 1976-1981	Annual Average
MINES		
Fatal	1686	281
Serious	16936	2823
RAILWAY		
Fatal	1823	304
Non-Fatal	155041	25840
PORTS & DOCKS		
Fatal	124	21
Non-Fatal	10397	1733
TOTAL		
Fatal		606
Non-Fatal		30396

Source : ILYB 1977-81; PBLs 1982-83

TABLE III

Cases of Occupational Diseases Reported Under the Factories Act, 1948 for the years 1960 - 1980

Year	No. of cases	Year	No. of cases	Year	No. of cases	Year	No. of cases
1980	32	1975	27	1970	42	1964	17
1979	12	1974	19	1969	38	1963	30
1978	19	1973	14	1968	22	1962	76
1977	23	1972	17	1967	37	1961	106
1976	12	1971	3	1966	50	1960	38
				1965	5		

Compiled from Indian Labour Book, 1967-1982, figures being obtained from reports of Factory Inspectorates of the States.

Table IV
Cases of Occupational Diseases Reported Under the Factories Act, 1948
During the years 1976-1980

Name of disease	NAME OF STATE								TOTAL
	Maha	Punj	Hary	Karn	Bihar	Rajas	West Beng	Oris	
1. Chrome Ulceration/ Poisoning	—	22	3	—	—	—	2	—	27
2. Silicosis	1	—	—	13	—	—	—	1	15
3. Halogen Poisoning	11	—	—	—	—	4	—	—	15
4. Benzene Poisoning	12	—	2	—	—	—	—	—	14
5. Lead Poisoning	—	—	—	—	10	—	—	—	10
6. Toxic Jaundice	—	1	4	—	—	—	—	—	5
7. Toxic Anaemia	—	—	4	—	—	—	—	—	4
8. Dermatitis	—	—	2	—	—	—	2	—	4
9. Phosphorus Poisoning	2	—	—	—	—	—	—	—	2
10. Asbestosis	1	—	—	—	—	—	—	—	1
11. Nitrous Poisoning	1	—	—	—	—	—	—	—	1
Total	28	23	15	13	10	4	4	1	98

Compiled from Indian Labour Year Books for the years 1977 to 1982, published by Labour Bureau, Simla.

Table V
Cases of Occupational Diseases Reported Under The Workmen's Compensation Act, 1923
for the years 1966-1979

Year	Temporary Disability	Permanent Disability	Deaths	Total No. of cases	States form which reports
1979	—	89	2	91	Kar
1978	—	86	2	88	Kar-84; AP
1977	—	NA	NA	102	Kar
1976	NA	NA	NA	107	Kar
1975	—	—	91	91	Kar
1974	—	—	96	96	Kar
1973	—	—	33	33	Kar
1972	—	—	34	34	Kar
1971	—	10	14	24	Kar; MP; AP
1970	51	59	13	73	Kar; AP; MP; Ker
1969	10	67	14	91	Kar; AP; Ori
1968	1	84	4	89	Kar; AP
1967	NA	NA	NA	125	Kar; AP
1966	NA	NA	NA	115	Kar; AP

Compiled from Indian Labour Year Books 1967-1982

Kar : Karnataka; AP : Andhra Pradesh; MP : Madhya Pradesh; Ker : Kerala; Ori : Orissa.

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4. Benzene Poisoning	12	—	2	—	—	—	—	—	14
5. Lead Poisoning	—	—	—	—	10	—	—	—	10
6. Toxic Jaundice	—	1	4	—	—	—	—	—	5
7. Toxic Anaemia	—	—	4	—	—	—	—	—	4
8. Dermatitis	—	—	2	—	—	—	2	—	4
9. Phosphorus Poisoning	2	—	—	—	—	—	—	—	2
10. Asbestosis	1	—	—	—	—	—	—	—	1
11. Nitrous Poisoning	1	—	—	—	—	—	—	—	1
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1976	NA	NA	NA	107	Kar
1975	—	—	91	91	Kar
1974	—	—	96	96	Kar
1973	—	—	33	33	Kar
1972	—	—	34	34	Kar
1971	—	10	14	24	Kar; MP; AP
1970	51	59	13	73	Kar; AP; MP; Ker
1969	10	67	14	91	Kar; AP; Ori
1968	1	84	4	89	Kar; AP
1967	NA	NA	NA	125	Kar; AP
1966	NA	NA	NA	115	Kar; AP

Compiled from Indian Labour Year Books 1967-1982

Kar : Karnataka; AP : Andhra Pradesh; MP : Madhya Pradesh; Ker : Kerala; Ori : Orissa.

Table VI

Estimates of Incidence of Occupational Disease based on Sample Studies

Disease	Occupation	Year	Sample Size	Percentage affected	Size of Workforce (for this industry nationally)	Estimate of Disease
Silicosis	Potteries	1953	808	16	23,060	1845
Silicosis	Foundries	1970	464	33	66,000	10560
Byssinosis	Cotton Textiles	1976 (ICMR)	899	14-Carding 10-Spinning 11-Weaving	743 630	37181
		1967	1989	7.8		
Asbestosis	Asbestos	1981 (CLI)	900	6.5 (p) 30.0 (P)	8,210	258 1231
Lead Poisoning	Storage Batteries	1981 (CLI)	363	9.1	11,230	511
Silicosis	Slate Pencil	1979	151	57		
Carbon Disulphide poisoning	Rayon	1958	270	27		
Silicosis	Gold mining	1947	7655	43.8		
Pneumoco- niosis	Coal mining	1961	950	19		
Manganese poisoning	Ferro-man- ganese manuf.	1961	179	24		
Chrome Ulceration on skin	Dichromate Manufacture	1963	631	20		

(D) : Definite Asbestosis (P) : Possible Asbestosis

Data on Sample studies from Indian Journal of Occupational Health and Central Labour Institute, Bombay.

Table VII
Prosecutions under the Factories Act for the year 1979

Type of conviction	No. of Convictions	Percentage
1) Non-compliance with Provisions of Notices, Registers and returns.	4679	31.4
2) Convictions for long hours of work and employment of women in hazardous occupations.	2133	14.3
3) Violation of Health and safety provisions.	2090	14.0
4) Violation of health, sanitary and welfare Provisions.	1617	10.8
5) Others	4383	29.5
6) All convictions	14902	100.00

Source : Compiled from Indian Labour Year Book, 1982

Table VIII

Description of Injury	Percentage of loss of earning capacity.
1. Loss of thumb	39
2. Loss of thumb and its metacarpal bone.	40
3. Amputation from 20.32 cms from tip of acroman to less than 11.43 cms. below tip of olecranon.	70
4. Amputation below hip with stump not exceeding 12.70 cms. in length measured from tip of great trechanter.	80
5. Crullotine loss of tip of middle finger without loss of bone	4

Source : Workmen's Compensation Act, 1923

Notes

1. It is assumed that there are 300 working days to the year. For this period on an average 8 persons died every 3 days. The number of deaths in Maharashtra and Uttar Pradesh respectively over these 6 years is 866 and 639.
2. For all fatalities i.e. 1405 per year, works out to average of 14 deaths every 3 days.
3. The large number of cases in Karnataka are those of silicosis from the gold mines at Kolar gold fields, where studies as early as 1947 showed a high incidence (44%) of workers affected by silicosis. The fact that a large number of cases are reported and compensated shows how widespread the disease is, as well as indicates an active workers' organisation and a functioning occupational health faculty. Further investigation is called for.
4. Estimate of this for this industry nationally = Workers employed in this industry \times 0.5 \times % of workers affected in sample study \div 100.

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HAZARDS OF AGRICULTURAL WORK

A Case Study from Punjab

peoples health group

Hazards of agricultural work are not only a consequence of the intervention of modern technology, such as machinery and chemicals. More importantly, they may be traced to the prevalent exploitative mode of production and class relations. Agricultural workers encounter a wide range of health hazards — injuries due to farm machinery, fertiliser and pesticide poisoning, animal bites, electric shocks and others. This is a report of an analysis of thresher accidents recorded in one hospital in Punjab. Overwork, defective machinery, drug addiction and other such factors are also considered.

