BARGAINING DISEASES FOR WORK

State of Worker's Health in Thailand, Malaysia, Philippines, Taiwan, Republic of Korea and Japan

Prepared by

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FOR

ASIAN SOUTH PACIFIC BUREAU OF ADULT EDUCATION
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Forward

Workers of the world today share one thing which is disease, injuries and death at shopfloor. The issue of workplace health and safety has always remained at the low priority of the governments. There are many organisations in both government and voluntary sector which provide education on the general issues of organising and bargaining, etc. but there are very less institutions which provide input on occupational health and safety with worker’s perspective. If we see the statistics collected by the government agencies, they give unrealistic picture. One of the reason is of course non reporting and wrong diagnosis of occupational diseases. As the information about the health hazards is not given to workers, they are not able to relate and articulate their sufferings with their exposure at shopfloor. This report is based on the discussion and material referred by Harsh Jaitli and Vijay Kanhere of PRIA during their short visit to Thailand, Philippines, Republic of China (Taiwan), Republic of Korea, Japan and Malaysia. The objective of this visit was also to develop the feeling of fraternity among the workers groups and identify some issues on which joint action is possible.

This report has three sections: Part A deals with small introduction to the region; Part B deals with specific countries; and Part C with general recommendations.

Harsh Jaitli
**Introduction:**

Asia is a region of diversity, not only culturally, socially, economically, but also on the issue of workplace health and safety. If we observe country wise on the one hand we have advanced economies like Japan with latest technology and work culture. And on the other hand we have countries like India, Bangladesh, or Pakistan where modern technologies exist side by side with traditional industries. Almost every year we witness fatal tragedies in these countries like doll factory fire in Thailand, health hazards in electronics industry in Malaysia or mines disasters in India and China. In almost all the countries workplace health and safety issue are at low priority. Governments opt for fire-fighters’ approach rather than any long term solution.

Over half of the workers of the world live in the Asian-Pacific region. This region is experiencing rapid economic growth. As a result, new technologies, new work procedures, equipment, materials and products are being imported into the region. The transfer of technology brings along with its new hazards and new risks of accidents and diseases. The provision of up-to-date and easily accessible occupational safety and health information is an important tool to strengthen the knowledge and skills to deal with these and other risks. (Information saves lives! ILO/FINNIDA ASIAOSH)

There is a wide gap in the flow of information even with in the various departments of government. The lack of information available within the countries in turn effects the flow at international level. In order to build the capacity of the Asian and Pacific countries to streamline this, ASIAOSH project is also operational in this region with its head office at Bangkok.

There is flow of migrant workers from one country to another within the region of Asia. They are mostly employed in the hazardous and dangerous jobs. As they are alien to the land and language is the major barrier to understand their rights. In this report this issue is dealt with keeping their education in mind. How it is necessary to run the workers’ education in a medium where they can understand the health hazards involved in their work and in the case of their sickness how they can win their rights.
Thailand

Thailand is the typical example of the Asian country which is experiencing the technology boom. 0.5 million workers are added in formal sector every year. As the economy is expanding the problem is further aggravated by the weak legislative mechanism for labour welfare. Acting under the fire fighting approach the government did took up certain steps after the fire in a toy factory. At present reporting of occupational diseases is almost non existent. Workers have no right to access information related to their health hazards. (No safety committees). The law to appoint a safety officer in the industrial establishments is also recent.

In Thailand, NICE is established with the help from UNDP. It also has research staff but the reports are not given to workers. Government collects figures for occupational diseases from compensation paid and not from the inspectorate of factories.

The major weakness of the medical system is that doctors are not properly trained to diagnose and treat the cases of occupational diseases. Now some course are there. Earlier if a doctor diagnosed occupational diseases and if higher level expert disagrees, then the doctor may be sued. Now this threat is not there. Doctors feel safe in giving certificates.

There are collections of 6 million baths and lot remains as reserve with the compensation commissioner. FES is working with Government Public Sector Association (they are not allowed to have unions) and unions in bringing in better legislation. They are propagating 'workers participation in safety inspections'.

Victimization of the experts due to questioning of state of occupation health and safety is also same as it is there in any other country. We met Dr. Orapun Methadiloakkun, and there are few medical specialists in Thailand who can match her in qualifications in the field of Occupational and environmental medicine. After receiving her medical degree in the United States, she spent an additional three years in training in that highly specialized field. She is currently the president of the Occupational and Environmental Medicine Association of Thailand (OEMAT), a professional medical body with over 200 members. In addition, she is a visiting lecturer at Chulalongkorn, Mahidol, Chiang Mai, and Khon Kaen Universities and trains environmental engineers at the Bangkok Institute of Technology.
In 1990 she was appointed the director of the National Institute of Occupational and Environmental Medicine (NIOEM). An agency within the Ministry of Public Health. The newly formed medical unit was given the green light to set up a hospital for occupational illness which would include a staff of 200 physicians. She assumed that her ideals of helping sick workers and creating a functioning occupational hygiene unit to keep pace with Thailand’s skyrocketing industrial growth would finally be both realised and appreciated by all.

Her first major task in Aug. 1991 at NIOEM was ordered by Ministry to investigate the death of four employees in Samut Prakan Plant and to report whether it was related to the exposure to toxic materials. Seagate Technology (Thailand) Company, was Thailand’s largest employer, and also a firm held in high esteem in government and investment circles. Established in Thailand in 1983, The US company’s first operation began with only 50 workers and now boasts staff of 18000. Based in Scotts Valley, California, the Seagate group is the world’s largest independent producer of computer hard disks drives. During her investigation she soon discovered that the factory’s line workers were subjected to toxic lead and solvent fumes. In fact, she stated, the problem was complicated by the presence of different solvents and the lack of supervisor and line employee awareness of the potential ill-effects of the presence of mixture of fumes from different chemicals in the various solvents.

Further aggravating the problem, according to the doctor, was the company’s substitution of gauze face cloths for proper filtered masks to protect workers from the toxic lead and solvent fumes. Additionally, some employees were allowed to work repeated overtime shifts, further increasing their risk of a delayed, chronic toxic poisoning.

A local industrial safety analyst noted, “This issue of the use of proper filtered masks is not about Seagate alone; it pertains to the lack of long-term outlook some industries take on this matter. Evidence of disease through prolonged low exposure rates is still not conclusive and some industries refuse to accept the prospect of a possible long-term exposure problem. Unfortunately, by the time we do get conclusive results, it could be too late for many.”

Dr. Orapun checked workers’ medical records and analyzed the data of the lead levels in over 1000 of the factory’s line workers. Approximately half of workers tested in the wave-soldering section had blood lead levels higher
that 20 micrograms of lead per 100 ml of blood - an amount too high which could lead to chronic poisoning.

Unfortunately, Thai law itself appears to be quite vague on many aspects of acceptable atmospheric lead limits. Section 5.2 of the National Environmental Quality Act titled “Atmospheric Chemicals Standards in the Workplace” sets atmospheric lead content limits for ‘average concentrations during normal work periods,’ but omits figures under the concentrations for a specified time’ and maximum duration’ columns.

In addition, according to Dr. Orapun, only handful of Thailand’s government factory inspectors are actually qualified to do the testing needed for the nation’s thousands of factories. After analyzing the medical reports at Seagate, Dr. Orapun began an inspection walk of the factory’s assembly line. Almost immediately, she was approached by company officials and asked her to go to company’s board room. As she entered a stern faced director shoved the phone at her. On the other end was Board of Investment (BOI) Director General Staporn Kavitanon, one of the most powerful political figures in Thailand. The actual details of that boardroom phone conversation are in dispute, with Dr. Orapun maintaining that Staporn threatened to fire her for her investigative activities at Seagate, and Staporn denying that he attempted to intimidate her in anyway.

What is not in dispute is that in September - one month after the heated exchange - Dr. Orapun was abruptly removed from the Seagate investigation. Shortly afterwards, the fatal blow came to the newly formed NIOEM when it was ordered to shut down after only 16 months of operation. While various excuses for the closure have been given by officials, few outsiders doubt that it was anything less than a political powerplay designed to allay fears on the part of foreign investors. Investment sources stated that the Thai government was afraid of a bad image, particularly in the international press, which might scare away prospective foreign investment.

