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Title

MAGNITUDE AND COMPENSABILITY OF INDUSTRIAL ACCIDENTS IN NEPAL

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Abstract:

As the study has attempted to assess the magnitudes of industrial accidents in Nepal after the enactment of Labor Act 1992 in order to observe the effectiveness of the provision of health and safety measures in reducing incidence, frequency and severity of industrial accident. On the calculation of these indicators based on the secondary data observed inconsistency in the reduction between severity of industrial accidents and frequency and incidence rate of industrial accidents indicating seriousness of the accident and increasing the compensation and premium of insurance. Among the industrial accidents, more than fifty percent of them were compensable in nature indicating a significant loss of job and economic loss of workers and performance and productivity of the concerned enterprises. Thus, concerned parties are suggested to form a multipartite committee and organize sensitivity training to workers in every enterprise to manage the issue of industrial safety effectively and efficiently in Nepal.

Key words: Compensability of accidents, Frequency of industrial accidents, Incidence of industrial accident, Industrial safety, Role of stakeholders and Severity of industrial accidents.

INTRODUCTION:

The health and safety of the workers and their efficiency are directly related to each other. Sound health and safety measure not only result in reduced rate of industrial accidents but also raise the production. Industrial accidents (occupational accidents) cause suffering and distress to workers and their families. Occupational injury denotes any personal injury, disease or death resulting from an occupational accident (Laurie, 1998). Occupational accident is defined as an occurrence arising out of or in the course of work which results in: (a) fatal occupational injury, or (b) non-fatal occupational injury (ILO, 1996:96). Occupational injury means death, any personal injury or disease resulting from an occupational accident. Often the term occupational accident is understood as a sudden, external and involuntary event (Hamalainen et al., 2006: 137).

It also represents an important material loss to factory and to the society. Occupational accidents is an unexpected and unplanned occurrence, including acts of non-consensual violence, arising out of or in connection with work which results in personal injury, disease or death (Laurie, 1998:44); Occupational accidents and disease remain the most appalling human tragedy of

modern industry and one of its most serious forms of economic waste (Somavia, 2004). The International Labor Organization (ILO) reported that work-related accidents and diseases cost the global economy some 4% a year in lost revenues or a staggering US$1.25 thousand billion annually (ILO, 2003). Therefore, it is the responsibility of every manager to ensure sound health of the workers and safety measure at work to prevent them from accidents.

THE CONCEPT:

Good health is crucial to live a worthwhile human life. In addition, access use and enhancement of all other basic human capabilities are fundamentally contingent of good health. Health is more than freedom from sicknesses. It is a broad term embracing the economic, social and emotional life of man. WHO has defined health as, "A state of complete physical, mental and social well-being and not merely the absence of disease and infirmity" (as quoted by Park and Park 1991: 12). Hence, every enterprise has to ensure physical, mental and social well-being of workers and preventing them from ill health caused by working conditions and protecting them from health related risks. Safety also indicates freedom from occurrence of risk, injury or loss. Industrial safety means protection from all dangers of industrial nature, which results in personal injuries.

Common problem of occupational hazards in Nepal are known to be industrial injuries, accidents, mechanical and chemical hazards and psychosocial hazards and the major causes of industrial accidents, among others, are the ignorance of workers and employers and the negligent efforts of the government. The violation of safety rules, lack of formal training, worker attitudes, lack of supervision, use of old or outdated machines or equipment, poor layout, congested workplaces and unsuitable working conditions are some other causes of industrial accidents (Joshi, 2009). Likewise, Joshi and Dahal (2008) have suggest to form a worker's participative mechanism concerning occupational health and other aspects of their work, safety and health so that workers will also be able to participate in planning and decision-making activities regarding the reduction of industrial accidents in their workplace.

NEED FOR HEALTH AND SAFETY MEASURES IN NEPAL:

The need for health and safety measure for factory workers in Nepal is necessary due to the structure of workforce, poor health delivery system in the country and its consequent effect on health of workers, nature of production process and mass poverty in the country.