From time immemorial the issue of health and disease has been vitally linked with the total human environment (physical, biological and socio-political). This link is as important today, as it ever was. Shortcomings in the different aspects of environment give rise to specific disease patterns.

In a country like ours, most of the diseases are the result of the interaction of poor quality of nutrition, clothing, housing, water-supply, excreta disposal, working conditions, transport facilities, environment and socio-psychological interactions.

In all these aspects of life, which are vital for the health of the people, the issue of class is almost always involved directly or indirectly. The most exploited and poor classes in a stratified society like ours, are the worst victims of the various aspects of pathogenic environment. The diseases produced by various aspects of the disease-producing environment are further interlinked with each other. The diseases created by one aspect of the environment influence and are influenced by the diseases produced by other aspects of the environment. The ones placed lowest in the class hierarchy are the worst victims of this vicious cycle. The issue of class is again central in the prevention and treatment of diseases in a stratified society. The facilities for prevention and treatment are available according to the position in the hierarchy of classes.

Environment of the work place has always played an important role in the pathogenesis of disease. Over a period of time this influence of working conditions on the issue of health and disease has enormously increased because of introduction of various advanced techniques in different fields of life including agriculture. The introduction of mechanisation, high yielding varieties of seeds and the associated use of pesticides and fertilisers has increased productivity enormously. But in the present

set of socio economic conditions, which are based on callous profit earning, these techniques have brought in new health hazards also. The benefits of these techniques being used for the so-called 'green revolution' have reached the people in direct proportion to their assets. The dispossessed i.e. the agricultural workers are least benefitted. However, they have received a maximum share of the ill effects of these developments. It must be emphasised that health hazards to which the agricultural workers are exposed are not qualitatively different from those of poor and middle peasants. The reason is very obvious. These health hazards being connected with agricultural work affect whosoever is physically involved in the work. However given the class nature of our rural society, more the hazardous work, more the likelihood of it being done by the lowest placed classes. It must be added further that in most parts of our country agricultural workers are synonymous with harijans. Thus in the hierarchy of class and caste in our rural areas the agricultural workers/harijans are much more likely to be the victims of health hazards in agricultural work than the other, relatively, privileged classes/castes. Ignorance and illiteracy of the downtrodden further viciates the problem.

The various health hazards connected with agricultural work are enumerated below :

- (a) Injuries connected with agricultural work particularly those caused by farm machinery.
- (b) Poisoning with pesticides.
- (c) Skin disorders due to the use of chemical fertilisers.
- (d) Health hazards of overwork, particular postures and drug addictions.
- (e) Bites by various poisonous animals.
- (f) Electric shocks.
- (g) Miscellaneous, including sun stroke, heat stroke, allergies and hook worm etc.

People involved in agricultural work are highly prone to various injuries. The cause of injury ranges from compulsion to work barefoot to the use of fast moving farm machinery. Amongst the machines which are likely to cause injury to the user the wheat thresher occupies the top position. Due to this the injuries caused by the thresher machine have been discussed in a bit of detail. In a state like Punjab, old methods of threshing of wheat have altogether been replaced by the thresher machines and combine harvesters. About 2 lac threshers are used in Punjab during each harvesting season. The number of those who get serious injuries is expected to be around 1000 each year. According to official information given in the Punjab assembly on Sept. 7, 1978, 841 cases of loss of limb or life occurred during the previous three years; eight agricultural labourers were killed and 24 cases lost two or more limbs, in others one limb was affected.

Study of Thresher Accidents

People's Health Group, Punjab, has analysed the data of 48 cases of thresher injuries who came for treatment to Rajindra Hospital, Patiala, from January, 1982 to June 1984. Sixty percent of the cases were agricultural labourers while the rest 40 percent were poor and middle peasants. Out of the 28 cases of agricultural labourers 8 were from outside the state while others were Punjabis. Sixty five percent cases were young i.e. below 25 years of age (the youngest being 14 years) 20% were between 25 to 50 years of age while the rest 15% were above 50 years of age. Two cases were around 60 years of age.

Extent and Nature of Injury: Out of 48 cases, six (12.5 percent) involved lower limb injuries while in the rest 42 (87.5 percent), upper limbs were involved. In all cases of lower limb injury the amputation was below the knee. It looks strange how leg injuries could be caused by a thresher machine? In all these cases the leg was used to push the stuck up fagot of crop when force of the hand was not enough. The striking up may occur due to defect in the machine or putting in too much crop due to haste. Out of 42 cases in which the upper limb was involved, in 31 (73.81 percent) the limb was right while in 11 (26.19 percent) cases it was left. Amputation was below the elbow in 35 (83.33 percent) cases while it was above the elbow in 7 (16.67 percent) cases.

Causes of Thresher Accidents: None of the threshers being used had any protective device at the time of the accident, all threshers being used in the

above cases were cheap models which cost about Rs. 4000/-. In all these cases ISI standards were grossly violated. It is a known fact that only 10 percent of threshers being used in Punjab come upto the ISI standards. There is a long standing dispute between the industries department of the Punjab govt. and the Thresher Manufacturers Association. The industries department insists on ISI standards while the manufacturer's association tries to bypass these standards under one excuse or the other. Many improved models of threshing machines have become available in the market but have failed to gain popularity because of the high costs. The best model of thresher costs Rs. 40,000/-. In all these improved models the chances of accident are minimal, in addition to the increase in efficiency. Even the cheapest models which were being used in the above quoted cases, can be provided with some protective measures without adding much to the cost. The only drawback of such protective measures is that it reduces efficiency to some extent. Because of this, even when provided at the time of manufacture, they are removed by the land-owners when the threshers are put to use.

Landowners have a tendency to invest least amount of money on the thresher machine because it is to be used only for a few days in a year and that too mostly by the hired labour.

In addition to this major cause of accidents i.e. the defective machines, other factors also contribute significantly-

- (i) Every peasant cannot afford to buy a thresher machine alongwith motor or engine. Thus many poor farmers either hire a thresher or share it with their friends and relatives. This increases the quantum of work on each thresher. Thus generating the tendency to run it round the clock.
- (ii) Most of the farmers lack space to store the grain and thus are compelled to take it straight from the fields to the market. Fearing the uncertain weather which may damage the unthreshed crops and threshed grains, the farmers have a tendency to finish the threshing work as quickly as possible.
- (iii) The govt. usually puts up a time limit for the supply of electricity for threshing purposes. Thus the farmers are compelled to finish the work during that limited period which is possible only by overwork.

- (iv) The agricultural workers easily surrender to do overwork because in addition to the psychological pressure of their employer they are anxious to earn for the lean months as the employment is only seasonal one.

Under these circumstances overwork is a universal phenomenon during the harvesting season which is possible only under some sort of intoxication. The most common intoxicant used in such situation is opium which is offered to the labourers by the land owners. It is a well known fact, at least in Punjab that many agricultural labourers become opium addicts during the harvesting seasons. When they become addicted they have to purchase the opium which results in economic and other related consequences affecting directly and indirectly the health of whole of the family. The other intoxicants commonly used are country made liquor, chewing and smoking of tobacco and poppy husks etc. All these intoxicants, have a tendency of habit formation with their consequent effects. In a nutshell the combination of overwork beyond a physiological limit and intoxication make the worker prone to the accident in an unsafe machine.

In the above 48 cases which were studied by us, 55 percent cases confessed of having resorted to over work ranging from 9 to 40 hours without any rest. However, this percentage was higher 65 percent when calculated for agricultural workers alone. The use of intoxicants was recorded in only 10% of the cases. This was in contrast to the observation by many of our friends who are directly related to agricultural work. The person dealing with such cases in Rajendra Hospital, Patiala told us that the fact of intoxication is usually concealed because of the fear that blame will be put on them and any possible compensation including the free treatment in the hospital may be denied.