Foreign investors, in particular, were becoming nervous over the possibility that they might have to pump in huge amounts of capital to pay for future medical compensation claims. She has been branded as a ‘problem bureaucrat’ and black listed from pay increases and further career advancement. She was even sent to a mental hospital to be examined, but was determined to be sane and returned to work at the hospital.
The status of occupational health and safety is reflected in the following figures. The rates of violation in 1987, by kind of regulation, were as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines</td>
<td>37.9%</td>
</tr>
<tr>
<td>Electricity</td>
<td>23.6%</td>
</tr>
<tr>
<td>Employees' Work safety</td>
<td>15.7%</td>
</tr>
<tr>
<td>Environmental Conditions</td>
<td>13.2%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>10.7%</td>
</tr>
<tr>
<td>Scaffoldings</td>
<td>5.5%</td>
</tr>
<tr>
<td>Construction sites</td>
<td>5.4%</td>
</tr>
<tr>
<td>Temporary lifts</td>
<td>4.1%</td>
</tr>
<tr>
<td>Divers</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

**Trends of Industrial Injuries:**

It is difficult to know the real situation of labour accidents. The employers are required to submit an accident report to the Department of Labour (DOL) soon after the incident, but many enterprises do not comply with this. Therefore, the only reliable information comes from Workmen's Compensation Fund. The number of victims to whom compensation was provided by the Fund has greatly increased in recent years.

Labour accidents, by industry, in 1988 were as follows:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>81.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>6.9%</td>
</tr>
<tr>
<td>Retail and whole sale traders, restaurants and Hotels</td>
<td>5.1%</td>
</tr>
<tr>
<td>Services</td>
<td>2.6%</td>
</tr>
<tr>
<td>Transport, Storage, and Communication</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

The share of accidents in the manufacturing industry was quite substantial, mainly in the fabricated metal products industry, machinery and equipment industry, food, beverage, and tobacco industry, textiles, wearing apparel industry, and wood products industry. Fatal accidents occurred mainly in the food, beverage, and tobacco industry, construction industry and transport, storage and communication industry. In 1988, the victims of industrial injuries who were 20 to 29 years old accounted for 55.3%, followed by workers who were 30 to 39 years old, who accounted for 20.3%.
Cases of Occupational diseases:

<table>
<thead>
<tr>
<th></th>
<th>1985</th>
<th>86</th>
<th>87</th>
<th>88</th>
<th>89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pesticide poisoning</td>
<td>2,600</td>
<td>3107</td>
<td>4633</td>
<td>4263</td>
<td>5172</td>
</tr>
<tr>
<td>Lead poisoning</td>
<td>17</td>
<td>51</td>
<td>51</td>
<td>32</td>
<td>18</td>
</tr>
<tr>
<td>Other heavy metal poisoning</td>
<td>10</td>
<td>13</td>
<td>22</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Petroleum and its products poisoning</td>
<td>7</td>
<td>6</td>
<td>13</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gas and vapor poisoning</td>
<td>44</td>
<td>28</td>
<td>32</td>
<td>51</td>
<td>46</td>
</tr>
<tr>
<td>Caisson's disease</td>
<td>12</td>
<td>9</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silicosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2690</td>
<td>3214</td>
<td>4759</td>
<td>4352</td>
<td>5248</td>
</tr>
</tbody>
</table>

Problems related to national policies and legislation:

The national policies concerning occupational safety and health have been incorporated in the sixth National Economic and Social Development Plan (1987-91) and in the Fourth Executive Plan of the Ministry of Interior. However, priorities of the national safety policy have not been stated clearly, causing problems in fiscal budget appropriations.

Problems related to current legislations are as follows:

# Some risk factors, operations, and facilities are not regulated by legislation, for example, pressure vessels, open-cut excavations, making and breaking of cargo poles, falling from heights, shortage of oxygen and chemical facilities.

# Certain legislation provisions are not concrete, i.e. the importance of physical examination and countermeasures against chemicals hazards are not specifically stipulated.

# The legislation does not contain provisions to help the Government ascertain how much of the present legislation on safety is actually being enforced by the employers.
There is no provision for employers to inform the DOL of the results of physical examination; installation and results of inspection of steam boilers, cranes, and temporary lifts; and appointment of industrial medical doctors or nurses.

The common items of occupational safety and health regulations, such as the definition of employers and employees, procedures to be followed by the competent officials, and standards and efficiency of personal protective devices, should be stipulated in one basic law or regulation, without any overlap.

Problems related to Administrative organisation and Authority of Administration

a). Problems related to Labour Inspection:

The number of labour inspections executed, with emphasis on safety and health, is only a tenth of the general inspections, because the number of safety inspectors is less than the General Inspectors.

Almost all the Provincial Labour Offices do not provide safety inspection to enterprises. Therefore, it is difficult for the DOL to regularly obtain information on enforcement of safety and health in enterprises. Due to large geographical area the relationship between the Provincial Labour Office and enterprises is not close, it is very difficult to give continual guidance to them.

It is possible that Safety Inspectors, General Inspectors, and Women and Child Labour Inspectors visit some establishments at nearly the same time. This cause inefficient inspection and is a burden for employers.

The headquarters of DOL undertakes labour inspection directly, so functions like planning policies and coordination with concerned agencies, are not given full attention.

Prosecution are few, even though the number of establishments which violate the laws is large.

Equipments for safety inspection are not provided in the Provincial Labour Offices.
OTHERS

The money contributed to the Workmen's Compensation Fund, paid by employers with 20 or more workers, is spent only for compensating victims of labour accidents, resulting in the following problems:

- Many employees are expected to suffer from occupational diseases, like occupational cancer and pneumoconioses (which are caused by long term exposure to dust or chemicals), if the present work environment is not improved. This will financially weaken the Workmen Compensation Fund.

- Most of the enterprises cannot themselves undertake collection of information on safety and health, physical examination, and working environment measurements.

- With mechanisation, the risk or labour accidents will become greater and the number of labour accidents will increase, which will cause financial problems for the Workmen's Compensation Fund.

The number of labour accidents is expected to increase in the near future due to the following reasons:

- The number of employed workers, especially workers in the manufacturing industry, is expected to increase with the expansion of the economy and modernisation of the industry.

- It is estimated that the risk of labour accidents in the enterprises will become greater with the introduction of new and dangerous machines and harmful chemicals.

The number of occupational diseases is expected to rise due to the following reasons:

- The chemical industry will expand, mainly based on the Eastern Seaboard development plan.

- The kinds and quantities of chemicals used in the enterprises will increase.

- Many workers may be exposed to chemicals of high concentration, resulting in occupational diseases.

- There is no right to know for the workers, even NICE does not give its reports to the workers.
PHILIPPINES

In law OSH is under welfare and covered by series of notifications. For Govt. employees and even many unions OSH comes under miscellaneous. In the Philippines, OSH is a concern that is enshrined in the Labour Code (Article 162, Book IV, Labour Code of the Philippines). It is operationalised by OSH standards which were first formulated in 1978 and revised in 1989. The OSH standards document describes the duties of employers regarding OSH to be as follows:

# furnish their workers a place of employment free from hazardous conditions that are causing or are likely to cause death, illness or physical harm to their workers.

# give complete job safety instructions to their workers, especially to those entering the job for the first time, familiarization with their work environment and hazards to which the workers are exposed to and steps taken in case of emergency.

# use only approved devices at the workplace.

# comply with the requirements of the Standards.

On average, the department of Labour and Employment (DOLE) inspects 10,000 - 15,000 business establishments yearly, of which 33% to 40% are found to violate OSH standards.

In a DOLE survey of slightly over 12,000 establishments in 1987, more than 40% of the establishments violated OSH standards. The major violations were in the non-implementation of the Safety Committee provision (13%), the non-reporting of the accidents (9%) and non-provision of health personnel within plant premises (7%). Other violation included the inadequacy of medicines (6%), non-registration (4%), below standards housekeeping (3%), non-recording of accidents (2%) and the lack of personnel protective equipment (2%).
### Philippines Safety Performance by sector (1988)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total cases</th>
<th>Disabling injuries</th>
<th>Workers involved</th>
<th>frequency</th>
<th>severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>1148</td>
<td>135</td>
<td>11633</td>
<td>17.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1960</td>
<td>1478</td>
<td>50147</td>
<td>3.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>868</td>
<td>647</td>
<td>22861</td>
<td>3.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Construction</td>
<td>311</td>
<td>172</td>
<td>6120</td>
<td>5.1</td>
<td>2.8</td>
</tr>
<tr>
<td>Services</td>
<td>84</td>
<td>67</td>
<td>5903</td>
<td>1.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Transport/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>311</td>
<td>51</td>
<td>13635</td>
<td>2.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Utilities</td>
<td>33</td>
<td>33</td>
<td>9120</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

* Sampling of 109 establishments.