The health services facilities in Nepal are not symmetrically distributed. People walk for several hours to get health services. The poor are denied access to health services because of the cost. The present health scenario of Nepal is very bleak. The health and nutrition status of its people can only be described as extremely poor. It can be said without exaggeration that at any given time almost everyone in Nepal is either ill or imminently at risk of major health problem. The limited access to health facilities, very low level and quality of nutrition, acute problem of sanitation are the common attributes of Nepalese health status (Nepal South Asia Center, 1998).

Poverty is common characteristics of Nepalese workers because of which they are under-nutrient, and living in unsanitary living condition, which could lead to intermittent or prolong bouts of illness, which in turn lead to absenteeism from work, and adversely affecting production in enterprises. Similarly, it is a common practice that the under-developed countries are generally exposed to occupational hazards because of installing the outmoded worn-out and dangerous capital equipment imported from the developed country at very low price.

It may be said here that Nepalese entrepreneurs import machinery and equipment without paying much attention to the quality of the machine including those used in textile, iron and steel, pharmaceutical and chemical, soap, food and beverage units. No one makes it a point to see to it that whether the machines are compatible to local conditions where the skill of worker is questionable. Likewise, adequate safety and pollution control equipment are not installed in most of the enterprises. The contractors are rarely concerned with the health of contract workers since they do not form a part of the firms' workforce. Their plight is not even recorded. For the purpose of more profit, employers try to save cost by not providing protective measures which leads to serious health problems, accidents, and deaths among the workers. The use of obsolete machinery and use of untrained worker have led to a rising cases of accidents resulting in loss of limbs is another problems of Nepalese industries.

ROLES OF STAKEHOLDERS:

Maintaining the health and safety in enterprises is not only the matter of concern of the victims but also the role of other many more stakeholders, because the poor health and accident of industrial workers bring many problems in the society as a whole. Thus, this section of the study focuses the role to be played by the government, management and trade unions considering as the prime concerned parties in the issue.

Role of Government

The government, as an actor of industrial relations system, can play crucial role in reducing the incidents of industrial accidents and the problem of occupational health by formulating appropriate labor laws. Government is only that actor in industrial relations system, which controls relationship between other two actors, employers and employees (Bajrachrya, 1998: 21) and maintains harmonious industrial relations in the country. The government renders the task of regulating standard of health and safety measures in enterprises by using the authority mentioned in the concerned laws formulated as guided along by the constitution, ILO conventions and recommendations, labor policies and labor movements.

Role of management

The sound health and safety measures not only result in reduced rate of industrial accident, absenteeism, and turnover, physical and mental, strain of workers and wastage of resources but also raise efficiency in production, boost moral team spirit and the sense of belongingness among the employees. The poor health and hazardous work cause suffering and distress to workers and their families. They also represent an important mental loss to the factory in particular and society in general. Hence, it is a prime responsibility of every management to ensure about good health and safe environment in the factory.

Role of trade union

As the source protection of the rights and interests of the members, trade unions can help enterprise for effective implementation of the legal provisions made for the prevention, promotion and development of health and safety measures for workers at workplace. Unions can pressurize government for the enactment of health and safety friendly labor laws and management to implement it effectively.

PROVISIONS FOR THE MAINTENANCE OF INDUSTRIAL HEALTH AND SAFETY:

Though Nepal has not yet ratified the ILO Convention 155 on occupational Safety and Health (Pun, 2011), health and safety-related protection measures have been included in the governing Labor Act, 1992. The act is much in tune with the ILO recommendation number 23 (1919) concerning the prevention of industrial accidents, recommendation number 97 (1953) concerning the protection of workers health and ILO convention number 155 (1981) concerned with the occupational safety and health and working environment.