The above facts clearly reveal that accidents are not mostly with the use of machinery rather, it is the type of class relationships and mode of production which is responsible for the high prevalence of accidents in the use of farming machinery. Very low incidence of such accidents in China is the best example to contrast backward capitalist mode of India with socialist mode of production.

Further the quality of treatment and rehabilitation will again depend on the class status of the victim because these are purchaseable commodities. Again to contrast the two modes of production, highly advanced reconstructive surgery is available in China to the workers if he or she happens to get

such an injury. To think of reconstructive surgery for the Indian workers seems quite foolish. In a nutshell, the chances of having an accident and the amount of final disability depends on the class/caste of the person and the mode of production in that society.

The health hazards associated with agricultural work next to injuries is poisoning due to the use of chemicals for plant protection. In the underdeveloped capitalist countries pesticides are being used on a very large scale, both, for agricultural and public health purpose. The high yielding varieties of seeds which are being used as part of strategy of the green revolution are highly susceptible to diseases and to safeguard them highly poisonous chemicals are used. In India in 1983-84 the proposed consumption of various pesticides in the agricultural sector was as follows :

- | | |
|-----------------------------------|-----------------|
| 1) Organochlorine compounds | - 65,035 tonnes |
| (D.D.T., B.H.C., and Aldrin etc.) | |
| 2) Organophosphorus compounds | 23,000 tonnes |
| (like malathion, parathion etc.) | |
| 3) Carbamates | 6310 tonnes |
| 4) Plant origin | 120 tonnes |
| 5) Fumigants | 1300 tonnes |

The pesticide most commonly being used in India and other backward capitalist (BC.) countries are organochlorine and organophorus compounds which had long been banned in the Western countries where their manufacture originally started. Now, either the factories have been shifted to the BC. countries where they are being run with the collaboration of Western transnational companies or the pesticide is being exported after its manufacture. Two lac of such chemicals are being exported from the US. to the BC. countries.

A recent report of the International Development Research Centre, Ottawa, reveals that there are seven and a half lac cases of acute poisoning with various varieties of pesticides. Half of these are reported from the third world countries out of which one-third are reported from India alone. The number of deaths from poisoning are reported to be 10,000 annually in the third world out of which one-third are from India. The extent of chronic poisoning is so huge that it is very difficult to evaluate its effects. Indians have highest tissue level of DDT in the world i.e. 12.8 to 31.0 parts per million (PPM). The average DDT intake of an Indian is 0.27 mgm/day/person.

In India there is a 5% annual growth rate of pesticide consumption since 1972 with a corresponding increase in the number of cases of poisoning. The people involved in agricultural work are more likely to have acute as well as chronic poisoning than the people at large. Further out of these the agricultural workers are even more prone because the land owner who can afford to purchase pesticides, is usually not involved physically in the plant protection work. The study undertaken in five districts of Gujarat (E. P. W., 1980) also reveals this fact. Farm labourers are worst affected because majority of them are exposed for a longer period due to their continuous contact during spraying operations, and that also without any protective devices. The protective devices are almost invariably not used; firstly, because the manufacturing companies underplay the toxic effects of their product and also are disinterested in the manufacture of protective devices (As quoted in the E. P. W. study only 2 out of the 58 companies studied were manufacturing protective devices); secondly, the whole system being profit oriented and exploitative the rich farmer is not interested in spending for the safety of the agricultural worker, thirdly, because of the fact that the agricultural workers being poorly paid are unable to purchase the protective devices by themselves and lastly because of illiteracy and lack of information the extent of toxic effects are not fully known to the workers.

Very few studies have been conducted on the long-term bad effects of pesticides. The Indian Toxicology Research Centre in collaboration with the neurology Department of K. G. Medical college, Lucknow, have conducted some studies. These studies revealed that one-fifth of the farm workers involved in spraying had impaired eyesight following muscular degeneration. Cases of cancer, stunted growth of their children, deformities, blindness, diseases of liver and nervous system have been identified in the cotton growing areas where the use of pesticides is more frequent. A recent study has shown that 73% of these workers had toxic manifestations including cardiovascular and intestinal problems. The agricultural workers of Karnataka, who used to eat fish and crabs from the paddy fields in which they were working and spraying pesticides, were afflicted with severe paralysis and other diseases including what is called "Handigodu Syndrome."

The study of Gujarat quoted earlier had taken the figures of poisoning cases from the civil hospitals of Vadodara and Surat. In all 70 patients of acute

poisoning in three years from 1976 to 1978 were studied. All these 70 cases were agricultural workers including two women. None of these workers was provided with any protective device. The hospital admissions are a very poor index of the extent of poisoning. Firstly because all the cases don't reach the hospital, and secondly these are only of acute poisoning which is only a fraction of the total poisoning being done.

There is no legal protection to the victims of such accidents and poisoning cases. Workers Compensation Act does not include these cases under the pretext that the act is only applicable to industrial workers. None of the 48 cases which we studied turned up to obtain any certificate for the purpose of compensation. Similar was the case with the poisoning in Gujarat who were not given any sort of compensation.

We could not trace a case in our study in relation to dermatitis caused by the use of fertilisers, particularly at the time of sowing of paddy, though it is a known fact that handling of fertilizers causes skin diseases which are sometimes so severe that the worker has to abandon the contact with fertilisers.

There is a whole range of morbid conditions resulting from overwork, working in unphysiological postures, and the associated drug abuse. With the introduction of mechanisation in agriculture and strengthening of its bonds with the market has increased the intensity of exploitation of labourers. The intensity of extraction of surplus labour has increased many folds which in the given set of class relationships is bound to increase the alienation of the workers because psychological alienation is in direct proportion to the extent of alienation of labour power. The usual expressions of psychological alienation i.e. psychosomatic disorders, psychological diseases, use of intoxicants and crimes etc. are bound to increase. Though no study evaluating these effects could be traced, yet one can easily feel their increasing trends. The rise in all these disorders in society, including rural, is clearly visible. Though these disorders are not confined to the agricultural workers, the total quantum of morbidity in this context is very obviously more on them than the other relatively privileged classes.

Because of the above facts combined with the changing social pattern and breaking down of old values, the use of drug intoxication is on the rise. The effect of those intoxications is bound to be worse on agricultural labourers because of their

Marxist View of Health & Medicine : A Rejoinder

Bharat Patankar and Jogin Sen Gupta

In its first issue SHR rightly carries articles on historical and general perspectives. We think it is necessary to give an immediate response to the perspective which comes out in this issue of SHR (1 : 1)

In his review of *A Cultural Critique of Modern Medicine* Anant Phadke writes, "John Ehrenreich first traces the historical and political origins of the 'cultural critique' of modern medicine. Ehrenreich alleges that the political economic critique concentrates its fire on the inequitable distribution of health services, on the problems of organisation of medical care and is not much concerned with the nature of medicine itself. Ehrenreich is not entirely correct in his analysis. There are marxist analysts who analyse the political economy of health not primarily from the standpoint of distribution of medical services."

While it is true that "there are" marxist analysts who take a different approach, the point is that the vast majority of them take the viewpoint critiqued by Ehrenreich. In India, for example, we must ask, among thousands of marxist doctors, political economists and cultural workers, what sort of debates on the cultural and political aspects of medicine we have had up to now?

Howard Waitzkin's article is revealing as it purports to give a detailed and researched account, with 260 references, of marxist analyses in the field of health care covering about 150 years. It is an excellent example of Ehrenreich's claim.

Waitzkin starts from Engels' *The Condition of the Working Class in England*. In this, "the first major marxist study of health care... Engels traced such diseases...to inadequate housing, malnutrition, contaminated water supply and overcrowding.. This treatment was to have a profound effect on the emergence of social medicine." With this, he makes his views about "health" and "health care" explicit at the outset. Can causes and removal of "poverty diseases" be the central problematic of Marxism in "health care"? (Even Marx and Engels were less confused about their target - not poverty but exploitation and oppression). In developing countries, "poverty diseases" still play a huge role. But what is the situation in Waitzkin's own country and the rest of the developed world? Today, the advanced bourgeoisie and the modern state have

almost eliminated "poverty diseases"; as Waitzkin also observes later. Poverty, unplanned industrialisation and to an extent ecological imbalance as the causes of "ill health" are not only propagated by established sciences but are incorporated in some form or other in the legal provisions of the bourgeois states, e.g. OSHA (Occupational Safety and Health Act) in the U.S.A. But this transforming of sick slaves of capital and the state into healthy ones has not weakened the system at all; it has led to strengthening its tentacles of exploitation and control. And, did the world have to wait until Engels to learn that bad living conditions lead to many diseases? Did these start with capitalist industrialisation? These stated far earlier—from the time of the city-state-civilisations. Tribal communities were much healthier. The sanitation engineers of Mohenjodaro surely had a clear understanding, of the problem.

