

outdoors, where people work in return for financial or other remuneration. Occupational environment forms a part of the total ecological system where workers spend about 1/4th of their working life inside the factory environment. Numerous agents and factors are present in the occupational environment which can cause adverse effect on the health of the workers who are exposed to elevated levels and/or unacceptable conditions. The environmental agents and factors of concern are physical, chemical, biological and ergonomic. The focus of occupational health or industrial hygiene is the combination of anticipation, recognition, evaluation and control of agents, factors and stresses that may adversely affect the health of workers and other members of the community. A professional and scientific evaluation of the occupational environment is the major aspect of the practice of industrial hygiene and it is done through a comprehensive industrial hygiene programme. The purpose is to ensure a healthy working condition and safe work place for employees.

The WHO defines health of a person as a state of complete physical, mental and social well being and not merely the absence of disease in a person. The health status of an individual is determined by host factors. The environmental factors include the domestic and community environment as well as the work environment in case of individuals who are gainfully employed.

WORK ENVIRONMENT - HOW COMPLEX IT IS ?

Today's work environment is riddled with a host of complex issues such as introduction of new processes, use of chemicals, increasing mechanization and computerization of machinery and control devices necessitating higher demands on the cognitive facilities. It is not simply heat or noise or fume but a combination of highly complex factors in the total work environment, which give rise to mind-boggling problems. Even if the prevailing concentration of a chemical in the environment is much below the threshold limit value, it is a moot point to ponder over the reaction of combination of chemicals below their TLVs (Threshold Limit Value).

It is commonsense to monitor the work environment to safeguard the health of the exposed personnel but it is depressing to note that this branch of occupational health i.e. 'Industrial Hygiene' has not attracted the attention of industrialists, administrators and health care personnel which it deserves. Instead there is total apathy or indifference to the problems of industrial hygiene.

To illustrate, much hue and cry is made when some gas leaks out or when chemical spillage occurs causing havoc on the safety and health not only of the industrial workers who are directly and immediately affected but also on the safety and health of the community as a whole. Take for example the Bhopal gas tragedy as a case in point. This plant of the Union Carbide Corporation (a multinational) was located in the heart of Bhopal city in a highly crowded locality which is barely 2 KM from both the bus stand and railway station to the detriment of basic considerations of protection of environment

and industrial hygiene. The manufacturing process was fraught with deadly occupational risks and hazards. But the workers were never taken into confidence about the same. In other words, there was no risk sharing and risk communication worth the name. On December 2, 1984 when there was leakage of lethal methyl isocyanate gas from out of the plant causing instant death of over 2000 people and maiming and crippling over thousands, there was hardly any advance indication or prior warning that such a disaster was going to strike. Even today one is not fully aware of the horrendous impact of the tragedy which struck Bhopal city on that fateful day and whether men, women and children who have been battered, traumatized and crippled by the after effects of the tragedy can ever think of starting a normal and natural existence afresh.

Chemicals, which have greatly contributed to ensure the quality of our life, represent a serious danger to health and the environment, especially when improperly used. The world's annual production of chemicals is well about 400 million tonnes and is rapidly increasing. 10 million natural and man-made chemical substances have been identified till date. Of the 100,000 chemicals produced for regular use in industry and agriculture, only 3,000 have undergone some form of hazard assessment and 250 are known carcinogens. Allergenic factors are also a growing cause of occupational illness. An estimated 3,000 allergens have been registered, which can cause dermatoses and respiratory diseases with occupational asthma being steadily on the rise during the last decade.

In developing countries, the workers are heavily exposed to occupational hazards in primary extraction industries and heavy manufacturing. Poor equipments with high risk of occupational injury, heavy physical work often combined with heat stress, exposure to mineral and organic dusts and pesticide poisoning take a heavy toll on workers' health and safety. In many of these countries the infrastructure of occupational health services is underdeveloped and the majority of the workforce is employed in medium and small-scale industries which are often out of reach of preventive activities.

A new area of concern is rapidly gaining special attention where employees may be subjected to a high degree of stress from tension both physical and mental fatigue, excessive concentration and distraction such as may exist for operators of computers, word processors, video display terminals and radar equipment. Off-the-job stresses, life-style factors and the immediate room environment may become increasingly important for such operators. As the recognition of associated health stresses and their evaluation require a special battery of psychological and physiological body reaction and response tests to define and measure factors of fatigue, tension, eyestrain, ability to concentrate and the like.

HAZARD-WISE ANALYSIS :

The figures below show the predominance of specific hazards in the diversified industries. The bars represent the number of situations which exceeded the TLV, as a

percentage of total situations evaluated.

Dusts and Particulates :

This is predominant in Paper and Pulp industry with 66.67%. Petroleum refining industry with 50% and Ceramic industry with 45.33% of exceeded situations. In Paper and Pulp industry, most of the particulates are bagasse and lime dusts. In Ceramic industry, it is mostly silica dusts. The main reason for the excess levels were poor housekeeping, lack of local and general exhaust ventilation, improper material handling practices, design of machinery and so on. An unexpected high value of this hazard was noticed in Petroleum refining industry with 50% of exceeded situations. This is due to high smoke emission from high speed motors and the minimum sample size.

DUST & PARTICILATES (% of situations exceeded)

Heavy Engineering	2
Light Engineering	10
Petroleum Refining	50
Oil Exploration	20
Ceramic	45
Automobile Spares	15
Chemical Process	25
Mining & Refining	30
Paper & Pulp	65

Gases and Vapours :

Light engineering shows higher values in gases and vapours concentrations with 19.05% of exceeded situations. This is because some of the readings were taken in confined space operations and in welding with shielding gases, both without local exhaust ventilation; inadequate general ventilation, improper storage of solvents and poor housekeeping.

Petroleum refining industry shows higher levels of gases and vapours with 17.86% due to more gas and vapour leaks in the environment where only area monitoring exceeded the levels. Also since maintenance operation was being carried out in hydrogen sulphide and sulphur plant, most of the personal exposures for sulphur dioxide were above the TLV.

Automobile spares industry shows higher values (16.18%) through studies being conducted in electroplating, soldering, degreasing and painting operations. In most of the situations, the study was conducted in hot weather when the evaporation of solvents are higher. Inadequate general and local exhaust ventilation, bad solvent storage practice, defective work site layout and poor ventilation were other reasons.

Oil exploration industries show lower levels with 6.06%. This is attributed to the good housekeeping practice of the drilling operations, better ventilation on the site, the sites being oil-abundant rather than gas-abundant.

GASES & VAPOURS (% of situations exceeded)

Heavy Engineering	5
Light Engineering	18
Petroleum Refining	16
Oil Exploration	5
Automobile Spares	15
Chemical Process	16
Mining & Refining	15

Noise :

Petroleum refining industry shows higher value (66.67%) in noise, due to rotating machinery and peak levels due to gaseous escape in vapour recovery units and pipe lines. The area monitoring values were higher than the personal noise exposure levels.

Oil exploration industry shows levels of noise with 14.48% of exceeded situations. Other than areas like engine, pump houses in peripheral areas and the derrick operations in mechanical rigs, most of the work sites show lower noise levels. Good maintenance of rigs, rotating machinery, machinery acoustic enclosures are additional factors.

NOISE (% of situations exceeded)

Heavy Engineering	40
Light Engineering	20
Petroleum Refining	65
Oil Exploration	10
Automobile Spares	42
Automobile Maintenance	15
Iron and Steel	20
Mining & Refining	40
Paper & Pulp	40

Thermal stress and Ultraviolet Radiation :

Oil exploration industry shows higher values with 30.44% of exceeded situations. Most of the operations were done in the open with high solar load. Gas cutting and welding operations and derrick floor operations show higher values.

THERMAL & ULTRAVIOLET (% of situations exceeded)

Heavy Engineering	65
Light Engineering	15
Petroleum Refining	15
Oil Exploration	30
Automobile Spares	8
Mining and Refining	45

Heavy engineering industry shows very high levels of thermal and UV with 66.67% due to more welding, heat treatment and furnace operation. Inadequate air movement, poor exhaust system and building layout are the additional factors.

The following boxes go to indicate industry-wise analysis of the impact of the dust, heat, fume, noise, gas vapours in heavy and light engineering , oil exploration, automobile spares, petrol refining and mining & refining industries. (Annexure-A)

The Central Labour Institute, Mumbai has conducted a couple of studies in Viscose Rayon, Caustic Soda, Lead Storage Battery Industries in the past. These studies have revealed how occupational environment plays a crucial role in determining not only the physical health of a worker but also the state of his mental health. They revealed significant psychological afflictions amongst the exposed workers.

Caustic Soda Industry

Caustic soda (Na OH) can be manufactured by various methods, viz., the mercury cell process, the diaphragm method and by the state of the art membrane technology. In the mercury cell process large quantities of metallic mercury is used as a cathode for carrying out electrolysis of brine. In the process the workers potentially get exposed to the hazard of mercury. Mercury toxicity being cumulative in nature, minute quantities of mercury absorbed through various routes reach the target organs and result in adverse manifestation in the exposed workers.

Apart from damaging the kidneys, affecting the skin, etc., mercury is notorious to affect the functioning of the nervous system leading to tremors of hands, loss of memory, sleep disturbance, irritability, listlessness and behavioural changes in the form of inferiority complex. These changes, unless identified early enough and causally linked to mercury exposure, may be attributed to non-occupational and other psychological malfunctions with disastrous results.

The Central Labour Institute (CLI) studies conducted in 6 units located in South India revealed that around 20% of the exposed workers excreted levels of mercury beyond permissible levels and also exhibited neurological and other systemic affects of mercury toxicity.

National Study on Lead :

The CLI took up a national study on the toxicity of lead in the storage battery industry and covered various units located across the country. The toxic effects of lead are known from time immemorial. The Romans habituated to consume liquor in lead containers used to suffer from motor neuritis and weakness of upper extremities making them ineffective in hand to hand combat with the enemy soldiers which led to their defeat in the war field.

The CLI studies covering 363 workers from 7 units were clinically examined and subjected to biological monitoring and psychological assessment. 9.1% of the exposed workers showed specific manifestations of lead poisoning including increased levels of lead in blood and urine as well as significance evidence of neurological environment.

An executive from a bi-metal bearing industry used to suffer from weakness, sleeplessness and frequent abdominal pains. He was thoroughly investigated in a hospital but the reasons could not be accurately ascertained and the condition did not show any improvement with supportive therapy. He was subjected to, during a study conducted by RLI Chennai, biological monitoring. He showed high levels of lead in blood and in urine indicating chronic lead toxicity in him. The attending physician did not think of the possibility of any occupational disease in him. Once accurate diagnosis was made recovery was just a matter of time.

Workers' Health Status in a Lead Industry : Psychological Perspective :

The effect of acute lead intoxication on the behavioural and neurological aspects are well documented. They include such features as convulsions, coma, stupor, ataxia, persistent vomiting, hyper-irritability, hyperactive reflexes and tremor, etc. In monitoring the health of workers exposed to lead, the problem, however, is to detect the early symptoms of lead intoxication so that preventive actions could be taken well in time.

The level of lead absorption in the human body in terms of bio-chemical assessment and clinical examination has been studied and documented; the effect of lead exposure on Central Nervous System (CNS) is very much known. It is found that workers who are occupationally exposed to lead have impairment of eye-hand coordination and reaction time.

The CLI carried out a case study in a storage battery manufacturing unit in which 375 workers were engaged in direct production work, out of which 101 workers were studied. Different psychological tests, Personality tests and Psycho-motor ability tests were administered to measure their visual-motor abilities and memory functions which are generally regarded as sensitive to CNS disturbances.

One of the most important findings, as expected, was that significant positive

correlation was observed between lead uptake indices and performance on picture design and immediate memory for digits, both direct and reverse. Consequently the psychological functions that are found to be affected by lead are visual intelligence involving visual motor functions and attention.

Another noticeable finding is a positive correlation between all performance test variables and lead intake. It can be concluded that lead uptake may result in deterioration of psycho-motor capacities. However, since there is a significant correlation only with respect to picture design and immediate memory for digits (direct), the conclusion that the lead uptake affects psychological functions and psycho-motor abilities, still warrants in-depth studies to be substantially proved. It nevertheless demonstrates that some higher nervous functions are affected by a comparatively high exposure to lead.

Analysis of data on two groups of subjects - exposed to lead and non-exposed-comparable with respect to their education and age showed that in almost all the performances (except block design) and personality scores, the exposed group performance was inferior to that of the non-exposed. This only suggests the possibility of qualitative difference between the two groups in terms of their psychological performance.

