Where should occupational health and safety be heading over the next few decades? An expert in the field lists his top ten challenges.

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First challenge: integrating the concepts of working conditions and working environment into occupational safety and health.

The first challenge is to integrate the broad perspective opened up by the concepts of working conditions and working environment into the current vision of occupational safety and health.

This is a multidimensional concept to the promotion of which the ILO has been committed for more than twenty years now, through the International Programme for the Improvement of Working Conditions and the Working Environment launched in 1976. It takes in a series of factors that govern the actual working and social situation faced by working men and women. Issues generally seen as forming part of this concept include, among others, the length, organization and content of the working day, welfare provisions in the workplace and social services. In view of their importance, and of their links with other working conditions, issues of remuneration should also be included within this concept.

The relations between the different components and factors that shape working conditions and the working environment are very important, since it is impossible to improve these conditions without taking account, at every stage of the conception, planning, organization, distribution and performance of work, of all the conditions in which workers carry out their tasks.
So the first challenge facing occupational health and safety is to move beyond an analysis of accidents and of technology-driven hazards, so as consider all of the real conditions in which people work and the consequences of these conditions.

The ILO decided to study this issue and produced a book entitled *Introduction to Working Conditions Environment*, which has since become a classic in its field.¹

**Second challenge: building ergonomics into occupational health and safety.**
The second challenge concerns the appropriateness of building ergonomic insights into occupational health and safety.

The main characteristic of ergonomics is that it is centred on human beings. When planning an analysis of human activity, ergonomics homes in on people. In contrast to most approaches by psychology and other applied sciences or technologies, ergonomics does not view men and women as variables to be adjusted. Rather, it examines the work situations in which they find themselves, so as to promote working conditions that permit working men and women to grow and develop as people. Such thinking led Theureau (1992), for example, to define ergonomics as a “political technology”².

According to Neffa, ergonomics is seen as an autonomous discipline, based on experimental results obtained from empirical study. It is capable of providing specific information that can be used to modify installations, machinery, equipment and tools as well as technology aimed at better adapting work to people. It is a discipline built on the contributions of anthropometrics, occupational physiology, occupational psychology, engineering, biomechanics, toxicology and other allied disciplines that look at people within their work situation.

One important contribution by ergonomics is the distinction between *prescribed work* – better known as “tasks” – and *actual work* or “activity”, which is what the worker really performs within his or her job.

Ergonomics has also pointed up the fallacy in the idea of an *average worker*. Anthropometric studies are a good basis for showing just how far people can vary in
size. This variation in anthropometric dimensions is accompanied by other individual
differences, such as a ranking of capacities and limitations and other physical and
physiological variables. These, in turn, produce different capacities to resist and adapt
to occupational risks. Consequently, it has become clear that systems cannot be
designed for the average worker.

Ergonomics, according to the same author, serves a number of different purposes.
Firstly, it helps reduce or eliminate occupational risks by promoting safe work,
removed from workplace accidents and occupational diseases. Secondly, it serves to
improve working conditions in order to avoid an increase in fatigue due to a high
overall workload derived from various factors – the physical burden, in terms of
muscular effort, the psychological burden and the mental burden. Finally, ergonomics
promotes more efficient productive activity.

The rational use of ergonomic knowledge appropriate to each reality should, Neffa
comments, make it possible to improve productivity, reduce accidents, improve
quality and reduce the labour costs entailed by absenteeism, employee turnover,
disputes and job apathy. Ergonomics, Neffa concludes, provides elements for
questioning the rationality and efficiency of the scientific organization of work, as
manifested in Fordism and Taylorism, and for humanizing work.³

As may be seen, there are good reasons for making use of ergonomics. To boost the
efficiency of occupational health and safety policies and programmes, engineers and
doctors specialized in these two disciplines should build a strategic alliance with
ergonomists. And if there are none to hand, they should seek them out, meet them and
draw them into safety programmes. And if they cannot find any ergonomists, they
should study ergonomics themselves.

**Third challenge: promoting more active cooperation between workers and
employers.**

The third challenge is within enterprises. This is the need to promote more active
cooperation between workers and employers on occupational safety and health. This
cooperation on processes to improve safety, workers’ health, working conditions and
the working environment should come naturally, but it still doesn’t. Changing all that
will entail putting processes of social dialogue in place inside enterprises. Mechanisms have to be started up that will foster information, consultation and negotiation.

Workers must be able to play an active part in these processes. After all, as adults, they are capable of taking decisions on a wide variety of matters outside the workplace. They are capable of founding families, of raising and educating their children, of fulfilling their civic duty to help decide the political future of their country. So why should they not be able to take a leading role in protecting their own safety and health when they are at work? They can do it. The problem is getting to do it.

In reality, work can be analysed from the perspective of a power conflict. Entrepreneurs feel entitled to direct the work – as regards pay, hours and work organization, for instance. Workers aspire to control the work, and try to gain greater autonomy by increasing their ability to decide about work rhythms, breaks and so on.

Occupational safety and health professionals should strive to eliminate the barriers to active cooperation and should elaborate new practical strategies that favour such participation. The techniques of participative ergonomics should be taken into account when tackling this challenge and achieving these goals. Some ILO Conventions also promote such practices.