Considering the fact of socio-economic conditions of people and attitudes of management, the Labor Act 1992 demands every employer to be responsible enough to provide adequate health and safety services to the employers. The Act in chapter 5 has outlined a multidimensional measure to ensure good health and safety of the workers working at the ten or more worker employed organizations as:

(a) To maintain neat and clean condition in the establishment ensuring that dirt and filth do not cause any stench.

(b) To ensure adequate ventilation, light and temperature in workroom.

(c) To arrange for the disposal and distraction of refuse, dirt and filth.

(d) To prevent inhalation of industrial dusts, fumes and polluted air that harms the health of workers.

(e) To arrange for the protection or reduce the adverse impact of noise produce in the work on the health of workers.

(f) To arrange sufficient space for the movement of workers with a view to eliminate injury because of overcrowding at work place. In consonance with this provision, the Act has prescribed at least 15 cubic meter of space for each worker depending on the nature of the work.

(g) To arrange adequate water for drinking, flushing of toxic chemicals and extinguishing fires.

(h) To arrange separate toilet for male and female.

(i) To declare all or any part of establishment as a non-smoking zone based on the nature of establishment.

(j) To arrange for compulsory medical checkup of workers in the hazardous factory at least once a year.

(k) To provide protecting equipment to protect the eyes of workers from the bad effect of dust, particulates and radiation.

(l) To make arrangement for equipment to protect workers from the harmful effects of chemicals and the factory from fire.

(m) To construct fence around each part of danger machinery and equipment and timely inspection, lubrication and adjustment by an experienced and trained adult workers.

(n) To prevent from the likely injury, the Act has prescribed optimum limit of load to be lifted or moved by the workers based on age and sex. The prescribed loads for adult male is 55 kg, 45 kg for female, 25 kg for minor male and 20 kg for minor female aged between 16 and 18 years. It is 20 kg for the minor male and female of aged between 14 and 16 years.

The Act also has safety provisions for the workers who work higher than atmospheric pressure in the production process. In order to ensure safety of workers, the Labor Officer has been authorized to issue an order to the management for necessary arrangement and provision for health and safety of the workers and to close down the unsafe plant and machinery (Section 34). The provision of compulsory reporting to the Labor Office by the concerned establishment about the fatal accidents or serious accidents or occupational diseases is made in the Act (Section 35).

The Act has also empowered the government to specify the safety standards in the country (Section 36). The act has shown its special concerned to the protection from occupational diseases, health hazards, injuries and accidents to the workers working the hazardous jobs like construction, transportation,

PROVISION FOR COMPENSATION:

The Labour Act 1992 and the Labour Rules 1993 have made the following provision of compensation to the workers in case of ill-health and accidents during the work.

Accident Compensation

According to section 39 of Labor Act, 1992 and Sections 15-21 of the Labor Rules, 1993, workers are compensated for injury, physical disability and death due to injury or accident caused to them by accidents arising out of and in the course of their employment (please see Box 1 for legal provision of compensation). The basic objective of the Act, in this regard, is to create obligation upon the employer to compensate the workers or their families in case of personal inquiries of workers. If any worker sustains such injuries except from natural calamities while discharging his assigned duties, the worker has to be compensated as per the provision in the rules. The Labor Rules divide the events into three types as physical injury, physical disability and death. The amount of compensation is different in different eventualities and cases.

Injury Benefits

Injured workers are paid out wages and medical expenses. In fact, the factory covers the expenses of the treatment as long as he/she is in hospital for treatment. However, the wages shall be half in case the treatment is being done at home. The General Manager is not compelled to pay the wages for the period exceeding one year in the event of physical injury.

Disablement Benefit

The physically disabled worker is entitled to receive the wages up to the period of five years, based on the percentage of the physical disability.

Dependents Benefit

If the worker dies because of the injury and accident, a lump sum wages of the three years is paid to his nearest kith and kin (Labor Rules 1993: Section 19). However, no compensation is paid to workers who have been injured or disabled or dead as a result of natural calamity even if he is sustained by such events while discharging the duties assigned to him by the establishment.