While considering personality factors, not any significant difference was found between these groups. They are not differing in Neuroticism and extraversion parameters, but the significant correlation between absent behaviour and lead intake indices leads us to conclude that the more the workers afflicted with lead poisoning, the more they are likely to go on sick leave or leave without pay. Hence, the workers should not be exposed to lead level higher than the permissible limits i.e. 0.15 mg/m³.

Viscose Rayon Industry :

As a part of national study, 3 viscose rayon manufacturing industries located in South India were covered. In the manufacture of viscose rayon, large quantities of carbon disulphide (CS₂) are used as a solvent. The chemical CS₂ does not go into the product but is used and recycled.

CS₂ is both acutely toxic and also has very serious type of chronic toxicity on human exposure. On acute exposure, CS₂ leads to headache, giddiness, weakness, excitability, irritability, narcosis, coma and death from high concentrations.

The chronic toxicity of CS₂ is also well documented. It interferes with the metabolism of lipids leading to hyper-cholestremia. The resultant high cholesterol levels in blood lead to thickening of blood vessels in the brain, heart, eye, kidneys, etc. and cause various manifestations relating to the degree of damage and the organ damage due to the blocking of blood vessels.

The CLI studies revealed high cholesterol in blood, high blood pressure, the evidence of renal damage, ischaemic changes in the heart as well as affects of the vision due to the damage to retinal blood vessels among the exposed workers.

In the spinning section of the viscose rayon units, where the levels of CS2 are usually found high, the workers were found to be excited and quarrelsome leading to IR problems. The workers become normal, docile and cooperative when the levels of CS2 were brought down to normal level by adopting successful control measures.

Psychological Factors At Work - Their Relation To Health.

Psychological factors can be classified into two categories :-

- * Those which have an adverse impact on health and
- * Those which may contribute positively to the workers well being.

Positive psychological factors help in prevention of disease and in promotion of health. They act as health maintaining and enhancing agents. Negative psychological factors contribute to causation of disease and have an adverse influence on the total health of the working population.

Industrial psychologists all the world over have recognised the importance of work as a key element in promotion of the health of workers. Work provides a sense of belonging to every worker. It provides an opportunity to express aptitudes; it also acts as a tool to enhance and acquire skills. When there is a balance or equilibrium between workers and working environment it acts as an important factor for promotion of health.

Despite the importance of work and work environment, industrial psychologists have observed that stress and strain in work is universal and ranges from domestic life to occupation. Stressful experience at work may manifest itself in a number of psychological and behavioural reactions. A person normally copes with transitional periods of stress at work by either altering the situation or controlling his response. Many periods of stress pass without noticeable reaction and particularly in cases of persons who are introvert and who try to contain the impact of stress and strain within. Problems, however, do arise when working conditions are in total opposition to human needs, preferences and interests. Negative emotions, tension, anxiety and depression are some of the first signals of stressful situation. They may also be accompanied by impaired cognitive functions and capacity to perform. Behavioural changes which follow a stressful situation are usually noticed in shape of avoidance or escape from the situation while work related problems often develop into major psychological, behavioural or physical disorders. These are evident only to a few from within the circle of close friends or family members.

The home environment and social environment constitute two important areas from which work related stress and strain might arise. To illustrate :

Home Environment :

- * Interpersonal relationship (spouse, inlaws, children, other family members)
- * Role expectation and conflict among family members.
- * Financial concern.
- * Significant incident or life events (marriage, birth, death, separation, purchase of land or house etc.).
- * Developmental concerns.

Social Environment :

- * Social contact, social activities
- * Social status
- * Socio-political climate
- * Rural versus urban living condition
- * Living Environment like ecology of residence, living space, lack of water and air, public utilities etc.

Shift work, workload, work underload, job monotony or boredom, physical danger and work related self esteem are also important work related factors which can positively or adversely affect the work environment.

Besides role of the individual worker in the organisation, prospects of career development, relationship with colleagues, supervisors, subordinates and the overall organisational structure and climate do also contribute to the performance of an individual worker in the totality of the work environment. To illustrate :

Denial of normal and natural prospects of promotion in time, doubts and uncertainties about job security, ambiguity about future, dissatisfaction with pay, stiff and rigid attitude and approach bordering on being inhuman and insensitive could contribute to major behavioural problems such as impaired job performance, job dissatisfaction, unsafe conduct and performance leading to accidents, absenteeism, alcohol and drug abuse etc. It could also lead to psychosomatic ailments such as migraine, headache, hypertension, coronary heart disease, asthma, ulcer and mental illness like depression & frustration, state of anxiety, phobia, obsession, neurotism and suicidal tendencies.

The personality factor also determines people's reactions to certain situations and has a substantial bearing on their physical and mental fitness. Individual workers who have a obsessive, introspective, passive, aggressive and repressive personality will not be able to qualitatively contribute very much to a work situation. Similarly type-A personality is usually associated with a high stress and strain behavioural pattern leading to risks to coronary heart diseases.

It is not as if that these contributory factors related to industrial hygiene and

psychology were not recognised and no remedial measures were provided. As a matter of fact the Factories Act, 1948 is one of the oldest enactments which deals with various provisions relating to health, safety and welfare of workers which have has a substantial bearing on production, productivity and discipline at the workplace. This should be evident from the following provisions :-

- (i) **Sections 11 to 20:** These sections relate to maintenance of cleanliness, disposal of wastes and effluents, provision of ventilation and temperature, provision of inhalation or accumulation of dust and fume in any work room, Provision of artificial humidification, lighting, drinking water, latrines and urinals, spittons etc.
- (ii) **Chapter IV (Sections 21 to 40):** These Sections relate to safety of workers.
- (iii) **Chapter IV A:** This chapter contains specific provisions relating to hazardous processes. These provisions, inter-alia, relate to constitution of Site Appraisal Committee, disclosure of information regarding dangers (including health hazards) and the measures to overcome such hazards arising from the exposure to or handling of the materials or substances in the manufacture, transportation, storage and other processes etc.
- (iv) **Section 41 C :** This section relates to maintenance of accurate and up-to-date health record and medical reports of the workers in the factory who are exposed to any chemical, toxic or any other harmful substances which are manufactured, stored, handled or transported. This Section also provides for medical examination of every worker before he is assigned the job and also when he is still on the job.
- (v) **Section 41 F :** This section relates to permissible limits of exposure of chemical and toxic substances.
- (vi) **Section 41 G:** This section relates to setting up of Safety Committee consisting of equal number of representatives of workers and management.
- (vii) **Section 41H:** This Section relates to rights of workers to be warned about danger to their life and limb.
- (viii) **Chapter V:** This Chapter relates to the welfare of workers and includes measures like provision of washing facilities, facilities for storing and drying clothing, facilities for sitting, first-aid appliances, canteens, shelters, rest and lunch rooms, creches, welfare offices etc.
- (ix) **Section: 67:** This Section relates to prohibition of children below the age of 14 to work in any factory.

- (x) **Section 87:** This Section relates to dangerous operations and provides for framing of rules by the State Government specifying and declaring such operations to be dangerous, prohibition and restriction of employment of women and children in such operations, periodical medical examination of persons employed in such operations, provision of protection of all persons employed therein and making provision for additional welfare amenities and sanitary facilities and supply of protective equipment etc.

In 1947 when the country was at a nascent stage of its industrial development much of the changes which have taken place in today's industrial environment and the stress and strain associated therewith were unknown. The distance of time notwithstanding the anxiety and concern for taking the industrial workers into confidence and creating an environment of trust, goodwill, confidence and amity was clearly recognised even at the time of enactment of the Industrial Disputes Act on 13th April, 1947. Section 3(1)(2) of the Industrial Disputes Act, provides for setting up of a works committee consisting of representatives of management and employees, in every undertaking employing 100 or more workmen with the following objective :

"to promote measures for securing and preserving amity and good relations between the employer and the workmen and to that end, to comment upon matters of their common interest or concern and endeavour to compose any material difference of opinion in respect of such matters".

The representatives of the workmen, whose number shall not be less than the number of representatives of the employer, are to be chosen from among the workmen engaged in the establishment and in consultation with their registered trade union, if any.

From the above it may be seen that the scheme of works committee as a statutory mechanism for bringing the employers and the workmen closer together was conceptualised under the ID Act with a sound objective. The Indian Labour Conference drew up in 1959 an illustrative list of items which works committees would normally deal with and a list of items which would be beyond their scope. The former included consultation on -

- * Conditions of work such as ventilation, lighting, temperature and sanitation including conservancy facilities;
- * Amenities such as drinking water, canteens, dining rooms, rest rooms, medical and health services;
- * Safety and accident prevention, occupational diseases and protective equipment;
- * Adjustment of festival and national holidays;

- * Administration of welfare and fine funds;
- * Educational and recreational activities;
- * Promotion of thrift and savings, and
- * Implementation and review of decisions arrived at in meetings of works committees.

The items which were specifically excluded are :-

- * Wages and allowances,
- * Bonus and profit-sharing bonus,
- * Rationalisation and matters connected with the fixation of work load,
- * Matters connected with fixation of a standard labour force,
- * Programmes of planning and development,
- * Matters connected with retrenchment and layoff
- * Victimisation for trade union activities,
- * Provident fund, gratuity, health insurance, maternity benefit and various other retiral benefits,
- * Quantum of leave and national and festival holidays,
- * Incentive schemes and
- * Housing and transport services.

Despite such clear enumeration of the scope and content of the functions of the works committee the experience of its functioning over the last 50 years since inception goes to show that the pace of progress has been slow and uneven in different parts of the country. The numbers of works committees set up as on 29.2.2000 was 905 in the Central sphere. No information about the number of works committees in the State sphere is available. The inadequate number of works committees notwithstanding, there has been a general feeling and amongst the management and workers and labour professionals that the works committee have not proved the effectiveness in their functioning. Successive studies have also gone into the unsatisfactory functioning of the works committees and have identified the following factors responsible for failure of this important statutory mechanism -

- * There is a feeling on the part of the employers that being a statutory scheme this has been an imposition on them.
- * There is a vagueness in the legal definition of the scope and content of the functions.
- * Inter-union rivalries and opposition both from the union as well as from the employers to utilise the mechanism for the specific purpose for which it was

created.

- * Even unanimous recommendations were not honestly and faithfully implemented leading to erosion of the effectiveness of the body.
- * A tendency to raise extraneous issues for discussion in the meetings of the Committee sent wrong signals about the scope of its functions.
- * A conflict between jurisdiction of the Union and jurisdiction of the works Committee also sent equally wrong signals about the utility of the body.

The first National Commission on Labour studied the various causes and factors which contributed to the failure of the Works Committee and had made the following recommendations to improve its effectiveness:

- * A more responsive attitude on the part of the management.
- * Adequate support from Unions.
- * Proper appreciation of the scope and content of the functions of the Works Committees.
- * Wholehearted implementation of the recommendations of the Works Committees.
- * Proper coordination of the functions of the multiple bipartite institutions at the plant level now in vogue.

During the Second Plan period the concept of Joint Management Councils evolved as an integral part of the Government's Industrial Policy Resolution adopted in 1956. To quote from the text of the Industrial Policy Resolution "In a socialistic democracy, labour is a partner in the common task of development and should participate in it with enthusiasm.... There should be joint consultation, and workers and technicians should, wherever possible, be associated progressively in management. Enterprises in the public sector have to set an example in this respect."

In the beginning of the Second Plan period a Study Team was deputed to some European countries to study the schemes on Workers' Participation in Management obtaining in those countries. The report of the team underlined a non-statutory approach, and that too, on an experimental basis, to implement the recommendations in the Plan while warning against the dangers of imitating the working of the concept in the more advanced industrial societies which through years of education and training have laid solid foundations of industrial democracy. The 15th Session of the ILC accepted the recommendation of the team, appointed a tripartite committee to work out details of the scheme and the scheme of Joint Management Council was the outcome of the work of

this committee. The JMCs were established in the late 50s and early 60s to promote cordial relations between the management and workers, building up understanding and trust between them, effect substantial increase in productivity, secure better welfare and other facilities for workers, and train them to understand and share the responsibilities of management. There were 3 basic features of JMC such as :-

- * The Council is entitled to be consulted on certain specified matters;
- * The management is expected to share information with the Council in some other areas.
- * Administrative responsibilities have to be entrusted to the Council in a set of functions.

The 15th session of the ILC laid down the functions of the Joint Management Councils as enumerated below :-

1. It would be the endeavour of the Council / Councils

- (i) to improve the working and living conditions of the employees,
- (ii) to improve productivity,
- (iii) to encourage suggestions from the employees,
- (iv) to assist in the administration of laws and agreements,
- (v) to serve generally as an authentic channel of communication between the management and the employees, and
- (vi) to create in the employees a live sense of participation.