Source of data: DOLE.
MALAYSIA

Electronic industry of Malaysia:

The deputy Minister of National Unity and Social Development, Datuk Alex Lee, stated at the opening of the International Conference on "safety and Health in Electronics" on 4 December 1992, that, 'Because of its connection with military industry in the United States, there was a lot of secrecy around the (electronics) industry' - and the secrecy persists even today.

At the end of 1990, there were 420 electronics industries in the Malaysia, with 267 companies producing electronics components, 81 consumer goods and 85 industrial products (Star, 22/9/91). This increased by almost 50 percent to 618 companies at the end of 1991 (Star, 30/7/92).

The electronic industry is the largest employer in the manufacturing sector. The total workforce in the electronics industry has increased over the years from 110,375 workers in 1990 to 129,636 in 1991, then to 143,353 in 1992 and 165,892 in 1993 (Business Times, 1/8/94). The majority, that is about 80%, are females and often employed as production operators, while men occupy the higher technical, supervisory and managerial levels. Most factories like to recruit young females in their late teens or early twenties.

Some cases:

* Elfreda worked about four years in the tin-dip and plastic molding sections at Dynetics, a major semiconductor assembly plant in Philippines, where she was exposed to various chemicals. In her third year of work, she was diagnosed as having severe anemia and was suffering from skin problems and swollen lymph glands. She was later found to have cancer of lymph and died of the disease in 1982 at age twenty two. (Health Hazards in Electronics: A Handbook by Thomas Gassert)

* Bernardita employed at the Silicon Technology Inc. Philippines, died of typhoid fever complicated by pneumonia in 1984. Her job subjected her to frequent and sudden changes in temperature, from hot hot to cold to hot, because she had to get chips for baking from cold workrooms and then bake these in hot ovens. (The Semiconductor Industry IBON, Manila)
* A 1978 survey of 600 workers in Korea showed that of those workers who did soldering, 48% suffered skin diseases caused by metal fumes. (Health Hazards in Electronics: A Handbook by Thomas Gassert).

* Rani works in the solder department of a plant in Malaysia where she breathes in solder fumes. This cause her to suffer terrible headaches and tearing and pain in the eyes. (Health and Safety Problems of Electronics Factory Workers: Workers Perspective by Manohara Subramaniam and Chee Heng Leng, 1992).

**Asbestos in Malaysia:**

The Asbestos Process Regulations 1986 introduced under the Factories and Machines Act 1967:

a). Limited Coverage: The regulation “shall apply to all factories in which any asbestos is used, but shall not apply to any building operations or work of engineering construction”. (Regulation 3). Workers in plants manufacturing asbestos products are covered but not vehicle repair workers who change brake linings; carpenters and construction workers who have to saw, work and build with fibers; demolition workers who tear down houses or buildings; and shipyard workers who handle the imported dust.

Groups like Consumer International and Consumer Association of Penang are doing tremendous work in the field of awareness of the community about the health hazards. CAP has produced memorandum for change in law regarding lead and production safety. Groups with different capacities and expertise can participate in monitoring MNCs, exports of hazardous production.

ERA is also working in Occupational Safety and Health, and legal trainings of workers. OSH of informal sector is matter of concern.
Taiwan

Taiwan is the example of a country who had directed all its resources for the economic development by-passing all the welfare activities, especially during the martial law. Recently, the government announced that Taiwan’s economic miracle is so successful that they want to join GATT, United Nations, etc. and want to make it the financial and business centre for Asia and Pacific. In the success of this economic miracle the major sacrifice is of course made by the workers and the common citizens. Taiwan has always faced the People’s Republic of China since its inception and that’s why independence and the rights of citizens are curtailed by giving this excuse. Taiwan is also victim of global isolation which closes its doors to the development outside.

The Labour Movement:

The history of labour movement is closely linked to the political conditions of the country. The political history of the Republic of China started with the retreat of Kuomintang Party (KMT) from the mainland China in 1949. This followed the strict martial law for almost four decades in which no movement, either of labour or for social causes was allowed. With the objective to control the workers some unions at national, regional, industrial, craft and company based, were sponsored by the government.

But it was the pressure from the American Trade Unions and business class that gave the birth to the Labour Standard Law in 1984. 1986 not only saw the emergence of the first opposition political party (Democratic Party) but also martial law was lifted. This positive development saw the emergence of many social movements which included labour also. Many serious industrial disputes also surfaced during this period. There was also demand to review the Labour Standard Law. The 1988 also saw the formation of new independent trade unions and the reform in yellow unions.

It was during this period (July, 1988) that Information Centre for Labour Education (ICLE) was established. From its inception ICLE is closely linked to the development of the labour movement of the country. It has three departments:

1. Department of mobilising the trade unions, struggling and fighting for the
rights of the labour class in close collaboration with workers.

2. Department of Labour Education: Planning, designing and training the workers educational programmes by various dynamic methods for union members, unionists and organisers.

3. Department of Research and Publication: Collecting and analyzing the cases of struggles, labour welfare, laws, etc., by the method of participatory research. Publishing Workers Education books, materials and magazines, which also includes bimonthly "Taiwan Labour Movement".

1988 saw the emergence of the National Federation of Independent Trade Unions and Labour Movement Supporting Association (Taiwan Labour Front). For the first time, in Dec 11, 1988, national workers demonstrated for two labour laws and about one case. This demonstration was organised by 28 autonomous trade unions. This period also saw the closures of plants and need to demand women workers' right to protection was felt. ICLE not only played a significant role in this but also focused on organising trade union movement in companies like New China Times, CKS airport, etc. It also developed new training methods for workers education at grass root level.

On one hand Labour Party was established in 1989 and on the other labour movement faced frustration due to failure of strike of Far-East Textile Union. Government also started suppressing radical social movements. In 1990 Association of CKS Airport trade Unions was formed and in 1991, Solidarity Front of Women Workers (SFWW) was formed to deal with the issues of women workers. SFWW also helps women workers to form unions and their struggle against plant closures.

In 1992, Keelong Bus trade union strike took place. The demand was also raised to oppose the governmental edition of labour laws revision and the ICLE took the step of proposing workers' edition of labour laws. This document was made through participatory research methodology. The Committee for Action for Labour Legislation (CALL) was also organised during this period. Government also legalised the import of the migrant workers. In 1993 over 100 unions joined hands in “autumn struggle” for labour standards laws which was organised by CALL.
State of Occupational Health and Safety:

As said earlier the cost of economic development was paid by the workers. Apart from the economic exploitation they had been victim of physical impairment. Till date very less cases of occupational diseases come up due to lack of awareness with the workers. According to rough estimate, in the past 40 years, over 5,00,000 workers have died, due to industrial accidents. And industrial accidents have maimed another 2,00,000 workers disabled for life.

Into the 1990s, there are still close to 30,000 industrial accidents every year! and Taiwan's annual rate of industrial accidents is between five to ten times greater than Japan or Singapore.

Into the 1990s, every year Taiwan still has an average of 1500 workers dying in industrial disasters - and 6000 workers permanently handicapped in industrial accidents - per year. The figures are so high that, for every 47 workers, 10 workers are victims of industrial accidents!

That is equivalent to: about 3 workers are being killed every hour - this is just like being forced to be casualties in a long, slow civil war, which sacrifices workers life and health - in the name of the "Economic Miracle".

But the labour laws are not made to help industrial workers and are vague in nature leaving ample space for manipulation by the employer.

If an industrial disaster happens, the employer is supposed to pay compensation to the victims, but the law does not force him to do so. If the employer refuses to pay the compensation, the worker can get nothing but US$ 3500. Which is given by the state, but the employer can get away with paying nothing.

