

# THE NEED FOR DEVELOPING OCCUPATIONAL HEALTH AND SAFETY PROGRAMME IN RELATION TO INDUSTRIALISATION IN ASIA AND THE FAR EAST

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You have now heard the definition of Occupational Health. It is the discipline and the sciences and the practices of multi-disciplinary approach to maintain optimum health and well-being; efficiency and productivity of people engaged in all occupations. For industrial countries, this is of utmost importance. Do we think by this, that occupation is harmful? No, work is not harmful by any means. Work is probably the only criterion and I think an identification of a productive life. Without work, we will feel very bad. Having work, you will see that you are productive; you are progressive; that you are accomplishing something. So work actually has got very good beneficial effects with regard to health and when I talk about health, I mean the total social, physical and mental well-being. So with work you get the full satisfaction in your life and gratification. With work, you also maintain your physical health and with work, you get mentally satisfied and socially adjusted. On the other hand, when work is not suitably adjusted to man, his capacities and limitations, it produces a stress on man. This stress could be withstood within certain limits until the tolerance limit is reached and it comes to a breaking point then you will find certain diseases occurring as a result. This could be mental, psychological or physical disorders.

Man has his limitations and has his capacities and he may be employed in a certain occupation already with so many ailments occurring in his body, particularly, when you get people working as an unskilled worker and unskill kind of work with a background of parasitic diseases or anaemia or skin diseases or malnutrition or tuberculosis; then these conditions could be complicated by the work circumstances. On the other hand, in industries, you will find several industrial processes that could be harmful to health, like for example, exposure to dust or fumes, or gases, or toxic substances, leading to different kinds of occupational diseases. We

do not mean by this that the industrialisation for industries is something you object to. Actually, we want to encourage industrialisation; we want to encourage having more factories but factories are built to raise the standard of living of the people and therefore we want to keep them as such. They are a source of a better welfare for the workers and for the community and we want to prevent all the hazards and all the possible potential dangers existing in the line of employment so that we can maintain the health of the worker and also maintain an optimum production.

I have now three points to say. The first point is that the prevention of diseases and ailments in industry or in any occupation is always less than the cost of that of treatment. That is why occupational health is quite needed for industrialisation, and for economic purposes, as well as for welfare purposes. It has its humanitarian aspect, its welfare and social aspects and the economic and productive aspects.

I once was in a factory and I met a little girl with three fingers cut off. This happened from an accident from a circulating saw. Then I thought of her plight and I looked at the whole condition from the beginning. This girl was warded in the hospital for about three weeks, was treated by doctors, was given medicine, then was given sickness absence, of course, during the whole period of time and at the end she was given compensation and then I asked the manager of the plant, how much does it cost to have a guard on this saw, on this circulating saw. When I came to the cost of that guard, I found it was one hundredth of the cost of the disabilities that had happened to this poor girl. That guard over this circulating saw would have prevented not only the accident, which happened to that girl but also all the other workers that were exposed to the danger.

When you think of silicosis and its effects on the man leading to disabilities *e.g.* dyspnoea,

severe cough, off and on, and the inability to climb up and down the stairs, this is a severe disability. When you find out how much in a worker's life span will be lost as a result of the disease, you will discover that he will retire at an early age. You will then lose him as a skilled worker. While the cost of dust suppression *e.g.* the cost of fixing a ventilating duct to prevent the dust is very much less than the amount of losses inflicted on society and on the individual together with all the other workers who are working with him. We will find that this cost will not reach even one over a hundred. That's why any investment, any money you spend in occupational health and on prevention, you will find returned very many, many times. That's why it is so important.

The second point is why during industrialisation? I would say during industrialisation because this is the best opportunity to install preventive measures. Everyday we are building new factories. During the course of construction of these new factories, we can implement all the recommendations of industrial hygiene engineering, of layout of equipment or layout of facilities and machines and industrial processes and so on; to prevent all the potential hazardous exposure that may result from the working out of this plan. This is much less costly than when you go to a factory afterwards and find out that there are so many problems of dust, of gas and fumes and so on. Then you will try to remove certain parts and fix other parts and change the engineering design and, as a matter of fact, everything in the plan counts in terms of production. The chair on which you sit, on which the workers are seated, has to be adjusted according to certain anatomical and anthropological characteristics of workers both to prevent their fatigue and to make them produce better. The light of the factory has to be adequate enough and nicely distributed both to prevent gradual loss of vision of these workers or eye strain during work and as well as to make them produce better work in better work in better lighting condition. So during industrialisation we have our opportunity to put in the engineering devices and engineering controls within the plant so that we will never suffer from them after they are in operation.

The third point in regard generally to developing countries, is the fact that big facto-

ries can afford to have doctors; big factories may have a better pay for the average workers; big factories may have more discipline, more welfare facilities; may have better facilities of examining the workers before employment and during employment to maintain his health to the optimum. But when you come to small factories you will find so many problems. Small factories comprise a majority of work places in all developing countries and even in developed countries. Small industries usually have a manager who started work with his family members. Then, it grew a little and then became larger in size and finally reached a level of 50 workers. He and his workers are lacking in education and awareness of occupational health and industrial hygiene principles, ergonomics, and machine design and all these things.

He is not capable of giving a high salary to his workers nor can he afford to have a doctor to examine his workers and put them on the job. So as a result of this, you will find that most of the hazardous exposures do exist in these factories. When you come to legislation and control, small factories are very difficult to handle. Why? They are so many in numbers and they are so widespread. If you, for example, have 7 inspectors enforcing the factory legislation and there are 3,000 factories, how can one expect 7 inspectors to inspect all these 3,000 factories in a year, in addition to periodically making recommendations and specific machine design of prevention and so on adequately? So small work places are always left behind. In these small work places, there is the majority of labour, power and the most productive power. Hence special attention should be given to these. If we have adequate legislation, adequate national health services, adequate national occupational health services, adequate inspection and all kinds of workers' facilities for industries, these will have been very useful. If we take care of occupational health, and we should not forget that the big bulk of productive power, of labour power, are engaged in the small industries where such services are practically negligible. Therefore, we come to the obligation of the whole society to take care of the small industries and to handle their problems.

These are the 3 points I want to mention. Thank you ladies and gentlemen.