Box 1: Provision for the Compensation against Injury/ Accident in Labor Rules, 1993

Sec. 15. Compensation against injury: (1) In case a worker or employee is injured while doing a work designated by Enterprise, the whole amount incurred on his/her treatment, shall be paid by the Proprietor, as compensation, to such worker or employee on the recommendation of the medical practitioner recognized by Government of Nepal.

(2) In case a worker or employee, after being injured in course of doing the works designated by the Enterprise, is unable to work and is required to undergo treatment staying at home or Hospital, the Proprietor shall have to provide the full remuneration in case of treatment in the Hospital; half of the remuneration in case of treatment undergone at home for that period, in addition to the compensation to be provided pursuant to Sub-rule (1).

Provided that, the Proprietor need not to provide any remuneration for the period for more than One year in case the treatment has to be undergone for more than that period.

Sec. 16. Compensation in case of grievous hurt resulting in physical disability : In case a worker or employee is grievously hurts leading to the physical disability while doing the works designated by the Enterprise, then such a worker or employee shall be paid by the Proprietor a lump sum amount equivalent to his/her Five years remuneration at the rate of his/her current remuneration, if the disability of the worker or employee is of Hundred percent, which being determined on the basis of percentage of disability as mentioned in the Schedule.

(2) While paying compensation for the injury leading to the disablement, by the Proprietor to the concerned worker or employee pursuant to this Rule, and compensation amount payable equivalent to the percentage of his/her disablement as mentioned in Schedule assuming Five years of remuneration amount for the hundred percent disablements.

Sec. 17. Compensation in case of death: If any worker or employee dies immediately or during treatment as a result of an accident while doing the works designated by the Enterprise, compensation equivalent to the amount of Three years of remuneration of the deceased shall be provided by the Proprietor, in lumps to the nearest heir of the deceased worker or employee.

Sec. 18. Determination of the percentage of disablement: In case any worker or employee is injured leading to physical disablement as a result of an accident while working in the Enterprise, the Factory Inspector after getting determined the percentage of disablement of such worker or employee as mentioned in schedule from the medical practitioner recognized by Government of Nepal shall get the compensation paid to such worker or employee by the Proprietor pursuant to Rule 16. Provided that, the determination of percentage of disablement ofworker or employee shall not be more than Hundred percent.

Sec. 19. Circumstance not receiving compensation: In case a worker or employee dies or succumbs to injury leading to physical disablement, due to natural calamities while working the work designated by the Enterprise, the heir of such worker or employee shall not be entitled to the compensation pursuant to these Rules.

20. Double compensation shall not be received: In case any Enterprise has procured any sorts of insurance of its workers or employees, then such worker or employee shall get only either the compensation amount pursuant to these Rules or the compensation amount of insurance whichever is greater.

Sec. 21. May be terminated from service awarding compensation and gratuity: In case any worker or employee gets injured as a result of an accident while working in the Enterprise and does not get recovered even after treatment up to One year or is certified by a medical practitioner recognized by Government of Nepal that he/she is unable to work due to disablement caused by accident, then such worker or employee may be terminated from service by the Proprietor by providing compensation pursuant to Rule 16, in addition to the gratuity under these Rules.

OBJECTIVES:

The primary objective of the study was to visualize the trend of industrial accidents after the enactment of current Labor Act 1992. Besides, it also aims to:

- Assess the influence of safety measures conceptualized in the Labor Act to the occurrence and magnitude of industrial accidents in Nepal.
- Make inter-comparison between severity, frequency and incidence of the industrial accidents in Nepal.
- Compare between total accidents and compensable accidents to know the effectiveness of workplace safety measures.
- To ascertain the influence of the Labor Act to the magnitudes of industrial accidents

METHODS AND APPROACHES:

In the direction of the achievement of the objectives of the study, a descriptive research design was thought to be appropriate in the study. The reference period for the study varies from 1993/94 to 2008/09. The magnitudes of industrial accidents and effectiveness safety measures were measured based on the calculation of industrial safety indicators.