2. The Council / Councils would be consulted by the management on matters like:

- (i) general administration of Standing Orders and their amendment, when needed;
- (ii) introduction of new methods of production and manufacture involving re-deployment of men and machinery; and
- (iii) Closure, reduction in or cessation of operations.

3. The Council / Councils would also have the right to receive information, discuss and given suggestions on :

- (i) general economic situation of the concern ;
- (ii) the state of the market, production and sales programmes;
- (iii) organisation and general running of the undertaking ;
- (iv) circumstances affecting the economic position of the undertaking ;
- (v) methods of manufacture and work ;
- (vi) the annual balance sheet and profit and loss statement and connected

- documents and explanation ;
- (vii) long term plans for expansion, re-deployment, etc., and
- (viii) such other matters as may be agreed to.

4. **The Council / Councils would be entrusted with responsibility in respect of :**
- (i) administration of welfare measures ;
 - (ii) supervision of safety measures ;
 - (iii) operation of vocational training and apprenticeship schemes ;
 - (iv) preparation of schedules of working hours and breaks and of holidays ;
 - (v) payment of rewards for valuable suggestions received from the employees and
 - (vi) any other matter as may be agreed to by the Joint Council.
5. **All matters, eg., wages, bonus, etc., which are subjects for collective bargaining are excluded from the scope of the Council/Councils. Individual grievances are also excluded from its/their scope. In short, creation of new rights as between employers and workers should be outside the jurisdiction of the Joint Council.**

The Third Plan in its approach to the problem of industrial relations elaborated the policy of associating labour more and more with management and accepted the progressive extension of the scheme of JMCs as a major programme. It recommended the setting up of JMCs in all industrial undertakings found suitable for the purpose so that, in due course of time, the scheme might become a normal feature of the industrial system.

With a view to ensuring success in implementation of the scheme of JMC, Government of India set up a tripartite committee on labour management cooperation to advise Government on all matters.

However, despite best efforts decisions to promote wider acceptance of the scheme JMCs did not meet with much success over the years. The same causes and factors which inhibited the functioning of the Works Committees such as multiplicity of trade unions, absence of recognised union, difficulties in securing representation of workers, general indifference of both employees and trade unions to the scheme of Workers' Participation in Management, tendency to go outside the framework within which the Councils are expected to function etc., were also responsible for ineffective functioning of the JMCs. There are, however, evaluation reports, which go to show that where the Councils were taken seriously by both parties and where attempts were made to work towards the goals for which these were set up, JMCs did produce good results.

In 1975 workers participation in the management of industry was one of the items listed in the old 20 point economic programme for national reconstruction announced by

Smt. Indira Gandhi, former Prime Minister of India on 1st July, 1975. In the same year the Constitution was amended and Article 43A was inserted in the Directive Principles of State Policy. This Article provided that "the State shall take steps by suitable legislation or in any other way to secure the participation of workers in the management of undertakings, establishments or other Organisations engaged in the industry".

In accordance with the 1975 amendment of the Constitution under the Chapter on Directive Principles of State Policy, successive schemes for Workers' Participation in Management were introduced and were taken up for implementation. These are enumerated below:-

SCHEME OF WORKERS' PARTICIPATION IN MANAGEMENT IN 1975

The Scheme of Workers' Participation in the Management in manufacturing and mining industries was formulated in 1975. It was meant for implementation at shop and plant levels and covered only those manufacturing and mining units which employed 500 or more workers. The scheme was required to be implemented in both public and private sectors as well as in departmentally run units. Shop and plant levels were assigned specific function relating to production and productivity, management of waste, reduction of absenteeism, safety, maximising machine and manpower utilisation etc.

The scheme did not lay down norms and criteria for the nomination of representatives to the participative councils. This created considerable confusion. It was left to the management to work out an acceptable formula for giving representation of employees / workers to the councils. Providing for flexibility in the nomination of representatives made matters more difficult, except where a single union was the dominant union and was interested in such bipartite functioning.

SCHEME OF WORKERS' PARTICIPATION IN MANAGEMENT (1977)

The Government which came to power on 24th March, 1977 with Shri Morarjibhai Desai as the Prime Minister appointed a tripartite committee under the Chairmanship of Shri Ravindra Varma, the then Union Labour Minister to review the existing scheme of workers' participation in management (1975) and recommend a new scheme if necessary. Accordingly a new scheme was recommended by the said tripartite committee in October, 1977 which was approved by the Government and came into force in the same year. The new scheme applied to commercial and service organisations with 100 or more employees and therefore, its ambit was larger than the earlier scheme.

The Scheme of 1977, however, was not very much different from the earlier scheme of 1975 in terms of providing representation of the workers to the participative fora at various levels. The problem of inter-union and intra-union rivalry persisted which made the task of representation of the workers to the various participative fora extremely difficult. Besides the exclusion of grievance redressal, the restriction to consideration of

only work-related issues, the inadequate sharing of information, the lack of a supportive participative culture, the indifference of management, the involvement of second rung union officialdom etc. also contributed to the failure of the scheme of 1977.

COMPREHENSIVE SCHEME FOR EMPLOYEES' PARTICIPATION (1983)

The Scheme of 1977 was again reviewed and a new scheme was prepared and notified in December, 1983.

This scheme was applicable to all central public sector enterprises considered suitable; it was also to be implemented at the Board level. The mode of representation of workers was to be determined by consultation with the concerned unions and parity in representation between the management and unions continues to be the norm.

The scheme brought within the ambit of the councils a much wider spread of work-related issues. At the plant level, the council could discuss issues relating to personnel, welfare, environment and community development, plant operations and functioning, and also take up financial matters relating to profit and loss statements, balance sheets, operating costs, plant financial performance, labour and managerial costs etc.

THE PARTICIPATION OF WORKERS IN MANAGEMENT BILL, 1990

Keeping in view the shortcomings of the various schemes implemented from time to time and also the experience gained in this regard, the Government decided to review the concept of workers' participation in its entirety and to evolve a fresh approach to make workers' participation in management more effective and meaningful and by giving legislative cover to the concept. Accordingly, the participation of Workers in Management Bill, 1990 was drawn up and introduced in the Rajya Sabha in May, 1990. This evoked a large number of notices for amendment of various provisions of the Bill. In 1994, the Bill was remitted to the Parliamentary Standing Committee which had suggested that Government may review the Bill keeping in view the need for incorporating necessary amendments in the context of the changing socio-economic scenario of the country. A stage had been reached when some kind of a legislative back up was thought to be necessary to make further progress in the matter.

The main features of the proposed Bill are enumerated as below :-

- * The Bill is to be made applicable for units covered under the ID Act, 1947 and the definition of Appropriate Government in the Bill will be the same as in the ID Act.
- * The Bill proposed to constitute one or more Councils at the Shop Floor level and a Council at the establishment level. These Councils shall consist of equal number of persons to represent the employers and the workmen.

- * The Appropriate Government shall in consultation with the employers and taking into account the total number of workmen, the levels of authority and the number of Shop Floors would determine the number of persons who shall represent the employer and the workmen in the Council.
- * The persons to represent the employer shall be nominated by the Employer and the persons to represent the workmen shall be selected by and from amongst the workmen of the establishment by secret ballot or nominated by the registered trade unions.
- * The term of office of the member of each council at the Shop Floor and establishment level shall be 3 years from the date of constitution of the Council.
- * The Council shall meet as and when necessary and not less than four meetings of a Council shall be held every year.
- * The functions of the Shop Floor Council and establishment Council have been clearly demarcated in the Annexure-I
- * The Bill envisages a Board of Management at the apex level where representatives of the workmen as defined under the ID Act shall constitute 13% and persons representing other workers shall constitute 12% of the total strength of such management. The persons to represent other workers in the Board of Management shall be elected by and from amongst other workers of the industrial establishment or by secret ballot.
- * The persons to represent workmen on the Board shall be elected from amongst the workmen of the industrial establishment by secret ballot or nominated by the registered trade unions.
- * The Board of Management shall review the functioning of the Shop Floor Council and the Establishment.
- * If any person contravenes any provision of the Act or the Scheme made thereunder, he shall be punishable with imprisonment which may extend to 2 years or with fine which may extend to Rs.20,000/- or with both. It has also been indicated that Appropriate Government by notification appoint such persons as it feels fit to be inspectors for the purpose of this Act.
- * It has also been provided that Appropriate Government may constitute a Monitoring Committee to review and advise the said Government upon matters arising out of administration of the Act.

The Participation of Workers in Management Bill, 1990 is an enabling legislation

and is to be applied at all the three levels i.e shop floor level, industrial establishment level and Board of Management level.

The Ministry of Labour invited the views of the Central Employers and Trade Union Organisations on the scope and content of the participation of Workers in Management Bill, 1990. A meeting of the tripartite committee on workers participation was also held in October, 1997 under the Chairmanship of Secretary (Labour), Government of India. There was no consensus on the scope and content of the Bill emanating from that meeting. The employers' group preferred to retain the voluntary character of the scheme while the Central Trade Union Organisations unanimously endorsed the idea of giving the concept of workers' participation in management a legislative shape.

In pursuance of the directive of the Standing Committee of the Parliament on Labour, the Ministry of Labour wrote to all CPSUs to get a feedback about the implementation of 1983 scheme. Of the 247 CPSUs only 125 responded and their views have been summarised as below :-

- * The scheme should clearly spell out the mode of determining representation by the participative unions.
- * Some of the CPSUs suggested that for nominating representatives of workers, election should be held by secret ballot.
- * Implementation of the decisions should be made an integral part of the Scheme.
- * The scheme should be made more flexible so as to cater to the requirements of different production systems.
- * The presence of outsiders in the union may be avoided while giving representation of the workers to the various participative fora.
- * Members of workers at various participative fora should be sponsored for training programmes.
- * Top management should attend meetings.
- * The Scheme should be made voluntary.
- * Representation should be given to recognised unions instead of conducting secret ballot.
- * Shop Council can function successfully if there is single recognised union.

- * Adequate training to union representatives is necessary.
- * The scheme should be introduced first in Public Sector Undertakings engaged in manufacturing process.
- * Board level participation would be desirable only when shop / plant level participation is well established and yields desired results.
- * Management has to review the operation of the Scheme periodically.
- * Workmen may be given preference to become shareholders in Central Public Sector Undertakings.

SOME INTERNATIONAL EXPERIENCES

In the case of South Korea, there is an Act concerning the promotion of Workers' participation and cooperation. The purpose of this Act is to keep peace in industry and to contribute to the development of national economy by promoting the common interests of labour and management through their participation and cooperation. There is a Labour-Management Council established in each business or workplace, which is vested with the right to decide the working conditions. The Council shall be composed of equal number of members representing the Workers and the Employers respectively. The number of members shall not be less than 3 and not more than 10. The members representing workers shall be elected by Workers, Trade Union representatives or those recommended by the Trade Union. Members representing employer shall be the representatives of the business or workplace concerned or the persons who are designated by such representatives. The meetings of the Council shall be held once every 3 months and shall be opened to the public. However, they may not also be open to the public on the resolution of the Council. The subject matters to be covered include :-

- * Productivity,
- * Gain sharing
- * Recruitment
- * Worker's grievance handling
- * Administration of working hours
- * Employees-stock programme.

There is also the Grievance Council. The Grievance Handling Members consist of 3 members or less, representing labour and management who shall be elected from among the Council Members by the Council in a business or a workplace. When a worker makes a grievance to the Grievance Handling Member, he shall be informed of the measures taken and results thereof, within 10 days by the Grievance Handling Members. Matters which are considered too difficult to be handled by the Grievance Handling Members, shall be brought before the Council and dealt with through consideration.

The Works Constitution Act of Germany is a law which provides for the employees to elect their Works Council representatives within the establishment. The Works Constitution Law regulates the cooperation between employer and the staff of the establishment. The basic objectives of the Works Constitution Law is to provide the establishment with a kind of regulatory system which on the one hand places both the workforce as a whole and the individual employees to assert the legitimate interests and on the other hand secures the employers' fundamental freedom to decide on economic matters. By granting the Worker Representative the right to participate, the Works Constitution Law aims at co-determination, which is basically to protect the legitimate interests of the employees and the fundamental freedom of employers on economic matters. It is note worthy that the employer is not given the sole discretion over the organisation of the establishment and of the operations as well as the assessment and the composition of the staff.

SCHEME OF WORKERS' PARTICIPATION IN MANAGEMENT OF ROURKELA STEEL PLANT.