With such a traditionally defined view of disease, the central aspects related to health in both the "developed" and "developing" world—ecological devastation, poisoning of the environment, alienated relations between humans and nature, militarism that threatens the survival of all life, sexism and racism, large-scale cultural-psychological perversions, and destruction of human relations—are ignored completely by Waitzkin. Realisation of such factors has raised basic questions for Marxists in the "developed" world: such as, can one solve such problems simply by taking over the existing poisonous forces of production? And, given massive cultural-ideological-psychological mutilations produced by the system, can the "working class take over the state"? Also, are these problems simply due to the capitalist mode of production, as Waitzkin's approach implies, or are they the end result of an accumulated chain of patriarchal, statist and class societies?

Waitzkin gives great emphasis to the nature of exploitation in the capitalist production process in terms of surplus value and the class structure defined by that. He takes this as Marx's approach. To do this is a very limited cognisance of the analysis of the capitalist system given by Marx himself. In *Capital* Marx deals with many other aspects like alienation/estrangement, devastation of natural resources, destruction of cycles of nature etc. The article also ignores recent studies of the

nature of the internal structures of industries and of their production including their effects. This narrow approach forces the author in to the trap of emphasising control of the means of production and poverty, which cannot lead to any alternate conception of illness and health care differing from the established concept. The most serious effect of this is the complete disregard of relation between questions of health and the oppression of women, minorities, lower castes and others. In the author's own country there are countless examples of women's groups and minority groups and alternate-psychiatry groups raising these issues. In this situation ignoring this challenge is an inexcusable mistake. For the last some years communist parties and marxists in general have been facing many difficulties in trying to deal with such issues within the framework of a narrow approach to "surplus value and class exploitation." Many marxist studies have come up which are trying to develop a new approach. But the author does not confront this issue. He talks about women at one point. "Historically, women's use of health facilities and the attitudes of medical practitioners towards women's health problems have depended largely on women's class position" (1.1) ignoring the specific oppression of women even within the working class. Some words mentioning "housewives' problems" cannot wash out this serious error. The fact is that in the USA it is not working class struggles in the economic sense that have transformed the meaning of "health", but the anti-sexist, anti-racist movements and those in the area of ecology and militarism right up to the tiny but significant issues raised by alternate psychiatry, gay and other movements that have forced us to re-examine our concept of "health".

The author's mention of his view about revolution at the end of the article expresses in a nutshell, his imprisonment in a mechanical and outdated approach towards alternate health. He writes "Gaining control of the state through a revolutionary party remains a central strategic problem for activists struggling for the advent of socialism." (1:1) Among other things, this conception becomes dangerous for the emergence of any perspective of alternate health. First of all, it is a serious distortion to give the reference of Lenin for this statement. Whatever may have followed the October revolution, Lenin did not have a conception of "gaining control of the state through a revolutionary party". His was a conception of *smashing* the old state and establishing *Soviet power* which was also supposed to go on withering away. This

approach at least implies peoples' control and gradual decentralisation and dissolution of centralised power over the heads of the people. Such a view has very positive implications for alternate health practices in relation with the emergence of the self-management of health by the people themselves. At the same time, with the experiences of the post-revolutionary societies it is evident by now that a statist approach gives rise only to a new but still oppressive system and maintains the powerlessness of the working masses. At one point the author touches the problem briefly where he disusses the USSR in relation to the class position of medical professionals. But mainly he poses increasing state management of health as a progressive development by showing how capitalists oppose it or how private practice interests still manage to exploit it. This cannot explain the existence of severe health problems for the mass of the population in countries like India where the state sector is predominant in health, or even in the Soviet Union, China and other such countries where frightening things like devastating ecological imbalances, the masses spread of alcoholism and so on, continue to occur.

The party-controlled state and the conception of revolution which emerges out of the concrete practices of post-revolutionary societies can create nothing but a society in which health-related major ecological problems of capitalist industrialisation and agricultural production continue to exist. It cannot create a health system which is not alienated from peoples' creativity and the natural balances between humans and nature. Of course, from Waitzkin's view of health care specialist doctors plan rationally, the state implements it. If health is lack of some illnesses and mortality/morbidity rates are the indicator, there seems to be no problem. But in our conception, illness and health care are a mode in the relation between people. This can be liberative or oppressive. Liberative, when it is an aspect of a movement against distortions of our mind and for social liberation. Health work can grow in terms of increased mutual and community care when it becomes a means of building up the solidarity, humanity and autonomy of people in communities, with technology and specialised knowledge shaped by and helping the control of these processes. Conversely, the state may soak up this possibility of mutual help and self-management and strengthen the top-down, specialist apparatus and power over the people. Such a way strengthens the mode of life based on "Give power to the leadership/state and they will look after you." Waitzkin misses the fact that the more "efficiently"

and "successfully" this mode functions, in reducing mortality and morbidity, the more is its success in empowering the state at the cost of the people.

Illusions created by the "public-private contradiction" have made many communist parties and other marxists think that the growth of the state sector is something progressive and going nearer to socialism. But the *health system* will not radically change to become a liberative process if the new arrangement only subtracts the bourgeoisie and replaces it with experts and bureaucrats while organising a better distribution of the existing type of facilities. We have to break from the prevalent concept of health forced upon us by centuries of the health establishment and society — and to understand a health system as itself a process of liberation.

Finally, after defining the "central strategic problem for activists," Waitzkin concludes by describing what they are doing. But this can be extremely misleading, for of the three trends he more or less classifies as those advocating a "vanguard party", a "mass party" or "counterhegemonic" work, only a very small minority hold the

mechanical view of taking control of the state which he puts forward in the article. To say that "Party building is now taking place throughout the United States (1.1.)" is an inaccurate, to say it most kindly, depiction of the innumerable mass movements the US has seen.

If we look back at Waitzkin's own bibliography of 260 references, there is hardly any marxist critique of health before 1970 in the USA. The reason seems to be that it was the struggles of blacks, women youth and others that transformed the earlier sterile attitudes towards health and stirred them up. It is sad that Waitzkin, instead of starting from the reality of the movements, reverses this process by trying to fit the creative activism of the people into the "work of Party builders" and into such an authoritarian and narrow concept of Marxism. In the end, his type of "marxist view" raises the question, what was Marx's view? Marx vigorously supported movements against exploitation and oppression and tried to learn from them. In his openness to learn from rebellions he was ready to throw away much of his earlier views. This, and not narrow theoretical preconceptions, we think, should be the "marxist view."

Need for Analytical Rigour

Imrana Quadeer

SHR's effort to provide a platform for discussions and interaction between activists in the field of health and its focus on the process of distilling the truth from various trends within the marxist movement is most welcome. However, the fact that health and medicine cannot be separated from the problems of the wider social order, underlines the dilemma that no serious analysts of health and medicine in India can afford to take for granted the issues within this wider social order. A theory of health and medicine is not possible in isolation. Those who try to build such a theory would be required to develop an analysis of society as well. SHR has circumvented the problem by leaving this task to other forums and have presumed that readers will either know the debates on these issues or will accept the views that contributors present. An easy way out perhaps, but not one that is conducive to constructive debate on either the specific theory of radical health action or general theory of radical political action. For example, when we talk of "political economy of health", "articulation of medicine within a mode of production" or "class structure in health system" without specifying our understanding of the terms

used, we not only fail to communicate but often create confusion.