The important industrial safety indicators are incidence, frequency and severity rates of the industrial accidents. As much as much as the rates of these indicators decreases that much the industry is known to be accident free and safe and vice versa. National practices vary as to the types of indicator used for their calculation. Thus, ILO has recommended guidelines to assist in the calculation of these rates and bring worldwide uniformity in the measurement of industrial safety. Thus, the study has followed the same. ILO has defined and suggested the way of calculating these indicators (ILO, 1999): as:

Incidence rates relate the number of new cases of occupational injury to the number of workers exposed to the risk of occupational injury. The denominator is usually the total number of persons employed. It is measured in terms of one thousand workers employed. The incidence rate indicates company's safety performance and it can be used to compare the performance of company to other companies in terms of safety performance.

Statistically, Incidence *Rate = number of injuries ÷ total number of workers employed X 1000*

A frequency rate is intended to indicate the number of new cases of injury occurring in relation to the amount of time during which workers in the reference group were "exposed to the risk" of being involved in an occupational accident. In calculating frequency rates, the most useful denominator is therefore, the number of hours actually worked. Alternatively, frequency rate is calculated by dividing the total number of injuries by corresponding number of man-days worked in million (Lakhs). An accident frequency rate indicates the number of accidents that occurred in a company per a certain number of hours worked by all employees (http://www.ehow.com). This rate is used to compare and understand the safety measure adopted by the company to reduce the occurrence of industrial injuries in a given period.

Statistically, *Frequency Rate = number of injuries ÷ total number of hours worked X 1000*

Severity rates, in which time lost is measured in relation to the total amount of time worked, are a useful indicator of the consequences of occupational injuries and are therefore important for prevention measures. Following the practice in certain countries, ILO has proposed to measure the severity rate as the amount of time lost per million hours actually worked. As the workers do not come to the, the severity rate indicates the duration of disability. It also reflects the quantum of lost work (severity of accident). Severity rate is calculated by dividing the number of person-days lost due to injuries by the number of man-days worked in million (lakh).

Statistically, Severity *Rate= number of man-days lost÷ number of man-days worked X 100000*

Data source: The major data sources used in the study were the publications of FNCCI and the data provided by the Department of Labor and Employment Promotion, government of Nepal.

THE RESUTLS AND DISCUSSION:

In the absence of adequate and specific study in the sector of health and safety, it is very difficult to say the exact situation of health and safety in Nepalese manufacturing sector. However, many issues raised by workers at the time of their strike indicate their dissatisfaction towards the present practice of health and safety measures in Nepal. The study made by FNCCI (1997: 25) concludes that majority of industries have been fulfilling their health and safety responsibility towards the workers by providing low cost bearing health protecting equipment like masks, gloves, shoes and helmet. In addition, the study also blamed that workers were not found

wearing these materials due to negligence and lack of awareness about health hazards associated with their job. However, the heavy and costly instruments like fire extinguisher were not used except in large industries. Consequently, industrial accidents are common in Nepalese organization. The trend and magnitudes of industrial accidents explained in the following sections reflect the real sate of the health and safety in Nepal.

Trends of industrial accidents

Table 1 shows the number and work-related accidents reported to Department of Labor and Employment Promotion from 1993/94 (after the enactment of Labor Act 1992) to 2008/09. From the Table 1 it is evident that the ratio between fatal and non-fatal (serious and minor) accidents in factories was fluctuating. The ratio observed 1:3.4 points in 1993/94 and increased to 1:6.86 in 1994/95 and rose to 1:17.50 in 1996/97 and fall to 1:0.95 in 1997/98, with maximum record of fatal injury (39 cases) during the study period. The ratio again rose to 12.83 in 2003/04 gone to 2.8 in 2004/05 marinating the average ratio of 1:3.86 points in between 2005/06 to 2008/09. Such a fluctuating ratio between fatal and non-fatal accidents indicates that the enterprises under studies could not minimize the incident of industrial accidents caused by different factors in Nepal. The proportion of fatal, serious and minor accidents of 2:3:5 indicates influence of cost consuming accidents (fatal and serious) in the pattern of industrial accidents in Nepal.