The Culture of Joint Participation in Rourkela Steel Plant was first experimented in 1961 when the Canteen Managing Committee was set up. This Committee came into being because of statutory provisions (Section 46 of the Factories Act). Similarly, the Works Committee which owes its origin to the Section 3(d) of the Industrial Disputes Act was set up in 1962. The Grievance Committee under the Code of Discipline came into being in 1963 followed by the Safety Committees in 1964. These Committees not only owed their existence to the Statutory Provisions but also had limited areas of influence by virtue of the prescribed provisions.

It was only in the year 1969 that the Rourkela Steel Plant decided to adopt and enlarge the participative culture by setting up of Joint Committees beyond the provision of the statute. Through a tripartite settlement in 1969, the grievance handling system was reviewed and Zonal Grievance Committee and Central Grievance Committee were established. This experience impelled the Management and Recognised Union to enlarge the scope of participation and go on for setting up of Departmental Production Committees; Departmental Safety Committees, Central Production Committees and Central Safety Committees through tripartite settlements effected in the year 1971 and 1975 respectively.

With a view to having a first hand knowledge and assessment of the composition, mandate, functioning and impact of the various participatory fora on production, productivity, safety, preventive maintenance and avoidance of wastage and leakage and total quality management, I had undertaken two visits to Rourkela Steel Plant, one in October 1998 and another in July, 1999. During both the visits I had interacted with the Chairman, Secretary and members of the Central as well as Departmental level Production and Safety Committees in presence of the senior officials of the Steel Plant. Prior to my visit, I had circulated a questionnaire on the scheme of employee's

participation in management in 1983 and actual operation of the scheme in Rourkela Steel Plant. A copy of the Questionnaire is enclosed for ready reference(Annexure-II).

The outcome of my review could be summarised as below :-

- * The Joint Participative fora in Rourkela Steel Plant comprises of 110 Committees at the Central, Departmental and Zonal level with 651 representatives of management and 760 representatives of workmen.
- * The representatives of workmen have been nominated by Rourkela Shramik Sangh (INTUC) which emerged as the majority union as well as recognised union on the basis of elections conducted in Rourkela Steel Plant under the provisions of Verification of Membership & Recognition of Trade Union Rules, 1994 notified by the Government of Orissa in 1995 and again in 1997.
- * The Committees meet at prescribed intervals. While the frequency of the Central Committee is once in two months, the Departmental Committees meet monthly, the Central Grievance Committee meets as and when required while the Zonal Grievance Committee meets weekly or as and when required. The Committee constituted for township welfare and amenities meet on a quarterly basis.
- * The minutes of the meetings are drawn up and are circulated along with the action points. The minutes of the meetings are reviewed in subsequent meetings with emphasis on how honestly and faithfully the decisions taken in the meetings of the Committees have been or are being implemented. In other words, there is an internal mechanism built into the system by virtue of which the Committee reviews its own purpose.
- * To instil a spirit of competitiveness amongst the various committees, the management of the Steel Plant has introduced a scheme for awarding the best and second best departmental production committee in each group. Pursuant to introduction of the scheme awards have been presented in 1997 and 1998.
- * Whenever any major communication exercise is undertaken across the company the members of various committees are amongst the first to be interacted with.
- * **The following is the mandate for Central Safety Committees :-**
 - * Accident prevention, usage of safety appliances and training.
 - * Safety education, campaigns and functioning of Departmental Safety Committees.
 - * Review of fatal and serious accidents and hazardous occurrences and

advising as to how they can be prevented.

- * Recommending to employees on safety activities and programmes and use of personal protection safety appliances.
- * Recommending measures for Safety promotion relating to contract labour.

*** Departmental Safety Committees :**

- * To discuss preventive measures and various corrective actions.
- * To ensure observance of safety rules and use of safety appliances.
- * To go into details of serious accidents / dangerous occurrences and plan for prevention.
- * To prepare accident prevention schemes.
- * To plan, execute follow-up and review safety campaigns and education programmes.

*** Central Production Committee :**

- * To study operational results and current and long term production problems.
- * To advise Management on steps necessary to promote and rationalise production, improve methods, layout of processes, improve productivity and discipline, effect economy with a view to lowering costs, eliminate defective work and improve the quality of products, improve upkeep and care of machinery, tools and instruments, promote efficient use of safety precautions and devices and improve working conditions.

*** Departmental Production Committees :**

- * To study operational results, current and long-term departmental production problems.
- * To initiate steps at the departmental level for :-
 - Promoting and rationalizing production
 - Improving working method
 - Improving quality, productivity and discipline
 - Improving working conditions

- Effecting economy with a lowering costs
- Ensuring better functioning of the departments.

In pursuance of the provisions and spirit of the tripartite settlements most of these committees have equal number of workmen representatives and management representatives while the Chairman of the Committees at the departmental level is head of the Department.

The Shop Floor Committees and the Plant Level Committees have undoubtedly helped in promoting cordial industrial relations by inculcating the participative culture and imbibing willingness to resolve issues through dialogue. By such participation issues are examined from various angles and solutions are provided from within the forum.

It is worth quoting certain examples to indicate the extent of impact on -

- * Punctuality of attendance,
- * Observance of discipline in day to day work,
- * Avoiding of wastages and
- * Better preventive maintenance of plant equipments.

*** Punctuality of Attendance**

The system of regulating attendance in the Rourkela Steel Plant is through the Time Offices. In this system the employee while reporting for duty has to lift his Token from the Time Office and thereafter report to his Shift Incharge. There is a time lag between lifting his Token and reporting to the Shift Incharge which affects production. The matter was debated in the CPC and in the new Units such as OB&BP, SMS-II, SP-II, TOP-II and CP-II the employees are reporting for duty directly to the Shift Incharge. This has yielded better results in terms of punctuality.

*** Observance of Discipline in day to day work**

- * In almost all the Departments the exercise with regard to documentation of Standard Operating Practices (SOPs) and Standard Maintenance Practices (SMPs) are on. Employees are educated on the SOPs and constant monitoring is done to ensure adherence.
- * With the ISO-9000 certification in SWPP, ERWPP, Plate Mill, SSM (CRNO), Galvanising Lines of CRM, SMS-I and CCM-I, TOP-I, TOP-II, BSM, HSM Departments, process discipline is being ensured in these departments. The DPCs are taking keen interest in ensuring that the concerned employees are trained in PLC operations, adherence to documentation, process discipline etc.
- * In Coke Ovens the DPC discussed instances of maloperation and suggested for

immediate remedial actions so that occurrences are not repeated.

- * Senior Operatives of Blast Furnaces in Stove were imparted training on technological norms, behaviour of the furnaces, use of PLCs.
- * In CCM-I of SMS-I by adhering to the SMPs and SOPs, the employees have realised that this is the best way of performing the work.
- * In TOP-I, LDBP and CPP-II by following the SMPs and SOPs there has been considerable improvements by way of equipment availability and reduced breakdowns.

* Avoidance of Wastages

- * In SMS-I Pitside arisings were reduced from 4.38% in 1996-97 to 3.35% in 1997-98. Similarly, Ferro-manganese consumption was brought down from 17.06 KG/T to 13.64 KG/T. They also reused 600 sliding bottom plates.
- * In SPP 48T of materials were salvaged.
- * In CRM lime from CP-II a waste product was used for neutralisation in place of neutralising agents procured from outside agencies.
- * In R&C Lab Slag Powder was used in place of boric acid as a filler material.
- * A concrete policy of LD Gas Recovery Strategy was devised and executed by Energy Management Department.
- * Almost all the DPCs held special sessions on cost control and worked out action points for reducing cost in their respective areas.
- * Better preventive maintenance of Plant Equipments

Besides the action taken for adherence to SOPs and SMPs, certain other examples for improving preventive maintenance are :-

- * In Blast Furnaces inspection schedule for the equipments have been formulated.
- * In HSM an approach has been made to R1 Edger Adjustment Motor for inspection and maintenance.
- * Joint inspection of Mechanical and Operation has been introduced in Acetylene Plant.

In course of my review and interaction with the Chairman, Secretary and Members in a truly participative and communicative manner, I had concentrated on the following aspects :-

- Frequency of the meetings of the Committees.
- Topics chosen for discussion in the meetings of the Committees.
- The essential manner in which all decisions are taken in the meetings of these Committees.
- The honest and faithful manner in which the decisions are being implemented.
- The impact of the decisions.

On the last i.e. Impact of implementation of decisions taken by Departmental and Central Committees, my interaction with the members revealed the following :-

- * How qualitative changes can be introduced in the process of production, how consumption of consumables and raw materials could be reduced, how the installed equipments can be satisfactorily maintained, how good quality scraps can be utilised better and how recycling scraps can be ensured in a purposeful manner.
- * How due to planned, coordinated and concerted efforts the number of non-fatal and fatal accidents has come down in the various departments / units and in the plant as a whole, how there is total transparency in procurement, inventorisation, use of personal protective safety equipments, how special efforts have resulted in their regular use by workers, how series of measures have been initiated on the basis of the discussion in the departmental as well as central committees, how as a result of wholehearted participation of the workers in the meetings of the safety committees, there is a total awareness of safety measures amongst all the workers of the various departments / units and of the plant as a whole.
- * How as a result of planned, coordinated and concerted efforts there is an appreciable increase in the performance of certain units like CPP-II in terms of generation of power.
- * How as a result of planned, coordinated and concerted efforts an immaculately neat, clean and environment friendly climate has been created inside the plant.
- * How departmental take over of certain jobs and processes from the contractors without any addition of manpower in the concerted department / unit has resulted in cost effectiveness, reduction in the frequency rate and number of accidents, improvement of yield as also in an environment friendly atmosphere.

- * How the discussion in the departmental and central committees conducted in a free, frank and totally democratic manner has helped in identifying the in-house expertise in a particular department / unit and how harnessing of such in-house expertise has resulted in a substantial production performance of that department / unit without any outside help and how in the process the imagination, ingenuity, creativity and resourcefulness of individual workers as also workers in a group have been identified and harnessed.
- * How the regular meetings of the departmental and central committees have resulted the following :
 - Control of consumables
 - Cost control, better inventory management and control.
 - Standard operating practices.
 - Standard maintenance practices.
 - Better monitoring supervision and coordination.
 - Better safety practices, supply and use of better safety appliances and substantial reduction in frequency rate of accidents as well as injuries leading to the goal of zero rate of accidents.

At the end of the visit I had advised the Management of Rourkela Steel Plant to compile, publish and circulate the success stories obtaining in various departments / units of the Rourkela Steel Plant as a result of smooth functioning of various Committees in English, Hindi and other regional languages and have them widely circulated amongst the employees of all the Unions of the Steel Authority of India Ltd. In particular it will be worthwhile to disseminate the following messages :

- * How proper constitution of departmental and plant level Bipartite Committees have generated a lot of trust, goodwill and understanding amongst the management and workers in a large enterprise like Rourkela Steel Plant.
- * How the consensual manner of decision making and honest, timely and faithful implementation of decisions have created a positive and telling impact on production, productivity, health, safety and welfare of workers and a friendly environment which is neat, clean, safe, congenial and conducive to production and productivity.

Subsequently the example of workers participation in Management was circulated amongst all Central Public Sector Undertakings and they were asked as to how they could emulate the example obtaining in Rourkela Steel Plant. The response received from 90 CPSUs have been compiled and a gist of the main features of scheme as it exists in the CPSUs, the various decisions taken in the scheme and the impact thereof has been summarised below:-

- * Meetings of the Committees are held at regular and periodic intervals.
- * Absence of a recognised union does create problems in nomination of workers to the various committees.
- * As a result of implementation of the scheme, unions have agreed to render cooperation in improving productivity, efficiency, and quality in general and productivity in particular.
- * Managements and Unions are making concerted efforts to identify and eliminate practices which resulted in wastage and leakage of resources. Such efforts are also directed to improve quality and replace outdated methods, equipments, tools etc.
- * Employees are working in conformity with the standardisation and quality norms and approved shop practices including ISO 9000 set up from time to time to ensure quality of their product.
- * Absenteeism has been minimized.
- * Production-cum-Productivity Linked Annual Bonus scheme has been formulated and implemented.
- * The Scheme has resulted in formulation and implementation of occupational health and safety policy of the company.
- * The Scheme has resulted in control of consumables, overall cost control, better monitoring etc.
- * General discipline and punctuality have been restored after many years.
- * Despite financial crunch being faced by the Organisation there is industrial peace and harmony (which can largely be attributed to the scheme).
- * The Scheme has resulted in optimum utilisation of productive resources and promoting productivity
- * The Scheme has resulted in accident level touching zero and in observance of safety standards.
- * The Scheme has resulted in formation of and participation of all concerned in quality circles for achieving Total Quality Management.
- * The Scheme has helped in reorganisation of uneconomic mines, redeployment of manpower which was rendered surplus, measures for proper distribution of coal

and marketing strategy for better consumers satisfaction.