It seems to me that a debate concentrating on health and medicine alone, however rigorous, tends to treat these general concepts superficially. Thereby, hampering the very purpose that it set for itself, that is, understanding the relationship between health and society. I would plead therefore, that even if SHR is interested in a very restricted readership of the aware converts, it still needs to handle the wider social system with much greater rigour. However, if SHR is interested in a readership, of doctors and other health workers who were attracted to marxism because in it we found a better approach to handle our own contradictions and for relating ourselves to the wider society, then SHR's policy becomes a major handicap. For us, the study of health, medicine and health services in India has not only been instrumental in deciding our professional roles but it is also a tool for understanding the society we live in. SHR does not seem to be interested in that window.

I would in fact argue that this neglect leads SHR into an uncritical acceptance of certain general formulations which might sound very radical but which do not stand the test of scrutiny. The mere quantum of the so-called marxist analysis of health, done in the west has so impressed us that we have literally lifted their formulations and transplanted them on the Indian scene, without even thinking whether they are applicable. Further, in our hurry to fill in the gaps in our knowledge, we have concentrated on theory of health and medicine. That theory, however, has been sought by filling the accepted theoretical constructs with Indian data and developments rather than beginning with health and health services itself to test the assumptions as well as the theoretical constructs. Such an approach creates many conceptual and methodological problems. Another weakness has been our definitions and terms and the lack of empirical analysis and data base.

Let me take the first issue of SHR to illustrate my points. I would treat. Amar and Padma's¹ as the central paper and touch upon others when needed.

The Use of Concepts

An important assumption of the analytical framework is that mode of production in a society determines directly its health care as well as patterns of illness but it has never been proved and often negated. According to the authors, the socioeconomic structure even after independence remained more or less intact, the bourgeoisie dominated the scene and till today capitalism remains the dominant mode of production. If that be so, then there should be no change in the basic pattern of modern medicine. The authors in fact demonstrate to the contrary that there has been a major shift from "scientific medicine" to "community medicine." Furthermore, it is argued that the major factor which influenced changes in health care were the notion of welfare state, planned development, pressures of world capital class conflicts and project optimisation. It appears then that :

- (a) the period covered in the main article is not sufficient to use the analytical category of mode of production.
- (b) within a mode of production also, patterns of health care may vary depending upon the prevailing social relations.

The other theoretical construct that is assumed as proven and asserted vigorously to make a point instead of empirical data, is the concept of health as labour power. On this is based the understanding

that input in health care by the state has an economic basis because it is necessary in the creation of surplus value. Even the fact that in India 90 percent of the industries belong to the unorganised sectors whose workers are provided no facilities for health care, agricultural producers who contribute 45-50 percent to the GNP have little access to health services and the existing health care facilities of the country are utilised by the elite and the middle class not the labouring classes has not provoked us. Could it be that the existence of a large reserve of surplus labour and the nature of technology combined with organisational forms like "contract labour" and "casual labour" devalue this concept in the Indian setting?

Related to this question is yet another formulation which needs to be looked into and that is "commodification of health care in capitalism". The authors argue, "it is immaterial whether the surplus value is realised directly through the productive activities in the clinic and hospitals owned by the capitalist or indirectly through the provision of services by the state". In either case, the maintenance of productive capacity of labour is central in the creation of surplus value. It is assumed then that in commodity "health service", the surplus is not generated in the process of commodity production but outside it! A strange view of Marx's "surplus value". The confusion has perhaps arisen because we do not make the distinction between the 'service' and 'material' outputs (like drugs, instruments, equipment etc) of the health industry. The latter like any other commodity, generates surplus value and therefore profits. In the service component of the output, things are quite different. The surplus in clinics and hospitals or any other medical care institution comes from the exploitation of the health workers who are paid wages. They are paid for their subsistence (socially determined) whether they are in a private hospital or a public hospital. It is this that must be understood to appreciate why in capitalism, welfare is not an economic proposition. The services though in the name of the poor and the labouring go to the unproductive sections of population and hence in reality, there is relatively little investment in the labour power of the industrial or agricultural workers. At the same time the socially determined subsistence for doctors — the pillars of health services — are undesirably high.

It must also be realised that a practitioner even in a capitalist formation continues to provide service (commodity) without creating any surplus value for he is charging for his hours of labour and not

his subsistence. That is why a private practitioner earns even more than a doctor who is paid wages even though he may be of the same status. It appears then that the production of surplus value is not as intimately associated with profits in the provision of health services as it is assumed. Hence the economic reason for the state to run health services becomes less tenable.

Yet another formulation that needs to be corrected is that "modern medicine and hospital systems reproduce the social structure of bourgeois society." I would think that the two may replicate or mirror bourgeois relations or structures but can not reproduce it. If they could, then, the sheer presence of hospitals and modern medicine in Russia, China, Cuba, and Vietnam would be a threat to their present social systems. A proposition which is just as ridiculous as it sounds. Also in Dalli Rajhara, the hospital workers would not be able to practice modern medicine and at the same time attempt to evolve a new set of social relations. In other words there is a need to realise that a system based on division of labour and controlled by a collective is different from one where division of labour as well as ownership is a function of class.

Need for analytical rigour

The above discussion brings us to the question of class analysis and its relevance for the understanding of "political economy of health." At this point I would not go into the question what this term denotes but assume that the effort is to see how class configurations influence patterns of health care. To approach this question, the authors go in great details of the industrial and agricultural growth pattern and the emergence of various classes. In tracing the evolution of the peasantry though, no mention is made of the rich peasants' role in the green revolution areas as well as those where green revolution did not happen. We are told that the marginal and small peasants did well in both these areas. This is unconvincing as it neither explains the increasing numbers below the poverty line since 50's nor does it explain the process of proletarianisation and pauperisation of the peasantry. Secondly, though the emergence of these classes is traced, the differences in health needs of these classes are never discussed. We are at a loss then to see if that too played any role in shaping the health services. Thirdly, in their attempt to establish causality between health service development and changing balance of class alliances and class conflicts, they make some weak propositions and offer scant data to substantiate their arguments.

(i) It is argued that bourgeois radicalism "can best be viewed as concessions gained by working class militancy". Hence all expansion in services is projected as a result of protest and struggle. We therefore fail to make the crucial distinction between a conscious demand (or protest) for health and socio-economic unrest or instability which is often appeased by offers of bonuses and concessions in welfare services. In the former the ruling classes are forced to give in, in the latter they provide health services by choice and refuse what is really needed. Apart from this strategy of appeasement, the ruling classes also provide services because of their own direct interests economic, political, ideological² and physical. Also they use both preventive and curative services not just curative as the authors tend to believe. It is then necessary that to establish that expansion of services ("implementation of various reports") was a result of struggle, we locate those struggles specifically and show that provision of health services was one of their demands.

(ii) In their analysis of the 70s, they say that the emphasis on rural inputs and family planning was an attempt to postpone 'the crisis'. Without identifying the full nature of the crisis (a part of which was industrial stagnation) they further argue that the rationale of the Indian bourgeoisie in adopting a massive family planning (FP) drive was a means of controlling labour supply to suit the expansion of more capital intensive modern industries. Firstly how a capital intensive expansion of industry can be possible when there is a glut and how is it going to remove industrial stagnation or the crisis is not indicated. Secondly, despite the fact that they mention expanding numbers of unemployed people, increasing population and imperialist pressure as factors influencing acceptance of F.P.P, why they consider "controlling labour supply as 'the rationale' of the bourgeoisie" is never clarified.

The questions regarding the nature and resolution of the crisis can only be answered by taking up the nature of the state and the problems of surplus accumulation in India. I will not go into them, but to analyse the rationale of F.P.P. we should have certainly made some efforts. The facts are,

a) that the emphasis on F.P.P. came in the 3rd plan itself when the investments in F.P rose from 30 million to 26.97 million rupees.

b) that though it is true that in 70's the population growth rate was high, it is not adequate to

say that "the population went on rising, hence the labour force continued to expand". The rates of expansion of these two are not equal. Since the labour force increases only by new enterants into it (young people) who were born at least 10 years back. Therefore, labour force increases at a rate which is equal to growth rates of population 10 years back which in our case was much lower (22.2 in, 70s, 18.9 in, 60s and 12.5 in, 50s).