And why are workers' lives are cheaper than others. If a professional soldier dies while at work, she/he will receive 179 months salary as compensation. And if a Public Servant dies while at work, she/he will receive 233.5 months salary as compensation! But for worker? Even if the boss does not try to escape responsibility, the employer has to pay the worker a measly 45 months salary.
Taiwan is called workers slaughter house.

<table>
<thead>
<tr>
<th>Year</th>
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Efforts are been undertaken by the various groups to highlight and educate on the issue of occupational health and safety. But two factors hinder their efforts. Firstly, due to isolation at global level the local groups neither participate or learn from the developments outside. Secondly most of the material produced is in English, it is very difficult to understand and disseminate. There is need to provide intense support to groups like ICLE to build their capacity and develop education material on the subject. The exchange of experience can play a significant role.
JAPAN

The country of rising sun and rising problems.

Japan is the role model for most of the developing countries for its fast economic development. Since the trends of occupational health hazards will follow that of economic activities, the Japanese society is experiencing many new types of diseases apart from the traditional ones. The number of such causalities is on a decrease from a long-term view point, after hitting a record height with 481,686 in 1961. In 1983, the number declined to 181,900, that is a decrease by 4.1% over the previous year.

Some of the problematic points now need to be solved with drastic measures are as follows:

1). Accident frequency rate in small business remains high.
2). Aged workers are occupying greater part of accident victims than ever before as a result of the aging of population.
3). With the enlargement of service economy, accidents at service industry are occupying greater part of those at all types of industry.
4). Centering on construction and manufacturing industries, a number of grave accidents are occurring.

Scrutinizing the cause of these diseases in 1993, it was found that those due to occupational injuries were 75.9% (7,306 patients) patients. Of 7,306, those due to occupational back pain were 78.6% (5,743 patients), and those due to pneumoconiosis and its complications 10.6% (1,025 patients).

Working Conditions in Japan:

a). In 1993 2245 workers were killed. Construction industry has 40% share of the fatalities in accidents.

b). Small factories having 30-50 workers account for 3 times of number of accident in the industries employing 100 or more workers.

c). Every year around 10,000 workers are affected due to OD's. From 1979 to 1992 23,000 workers affected due to dust related lungs diseases.

In case of heart diseases applications were 130 in 1992 only 8 were recognised and some were under process.
If an accident results in absence of 4 days then it is reported. (in India 2 days absence is reportable accident).

In 1992 the law applied to 2,541,761 establishment workers covered 45,831,524 injured workers in 1992, were 189,589.

e). Hiding, non-reporting of accidents is present. Construction, sub-contractors, employers of migrant workers are hiding accidents.

Some of the groups to whom we met during our short stay are as follows:

**Group on nuclear Energy**

The Group on nuclear energy is mostly working on the environmental aspects of power plants. It came out in the discussion that the contract workers are worst affected. It is the general phenomena to hire the contract workers in the nuclear plants to do the hazardous activities.

**ZMU: All United Workers Union**

Mainly small and medium scale factory workers are in this union. Out of 60 million workers 54 million are industrial workers. 43.2 million out of 54 are in small and medium factories.

Labour education: 'Every worker is different and needs are particular to each' is the basis of their education policy. One aspect of education is health and safety.

Zero SAI (Zero accidents is the policy) KYT (Japanese title of campaign). KYT stands for Kiken (Danger), Yochi (Prediction) and Training.

*K YT

- Mechanised work No to mechanisation
- New hazards jobs go to small scale industry or
- Additional stress to subcontract (Sub-let hazards) or contract workers or
- Export of hazardous industry

21
The danger prediction training talks of options which a company can have. If a company goes for mechanisation then new hazards and additional stress will emerge at shopfloor. The other alternative is not going for mechanisation and giving the job to small scale industries. This leads to sub-contract system which can also be defined as sub-letting of hazards. This is followed by most of the companies as an easy way to save money and resources on prevention of health hazards. The other alternative which is used is export of the dangerous work process to less developed countries. This above stated map is used in the training to explain the scenario of occupational health and safety.

The another method which is followed by the union is the ongoing education of the affected workers through their redresal. Every week almost hundred injured workers visit the union office. The union officials help workers help them in filling the claim form and explain them their rights. Quite large number of them are migrant workers.

**The issue of migrant Workers**

Bangladesh, Philippines, Pakistan, Indonesia, India Sri Lanka are some countries from where workers come to Japan. Most of these are termed illegal aliens as far as immigration law is concerned. As they do not have proper work permit and had entered in Japan on transit or tourist visas. Police or employers do not trouble them as the country needs some one to do 3D jobs (Dangerous, Dirty and Difficult). Most of these workers are employed in the small and medium scale industries. For them language is the major problem as Japanese is the language spoken and most of the documents are made in this language. Even if for the law which relates to the workers there is no difference between locals and aliens, but to understand and communicate the grievance, language is definitely a hindrance. The group has not only developed material in the foreign language but also once a week the activists who can understand English or the foreign language meets the workers. The group also organises the Japanese teaching classes.

**The Case of Sukhwinder Singh:**

Three years ago, from the village of Punjab, India, Sukhwinder Singh migrated to Japan. It was a big leap for him from agriculture to industrial worker; from his village to Tokyo and then to Ibarai Ken. Like many of his friends he paid huge amount to his agent to facilitate a job for him. The villager
of Punjab tried his best to settle down in alien environment by learning few words of Japanese. Now he works in a plastic molding factory. His day starts at five in the morning when he makes food for himself and starts working from eight am to eight p.m. In Dec. 95 his employer in Tokyo shifted him to Ibarai Ken (500 to 600 km from Tokyo) in a friend's factory. The new employer provides a dormitory in the premises. On 30/12/95 he was injured while working. He was taken to hospital. The hospital refused to treat him until the employer came to the hospital and signed forms. His thumb is immobilised. He had come to union and Japanese Occupational Safety and Health Association (JOSHA) branch office to seek help. Not only his thumb got permanent disability but his employer threatened him to fire from job. He was also deprived of his wages since the accident. No doubt laws are same for everybody but filling the claim form and articulating his grievances became a problem for Sukhwinder. Fortunately Harsh could speak Punjabi. So with great difficulty his form was filled. The question answer session were like this Punjabi ——> English ——> Japanese ——> English ——> Punjabi and so on.

The above example shows the complexity of the situation and the needs of education of migrant workers.

**MF-MASH (Minatomachi Foreign Migrant Workers’ Mutual Aid Scheme for Health)**

This clinic was initially established for dock workers by the dock workers. Mechanisation has led to the reduction in the number of the workers in the docks. Now it is a cooperative clinic for migrant workers. Fees charged for general examination is less than others: 3,500 yen for people under 40 yrs. 1,500 yen for over 40 yrs. These check-ups are held four times a year. Each examination compromises of following parts: questions about general health, measurement of height, weight, eyesight, chest X-ray, urine test, blood test, electrocardiogram and general examination by the doctor. The fee charged is definitely less than the prevailing rates in Japan. Secondly, the friendly environment provided by the doctors and the staff in this clinic is also an important component. Reports according to nationalities are well preserved. The clinic has the facility of cardiogram, audiogram, physiotherapy, test for internal cancer, echo grams etc.
MF-MASH members (as of Jan. 31, 1994)
Total: 3,237 members (349 females) from 53 countries

### Asia

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### The Institute for Science of Labour, Kawasaki:

The Institute for Science of Labour was founded in Kurashiki City in 1921 as an independent research body. The Institute has since been active in applied research into conditions of work and life of working people with its interdisciplinary approach. Research activity centers on varied aspects of work design, ergonomics, occupational health, industrial hygiene, and quality of working life. Research programmes are undertaken in various industries with a view to improving working conditions.
The founder was President Magosaburo Ohara of the Kurashiki Spinning Company. He was deeply concerned about health and working life of the industrial workers, especially young women. In response to his appeal, researchers of medicine, hygiene and psychology, headed by Founding Director Gito Teruoka, established the institute. It was on the premises of the company's Masu Mill in Kurashiki City, about 700 km west of Tokyo.

In its early years, the institute actively launched investigations on fatigue by night work, energy cost, work environment and better working design. The research covered various forms of work in factories, offices and farms. The results aroused great interest and helped spread occupational health activities, including the foundation in 1929 of the Japanese Association of Industrial Health.