- * The Scheme has resulted in greater conservation of electrical energy, reducing wastage of oil and energy and better utilisation of men, machinery and materials. The Scheme has helped to promote better understanding and improvement of communication amongst various officials.
- * The Scheme has promoted creativity of the employees and helped them to evolve Innovative ideas and suggestions.
- * The Scheme has promoted an attitudinal change amongst the employees.
- * The Scheme has helped to build up mutual trust between workers and management and has promoted a sense of involvement and created a conducive environment.
- * The Scheme has resulted in better inventory management and standard maintenance practices and observances of maintenance of emergent and preventive maintenance schedules.
- * The Scheme has not only promoted a culture of cooperation, it has reinforced healthy industrial relations and has contributed in enhancing production, productivity and improvement in the standard of living.

It is evident, therefore, that the Scheme of Workers' Participation in the Management of Industry which is a voluntary one as on date is something which is not utopian but possible, feasible and achievable. Much of the success of the Scheme, however, would depend on the extent of objective and pragmatic understanding of the nature and scope of the scheme and content and quality of its implementation.

Workers' participation in Industry and workers' participation in the Management of the Industry are two sides of the same coin. One complements, supplements and reinforces the other. If workers have a 'say' in the decision making process in the management, it facilitates their participation in management which in turn promotes and reinforces their association or identification with the industrial enterprise. Similarly if workers involve themselves physically, psychologically and emotionally with the workplace, work environment and the total mandate of the enterprise it leads to a strong and vibrant democratic process which is conducive to workers' participation in the Management of the Industry. Viewed in this sense, neither the workers' participation in Industry nor workers' participation in the management of the industry is a slogan but an article of faith and commitment for all industrial enterprises and key to production, productivity and discipline in an enterprise. In a federal polity, it also become an article of faith and commitment for national as well as State Governments, both provide the key to redistributive justice. Workers' participation in Industry, however, becomes meaningful when the management of the industry reposes trust and confidence in the workers' ability

to contribute and when the management creates an environment which is conducive to furtherance of the health, safety and total well-being of the workers. Viewed in this sense, any investment in promotion of health, safety and total well-being of workers also becomes an investment in human capital with a fully assured return. It also becomes meaningful and effective through a strong participative, communicative and relevant programme of Workers' Education. At a point of time when the process of recovery of industrial enterprises in the country from a period of recession has become a reality, all industrial enterprises, be they in public sector or private sector or cooperative sector, need to recognise the value and importance of the scheme of workers' participation and need to give it a fair trial in a totally open and transparent environment. In striving hard for a honest and faithful implementation of the scheme, both the social partners need to observe the Lakshmanrekha or dividing line between the domain of collective bargaining and the domain of participative management so that one could reinforce and consolidate the other instead of being a repetition of the other.

List of CPSUs responded on Workers' Participation in Management :

1. Hospital Services Consultancy Corporation (India) Ltd.
2. Rail India Technical & Economic Services (India) Ltd.
3. Mazagon Dock Ltd.
4. The Madhya National Paper Mills Ltd.
5. Numaligarh Refinery Ltd.
6. Export Credit Guarantee Corporation of India Ltd.
7. Ferro Scrap Nigam Ltd.
8. Hindustan Copper Ltd.
9. Rural Electrification Ltd.
10. Hindustan Steelworks Construction Ltd.
11. NTC (TN&Pondicherry)
12. Coal India Ltd.
13. Kundremukh Iron Ore Co. Ltd.
14. Visakhapatnam Steel Plant
15. Hindustan Newsprints Ltd.
16. National Mineral Development Corporation
17. National Safai Karmacharis Finance and Development Corporation.
18. Garden Reach Shipbuilder and Engineers Ltd.
19. Indian Railway Finance Corporation Ltd.
20. Madras Fertilizers Ltd.
21. The Fertilizers Corporation of India Ltd.
22. National Scheduled Castes & Scheduled Tribes Finance and Development Corporation
23. MSTC Ltd.
24. Bharat Earth Movers Ltd.
25. Air India
26. Engineering Projects (India) Ltd.

27. Indian Drugs and Pharmaceuticals Ltd.
28. National Building Construction Corporation Ltd.
29. Cochin Refineries Ltd.
30. Hooghly Dock & Port Engineers Ltd.
31. India Trade Promotion Organisation
32. Western Coalfields Ltd.
33. National Handloom Development Corporation Ltd.
34. Praga Tools Ltd.
35. Indian Oil Blending Ltd.
36. HUDCO
37. Manganese Ore (India) Ltd.
38. National Fertilizers Ltd.
39. Pawan Hans Helicopters Ltd.
40. Biecco Lawrie Ltd.
41. Shipping Corporation of India Ltd.
42. Indian Medicines Pharmaceutical Corporation Ltd.
43. The National Small Industries Corporation Ltd.
44. Hindustan Photo films Manufacturing Co. Ltd.
45. State Trading Corporation of India Ltd.
46. Central Warehousing Corporation
47. Uranium Corporation of India Ltd.
48. Indo Hokke Hotels Ltd.
49. British India Corporation Ltd.
50. The Handicrafts & Handloom Exports Corporation of India Ltd.
51. Tungabhadra Steel Products Ltd.
52. Mishra Dhatu Nigam Ltd.
53. National Hydroelectric Power Corporation Ltd.
54. Spices Trading Corporation Ltd.
55. Maharashtra Antibiotics and Pharmaceuticals Ltd.
56. Hindustan Shipyards Ltd.
57. Central Electronics Ltd.
58. National Handicapped Finance and Development Corporation
59. National Research Development Corporation
60. Hindustan Salts Ltd.
61. Andrew Yule & Co. Ltd.
62. Karnataka Antibiotics & Pharmaceuticals Ltd.
63. ONGC Videsh Ltd.
64. Airports Authority of India
65. Bharat Alluminium Co. Ltd.
66. North Eastern Regional Agricultural Marketing Corporation Ltd.
67. Videsh Sanchar Nigam Ltd.
68. Engineers India Ltd.
69. Power Grid Corporation of India Ltd.
70. State Farms Corporation Ltd.

71. Sponge Iron India Ltd.
72. National Industrial Development Corporation
73. Dredging Corporation of India Ltd.
74. Bongaigaon Refinery & Petrochemicals Ltd.
75. C M C Ltd.
76. Gas Authority of India Ltd.
77. National Textile Corporation (South Maharashtra) Ltd.
78. NTC (Delhi, Punjab, Rajasthan) Ltd.
79. NTC (Tamil Nadu & Pondicherry) Ltd.
80. NTC (MP) Ltd.
81. NTC (Bangalore) Ltd.
82. NTC (Ahmedabad) Ltd.
83. Oil & Natural Gas Corporation Ltd.
84. Balmer Lawrie & Co. Ltd.
85. Hindustan Petroleum Corporation Ltd.
86. Jessop & Co. Ltd.
87. Instrumentation Ltd.
88. Bharat Electronics Ltd.
89. Steel Authority of India Ltd.

FUNCTIONS OF THE SHOP FLOOR COUNCIL AND ESTABLISHMENT COUNCIL

Shop Floor Council:

A Shop Floor Council shall exercise such powers and perform such functions as it may deem necessary in relation to the matters specified as below :

1. Production facilities
2. Storage facilities in a shop
3. Material economy
4. Operational problems
5. Wastage control
6. Hazards and safety problems
7. Quality improvement
8. Cleanliness
9. Monthly targets and production schedules
10. Cost reduction programmes
11. Formulation and implementation of work system
12. Design group working
13. Welfare measures related particularly to the shop

Establishment Council :

Operational areas

1. Evolution of productivity schemes taking into account the local conditions.
2. Planning, implementation, fulfilment and review of monthly targets and schedules.
3. Material supply and its shortfall
4. Storage and inventories
5. House Keeping
6. Improvements in productivity in general and in critical areas in particular
7. Encouragement to and consideration of suggestions
8. Quality and technological improvements
9. Machine utilisation knowledge and development of new products
10. Operation performance figures.
11. Matters not resolved at the shop-level or concerning more than one shop.
12. Review of the working of the shop-level bodies

Economic and financial areas

1. Profit and loss statement and balance-sheet
2. Review of operating expenses, financial results and cost of sales
3. Plant performance in financial terms, labour and managerial costs, market conditions etc.

Personnel matter

1. Absenteeism
2. Special problems of women workers
3. Initiation and supervision of workers' training programmes
4. Administration of social security schemes.

Welfare areas

1. Operational details.
2. Implementation of welfare schemes, medical benefits and transport facilities.
3. Safety measures.
4. Sports and games.
5. Housing
6. Township administration, canteen etc.
7. Control of gambling, drinking and indebtedness.

Environmental areas

1. Extension activities and community development projects.
2. Pollution control.

Annexure-II

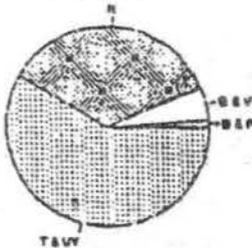
QUESTIONNAIRE ON THE SCHEME OF EMPLOYEES PARTICIPATION IN MANAGEMENT, 1983 - ROURKELA STEEL PLANT.

- Q.1. What are the number of Shop Floor Councils that have been constituted in the Rourkela Steel Plant and the number of employees covered by these Councils?
- Q.2. How many meetings of the Shop Floor Councils have been held during the last financial year and the frequency of such meetings?
- Q.3. How many meetings of the Plant level Council have been held during the last financial year & the frequency of these meetings?
- Q.4. What are the subjects assigned to the Shop Floor Councils ?
- Q.5. What are the subjects assigned to the Plant level Council?
- Q.6. What is the mode of representation of workers in the Shop Floor Councils and the Plant level Council?
- Q.7. What is the level of managerial participation at the Shop Floor and Plant level Councils.
- Q.8. To what extent are the decisions taken by these various Councils being honestly and faithfully implemented ? Have any disputes been raised any time regarding non implementation of decisions? Please give details.
- Q.9. What is the impact of Shop Floor Councils on materials management, waste management, reduction of environment hazards and improvement of industrial safety?
- Q.10. What is the impact of these Councils on improving workers attendance in the Plant?
- Q.11. Have Shop Floor Councils and Enterprise level Councils succeeded in promoting cordial industrial relations by inculcating a participative culture in the Plant, if so, could you give a few instances where it has resulted in promoting the following:
- * Punctuality of attendance.
 - * Observance of discipline in day to day work.
 - * Avoidance of wastage.
 - * Better preventive maintenance of plant & equipments.

- Q.12 Have any improvements in the Plant level operations been achieved through any specific suggestions emanating from the Plant level Councils, if so, what are these specific suggestions and to what extent has this resulted in improvement of Plant level operations?
- Q.13 Are workers sufficiently motivated to participate in the Shop Floor and Plant level Councils through organisation of training programmes and workshops by the management, if so, what are the details of these training programmes and the curriculum in these training programmes?

INDUSTRY-WISE ANALYSIS

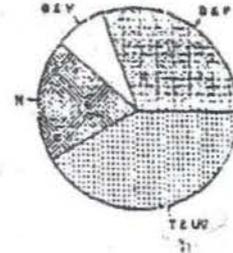
HEAVY ENGINEERING



In heavy engineering industry, thermal stress and noise are predominant due to more welding, heat treatment operations, open-yard work and fabrication jobs.

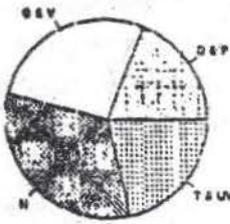
Oil exploration industries are predominant in thermal stress, dusts and particulates and noise. Work under sun and in the open, heavy machinery handling are reasons for this distribution.

OIL EXPLORATION

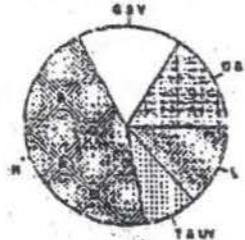


In light engineering, noise, gases and vapours, dusts and particulates and thermal stress are almost equally distributed.

LIGHT ENGINEERING



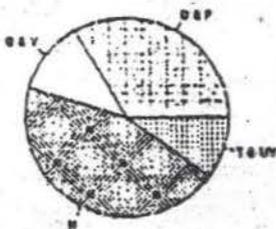
AUTOMOBILE SPARES



In automobile spares industries, noise, dusts and particulates, gases and vapours are mainly exceeded. This is accounted by the major fabrication and painting and dipping processes.