It appears then that the control of numbers of labour force alone could not be the main rationale for accepting the F.P.P. One expected that instead of treating F.P.P. as a welfare programme, its real nature would be exposed (where compulsion and force made their appearance as early as 1966-67), and its class orientation made explicit. F.P.P. neither came as a concession to the growing political clout of the middle farmers nor it ever lost its ideological value for the classes for which it was meant. That is why it still survives in almost the same form as it did a decade ago.

(iii) Throughout it is argued that the model of "scientific" medicine (with all its social relations and economic possibilities) was suited to the Indian bourgeoisie, and therefore it expanded. The working class continued to extract more and more through its struggles (or so we would like to believe) and the rise of the peasantry created additional pressures. Suddenly however, we are told that by the second half of the, 70s this specific model, "no longer performed either this ideological role or achieved their socio-political objectives". In fact, "it was no longer a good economic option". Hence a shift in strategy by the bourgeoisie from "scientific" medicine to "community" medicine. Why all of a sudden welfarism lost its value, why health services started eating into the surplus and why they no longer performed their legitimising role, are questions left unanswered.

I suspect that the idea of failure of the western model is located in our minds and is strengthened by the "radical bourgeois documents" which are forever crying their hearts out. Our susceptibility leads us into accepting their logic rather than exploring the truth. Let us answer the following questions. For which classes, hospitals and the PHC complex are no more the answers to their health problem? Even when they get nothing out of the government health institutions, do they not go to the private clinics of the same doctors for better scientific medicine? Given the choice will people prefer a community health worker or a doctor?

The answers tell us that in India as yet, modern medicine faces no crisis. The crisis is of the bourgeoisie, who even if they wanted, can not provide it to the people and therefore must create blinkers. The authors have themselves shown that the present policy paper is nothing but an effort at streamlining health services in a way that the old model remains its core and is assisted by the so called "community medicine" component to create profits, provide political legitimisation an ideological domination. Secondly, the argument that "there had not been any large scale improvements in health indicators in the past years" is also not adequate to locate the crisis of health care in late, 70s. These indicators are neither indicative of health status of classes nor do they show overall worsening (death rates for '50s, 60s & 70s were 22.8, 19.0 and 14.8).

While Amar and Padma make one think about all these questions, Waitzkin in his article creates much confusion on the very subject of class analysis of medicine. Having located the structural source of exploitation in the process of surplus production, he introduces the notion of "persistence or reappearance of class structure usually based on expertise and professionalism in countries where social revolutions have taken place", without, even going into the definition of 'class' used by Bettelheim and Ehrenreich. At the same time he takes great pains to tell us about Alford's research which talks of "interest group" analysis without any comments on the value of this analytical category vis-a-vis 'classes' understood by marxists.

Waitzkin not only indulges in such 'innocent' confusions but also misleads. For example, he introduces the concept of "social imperialism of the USSR" and attributes it to Navarro who in fact though critical of the "party domination" and "managerialism" in Soviet Union, has never used this concept. In the book quoted by Waitzkin, Navarro has actually argued against the theory of convergence and criticised those Western scholars who project managers, administrators, and technocrats as a "new class" of controllers of the system. He underlines the fact that supremacy of the political party over these groups is distinct in the Russian society.

Need for better empirical basis

Yet another methodological point that needs to be repeated is the need to validate arguments and proposition. The practice of making conjectures which are not substantiated must be avoided at all

costs. For example, when we say that "by the 60s increasing urbanisation with a 40 percent increase of urban population, inadequate housing and living conditions, low availability of food and impoverishment and unemployment has pushed up disease incidence, "we have neither data nor logic on our side. Disease incidence rates or morbidity data for the country simply don't exist and logic says that if people are migrating from villages to urban areas they must have good reason to do so. Will they move from better into the worse? Similarly, while talking of the early '50s, it is said, "recent series of famine and draught, increased exploitation of wars, further deterioration of the abysmal public health services the post partition exodus had resulted in a labour force which obviously could not contribute its best in terms of productivity". Here again the emphasis on health which seems so obvious to the authors, is never really validated. Unless we explore all the factors which were responsible for the disruption of industrial production or for its low performance, (investments, technology, social situation) to isolate poor health of the worker is to blame him for non-performance.

Use of dialectical approach

In outlining the political economy of health, the authors repeatedly use the terms "western medicine" "scientific medicine" "allopathic medicine" and "modern allopathic medicine" interchangeably and then criticise scientific medicine because it developed in a capitalist setting and was moulded by it. It becomes difficult to judge therefore, whether they are critical of the allopathic system's body of knowledge (of which preventive medicine is a part) or its organisation in a capitalist setting or both. Specially because, despite their ideological criticisms, they do not deny that the increase in the number of health personnel and institutions was necessary or useful⁹. The problem is further confounded when talking about the '50s they claim, "if the recommendations of Chopra Committee were implemented at that time they would have resulted in a drastically different system of medicine". Firstly, why a system of medicine that developed in a feudal society would offer a better alternative to the set of social relations imbued in "scientific medicine" is not argued. Secondly, even at the level of ideology why ayurveda as practised in the British period was less class-based, sex-biased and individualistic than allopathy (not to mention its dependence on obscurantism and mystification) is never explained and thirdly, why indigenous medicine would not be just as easily amenable to capitalist commodity

production and absorption in the capitalist system like other feudal institutions is never clarified.

If we agree that the indigenous systems were more widespread and culturally more suited then, we should also grant the bourgeoisie the intelligence to see the profits of a wider market and easy profits of indigenous medicine. However, our intense dislike of the bourgeoisie never really allows us to explore what could have been their other reasons for rejecting indigenous medicines⁴. The problem is, lack of appreciation of the dialectical nature of medicine (allopathic or ayurvedic) which alone can help us to trace the roots of an alternative medical science and technology and an alternative basis for organisation of medical care. Waitzkin does mention a different kind of 'modern medicine' which was practiced by Virchow. However, he does not explore the reasons why the germ theory instead of strengthening actually undermined both epidemiology and public health and what role these disciplines played in the 18th and 19th century.

A much discussed subject is reformist and non-reformist reforms. Every one seems to agree that the former is bad and the latter good because non-reformist reform alone can lead to revolution while the former only strengthens the system. What we tend to forget is that implementation of reforms is a tool for survival for the bourgeoisie and not the function of a revolutionary movement. The latter extracts reforms, struggles for it but does not implement it. Lessons from history teach us that the essence of a reform is in the change that it introduces in the structure of the bourgeois society and not the material benefits (though they are very important at that point of time). Reform has its own dialectics, it may diffuse a struggle but it also heightens the contradictions within the bourgeois structure. In other words, it sows the seed of change in the objective reality of social structure and not in the subjective reality of working class consciousness. That is the role of revolutionaries.

To say that experiments which help leaders of a working class movement in increasing class consciousness is reform (even if it is called radical) or to claim unimplemented drafts of the opposition as radical reforms (they are demands for reform not reform) is not only wrong but misleading. Misleading because it tends to divert attention from the essence of reform (structural change) and confuses it with either "mobilisation of political support" as claimed by Waitzkin or with strengthening of a union as Binayak and Ilina do. They ignore the fact

that a politicalised union as strong as Chhattisgarh Mukti Morcha is not making provision of health services a part of its demands and extracting it out of the management, instead, it is providing these out of the wage of workers (same as the bourgeoisie) ! In doing so it leaves the health structure created by the bourgeoisie intact and therefore is not struggling or extracting reforms at all. The step might be radical but there certainly are no reforms.