In 1936, the institute was brought under the care of the Japan Society for Promotion of Science and moved to Tokyo in 1937. It moved again in 1939 to Setagaya in west part of Tokyo. During the world War II, the institute continued its activities under difficult conditions and was once resolved after the end of war. It was re-established in November 1945 in its present form as non-profit research body. It finally moved to the present site in Kawasaki in 1971. Throughout these pre and post war periods, the institute has been the national research centre in this field.

**Characteristics of the Institute's activities:**

The Institute is characterised by its close relation with industries. As major part of the research, a number of field studies and experiments are carried out each year on the basis of contract made with public offices, private enterprises and labour unions.

The foundation of the Institute for Science of Labour is steered by the Board of Directors which consists of representatives from academic, public, industrial and labour circles.

With the total of about 70 members, the Institute is actively engaged in research services. The research activities are carried out in three research divisions.

The Institute has three divisions namely, Division of Work Physiology and Psychology; Division of Work Environment and Occupational Diseases and
Division of Social Science. The library of the Institute occupies the major part of the annex building. With its collection of about 120,000 volumes. The library is also proud of a special collection of about 4000 classical medical books purchased from the Göttingen University in Germany soon after World War I.

Main attitude in studies and training programmes conducted by the institute is to develop positive attitude. In a shopfloor visit they ask trainers to note positive features. According to the spokesperson of the institute it is very easy to note short comings in any work procedures, but one should start with positive things and then build up from that to suggestions for improvement in working conditions to achieve the best.

Their research is recognised by government, management and workers. Study and medical reports are given to workers too. For example, 3 women workers complained about problems due to Video Display Terminals. Institute approached the management and conducted research, gave suggestions the government agency accepted the diagnosis of the institute. The institute has also given suggestion to improve the design of microscope for making it ergonomically suitable for workers. The Institute has also built the hot chamber to conduct research on working at high temperatures. This project is for nuclear plants. This institute works very closely with the JOSHA and its centers.

Workers’ Accident Compensation Insurance System in Japan

Japan’s Workers’ Accident Compensation Insurance Law was established in 1947, the same year as the enactment of the Labour Standards Law, which settle the Government’s responsibilities to compensate for industrial accidents and diseases, taking over the employers’ responsibility settled by the Labour Standards Law.

Workers’ Accident Compensation Insurance applies to all enterprises and stipulated that it employers who must cover all the insurance fees. The insurance has six types of benefits, and applies to all workers except for public workers and seamen without the exclusion of any type of work and nationality. There are another labour accident compensation for public workers and seamen.

The process of receiving benefits from the Compensation Insurance is as follows:
Firstly, those workers suffering from an occupational accident or disease or the survivors who have the right to seek the compensation, apply for the Insurance allowance to the regional Labour Standards Inspection Office. (There are several to 10 offices in each Prefecture). Then the Chief officer of the regional Labour Standards Inspection Office decides whether the case is work related or not and whether or not compensation benefit should be granted. If the applicant is not satisfied with the decision of the Chief Officer of the Labour Standards Inspection Office, he/she can appeal to the Workers' Accidents Insurance Compensation Judge in the each Prefectual labour Standards office and also to the Insurance Judgment Committee of the Labour Standards Bureau of the Ministry of Labour. Also she/he can initiate a court case for withdrawal of this administrative measures.

**Types and contents of insurance benefits**

There are six types of the insurance benefits in respect of industrial injuries due to employment-related causes: (a). medical compensation benefits, (b). absence compensation benefits, (c). physical handicap compensation benefits, (d). bereaved family compensation benefits, and (e). the burial money, and (f). the injury and disease compensation annuity.

Japanese Occupational Safety Health Resource Centre (JOSHRC): JOSHRC was formed in 1990 while the Sohyo Occupational Safety Centre and Sohyo, which was Japan's largest nation wide federation of labour unions, were disbanding. Since its formation, it has been carrying out its role as a nation wide information centre on occupational safety and health issues.

Moreover, the JOSHRC has often expressed its opinions on amendments of labour laws, and the staff have actively visited many labour unions, giving advice or recommendations for improvement of their working conditions and environment, in co-operation with ergonomists, hygienists and physicians supporting JOSHRC.

In 1990, JOSHRC made the following declaration: The downward trend has leveled off for accidents and big disasters involving many deaths and injuries which have been frequent recently. In addition, aging of labour force, new technologies innovation, and growth of the service sector, all have brought drastic changes in the method of work and the working environment. Atomization and computerization of many job processes has been burdening workers with physical and mental stress. Cases of musculo-skeletal diseases
like lumbago and occupational neck and upper limb disorders (repetitive strain injury) are increasing due to a static load on the muscles.

There are annually more than 4,000 new chemicals introduced into workplaces, even though they are not thoroughly tested regarding their dangerous properties. On the other hand, asbestos-related diseases and community outbreaks have been reported in some areas where factories deal with asbestos.

Subcontractors -firms occupying lower tiers in multilevel production structures, exist in many forms in Japan. Most of them are deeply tied with their parent or chief purchase companies. Working conditions and environment in such subcontractors are undoubtedly poorer than those in their parent factories. The unionization rate is today is estimated at less than 25%. The rate of small and medium enterprises containing subcontractor factories is particularly lower than that of large enterprises.

The number of foreign migrant workers who over-stay the time limit stipulated in their visas continues to rise, they are often called "illegal" workers. Illegal only means in terms of the immigration regulations, however, the word "illegal" stamped on them causes problems which often go so far as to jeopardize their basic human rights.

Under these circumstances, a growing number of workers expect much of JOSHRC, and JOSHRC has decided not to disappoint them.

Structure and Finance:

JOSHRC has been financially supported by 22 regional occupational safety and health centers as well as supporting members comprising of ergonomists, hygienist, physicians, lawyers and other organisations like labour unions. The JOSHRC board of directors and the regional centers meet on a regular basis to decide action plans, and the supporting members can attend the meeting.

JOSHRC holds a meeting with supporting academic members to discuss many problems related to occupational safety and health every three months.

Occupational Accidents of Foreign Workers: According to the Ministry of Justice's statistics in 1992, there were more than 280,000 illegal aliens.
Other government statistics tell us that out of 40,000,000 Japanese workers, 800,000 workers claim for compensation each year, and only 322 cases of migrant workers were compensated by the Workers' Accident Compensation Law in 1922, since there are 300,000 illegal aliens in Japan. It is certain that the number of industrial victims among foreign migrants workers is under-reported.

"We have investigated the 42 cases in 1990 and 129 cases in 1991 respectively which NGOs have been supporting. Workers' accident compensation insurance were only given to 19 cases in 1990 and 67 cases in 1991. It was revealed that the workers' accident compensation – which is supposed to be applied to any workers regardless of nationality and work – had not covered all workers. Even if they get injured at work, it is often difficult to receive benefit from Workmen Compensation systems.

The reason for accidents were: 1). the violation of Labour Laws concerned. 2). lack of education on industrial safety and work methods in understandable language. For example, foreign workers sometimes lose their finger when working with the press device without knowing that the safety device is off, while Japanese are well aware of this fact. The 1991 research shows that out of the workers which we could trace the employment record 60% accidents happened within the initial 3 months. It is necessary to make sure that the foreign workers are covered by the laws concerned and to improve their working conditions”.

(Source: JOSHRC newsletters.)

(Fujikawa, Mitsuo, "Workers' Health and Working Conditions in Japan, the United States and Europe: A Trail of statistical Comparison").

Continuous overwork often results in the occurrence of cardiovascular diseases that are typical work-related diseases. Karoshi, sudden death from overwork, is a possible end result. A direct factor leading to overwork is long working hours. Moreover, overwork is closely related to the wage level per hour, the pressure of unemployment or under-employment and high living costs.

The ILO 'World Labour Report' points out "Job burnout" syndrome which consisted of five stages - "the end result of unmanaged work stress".
1. The honeymoon stage - when the youthful novice has an abundance of energy and enthusiasm.