Petroleum refining industry shows higher values in noise, dusts and particulates, gases and vapours. 50% of situations exceeded for dusts and particulates.

PETROLEUM REFINING



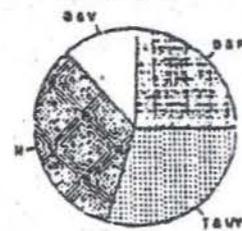
This unexpected high proportion of this hazard is due to high smoke emission from

high speed motors and the minimum sample size. High capacity machines and handling of volatile chemicals are additional factors responsible.

In mining and refining industries, noise, thermal stress and dusts and particulates have higher percentage of exceeded situations, which are equally distributed. Excavation,

transportation, high capacity machinery, open-yard operation and size reduction and processing are the major factors for this distribution.

MINING & REFINING



BY**Dr.L.Mishra****Secretary to Government of India****Ministry of Labour****New Delhi****Perspective and Rationale of Education in General**

There is an old adage which states that learning is called education which liberates. Education indeed is a potent tool of such liberation of human mind. It imparts basic knowledge, information and skills. While imparting new knowledge, information and skills it refines and sharpens knowledge, information and skills which are already in existence. It removes the cob webs of human mind such as fads, taboos, mistaken and ill perceived notions and enables and facilitates human beings to think, reflect, critically analyse, ratiocinate and eventually accept something which is of interest and relevance to their lives and reject what is not. Education enlarges frontiers of human mind, makes it more broad, liberal and expansive and imparts what is known as rational, secular and scientific temper. It makes human beings more responsive, responsible, mature and sensible and enables them to imbibe and assimilate the basic tenets of learning. It imparts such cognitive skills which unlocks the human mind and make it more progressive, enlightened and catholic. The central objective of the entire educational process is to create a learning society, a society which values and prizes literacy, learning and continuing education, which promotes, encourages and facilitates pursuit of academic and professional excellence and which promotes and encourages continuous interaction between parents and children on the one hand and amongst the adult members of the society on the other. Such interaction leads to sharing of ideas and experiences and such sharing enriches and enlarges the horizon of thinking. It leads to the growth of a participative culture so essential for teamwork. Education in such a learning society begins with birth and only ends with death. It is a continuum.

Perspective and Rationale of Workers' Education

The scheme of workers' education in India is to be perceived and internalised against this larger perspective of general education. Workers are free citizens of a free country; they are expected to be responsible and responsive adult members of a progressive society. They are also human beings and as human beings they have certain strength of character and personality; they have also frailties and weaknesses like that of any other human being. As human beings and citizens they are entitled to certain inalienable human rights such as dignity, equality and freedom; being an integral part of the production process and important constituent members of an industrial society they

have also certain obligations to industry and industrial enterprises. These obligations can be expressed in tangible terms such as cultivation and possession of a mind which is receptive and retentive, which is keen on learning by sharing, which is agile and alert to detect instances of leakage and wastage and to take immediate corrective action to arrest such leakage and wastage. It also implies continuous and concentrated attention on the tasks mandated, discharge of the mandate with singular devotion and zeal replacing a casual and indifferent attitude and approach by an abiding faith in and commitment to the values and principles which go to make human beings adorable objects of creation; which also create and sustain organisations of men and women in pursuit of common objectives.

These traits, attributes and characteristics cannot be acquired overnight. While some workers may have a natural and spontaneous desire for teamwork in a constructive manner and the necessary wherewithal for translating their desire to action there are countless others who for no fault of theirs and largely on account of environmental and genetic factors are unable to contribute their very best to production, productivity and growth of the enterprise. They are in need of education, orientation and training so that the skills already acquired and possessed by them can be refined and sharpened and they can be enabled and facilitated to contribute their very best to the enterprise. Such contribution is possible when the workers/employees are charged with the following philosophy:

'This is my industry/organisation/institution and I am an integral part of it. I live for it and grow with it. The forces which shape the contours of the industry/organisation/institution are also bound to pattern the symmetry of my life. The positive impulses which influence my psyche and thought process are likely to propel and drive the elan vital of the industry as an institution. I can, therefore, ill afford to do something which will be detrimental to evolution and growth of the industry. Simultaneously industry should not do something which will be inimical to the even tenor of my day-to-day life. We need to understand each other with trust and goodwill, with respect for the identity of each other so that we can co-exist and survive in the face of all odds'.

Additionally, a worker as a citizen and as a member of the body politic is also required to imbibe and assimilate certain values and principles which go to the furtherance of the objective enunciated in the Constitution such as unity and integrity of the nation along with dignity of the individual. They need to have an in-depth understanding of the provisions of the Constitution, provisions of the laws of the land, national policies and programmes of action in areas which are considered vital to the task of nation building as also to their own lives. Last but not the least, they need to cherish certain values and principles which would enable them to realise the dignity of labour, the excitement and joy, pride and distinction associated with every work so that such work not only becomes a tool of immense self-satisfaction and eventual self-actualisation but would also help the nation to rise from stature to stature and strength to strength. It is this work

what Mr. Juan Somavia, the DG, ILO calls as decent work which constitutes the very quintessence of both business and labour. It is also in more ways than one the quintessence of workers' education in the new millennium.

Historical Background of Workers' Education in India

Workers' education in India is a recent phenomenon. Referring to illiteracy and lack of education amongst workers the Whitley Commission had observed in 1929:

"It is almost impossible to overestimate the consequences of this disability which are obvious in wages, in health, in productivity, in organisation and in several other directions. Modern machine industry depends in a peculiar degree on education and the attempt to build it up with an illiterate body of workers must be difficult and perilous. We should emphasise the fact that precisely because of this the education of industrial labour should receive special attention".

Even though the above observation which is pregnant with meaning was made about 7 decades ago by the Royal Commission on Labour with a lot of anxiety and concern about the need for making workers functionally literate and aware of their rights as well as obligations very little happened in concrete terms till 1957 when Government of India in its wisdom realised that a democratic society requires an active and intelligent participation of workers in the affairs of their trade unions and those of the country and perceived the need for a strong, responsible and democratic trade union movement to make a significant contribution to the realisation of a better life for workers. It is with this realisation that Government of India in cooperation with the Ford Foundation appointed an international team of experts which included Prof. Anthony Luchek of the Pennsylvania State University, Mr. Emery Bacon of the United Steel Workers of America, Mr. Neat Larson, formerly President of the Swedish Wood Workers Union and Mr. Persee Knight of the British Trade Union Congress. The team submitted its report in March, 1957. The recommendations of the team were endorsed with slight modifications by the 15th Session of the Indian Labour Conference in July, 1957. This visualised the setting up of a semi-autonomous Board for administering the workers' education programme. Accordingly, the CBWE was set up on 16th September, 1958 with the following objectives:

- * To develop strong and more effective trade unions, better trained officials and more enlightened members;
- * To develop leadership from the rank and file and promote the growth of the democratic process and tradition in trade union organisation and administration;
- * To equip organised labour to take its place in a democratic society and to fulfil effectively its social and economic functions and responsibilities; and

- * To promote amongst workers a greater understanding of the problems of their economic environment and their privileges and obligations as union members and officials and as citizens.

The Central Board for Workers' Education was set up as a society registered under the Societies Registration Act. The Board has representatives of the Central and State Governments, organisations of employers and workers and educational institutions with a maximum of 23 representatives while the existing CBWE has only 20 members (one seat meant for workers is vacant as on 4-2-2000). While the Board meets normally once a year mostly for an annual review of its work and adoption of its budget a smaller body known as the Board of Governors with a maximum of 12 representatives meets four times a year. Currently (as on 4-2-2000) the Board has 10 members (there are no representatives of State Government).

The programmes of Central Board of Workers' Education operates in three tiers:

At the First Level

At the first level training is given to the candidates selected through a country-wide advertisement for employment as Education Officers under the Board. After successful completion of training these Education Officers are posted at different regional centres.

At the Second Level

Workers from different establishments sponsored by the trade unions and released by employers are trained at the regional centres. The workers so trained are called worker-teachers.

At the Third Level

The worker-teachers conduct classes for the rank and file of workers in their respective establishments.

Additionally, the regional centres conduct a number of other programmes. A brief profile of the programmes which are conducted at the regional level and unit level are indicated below:

Regional Level Programmes

Worker Teachers' Training

Selected workers are trained at the regional and sub-regional centres as worker

teachers in full time training courses of 3 months' duration in batches of about 25 each. Selection of worker teacher trainees is made by the Regional Advisory Committee attached to each regional centre. The trainees are sponsored by trade unions and are released by employers with full wages and are treated as on duty.

The syllabus provides for teaching about the formation, development and functions of trade unions, industrial relations, work ethics, discipline in industry, labour economics, productivity, population education, important labour legislations, public sector and its role in the economy, safety etc. Equal emphasis is laid on discharge of matching obligations to the country, to the industry, to the family and to the trade union. Since the worker teachers are expected to conduct training courses for workers at unit level, subjects like tools, techniques and methods of adult education are also covered.

Leadership Development Course

Leadership Development Courses of one month duration have been introduced since 1984 with the central objective of equipping the trade union activists with knowledge, understanding and skills of leadership so as to enable them to function effectively and to participate in different committees at the enterprise level.

Need Based Seminar

With a view to providing indepth and updated knowledge on subjects of interest to trade unions, full time need based seminars are organised at regional centres for trade union office bearers.

Joint Educational Programmes

Joint Educational Programmes of 3 days duration are organised with a view to bringing the representatives of trade unions and managements on a common platform to discuss matters on participative management, productivity, industrial health and safety, discipline, work ethics etc.

The Joint Educational Programmes are organised for members of plant/shop councils as well as members of bipartite committees such as Canteen Committee, Works Committee, House Allotment Committee, Shop Floor Level Committee etc.

Refresher Courses

Refresher courses are also organised for worker teachers from time to time to update their knowledge and functional competence.

Programmes for Self-generation of Funds

Programmes for self-generation of funds are conducted at national and regional levels. These programmes are on Education for Participative Management and Productivity. No fee is charged for the programmes organised exclusively for trade union representatives.

Quality of Life for Workers and their Spouses

The Central Board for Workers' Education has launched a new programme "Quality of Life for Workers and their Spouses" with a view to moulding their attitudes, developing motivation, building up personality, raising family status, maintaining good neighbourhood relations, developing awareness about environment, developing a spirit of team work, human relations, productivity consciousness, commitment to work, discipline, mutual trust, health and hygiene etc.

Unit Level Programmes

Unit Level Classes

The worker teachers on completion of their training conduct programmes for the rank and file of workers in their respective enterprises. Duration of the training courses at the unit level is 3 months at the rate of one hour a day for 5 days a week. Where facilities are available full time unit level classes of 3 weeks' duration are also conducted besides one month unit level class on trade unionism, labour economics, industrial relations, social security and labour welfare.

On specific request the Board also conducts week end Unit Level classes of 3 months' duration covering the following:

- * Obligations of workers towards the country, industry, family and to the trade unions.
- * Constructive, responsible, strong and democratic trade union movement.
- * National economic background
- * Commonality of interest, efficiency, discipline, productivity, work ethics.
- * Avoidance of harmful habits such as drinking, gambling, physical fitness, family planning, personal hygiene.

Special Seminars for trained workers at the Plant Level

In view of the changing scenario in the industrial field it is imperative to enable the workers who were trained long back in the unit level class to keep themselves abreast of the latest changes and developments in the field of labour and to improve their knowledge and functional efficiency. It is in this background that a one day special seminar at plant level for those employees who have been trained before 1992 in the unit level classes has been launched by Central Board for Workers' Education since 1997.

Functional Adult Literacy Classes

As part of the National Adult Education Programme (since renamed as National Literacy Mission) the Board has been conducting functional adult literacy classes with a view to eradicating illiteracy amongst the industrial workers. The main thrust of this programme continues to be in the areas of mining and plantation where percentage of illiteracy is reported to be very high. These are conducted for a period of six months - at one hour a day - for five days in a week by the worker teachers trained at the regional centre. The facilities available to the unit level classes are also made available to the functional adult literacy classes.