The issue whether a revolutionary union is justified in running its own hospitals, schools and industries is a separate issue all together and I won't go into it. But I would like to point out that Binayak and Ilina tend to confuse "reforms" with "reformism". The former is a visible change in the objective reality, the latter an approach, a subjective component of one's ideology. A reformist (whose ideology may be reformism) may attempt to "suppress emerging class antagonisms" through reforms and might "need to derive strength" from wherever but the reform is innate (it cannot be vitally conscious of itself) and is the seed of change for it has the potential of heightening contradictions and weakening the very system which the reformist tries to save.

Unless we appreciate this dialectical nature of reform (and all other phenomenon) we would never grasp the meaning of the quotes that we quote. We would continue to make the mistake of rejecting things in toto — whether it is "text book epidemiology" or "operation research rooted in capitalist culture" and not apprehend the elements of a revolutionary alternative which exist not outside but within the bourgeois society.

If we agree that the basic assumptions which we started need to be reexamined in our given context, then we might also agree that perhaps the way to make a beginning is to attempt detailed analysis of the contradictions within the health system and their manifestations. For example a study of contradictions in health care policy and practice (one professes service to all, the other provides for

some, one eulogises free medical care the other promotes private service, one emphasises preventive the other curative medicine and promotes technology to solve social problems) will help us locate the relevance of what was mentioned in passing in the main article as "constraints" to bourgeois "options". These "constraints" of foreign capital intervention, class pressures and class conflicts and a policy of welfarism in absence of adequate capital accumulation are actually the links between health planning and the wider socio-political and economic frame of the society. Links which need to be further studied with references to health as well as the Indian social formation.

The challenge that SHR faces is to build up a theory rooted in Indian reality. For this four things are necessary. One, that the frame-work that we use must be first critically evaluated. Second, that our analysis must concentrate on trends emerging from the available information and data on health. Third, we must attempt at collecting data where it is necessary. Lastly, if our study demands an exploration of the wider social system then that must be attempted. Towards this I join you in solidarity.

Notes

1. I hope they would not mind my use of first names. My effort is not to score points but to share with them what I think and first names make it easier.
2. Liberalism is very much a part of bourgeois ideology which reflects the positive forces within it.
3. Even if they really consider it futile then their rejection of modern medicine is clear and my argument does not change.
4. I do not mean that indigenous medicine is to be rejected. My plea is that the same analytical framework should be used for indigenous medicine if it is to be compared with modern medicine.

WORK HAZARDS : WHAT CAN WORKERS DO ?

The best devices for detecting hazards in your workplace :

- Nose : To smell foul odours as a tip off to hazards and to stick where management says it doesn't belong !
- Ears : To listen to the complaints of the workers
- Eyes : To spot hazards and poor work conditions
- Mouth : To argue the worker's point of view
- Guts : To have a gut level reaction about what's right and what's wrong and to have the strength to stand up and get the hazards corrected
- Brain : To be imaginative in building the union's safety programme

'Death on the Job'

a d'mello

Death on the Job — Occupational health and safety struggles in the USA. Daniel M. Bergman, Monthly Review Press, New York, 1978, 2 pp. 12.95 dollars

The movement for awareness about occupational health and safety is still in its infancy in India. Trade union activists and social workers involved in welfare projects for industrial workers will be mollified by knowing that even in what is probably one of the most unionised countries in the world, the movement has still not caught on in a big way. Occupational health and safety struggles have still a long way to go before they make a dent in governmental and industrial circles.

Daniel M. Bergman in his book "Death on the Job", which deals with occupational health and safety struggles in the USA, states that despite the passage of the 1970 Occupational Safety and Health Act (OSHA) as a consequence of widespread social discontent in the 1960's, major changes still remain to be achieved. "Violence against the spirits and bodies of workers continues".

The author states that business has been forced to deal with issues of occupational safety and health under two different sets of conditions, during war imposed labour shortages and during periods of severe social upheaval. When labour is extremely scarce, employers worry about preserving the labour they control by making the work more attractive. During times of severe social unrest workers demand better conditions. In both cases business tries to jump ahead of the workers and create institutions which define the problems of health and safety in non-threatening ways and take the sting out of the workers' unrest. Bergman speculates that perhaps the new occupational health and safety movement arose during an epoch that combined labour shortages and widespread protest against the unpopular war in Vietnam.

Tracing the history of the movement, the book deals with the manner in which the early twentieth century US corporations responded to concern about work accidents by setting up a business controlled compensation safety apparatus which held down compensation costs and did little to improve working conditions. This apparatus was able to exclude the issue of occupational health and safety from open debate until the late 1960's through its control of research, education, workers

compensation, governmental appointments and by creating the public impression that health problems in the workplace were non-existent. As a result, the pain and bloodshed and nearly all the money for the costs of work-related diseases and injuries are still borne by workers and their families, and the public at large. That way, says Bergman, it's cheaper for the industry.

With the exception of the United Mine Workers' activities and sporadic local uprisings, unions have been seriously involved in health and safety only in the last decade since they mobilised to pass the Occupational Safety and Health Act of 1970. The OSHA law says Bergman, was made possible because of a tight labour market, worker dissatisfaction, the new environmental consciousness, the aid of progressive professionals and a climate of social unrest in the USA.

Bergman, while giving reasons for the lax safety standards in the industrial sector, pinpoints the political-economic context of industrial safety at the turn of the century. The rapid industrialisation of the United States produced a multitude of new dangers for workers. Big business, unable to control ruinous competition and confronting a militant working class and a growing socialist movement, sought the aid of the federal government. The fruits of fabulous productivity increases were gradually concentrated in fewer hands, symbolised in 1901 by the organisation of the United States Steel Corporation, the nation's first billion dollar business. As a result the competitive sector i.e. independent farmers and small businesses, were squeezed by the relentless advance of big business allied to the banks. Smaller manufacturers, unable to raise prices easily violently fought unionisation, while few leaders from the monopoly sector began to devise sophisticated methods to forestall unionisation through token welfare policies.

Meanwhile, by the end of the nineteenth century large corporations and sweatshops began employing millions of hopeful immigrants in dirty jobs that still paid better than peasant work in Southern and Eastern Europe. Giant corporations, led by the railroads, usually learned to use regulatory commissions

to consolidate their control of markets and public opinion. The Congress and the Presidency were finally secured for big business by the elections of William McKinley in 1896 over the ragtag Democratic-Populist coalition. Labour, beaten badly in a series of strikes in the late 1880's was on ascendancy in 1900 but unions made little progress in organising the new mass-production industries. A 1904 report in the labour press estimated that 27,000 workers were killed on the job each year, and a 1907 Bureau of Labour report put the annual death toll at 15,000 to 17,000 of 26 million male workers. Women's work was low paid and sometimes more dangerous.

Even though there were unions fighting the issue of workers' compensation the odds were stacked against the workers right from the beginning. By 1908 workers' compensation and job accidents had become major items on corporate agendas. Existing common law doctrines made it impossible for workers to collect damages for injuries suffered on the job because the worker had to prove the employer was at fault. This was particularly difficult for severely injured workers to collect damages for injuries suffered or for workers killed on the job whose relatives had to depend on the testimony of supervisors and co-workers who could be bought under employer pressure.

Though workers' compensation became a major theme by 1920 occupational diseases however never merited much attention in either the model or actual laws, and so they remained as they were till the late 1960's. Till then the workers' compensation systems and the unenforced industrial safety laws proved to be everything their corporate sponsors had hoped for. Both management and insurance interests benefited by the shift from chancy jury trials to administrative agencies whose employees could be bought off or coopted. Physicians were hired to deal with work injuries and to represent employers within the compensation bureaucracy, creating that peculiar institutional "ghetto" called industrial medicine.

Berman gives interesting details on what methods the big corporations adopted when they were dealing with workers who were organised. One such example is the case of the Amalgamated Association of Iron, Steel and Tin Workers, a craft union, enrolling only skilled workers. The Amalgamated Association reached its height of power in the late 1890's and the Homestead, Pennsylvania, mill was its biggest locale. It was also the biggest mill of Carnegie Steel, the largest US steelmaker.