2. The fuel shortage - when the first symptoms of burnout appear.

3. The chronic stage - when symptoms of exhaustion, anger, illness and depression are constantly evident.

4. The crises stage - when the symptoms are so severe that the sufferer feels his or her life is falling apart.

5. Hitting the wall - when the person can no longer function and faces signs of serious deterioration.

Japan Industrial Safety and Health Association (JISHA): JISHA was established in 1964 under "the Industrial Accidents Prevention Organisations Law" as a juristic person whose purpose is to upgrade the standards of industrial safety and health by promoting voluntary activities by employers and other people concerned in the private sector, thus eliminating industrial accidents and occupational diseases and realising high quality of life at work.

JISHA operates Occupational Safety and Health Education Centers in Tokyo and Osaka, Occupational Health Services Centre in Tokyo and Osaka, and seven Regional Safety and Health Service Centers and their two branch offices. All of these centers offer technical advice, distribute books and other JISHA materials and items, monitor work environment and organise seminars.

JISHA works closely with the government and other organisations concerned to develop campaigns for the prevention of industrial accidents. Its work includes support for educational activities at small and medium size enterprises, promoting the zero-accident Total participation Campaign and other occupational health campaigns, conducting research and surveys, providing technical services, publishing and distributing written materials, promoting the creation of comfortable workplaces, and extending international cooperation in the field of safety and health.

Research and Surveys: Acting to develop practical approaches to solving safety/health problems that have arisen as new technology have advanced
and the tertiary industry has grown, JISHA conducts surveys and undertakes research of the relevant subjects.

Education: JISHA conducts a wide range of educational programmes at its Safety and Health Education Centers in Tokyo and Osaka. JISHA sponsors a number of seminars and lectures, which it tailors to the needs of individual companies. JISHA also organises the National Safety and Health Convention.

Zero Accident Campaign Promotion: To further the cause of the Zero-Accidents Campaign in which enterprises are expected to play the key role, JISHA actively encourages the establishment of zero-accident promotion circles, creates new campaign methods, develops improves audio-visual aids, and upgrades safety/health training programmes.

Publishing and dissemination: During the National Safety Week, the national Occupational Health Week and in the year-end and new year periods, JISHA conducts media campaigns to enhance public awareness and make both workers and employers more conscious of safety/health. Jisha publishes monthly magazines and various safety/health related textbooks and research/ survey reports.

Technical Services: JISHA concentrates its efforts on providing a range of technical services to individual companies. These services include consulting safety/health at work, monitoring the work environment, arranging meetings, seminars and lectures, providing health guidance, physical check-ups and special health examinations, testing chemical substances' toxicity, and offering instructions in implementing the Zero-Accidents.

Health Promotion: In 1988 JISHA introduced its total Health Promotion Plan (THP). Under the guidance of the government, JISHA trains industrial health personnel and provides government subsidies to health services organisations and private companies to help cover the cost of installing training facilities and running training programmes.

Comfortable Workplace Creation: JISHA promotes the "Comfortable Workplace Promotion Campaign" under the guidance of the government in quest for the ideal workplace conditions in which workers feel comfortable both physically and mentally. Under the campaign, JISHA subsidizes to the companies that meet specific requirements of subsidy in their effort to improve working conditions.
Assistance for Small and Medium sized Enterprises: JISHA stresses the need to raise the awareness for both employers and workers at small and medium-sized enterprises about safety and health. JISHA offers safety and health education/training and technical advice for companies upon request. JISHA also provides subsidies for small and medium sized enterprises under the framework of the government-sponsored "Small and Medium-sized enterprises Joint Safety and Health Improvement Project".

International Cooperation: In response to the globalisation of business activities and an increase in international exchanges, JISHA is expanding its cooperation with overseas safety/health related organisations. JISHA also makes contribution for government technical cooperation programmes with developing countries by performing coordination and dispatching experts.

Pacific Asia Resource Centre (PARC):

Founded in 1973 is a multifunctional organisation working together with the various people's movements in Japan to facilitate development of solidarity links with people in struggle in Asian, Pacific and other countries. With more than 500 due-paying members among movement activists, researchers, and professionals all over the country, PARC is the publisher of English and Japanese periodicals, a research and documentation centre, and an educational institution, as well as an organiser of international solidarity activities.

PARC's activities are guided by its belief in the power of people to liberate themselves and to create a better, more humane world. PARC believe that Japan should change so that Japanese people can live peacefully with other peoples without dominating them and without destroying the Earth's environment. PARC contend that the people in the North and the South should work for a common future vision of a liberated world.

PARC organises a wide range of study groups on issues of importance to peoples' struggles. PARC is currently doing studies of official development assistance (ODA), foreign workers in Japan, the IMF and World Bank, and the effects of resort development in the Asia-Pacific region.

Since 1982, PARC Freedom School in Tokyo has been offering an alternative educational system to encourage fundamental quarries into Japanese society and its relationship with Asia, focusing especially the North-South issues. The idea of Freedom School is spreading all over Japan. There are now schools in Hokkaida, Nagano, Toyama, Tokyo and Kyushu.
LIST OF INDUSTRIAL SAFETY AND HEALTH REGULATIONS

Industrial safety and health Law

- Enforcement order of Industrial Safety and Health Law
- Ordinance on Industrial Safety and Health
- Ordinance on safety of Boilers and Pressure Vessels
- Ordinance on Safety of Cranes and Other Similar Equipment
- Ordinance on Safety of Gondola
- Ordinance on Prevention of Organic Solvent Poisoning
- Ordinance on Prevention of Lead Poisoning
- Ordinance of Tetraalkyl Lead Poisoning
- Ordinance on Prevention of Hazards due to Specific Chemical Substances
- Ordinance on Safety and Health at work under High Pressure
- Ordinance on Prevention of Ionizing radiation Hazards
- Ordinance on Prevention of Anoxia, etc.
- Ordinance on Health Standards in the Office.
- Ordinance on Prevention of Hazards due to Dust
- Ordinance on Authorized Inspection Agencies, etc.
- Ordinance on Examination of Machines and Other equipment
- Ordinance on Industrial Safety Consultants and Industrial Health Consultants
- Construction Code of Safety Devices of Press Machines or Shears
- Construction Code of Power Press
- Standards for Dust Respirators
- Standards for Chain Saws

Working Environment Measurement Law

- Enforcement Order of the working Environment Measurement Law
- Enforcement Ordinance of the working Environment measurement Law

Pneumoconiosis Law

- Enforcement Ordinance of Pneumoconiosis Law

Industrial Accident Prevention Law
REPUBLIC OF KOREA
(South Korea)

Korea pursued maximisation of growth rather than the maximisation of welfare. The objective was to be self-reliant and become an economic power to defend itself from the communist countries. Korea is one of the most densely populated countries in the world, second only to Bangladesh and if we exclude city states with the population density of 438.4 persons per km in 1990.

Environment was the victim of this neglect. On paper, there was the Public Nuisance Prevention Law (PNPL) of 1963 which empowered government to set emission and effluent standards and required pollution abatement facilities in all new factories. But as the responsibilities for the enforcement of the PNPL were assigned to an understaffed Environmental Division, under the Ministry of health and social affairs, a ministry with the least clout in the government there was no systematic monitoring and rarely have polluter faced any penalties. As the public concern with the environmental degradation grew, the PNPL was replaced by the Korean Environment Preservation Act in 1977 and the Environment Division was upgraded to the Environment Administration in 1980. Subsequently, Environment Administration was made Environment Ministry in 1990.

A case of Doosan:

In March, 1991, eight officials of the Doosan Electro-Materials Company, a member of the Doosan Chaebol, were arrested for dumping some 300 tons of phenol - known to cause cancer and damage the nervous system - into the Nekdong river which supplies drinking water to around ten million people. Seven government officials were also arrested for trying to cover up for the company. A month later Environment Minister was forced to resign. Not an unusual story in many countries but very much so in South Korea where anything that was seen as a hindrance to growth maximisation - be it political freedom, labour rights and social equity, or protection of environment - used to be ruthlessly suppressed or willfully neglected. What has changed is the political climate since democratization began in 1987. In an unprecedented reaction to industrial pollution the citizens of Taegu, where the plant was located, took to the streets and the environmental protest movement spread like a wild fire, leading for instance to the closure of the factories, and successful boycott of the Doosan products.
The workers

Unions in Korea were recognised in 1987 the movement is taken shape. Yet lot of problems are there. Many are arrested for third party intervention. In a dispute in a company no other workers representative or unrecognised union representative can intervene, support etc. Otherwise will be arrested under state security law. Total organised workforce in Korea is 10-12% of total. Automobile Workers Federation: There are total 600,000 automobile workers, out of which 250,000 are contract workers. Organised workers are 150,000 and 60,000 are above federation. The federation plans to take up occupational health and safety as the part of the work and workers' education. It will need assistance in terms of information and so on. In Korea too dangerous, dirty and deadly jobs go to migrant workers.