Overall, the distribution of data clearly indicates that enterprises in Nepal could not very much success in minimizing the industrial accidents and minimize the pattern of cost consuming accidents (Table 3) in Nepal

Table 1

Trend of Industrial accidents by year after the enactment of Labor Act 1992 in Nepal

Year	Accidents				Man days lost	Total workers	Ratio between fatal and non-fatal
	Fatal	Serious	Minor	Total			
93/94	7	14	8	29	566	355058	1:3.14
94/95	14	2	94	110	345	370316	1:6.86
95/96	5	17	20	42	191	374860	1:7.40
96/97	2	12	23	37	190	382845	1:17.50
97/98	39	21	16	76	190	385960	1:0.95
98/99	7	18	17	42	632	387200	1:5.00
99/00	15	23	17	55	613	392421	1:2.67
00/01	5	17	14	37	282	394541	1:6.20
01/02	6	23	17	46	623	359323	1:6.67
02/03	6	16	14	36	9766	307536	1:5.00
03/04	6	17	60	83	991	306430	1:12.83
04/05	10	12	16	38	1036	310900	1:2.80
05/06	6	12	15	33	446	310145	1:4.50
06/07	13	18	19	50	3	311069	1:2.85
08/09	13	12	43	68	35	313190	1:4.23
Average	**10.27**	**15.60**	**26.20**	**52.13**	**1060.60**	**350786**	**1:4**

Source: Department of Labor and Employment Promotion (then Department of Labor) and FNCCI (Various years)

Magnitudes of industrial accidents

The data in the Table 2 indicate the magnitude and gravity of industrial safety in Nepal. The gravity of workplace injuries (measured in terms of severity rate) was not so much satisfactory as compared to rate of incidence and frequency of workplace injuries in Nepal.

Table 2

Health and Safety Indicators in Nepal [1]

Year	Incidence Rate	Frequency rate	Severity Rate
1993/94	0.082	0.02	0.57
1994/95	0.297	0.14	0.33
1995/96	0.112	0.10	0.180
1996/97	0.097	0.09	0.18
1997/98	0.197	0.18	0.17
1998/99	0.108	0.03	0.58
1999/00	0.140	0.04	0.55
2000/01	0.094	0.06	0.25
20001/02	0.128	0.03	0.61
2002/03	0.117	0.00	11.26
2003/04	0.271	0.04	1.15
2004/05	0.122	0.02	1.18
2005/06	0.106	0.03	0.51
2006/07	0.161	7.39	0.00
2008/09	0.217	0.86	0.04
Average	0.150	0.60	1.17

Source: Calculated from Table 2,

In an average, it was observed 1.17 points with the fluctuation from 0.04 in 2008/09 and up to the 11.26 point in 2002/03. The high severity rate reflects that each incident has high number of lost work and thus the workers takes longer time to return in his his/her work after an accident, indicating seriousness of the accident. Such a result of high severity rates can influence to the compensation provided by the company to the workers and increase the amount of premium of insurance. That means higher is the incidence rate the greater amount is the compensation and insurance premium (http://www.ehow.com/how_6920816_compute-severity-rate-osha.html). Similarly, the accident frequency rate compares the safety measures of one organization to another depending on the size or over different time frames.

EFFECTIVENESS OF SAFETY MEASURES:

Depending on the nature, severity and longevity of illness, an injury (accident) occurred during the work of employees in the employment place because of genuine cause is known as compensable injury. Thus on-the-job injuries caused by defective machinery, fires or explosions at work, lifting of heavy equipment or material or slipping on an oily floor surface at work are some of the example of compensable accident. Similarly, some of the illnesses are also compensable in Nepal. However, no all accidents are considered fully compensable in Nepal. Depending on the cause, nature, severity and longevity, the Labor Act 1992 specifies that some of them are financially compensable and some are compensable by paid leave and some are simply the injury required medical treatment only. The amount of compensation (including paid leave) in Nepal is specified in the Labor Act as mentioned in the section IV of the study or and bilateral agreement between workers and management. The data in the Table 3 specify the effectiveness of safety measures adopted by Nepalese enterprises to protect and promote health of their workforce. The safety measures are assumed to be effective based on the compensability nature of the accidents. .