"At Homestead about 25 per cent of the 4,000 workers were in the union, where they controlled all aspects of production. This situation was unsatisfactory to Carnegie Steel for two reasons: according to the contract, workers got a constant share of the increasing sales of the mill, and they had the power to prevent the introduction of labour-saving technology if it did not suit them. Carnegie resolved to break the labour in a definitive test of strength. Before the contract expired in 1882, the management built a three mile long fence around the plant with shoulder level rifle holes every 25 feet. The workers were told that after June 24 the Carnegie would deal with them only as individuals. On July 2 most unionised workers were locked out. The union backed by all the workers responded by shutting down the mill renting a steam boat to patrol the Monongahela river, and organising the whole town for resistance. When bargeloads of three hundred armed Pinkerton men were brought to force the mill open and bring in scabs, an open gun battle resulted, sixteen were killed, including seven Pinkerton agents and the rest of the invaders surrendered to the workers and their families. But after a four month strike Carnegie won the Homestead war with the help of the Pennsylvania militia and the plant resumed production without a union. Loss of its most important outpost was the beginning of a rapid decline for the Association. After a disastrous strike in 1902, the union was completely uprooted from the steel industry".

In 1910, U.S. Steel inaugurated the Voluntary Accident Relief Plan, based on models developed in Bismarkian Germany by a conservative capitalist class under challenge from the fastest growing socialist movement in Europe. The programme, soon superseded by the state workers compensation laws, was the first of its kind in the USA and paid workers or their families fixed amounts for job-related injuries causing disability and death. The plan for all its purported liberality stated explicitly: "No relief will be paid to any employee or his family if suit is brought against the company" and workers who received relief were required to sign away any further rights to sue U.S. steel. This became the model for the rest of the USA.

The compensation safety apparatus is the complex of mostly private, corporate-dominated organisations which are concerned with compensation, workplace inspection, standard-setting, research, and education in occupational health and safety. It is called the compensation-safety apparatus because it emphasises compensation over prevention

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and safety over health in its activities. It is an apparatus because it has executed the policies of only business and insurance interests for decades as the organised constituency in occupational safety and health. Only in the last ten years has its dominance been challenged by workers, unions and their progressive allies.

Serious attack on the compensation-safety apparatus began in the late 1960's in the coal mines, over issues of black lung. The issue was taken up by workers in industries all over the USA. President Nixon finally signed the Occupational Safety Health Act of 1970. The law, says Berman, promises more than it delivers. However from this step onward things begin to change and various unions take up the issue of occupational health on a larger scale. Berman goes into details about the conditions of work in the oil, chemical, rubber and atomic industries and the way in which their respective unions tackle the problem of occupational safety. Interesting details emerge of the lifestyles of some of the Ame-

rican labour leaders. Referring to the largest union in the USA the "Teamsters" Berman states that "Top Teamster officials live royally on the members fees. Five jet aircraft and two turboprops worth over 13 million, dollars and costing over 2 million dollars annually, fly the top leadership to its missions. Frank E. Fitzsimmons, general president, receives an annual salary of 156,000 dollars and a host of other benefits, and Harold Friedman, president of Bakers Local 19, a Cleveland local associated with Teamsters, received the astonishing total of 352,330 dollars from his various union jobs in 1976. Compared with their leaders lifestyle the Teamsters efforts in health and safety are decidedly meagre".

There is also a chapter on the future politics of working conditions and Berman says that with the coming of more and more automation the future worker will suffer more from stress hazards as compared with the worker of today. The book contains useful tables and statistical information about the compensation apparatus in the USA.

(Contd. from page 129)

already poor health due to the vicious cycle of disease and environment as already pointed out.

There are certain morbid conditions which are associated with the unphysiological posture while doing agricultural work, for examples while sowing paddy one has to stoop for hours together which results in backache. Postures during harvesting of wheat and rice are also uncomfortable and unphysiological giving rise to a variety of joint problems.

Lastly, there is a miscellaneous group of disorders to which agricultural workers are much more prone than the people at large. Sun stroke and heat stroke are quite common because of prolonged hours of work in the scorching heat. Ailments of the eye are also more common because of the harmful sun rays and dust falling on the unprotected eyes. Injuries to the eyes are also quite common because of the same reason. Agricultural workers are quite familiar with the bites of poisonous animals like snakes and scorpions etc. Prevalence of hookworm infestation is much higher than the general population because of their compulsion to work barefooted in the fields. Farmer's lung, hay fever, allergies of various types and fungal

infections of the skin are some of the other examples of morbidities which the agricultural labourers likely are to suffer from.

In the profit generating exploitative socio economic pattern of production human labour has been reduced to a mere commodity. Least concern is made for this perishable tool (the labour) in the race of maximum profits. The working conditions adversely affect the workers health and in some cases prove to be fatal.

Pale skinned, thin dyspnoic labourers working in chemicals and pesticides factories: Pneumoconiosis affected child labour in slate, lead, silicon industry convey the same story.

We have made an attempt to focus attention on the health hazards which the agricultural labour is exposed to. We hope that it will initiate a debate which will improvise and enrich our understanding and contribute to the vital struggle for equality and justice.

People's Health Group
Galli No. 3
Gurbux Colony
Patiala, Punjab

Why don't you write for us ?

This periodical is a collective effort of many individuals active or interested in the field of health or interested in health issues. The chief aim of the journal is to provide a forum for exchange of ideas and for generating a debate on practical and theoretical issues in health from a **radical or marxist** perspective. We believe that only through such interaction can a coherent radical and marxist critique of health and health care be evolved.

Each issue of the journal will focus on one theme, but it will also carry (i) Discussions on articles published in earlier issues (ii) Commentaries, reports, shorter contributions outside the main theme.

Our forthcoming issues will focus on : Politics of Population Control, Health and Imperialism, People in Health care and Systems of Medicine.

If you wish to write on any of these issues do let us know immediately. We have to work three months ahead of the date of publication, which means that the issue on Politics of Population Control is already being worked on. A full length article should not exceed 6,000 words and the number of references in the article should not exceed 50. Unless otherwise stated author's names in the case of joint authorship will be printed in alphabetical order. You will appreciate that we have a broad editorial policy on the basis of which articles will be accepted.

We have an author's style-sheet and will send it to you on request. Please note that the spellings and referencing style of reprint articles are as in the original and are NOT as per our style.

We would also like to receive shorter articles, commentaries, views or reports. These need not be on the themes we have mentioned. These articles should not exceed 2,000 words. Please do write and tell us what you think of this issue.

All articles should be sent in duplicate. They should be neatly typed in double spacing, on one side of the sheet. This is necessary because we do not have office facilities here and the press requires all material to be typed. But if it is impossible for you to get the material typed, do not let it stop you from sending us your contributions in a neat handwriting on one side of the paper. Send us two copies of the article written in a legible handwriting with words and sentences liberally spaced.

The best way to crystallise and clarify ideas is to put them down in writing. Here's your opportunity to interact through your writing and forge links with others who are working on issues of interest to you.

WORKING EDITORS

Please send me Socialist Health Review for one year (four issues). I am sending Rs. _____ as subscription and/or donation by Demand Draft/Cheque. (D.D. and cheque in favour of Amar Jesani or Padma Prakash, and for cheque, add Rs. 5, if outside Bombay).

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Push Back the Catasrophes

I don't want a drought to feed on itself
through the tattoed holes in my belly
I don't want a spectacular desert of
charred stems and rabbit hairs
in my throat of accumulated matter
I don't want to burn and cut through the forest
like a greedy mercenary drilling into
the sugar cane of the bones

Push back the advancing sands
the polluted sewage
the dust demons the dying timber
the upper atmosphere of nitrogen
push back the catastrophes

Enough of the missiles
the submarines
the aircraft carriers
the biological weapons

No more sickness sadness poverty
exploitation destabilization
illiteracy and bombing

Let's move towards peace
towards equality and justice
that's what I want

To breathe clean air
to drink pure water to plant new crops
to soak up the rain to wash off the stink
to hold this body and soul together in peace
that's it

Push back the catastrophes

—Jayne Cortez (black woman poet)
(From : *Coagulations : New and Selected Poems, 1984*)