CLINIC:

Clinic was established in 1986 with fund from workers. This is according to them only one such clinic in Korea. Actually other clinic where Dr. Yang works is also doing good work.

Education, research and training of the individual workers and unions is the work of the clinic. Their diagnosis though challenged by the doctors of employers has always passed the test of law in Korea. So they are respected. Managements do not like the clinic but accept its presence. They have done studies and publication on lead, mercury and solvents. There are more than 1,00,000 migrant workers in Seoul and surrounding areas. They too have legal protection now.

Condition in Korea:

<table>
<thead>
<tr>
<th>Year</th>
<th>fatal accid-</th>
<th>injured workers</th>
<th>Disabled</th>
<th>Occu. D.</th>
<th>Compens.</th>
<th>Econ Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2236</td>
<td>129019</td>
<td>27819</td>
<td>1638</td>
<td>539351</td>
<td>2696757</td>
</tr>
<tr>
<td>1993</td>
<td>2210</td>
<td>86665</td>
<td>29932</td>
<td>1413</td>
<td>872531</td>
<td>4362655</td>
</tr>
</tbody>
</table>

The law applied to establishments with 5 or more workers.
During work sour shoulders due to work with VDUs:

<table>
<thead>
<tr>
<th></th>
<th>Mild symptoms</th>
<th>Middle symptoms</th>
<th>Severe symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Korean American Bank</td>
<td>85</td>
<td>115</td>
<td>28</td>
</tr>
<tr>
<td>Seoul &quot;Bank&quot;</td>
<td>469</td>
<td>342</td>
<td>92</td>
</tr>
<tr>
<td>AFTER WORK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korean American Bank</td>
<td>95</td>
<td>152</td>
<td>20</td>
</tr>
<tr>
<td>Seoul Bank</td>
<td>503</td>
<td>417</td>
<td>70</td>
</tr>
</tbody>
</table>

Dust related diseases, accidents, repetitive strain injuries, chemical hazards are problem. Lot of material is available but it is mostly in Korean. The groups have also shown interest in ASPBAE.

For due recognition and help in their work if any institute can take up English translation of literature it will be good for the groups active in occupational health and safety.

NOGUN formed founded "Karoshi Consultation Centre" which has been actively involved in Karoshi issues since 1993.

**Japan Karoshi Lawyers group.**

According to report from Korea, 126 cases have been reported to the Karoshi Consultation Centre over the past one and half year. Among 61 cases which applied for the workers accidents Insurance medical compensation, only 20 cases were recognised as work related (among these 20 cases, 5 were related to the civil affairs seeking for compensation for damage caused by Karoshi after recognition as work related by the Ministry of Labour).

Strict "Recognition Standards" for Karoshi also exist in Korea. According to report by Atty. Lee Kyong Woo, the following are among the biggest difficulties in the process of getting final recognition;

1). the Ministry of Labour asks for an extremely severe certificate of causal relation between worker's death and work.

2). the process of getting recognition is too formal, and it takes quite a long time.
On the other hand, the Korean courts have tended to adopt the following "dual cause" approach to Karoshi. In cases of death at work while it is necessary to state that work may be considered a cause of death, it need not necessarily be considered the main cause, and their may also be related cause, and it is appropriate for this to be taken into account. Most of the cases which they denied eligibility for workers compensation they took to the courts in which decisions are made after more favorable and detailed discussion in Japan. Atty. Kim Hanju in his thesis analysed the Korean Supreme Court cases as follows: Usually the supreme court recognises the cause relation, if overwork of the applicant is recognised, and there is no clear opposition to the fact that the disease is caused and worsened by overwork, even if there is no clear medical evidence of the causal relation.

The case of Won-Zin Rayon Factory

Used machine was imported a 3 bil. yen that had caused Japanese workers to be poisoned by carbon disulfide.

There are some political reasons that used machine which had caused toxicosis of carbon disulfide to Japanese workers was imported to Korea at the high price of 3 bil. yen.

To Yo Woo Rayon of Japan disposed of rayon production by reason that it didn't pay, at the same time demolishing the machine of the first and the second manufactures, and selling off the facilities to the third.

President Park, who came into power by coup d'état on May 16, 1961, detached repeatedly Kim Jong-pil, the head of KClA (Korean Central Intelligence Agency), to Japan and derived "a bargain" on the afterwar compensation with Japan.

The purchase price of 3 bil. yen for used machinery which was disposed because it didn't pay was absurdly expensive. But if the machine was bought by the government funds, it need not cause a trouble. It is crystal clear that both of To Yo Woo Rayon and Park Hueng-sik wanted the facilities to be purchased as a part of the afterwar compensation matter, for it was surely "profitable" business to both. At all events To Yo Woo Rayon made a enormous profit on selling the needless machine to Korea at 3 bil. yen and for that interest Japan didn't inform Korea of the danger of facilities that had caused lethal carbon disulfide toxicosis.
The problem of WZR's occupational disease has been spread after 1988. The issue has not been aroused to publicity, until the Han-koreh Shinmun, a Korean daily newspaper reported the Wonjin's reality 12 diseases having labourers had compulsory dismissed then.

The workers started to struggle against the company. They organised a Conference of Wonjin labourers and their families on July 27, 1988. After forming the conference, they met with the minority's leader and investigated the WZR's problems in the joint effort with many specialists.

The team for investigators announced that there were the 8 dead workers since when the factory had begun in 1965, and more 9 workers who were poisoned by CS2 had been known.

**The result of investigation “Discovery of 117 patients of occupational disease”**

The number of workers who were found to be affected due occupational disease, increased to 76 persons after the special health examination that had begun at September, 1988.

By getting through the funeral struggle during 137 days in 1991, workers and company agreed on 21 demands including the medical investigation of past and present workers. According to this mutual consent, the team for investigators of Seoul Graduate School of Health executed the investigation (12 tests of MRI, NCV, examination of the funds, the healing ability and so on) of about 1,376 past and present workers. The result of this investigation, 32 workers who had worked in harmful department and harmless department both, turned up the case of occupational disease by a standard of Administration of Labour. And 85 persons turned up to be afflicted workers who had some problems in several tests of medical examination.

In this investigation, the standard that had been fixed by “the Committee for Judgment of Occupational Disease” (this committee was composed by the doctors who were recommended by the company and injured workers both) since 1988, was changed to worse. On this 85 struggled to change the standard of judgment of occupational disease for better, with signature-seeking campaign from May 25 to July 15 on the streets, at many assemblies and with call on some organisations. So that the petition was submitted by 115,200 persons of various circles of society and including Kim Mal-ryong of
Democratic Party (member of the committee of labour in National Assembly), 68 members of National Assembly. And 85 fasted during 21 days from Nov. 16 to Dec. 7, requiring “Change the standard of judgment for the better”. So that the standard of judgment changed for better at May 20, 1993. After all, 60 persons out of 68 persons were able to be recognised and other 8 persons were able to be recognised and other 8 persons are waiting for receiving the recognition.

And by the result of a special health examination at An-anm Hospital attached to Korea University during 8 months after August last year about 28 workers (25 men, 3 women), 14 workers are found the cases of occupational disease by toxicosis of CS2. The Administration of Labour recognised them the cases of occupational disease on March 21 this year.

Number of patients affected by CS2 by sex in 1994

<table>
<thead>
<tr>
<th>Sex</th>
<th>No. of Patients</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>311</td>
<td>541</td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>271</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>812</td>
</tr>
</tbody>
</table>

Independent organisation for the judgment of occupational disease was established

It is hard for WZR’s workers to manage their livelihood, because their ways for re-employment get blocked. WZR that is notorious for the pronom of the occupational disease, has been closed after July last year. Even if the company was closed, the workers who obtained the occupational disease there, can not retrieve their health. Instead their pains became worse.