Rural Workers' Education

The Estimates Committee of Parliament of the 5th Lok Sabha in its 4th report had recommended that the CBWE should extend its activities to agricultural workers. Accordingly, the Workers' Education Review Committee in its report submitted to Government in July, 1975 had recommended: "The Board should expand its activities to cover unorganised sector and rural sector. For this purpose, a different kind of programme will have to be evolved and that would require a large number of trained personnel at the disposal of the Board. This would also involve considerable financial burden on the Board". The Board accepted the recommendation and launched the Rural Workers' Education programme in 1977-78. Initially launched with 7 pilot projects the rural workers' education programme of the Board has now become a regular and continuing country-wide programme with the following objectives:

- * To promote among rural workers critical awareness of the problems of their socio-economic environment and the privileges and obligations as workers, as members of the village community and as citizens.
- * To educate rural workers to enhance their self confidence and build up a scientific attitude.
- * To educate the rural workers in protecting and promoting their individual and social interests.

- * To educate rural workers in developing their organisations through which they can fulfil socio-economic functions and responsibilities in rural economy and strengthen democratic, secular and socialist fibre of the rural society.
- * To motivate rural workers for family welfare planning and to combat social evils.

Scope and Coverage

The term rural workers' includes all those covered in the ILO Convention No.141 and Recommendation No.149. According to this definition a rural worker means any person engaged in agriculture, handicrafts or relative occupation in rural areas whether as a wage earner or as a self-employed person such as a tenant, sharecropper or small owner-occupier. Forestry workers, fishermen and workers in tribal areas are also included in the term 'rural workers'. The central emphasis in this convention is on the fact that unless rural workers' organisations are developed rural conditions of work cannot be improved.

It is in this backdrop that the CBWE's Rural Workers Education Programme seeks to cover the following:

- * Landless labourers
- * Agricultural workers and marginal farmers
- * Fisheries labour
- * Tribal labour
- * Rural artisans
- * Forest labour
- * Educated unemployed in rural areas
- * Rural workers (general)

The following programmes are being conducted under the Rural Workers' Education Scheme:

One Month Training Course for Rural Educators

These courses are residential and are conducted at regional level. A new pattern of rural workers education programme was introduced from 1st September, 1990. The programme lays greater emphasis on voluntary work. The practice of choosing, training

and utilising rural educators on a continuing basis has been discontinued. The services of rural educators are, however, being utilised for conducting rural awareness camps.

Orientation Programmes for Rural Educators (one week)

One week's orientation programmes are organised by the regional centres for rural educators to update their knowledge on the subjects covered in the rural awareness camps as also to develop their skills for imparting training to the rural workers.

Two Day Rural Awareness Camps at Village Level

Two-day Rural Awareness Camps are conducted in selected blocks. Each camp has 30 to 40 participants. The participants are compensated for loss of wages by way of per diem allowance. Stress is being laid on the following topics in these programmes:

- * Workers' right to minimum wages
- * Welfare oriented legislations
- * Welfare programmes of State Govts and Central Government.
- * Need to organise Rural Labour and types of Rural Workers' Organisations.
- * Need for communal harmony and national integration.
- * Need to avoid social evils like untouchability, drinking, gambling, indebtedness.
- * Family welfare planning, mothers' health, child care, personal hygiene and cleanliness
- * Small savings, home budget, quality of life, need for literacy.

Education for Unorganised Labour

The Board has taken up the task of conducting programmes for educating the workers in small scale and unorganised/informal sectors since 1979 with a view to developing awareness about their problems and difficulties and equip them to develop and strengthen their industry organisations. Under this Five Day full time camps are conducted either at regional, sub-regional or selected urban or semi-urban places where facilities are available. The programmes are preceded by a general survey aimed at identifying the educational needs and problems of workers in order to evolve a suitable need based educational programme. The selection of the candidates is done in consultation with organisations working in the field.

Education for Weaker Sections

The CBWE is also conducting tailor made programmes of two-day duration to meet the functional and educational needs of special categories of workers such as women workers, handicapped workers, young workers, working children, rickshaw pullers, head-load workers, construction workers, civic and sanitation workers etc.

Population and Family Welfare Education

The Board has been organising educational programmes on population/family welfare education for workers engaged in the organised, unorganised, rural and informal sectors with the following objectives:

- * Enabling workers to know more about the implications of population increase for the social, economic and family life of the workers
- * Creating an understanding that family welfare planning does not mean only population control but also family and social welfare including respect for the dignity, equality and freedom of both men and women, boys and girls.
- * Stimulating, through education and motivation the acceptance of the small family norm by workers.

Role of V. V. Giri National Labour Institute in Workers' Education:

The V. V. Giri National Labour Institute has been engaged since inception (1972) in conscientising rural labour through Rural Labour Training Camps which have been acclaimed as an effective method of organising the unorganised. The basic strategy behind such camps may be enumerated in the following manner:

- * Select a particular pocket which has a sizeable concentration of rural labour who are also unorganised.
- * Conduct a pre-camp survey to identify the participants such as landless agricultural labourers, share croppers, rural artisans, fishermen and women, leather workers, salt workers, workers in brick kilns and stone quarries, building and construction workers, cart drivers, head load carriers, scavengers etc. and bring them to the camp.
- * Enable the participants through role plays and simulation exercises to perceive their own strength and weaknesses vis-à-vis the strength and weaknesses of the forces which are inimical to them, identify the problems and constraints which inhibit their day-to-day lives and find the answers through organisation of those problems.

- * Promote, encourage and facilitate the participants to form organisations of the rural labour/poor so that through such organisation the beneficiaries of development could be converted to participants of the development process, promote internal democracy in the functioning of the organisations and make them responsible, responsive as well as accountable.
- * V. V. Giri NLI to play the role of a catalytic agent, promoter and facilitator and maintain close and constant liaison and coordination with district administration both before and after formation of organisations and to create a climate which will be conducive to such organisation so that basic problems and grievances of the members of the organisation concerned could be redressed positively.

The number of camps organised from 1974 and the number of participants who actively participated in these camps are:

Number of camps held		Number of participants
1974-98	- 96	4586
1998-2000	- 34	1001
Total	130	5587

Even though over 100 such camps have been conducted since 1974-75 when the camp approach to organisation of rural poor was first mooted, considering the number of people in the unorganised sector it was felt that the total number of camps organised was a minuscule of the total efforts which were needed towards organisation of the unorganised labour. It was also felt that despite best efforts the impact of such rural labour training camps has not been uniformly appreciated; as a matter of fact, they tended to peter out with passage of time. The need for evolving a viable strategy to organise the rural labour in a relatively short time and to make the organisation sustainable was felt by the Institute. The need for close collaboration with other institutions, organisations, units which are functioning in the rural areas on a regular basis was also felt.

It is with this perspective that a project has been initiated by the Institute to use the camp methodology in a concerted manner to develop viable organisations in some districts of selected states in the next two and a half years in close collaboration with trade unions and NGOs committed to develop countervailing power of the rural labour through their own collectivity. This would ensure that the seeds of organisation sown by the Institute fructify and grow with time instead of petering out. The project will be located in 4 States, namely, Madhya Pradesh, Rajasthan, Tamil Nadu and Uttar Pradesh. The districts identified from each of the States include: Tikamgarh in Madhya Pradesh, Chittorgarh in Rajasthan, Kanchipuram in Tamil Nadu and Bullandshahar in

U.P. Within each of these districts on Panchayat Samiti has been selected for intensive camp methodology approach which would include the following:

- * Conducting base line survey
- * Selection and training of social organisers
- * Holding of education-cum-motivation camps
- * Holding of workshops for motivating, reorienting and sensitizing local/district administration
- * Holding of interface workshop between rural labour and administration.

Certificate Course in Labour in Development

The V. V. Giri NLI in collaboration with the Indira Gandhi National Open University is launching a Certificate Course in 'Labour in Development' with the following objectives:

- * To provide awareness about the factors responsible for the problems of labour
- * To provide awareness about the labour laws
- * To create awareness about the various welfare schemes meant for the weaker sections for improving their economic and working conditions.
- * To pinpoint the various sources of leakage which reduce the effectiveness of the schemes; and
- * To motivate the unorganised labourers to organise themselves.

Trade union workers and leaders, functionaries of NGOs and Panchayati Raj Institutions, District Development Agencies, social activists, rural educators and individuals interested in labour issues would be the main target group for this programme. The multi media approach of instruction through self-instructional printed materials, supportive audio and video programmes, counselling at study centres, teleconferencing, telecast of video programmes by Doordarshan and audio programmes by AIR would be adopted. The programme is expected to be launched on 1st July, 2000.

Integrated Labour History Research Programme

The programme was instituted at the National Labour Institute in July, 1998 to initiate, integrate and revive historical research on labour in India. This is first of its kind

in the country with the following three components:

I. Archives of Indian Labour

This aims at establishing an Archives of Indian Labour at VVG NLI in collaboration with the Association of Indian Labour Historians with the following objectives:

- * To acquire, preserve and make accessible the following documents on Indian Labour:
 - Personal correspondence and biographical material of labour leaders
 - Documents of trade unions
 - Journals and newspapers addressing the labouring people
 - Pamphlets, leaflets and posters issued by trade unions.
 - Relevant papers of employers' organisation
 - Relevant documents of business corporations
 - Oral testimonies, personal narratives of participants in labour struggles.
 - Photographs, video tapes and films on and of labour
 - Work songs and other similar material of workers' culture
 - Trial proceedings in courts of law
 - Records of individual and collective labour disputes
 - Papers on international working class bodies
 - Records of the Ministry of Labour, National Commission on Labour and other Government agencies.

II. Writing Labour History

This is an effort to synthesise research and chart out new areas in labour history research. In its first phase an "overview of labour history in India" a collection of essays will be published by July, 2000.

III. Interdisciplinary Research

This component aims to integrate labour history concerns with that of research in the other social sciences. It also aims at the integration of contemporary and historical concern in the field of labour studies and diffusion of the results through regular seminars and conferences. The focus is on the historical development of the informal sector and integration of contemporary and historical situation of labour.

An electronic storage and retrieval system has been set up to provide cost effective and user-friendly archive access. Under this a vast amount of documentary, audio and video materials relating to labour can be stored and interlinked through Meta indexed access system. As a first step the large number of documents relating to the National Commission of Labour of 1967-69 have been optically scanned into the archival computers. Additionally, the reports and supplementary records of five major labour commissions held since 1931 have been stored and made accessible in a portable unit.

Prevention of HIV/AIDS at the Workplace

National AIDS Control Organisation (NACO), Ministry of Health and Family Welfare, Government of India has selected the V V Giri National Labour Institute as the nodal institute for the Technical Resource Group (TRG) on Prevention of HIV/AIDS at the workplace with the following objectives.

- * To review the relevant portion of the Strategic Plan under Phase I of the project and preparation of a Technical Paper in the identified area under HIV/AIDS Prevention & Control Programme.
- * Identify best practices through systematic evaluation of the present programme. The assessment should identify past successes and articulate the elements and context of these successes.
- * To determine realistic goals and achievable programme goals in the particular area over a period of time and to identify the outcomes and end points for each goal, as too the resources, both technical and human, which may be required to achieve these goals.
- * To determine the specific steps that a State would need to take to achieve each set of goals under the identified area.
- * Development of strategies for interaction with States and UTs from time to time on the identified area as a technical resource.
- * Development of a mechanism for transfer of technical knowledge to all States/UTs in the relevant field.

The Progress

- * The Secretariat of the TRG has become fully functional at the Institute. Collection of literature pertaining to the provision of HIV/AIDS at the workplace is also progressing.
- * Preparation of abstracts of the important studies/reports is also being taken up. Modules of HIV/AIDS have been incorporated in the labour administration and trade union training programmes being organised by the Institute.
- * A meeting with representatives of the major national trade union federations was convened on February 17, 2000 to formulate strategies of collaboration between trade unions and the TRG in evolving workplace intervention programmes on HIV/AIDS.

Future Plan of Action

The highlights of the work plan of the TRG for 2000-2001 are as below:

- * Holding of six regional level meetings involving State AIDS Control Societies, Departments of Labour and Health, Trade Unions, Employers Associations, NGOs and other activists with a view to identify the technical assistance which the SACS require in relations to prevention of HIV/AIDS at the workplace.
- * Creation of an appropriate Labour Market Information System to aid the different social partners involved with prevention of HIV/AIDS at the workplace.
- * Computerisation and analysis of data available with government hospital Thoracic Medicine, Tambaram.
- * Study to identify the replicability of the existing workplace intervention of the CII especially in relation to small and medium scale industries.
- * Institutionalising collaboration with other partners like trade unions and employers associations.