Table 3

Relationship between Total and Compensable Accidents in Nepal

Year	Total Accidents	Compensable Accidents
1993/94	29	29
1994/95	110	81
1995/96	42	35
1996/97	37	23
1997/98	76	23
1998/99	42	33
1999/00	55	25
2000/01	37	8
2001/02	46	26
2002/03	36	29
2003/04	83	14
2004/05	38	30
2005/06	33	32
2006/07	50	25
2008/09	68	2
Average	**52.13**	**27.67**

Source: Department of Labor and Employment Promotion (then Department of Labor) and FNCCI (Various years)

The data in the Table 3 specify that more than fifty percent of industrial accidents were compensable in Nepal during last 15 years. Such a great extent of compensability nature of accidents indicates a great deal of the loss of job and economic loss of concerned workers and performance and productivity of concerned enterprises in Nepal

CONCLUSION AND RECOMMENDATIONS:

Good health is fundamentally important for human life. Thus, the Labor Act has incorporated certain provisions for the health and safety of workers including neat and clean workplace with adequate ventilation, light and sufficient space for movement of workers. The prerequisite for the disposal of refuses and dirt, and measures to protect workers from occupational diseases and noise are other inclusions of the Act. The Act has also focused to arrange for a compulsory medical examination, at least once a year, of the workers in the hazardous job. The facilities of adequate water for drinking and washing, toilet facilities, constructing fence around each part of the hazardous machines as well as the restriction of overload carrying are covered in the Act to make the work environment healthy and protective and prevent workers from the problem of occupational and communicable diseases and incidence of industrial accidents and injuries.

In spite of such provisions in the Labor Act, the magnitude of industrial accident and the problems of occupational health are not reduced at satisfactory level in Nepal, since there is always a demand from the side of workers in their charter of demands about the maintenance for health and safety in their workplace. Therefore, the Act has to make a special provision of multipartite committee, instead of the present safety committee in enterprises, to determine standard of work and criteria for health and safety measures at the workplace, representing management, trade unions, labor office and experts in order to reduce the magnitude of industrial accidents and the problems of occupational health in Nepalese.

Besides, it is also necessary to delegate the authority to the committee for monitoring and reporting the situation of health and safety in the unit concerned and recommend appropriate punishment in case of non-fulfillment of the requirement of the measures in order to ensure the safe and healthy work environment in every industrial unit. As the industrial pollution does not bring adverse impact to the workers' health but also the society as a whole, therefore hazard control interventions should be started from the very beginning of importing capital goods and materials from the foreign market. Only the certified machines for pollution and hazard free should be allowed to import and license is to be issued only to the company, which has made a special provision for proper disposal of hazardous chemical, physical and biological residuals.

Government has to make a provision for relaxation of tax to the industries which install the new devices for health and safety purpose or replace the worn out devices. At the same time, government has to make a special health surveillance system for industrial workers and make appropriate plans, policies and programs for the protection of the workers from all kinds of occupational health hazards and injuries. Trade unions and management has to organize sensitivity training for workers to make them aware about the possibility of the problems of occupational accidents/diseases and way of taking precautionary measures to be fully protected from these problems

Note:

1. *For the calculation of the safety measures, the working days of a worker is assumed, based on the provision of the Labor Act 1992, to 282 days in a calendar year and 8 hours as the working hours per day. According to the Act a worker is entitled to obtain at least 72 days paid leave in a calendar year (weekly holidays= 52 days, public holidays= 13 days and home leave= 18) and to work for 8 hours as a maximum normal working hours per day.*

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