And there is another problem that afflict WZR’s workers. 600 WZR’s workers who were deprived of their job, were considered as the ‘lepers’. So when they seek re-employment, if it is found that they were ‘WZR’s workers’, they will be fired with the comment like this “Go to big hospital to pass the special health examination”. Now 600 WZR’s workers are roaming from place to place to seek re-employment against the opportunities which are blocked.

According to the agreement that workers, company and government made together at the time of the closure on November 9 last year, they promised to re-employ WZR’s workers in the public sector. And Korean Government
has promised to re-employ them in City Railway Company when that company will hire new workers at the end of 1994.

**Number of Victims:**

<table>
<thead>
<tr>
<th>Year</th>
<th>1981</th>
<th>87</th>
<th>88</th>
<th>89</th>
<th>90</th>
<th>91</th>
<th>92</th>
<th>93</th>
<th>94</th>
<th>95</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
<td>5</td>
<td>17</td>
<td>10</td>
<td>19</td>
<td>41</td>
<td>87</td>
<td>97</td>
<td>33</td>
<td>159</td>
<td>469</td>
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<tr>
<td>Female</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>14</td>
<td>11</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
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<td>71</td>
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<tr>
<td>Total</td>
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<td>5</td>
<td>24</td>
<td>10</td>
<td>29</td>
<td>42</td>
<td>96</td>
<td>111</td>
<td>44</td>
<td>178</td>
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**Grade of Disability**

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<th>4</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>11</td>
<td>40</td>
<td>1</td>
<td>27</td>
<td>5</td>
<td>22</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>469</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>2</td>
<td>10</td>
<td>11</td>
<td>45</td>
<td>1</td>
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<td>13</td>
<td>12</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>71</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>3</td>
<td>24</td>
<td>10</td>
<td>90</td>
<td>6</td>
<td>60</td>
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<td>25</td>
<td>23</td>
<td>22</td>
<td>24</td>
<td>24</td>
<td>540</td>
</tr>
</tbody>
</table>

**Age wise:**

<table>
<thead>
<tr>
<th>Age</th>
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<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 30</td>
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<td>3</td>
<td>6</td>
</tr>
<tr>
<td>31 - 34</td>
<td>25</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>35 - 39</td>
<td>56</td>
<td>5</td>
<td>61</td>
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<tr>
<td>40 - 44</td>
<td>84</td>
<td>12</td>
<td>96</td>
</tr>
<tr>
<td>45 - 49</td>
<td>126</td>
<td>17</td>
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</tr>
<tr>
<td>50 - 54</td>
<td>96</td>
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</tr>
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<td>55 - 59</td>
<td>57</td>
<td>8</td>
<td>65</td>
</tr>
<tr>
<td>60 - above</td>
<td>22</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>469</td>
<td>71</td>
<td>540</td>
</tr>
</tbody>
</table>

**Death by year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1984</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1985</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1988</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1989</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1991</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>1992</td>
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<td>1993</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1994</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>1995</td>
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<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>3</td>
<td>27</td>
</tr>
</tbody>
</table>
Running Threads and Highlights

AGENDA FOR WORKERS EDUCATION:

Compensation mechanism and Funds:

In almost all the countries the mechanism to gives compensation to the victims of occupational diseases is weak. PRIA has conducted a nationwide study in India on the Employee State Insurance Corporation (The autonomous body responsible for medical treatment and compensation to the insured workers), the findings of the study shows various lacunas in the system. Contributions collected by ESI in India 1992-93 were Rs. 4499.4 millions and all the benefits paid to employees totaled Rs.2825.5 million. The scheme has to yet recover. Rs. 1302 millions from employers. With this every year excess of income reserves are built. In Malaysia in 1990 the surplus in compensation fund was 281 million ringets.

Similarly the team had discussion with the various concerned people about the state of affair in their countries. For example the compensation fund is turned into the major profit business for the government and the same money is allocated to the the various schemes on the soft loan basis. In Philippines, the SOCSO (Compensation Fund) is getting richer and as such should channel more money equitably back in the form of improved benefits and better preventive safety measures. SOCSO received contributions from 4.6 million workers under its cover in 1990, and also income from its investments. SOCSO funds increased from $ 1.7 billion in 1989 to $ 2.0 billion in 1990.

In 1978, contribution were $37.4 million while $4 million (10.7%) were paid out as benefits to the workers. In 1990, the contributions received were $237.6 million, while $26.6 million was paid out to workers for invalidity pension, $4.3 million for medical benefits and $69.8 million for employment injury. Socso has no doubt increased its benefits to workers but the amount is still a small percentage of what it can easily afford. Moreover like other workers' fund in other countries, Socso also obtains further income by investing the surplus money into government securities, the stock market or bank fixed deposits.
These funds in Asian countries can follow the examples in Europe and other countries were social security organizations finance both the epidemiological studies into the cause of the accidents at the workplace, and also ensure that subsequent measures are undertaken.

Research and lobbying is required at Asian level to study not only the lacunae of these social security schemes but also to suggest and educate the workers on their rights with regard to their compensation and treatment.

Right to Information:

In almost all the countries information on health and safety is hidden from the workers. Even the educational material which is produced is suitable only for managers. For example in the Malaysia the government department provides training only to the management staff. There is need to develop the learning material for the shop floor workers which can be distributed not only during the training programs but also must be distributed during the normal course.

This lack of information flow also leads to not only wrong diagnosis of the cases but also deprives workers from their basic human right to live. They die in ignorance without knowing about the factors which are responsible for their early death.

Secondly, due to rapid industrialisation of these countries one has to look all this matter in a more holistic way. There is a need to monitor and develop training modules to educate workers on the trends and behavior of MNC’s with regard to their health and safety policy. For substantiation further documentation is needed.

On the whole workers education is a very weak area. Within this education about occupational safety and health is still weaker and workers education on occupational diseases is the weakest. The majority of workers are not aware of the legislation relating to OSH (page 157 OSH issues in Malaysia MTUC publication) the same report says only 83.7% of union officials were aware of the factories and machineries Act. How many use it is a remote question. only 59.2% union officials, were aware about workmen’s (compensation ordinance 1952).
This is the condition in Malaysia almost a developed country in this part of Asia. The situation in EPZ and electronic industries is well documented and is appealing. "30% of women workers in textile are affected due to byssinosis" in Thailand. Around 29 million women work in Food, Textile, Heavy metals and wood industry. (Health Status of female workers by Dr. Orapun).

Information section of NICE, Thailand published 42 information—sheets, (4 on chemicals) 8 newsletters and 8000 microfiche. For workers and unions the sheets are more valuable than microfiche. The above publications were in a period of 7 years. Since 1985-upto 1989 only 2 case of silicosis were reported in the whole of Thailand.

The situation is not much different in India and Philippines. The compensation funds are mostly used for accidental injuries. ODs go undetected and uncompensated. The training to doctors is very weak. Our experience and experience in Thailand is that if workers know more about ODs they can make the doctors to listen and learn and change.

The education on ODs is weak in case of doctors, Government inspectors, unions and workers. This gives rise to workers being denied their right and as a result compensation funds build huge reserves.

Even above figures of reserves in compensation funds etc. have not become part of workers’ education Publishing of such figures itself will generate some awareness about inadequacies in such systems and need to act about it will become more clear. ILO, FES and IOSH etc. are trying to work with unions and develop trainings, educational literature. All our efforts fall short of the expectation. Trainings for safety representatives and union officials is the need of the hour.

All countries will have legal requirement of forming safety committees. Untrained safety committees do not function well. It will be necessary to develop package for education of safety committees. As far as law is concerned, legal understanding, legal education in similar form will be very useful.

There are also companies operational across this region therefore there is need to monitor and educate workers on the health hazards associated with the raw materials, production process and the product. A network of the workers group to freely exchange information is the need of the hour.
Migrant workers

Issue of the migrant workers become quite significant when we take occupational health and safety into consideration. As observed in Japan, most of the alien workers are termed as illegal (what they are if we define through immigration laws), and employed in dangerous, dirty and difficult (3D's) jobs. It is difficult for them to understand the local laws and benefits due to lack of knowledge of local language. There is need to develop at least popular booklets in the local languages about the work processes, methods of prevention, laws and benefits etc.