It is well known that AIDs is a deadly killer which is incurable and which, with increasing permissiveness and licentiousness is assuming menacing proportions both globally as well as nationally. AIDs, however, is fully preventable if not curable and behind the ability to prevent it lies the importance of initiatives and efforts to create a positive awareness and critical consciousness that by preventing AIDs we can create a society which is better, happier and brighter. Such initiatives and efforts cannot be the task of one Ministry or Department or Agency; they have to represent the total concern of the nation. The V V Giri National Labour Institute has come to play an important role,

howsoever modest in creating that awareness and consciousness in favour of prevention of that incurable deadly killer and its efforts could be equalled to the efforts of the tiny squirrel in building up a massive bridge across the ocean.

Trade Union Programme for Rural Trade Union Organisers

The institute has been organising leadership development programmes for rural organisers since its inception in 1972 with the following objectives:

- * To develop and sharpen skills to understand, study and analyse rural society.
- * To provide insight into the dynamics of interpersonal and intragroup relationships
- * To discuss various issues and aspects of organisation building
- * To provide awareness about legal rights.
- * To help in locating the resources at the micro and macro level.

The Institute conducts about a dozen programmes every year involving trade unions for leadership development with a view to promoting and encouraging rural trade union organisations.

The institute conducted a number of programmes in the North East Region of the country which stands largely isolated with a view to bringing the region into the mainstream development of the country. The programmes were highly educative, information and skill oriented and proved to be an effective means for enhancement of the skills of rural trade union organisers.

Programmes of workers' education is being implemented by the CBWE and NLI on behalf of Government and by several industrial establishments on their own way through their limited means could be divided into two parts, namely:

- * Workers' education for the unorganised and informal sector.
- * Workers' education for the organised sector.

Even though on the surface it may sound an artificial division, the division does exist and with liberalisation, privatisation and globalisation is getting wider day by day. It is necessary and desirable to lay down a viable and worthwhile strategy of workers' education which will be relevant in terms of peculiarities and complexities of each sector.

Workers' Education in the Unorganised/Informal Sector

Some of the characteristics which distinguish the workers of the informal or unorganised sector from those of the formal or organised sector are:

- * Overwhelming number
- * Existence of numerous sectors of employment or economic activities
- * A number of sub-sectors within each sector.
- * Excessive seasonality of employment.
- * Lack of stability and durability of employment leading to migration (inter-district and inter-state)
- * Disguised unemployment or underemployment
- * General absence of formal employer-employee relationship
- * Existence of stratified society in rural areas, caste and community considerations determining structure, relationship and functioning of that society.
- * Pervasive influence of upper echelons of the society (landlords, moneylenders, middlemen, contractors, sub-contractors) on the life and economy in such a stratified structure.
- * Addiction to a fatalistic way of life; people rely less on the strength and efficacy of self efforts and attributing actions and fruits of actions to some other force.
- * Existence of a lot of fads, taboos and practices (mrutyubhoj) leading to excessive spending, indebtedness and bondage.
- * Bureaucracy at lower levels remaining by and large indifferent and insensitive to the problems of rural poor; the latter unable to find an institutional mechanism which will be sensitive to their interests and needs and before which they can ventilate and redress their grievances.
- * Efforts to mobilise and organise the various categories and sub-categories of unorganised labour being met with resistance of vested interests.

Any workers' education programme which is conceived in such a scenario will necessarily have to take cognizance of the harsh realities obtaining on the ground. It should be designed with a new orientation not so much as a tool for imparting

alphabetical literacy as for moulding the thinking, attitude and approach of the workers, as would help in free and uninhibited evolution and growth of their personality and psyche as also that of their children. Any such programme should be designed on the basic premise that workers in the unorganised/informal sector are also human beings having their own cultural identity and are entitled to the same inalienable human rights as their counterparts in the formal/organised sector. The workers' education programme must make them aware of their own strength and weaknesses vis-à-vis the strength and weaknesses of people who surround them and who influence their lives and must impart them the basic wherewithal so that they can stand up and walk on this earth with dignity, grit, courage, self-confidence and strength as any other human being.

As of date both the Central Board of Workers' Education as well as the V V Giri NLI have undertaken workers' education programme for mobilisation, organisation and empowerment of workers in the unorganised/informal sector differently though the objectives, strategy and methodology converge in many respects. To illustrate, the CBWE today is organising seven types of programmes in rural areas of which most important are three programmes, namely, two-day rural awareness camp, one-month course for rural educators/organisers and one-week orientation programmes for rural educators/organisers. Each year about 30 to 40 programmes are being organised in each of the 48 zones of CBWE. Since inception till 13th November, 1997 more than 1.5 million people have been made aware through two-day camps and more than 2500 rural educators/organisers have been given one-month training. Judged by sheer number these are quite impressive achievements.

The V V Giri NLI is also involved in various kinds of activities with regard to education and conscientisation of rural labour. Leadership development programme for rural organisers and rural labour camps are the two main programmes of the Institute. The first one is meant for trade union activists where participants are nominated by recognised trade unions. The rural labour camps are being conducted at the grassroot level by the faculty of the Institute since 1974. The Institute has so far conducted about 100 such camps involving about four and a half thousand workers.

A workshop was held in 1997 to bring about a synergy or convergence between the activities of the CBWE vis-à-vis those of the NLI. In the workshop it was agreed that the two organisations should endeavour to evolve a common perspective, strategy and methodology. The actual conduct of two rural labour camps organised by the CBWE and two by the NLI were also jointly observed. The following commonalities and divergences were found from such observation.

Commonalities

The CBWE and NLI objectives are common in regard to -

- * Inform the rural workers about the need for organisation.

- * Helping them realise the need for organisation.
- * Initiate organised action.

Differences

- * In the CBWE camp the emphasis is on information and dissemination while in the NLI camp the emphasis is on reflection and action or what is known as conscientisation.
- * The camps organised by CBWE and NLI also differ in terms of methods used, inputs provided, time devoted, cost incurred and outcome/impact.

Points for Consideration

- * The non-formal and unconventional method of conducting a camp adopted by the VVG NLI is the most appropriate method if the purpose of rural labour camps is to develop organised action amongst rural labour. The need for organised action is not only relevant but has acquired greater urgency. The awareness camps organised by the CBWE may not be able to achieve this objective. It will be, therefore, appropriate that in the first place the goal and objective of the camps should be sharply focussed in the light of the initial mandate of developing organised action of rural labour. This would automatically necessitate redesigning of the programmes.
- * While this may be the broad objective and strategy for conducting the rural labour camps for organising the unorganised rural labour/poor considering the changes and improvements which have taken place in the state of literacy and awareness of the rural masses the number which is devoted to the rural labour camp may be reduced from 5 to 3. The first day may be devoted to formation of groups and identification of problems. The second day may be devoted to identification of strategies to deal with the problems and the third day may be devoted to create forms of organisation which are to take shape or roots on the basis of the outcome of the camp. The objective of the camp should go beyond creation of awareness about government schemes and programmes and about legal rights of labour to one of perception and internalisation of the need for organisation and sustaining the unity, solidarity, viability and strength of the organisation. Since India has ratified the ILO Convention No.141 as early as August, 1997 it is imperative that the entire strategy and methodology of conducting camps be oriented to formation of new rural workers' organisations while strengthening and empowering the existing organisations.

If the above broad formulation is agreed upon CBWE and NLI may agree to converge some of their programmes instead of duplicating them or having parallel

programmes at avoidable cost and time.

Strategy and Methodology of Workers' Education in the Organised Sector

We have already entered the new millennium on 1-1-2000. This is a transitional though crucial phase of human history when the philosophy of the global society "वसुधैव कुटुम्बकम्" is becoming a reality. We entered the industrial age from the agricultural age and from the industrial age we have now entered the information age. Scientific and technological advancements have been greatly facilitated by the revolution in the area of information technology. The pace and momentum of that revolution are taking place with such rapidity that today's upto date becomes stale tomorrow and one can not any longer be successful tomorrow with what knowledge, information and skills one has today. This is an age where the only constant is change. In this age traditional teaching and learning is fast falling short of the need if not altogether obsolete. Today's computer chip can perform operations in billionth of a second and it will advance to trillionth in the immediate future. We can communicate around the entire globe in matter of seconds through E-mail and Encyclopaedia Britannica contents - all 29 volumes - in less than a second. The satellite technology, the cellular phones bring us facts of life quicker than we can imbibe and assimilate them.

While this is the general scenario in the environment around us swift changes are taking place at the work place itself. On account of increasing application of information technology jobs appear to be vanishing as it is possible to increase the output with reduced workforce with the help of information technology. Information technology makes it possible for the Chief Executive to establish faster inter-personal communication with a small, compact and manageable workforce placed at few layers or levels in a planned and focussed manner. All these are major pointers towards one inescapable though unpalatable phenomenon i.e shrinkage of employment in the organised sector and entry of a large workforce which is otherwise unskilled or at best semi skilled into the labour market which can be characterised as informal. Since a large number of orders are to be executed in less time and cost even the requirement of the new labour market which is largely in the services sector is undergoing rapid change. The new labour market requires new skills and since these are at variance with the skills/trades which are imparted through the existing institutional mechanisms i.e polytechnics and ITIs there is a clearly perceptible hiatus between what we provide institutionally and what is needed urgently by the labour market. Such a mismatch could be entirely to the detriment of the productivity and competitiveness of the enterprise on the one hand and the plight and predicament of the workforce on the other. Over the years not much attention has been paid to vocational skill training programmes in as much as barely one million out of the total workforce of 370 million has been covered by the limited number of seats available in the ITI etc while the rest remain outside the framework of the institutional mechanism. Vocational skill training programme will have to be viewed in close conjunction with efforts made for promotion of functional literacy of millions of people in rural, semi-urban areas who have remained unlettered

for years. The World Employment Report (1998-99) brought out by the ILO has clearly established that with low level of cognitive skills and with rapid changes taking place in a fiercely aggressive and aggressively competitive labour market it is futile to think that the latter will be able to absorb such a large workforce which is without those skills. The net consequence of all this would be the repulsion of a large workforce who are not in possession of the minimum wherewithal and nobody knows where exactly millions of such repulsed workforce will land up.

Workers' education programmes cannot, therefore, be implemented in the organised sector in total isolation of the rapid changes in the work environment or in the labour market.

Individual learning, individual and group creativity and innovation will have to be the new watchword in the entire strategy and programme of workers' education. Learning, creativity and innovation can offer the best opportunities as the most powerful engines for growth. Continuous learning imparts the skill to anticipate and develop the adaptability to change through innovation and generation of creative ideas which are capable of creating new opportunities in the fast changing world of today. The traits, attributes and characteristics of a human being which inhibit creativity and innovation are adherence to set ideas and inflexible attitude which is also externally motivated and socially unskilled. The programmes of workers' education in the organised sector should be so redesigned, reactivated and reconducted that they replace the unskilled, inflexible, sticky and rigid mindsets by something which can be called as broad, liberal and expansive. It is only with such broad, liberal and expansive attitude and approach that one can perceive and internalise new ideas and be able to imbibe and assimilate them for producing results which are relevant to an organisation which has to carve out its place in the new dispensation. Workers' education programmes should enable individual creativity to flourish and ripen in a manner which will contribute to group creativity, enhanced group work techniques such as brain storming and mind mapping and would eventually help to resolve problems in the organisation as a collectivity. Workers' education programmes should create a climate in which every individual is able to make personal knowledge available to the group as well as to the organisation. When personal knowledge is made available to other individuals and members of a group it also paves the way for creation of a knowledge based organisation and such a knowledge based organisation can tap individual insights, intuitions and innovations and harness them in the larger interest of organisational effectiveness. Sharing of individual knowledge, information and skill with members of a group leads to a number of desirable consequences. It leads to saving human lives exposed to hazardous work situations. It promotes import substitution. It saves precious foreign exchange. It promotes better preventive maintenance. It arrests leakage and wastage of scarce domestic resources. Yet another important aspect in creativity and innovation is that they are not static but dynamic and continuous innovation is dependent on continuous knowledge creation and sharing. This is a process where personal knowledge is converted to explicit organisational knowledge. For this we need proper channels of communication and

dialogue for facilitating easier and free access to information. It is through a two way process of communication that knowledge can be shared to be of interest and relevance to members of a group. Creation of individual knowledge is possible only when the existing knowledge gets disseminated and churned and churning gives rise to a new awareness or consciousness. In the ultimate analysis workers' education to be relevant and meaningful in a fiercely aggressive and aggressively competitive world which is fast shrinking has to rest on the premise of total quality management; it is total quality management alone which can lead to increased productivity, competitiveness and total and optimal employee satisfaction. Total quality management can take many forms such as participative management, quality circles etc. but regardless of the form we need to imbibe and assimilate EQM as the key word in pursuit of excellence and organisational effectiveness.

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