**Fourth challenge: encouraging the extension of safety culture in education, in the family and at work.**

The fourth challenge is to extend the scope of occupational safety and health, bringing it into the field of culture. The idea is to encourage safety culture in the family, in education and at work. Experience has repeatedly shown that achieving significant improvements in workplace safety and health is a matter not of technology but of culture.

It has been observed in the developed countries – where it took more than a century to develop a safety culture – that a basic prerequisite for the reduction of workplace
accidents, injuries and diseases is the gradual integration of safety principles and recommendations into national law and practice.

To this end, national policies have to be drawn up and the necessary action has to be identified for turning such principles into standards and regulations.

Unfortunately, in many of the rapidly industrializing countries, not everyone is yet aware of the positive values of a safe and health working environment and of safety culture. Very often, safety and health requirements are regarded as barriers to trade. This is mainly the case in small and medium-scale enterprises, whose owners and managers see cuts in production costs as the key to viability and survival. By contrast, in other, more prosperous societies or countries, some transnational corporations have made safety culture the top point in their business principles.

So the sustained promotion of good practice on health, safety and the environment, and a continual integration of safety culture as an essential part of culture in general, may be the only way to reduce the constantly rising costs of protecting health and the environment, while at the same time permitting increases in the general productivity of the production sectors.

The question, then, is whether such cultures can indeed be established. What has to be done in order to achieve this? Safety cultures can be established only through:

(a) a large-scale process of awareness-raising and education about workplace safety and health
(b) a process for developing consensus and consultation mechanisms between the social protagonists – i.e. governments, entrepreneurs, workers and others who are interested and involved in issues of safety, occupational health and the environment
(c) the participation of the national economic and financial institutions.

The development of a safety culture nevertheless depends to a significant extent on the availability of reliable information that permits proper decision-making, and on smart use of existing resources. As Dr. Takala, the Director of the ILO’s SafeWork programme, recently put it: “Safety culture is, in part, a question of resources and technology. But to achieve it, the main things needed are better information and
management and firmer ethical standards, which make it possible to tackle effectively the workplace hazards that are still present and are still growing.”

**Fifth challenge: achieving better analysis, recording and reporting of accidents and occupational diseases.**

The fifth challenge relates to the study and recording of accidents and to the procedures for reporting them. These analyses should be made in order to build up reliable statistics that will enable the monitoring and elimination of accidents and occupational diseases. This fifth challenge gives rise to two considerations:

The first reflection has to do with the traditional way of studying accidents. When the causes are analysed, there is a built-in tendency to go for the figures that will point to human failings. “Human error” is the usual expression, and 80 per cent of accidents are said to be due to operator error. Some people are even described as accident-prone. A second way of trying to simplify the analysis is to look at whether the accident had its origins in an unsafe act or in an unsafe condition. And a further, slightly more complex, approach to the search for causes is the technique of charting causes as a tree and thus trying to get back to the causes of the original event that caused the accident or the failure.

A question which we should be asking ourselves is why these remarkably simplistic types of accident analysis exist. One reason may be the necessity, which is almost always imperative, of rapidly finding a culprit or a single cause. Another may be the poor quality of accident recording systems and procedures, which are often designed by officials who are more concerned with an accident’s financial repercussions on insurance policies than with the lives, safety and health of workers.

Such simplifying approaches ought to be banned. Account should be taken of the deeper and more varied root causes of accidents. This implies that investigations should, for example, recognize that accidents happen due to deficiencies in social, labour and organizational relations within workplaces.

Thus, Dwyer and Raftery maintain that, traditionally, sociology and ergonomics have been unaware of each other. The same could probably be said of relations between
sociology and occupational safety and health. So the challenge is to increase the study and investigation of the sociological theory and the organizational aspects of accidents.

The second reflection relates to the importance of developing programmes that strengthen vigilance and monitoring as regards occupational safety and workplace hazards.

One of the pillars of prevention is the systems for recording and reporting accidents. These must be thoroughly improved. What usually happens is that the mechanisms that come into play during the process of recording and reporting actually disturb the flow of information, produce distortions and cause significant losses of data. This in turn leads to major under-recording of occupational accidents and diseases.

Occupational health and safety professionals therefore need to bring about improvements in the recording and reporting systems for occupational accidents and diseases. The challenge is to develop training programmes for inspectors, health service officials, employers and workers that promote: (i) the establishment of more and better accident registers; (ii) the design of reporting systems that avoid or minimize the loss of significant data; (iii) high-quality processing and timely communication of the data obtained; (iv) the availability of up-to-date, accurate statistics; (v) the development of strategies to control and reduce accidents.

**Sixth challenge: improving the quality and scope of public labour inspectorates.**

The sixth challenge facing occupational safety and health stems from rationalization processes within public administrations and the privatization of many public services which has taken place in Latin America over the last twenty years. On the principle of the subsidiarity of the State, some public responsibilities have been transferred to the private sector. Labour ministries have suffered budget cuts and the loss of some of their powers to oversee worker health and safety. In some countries, national policy has been to promote the creation of insurance companies covering occupational risks, thus transferring to private initiatives part of the responsibility for overseeing occupational safety and health.
The Cartagena de Indias Declaration, adopted by the Ministers of Labour of the five Andean countries in May 1999, includes remarkably clear recognition of the value and importance of the quality of working life and the important part played by labour in ensuring economic progress and social development. One component of the Action Plan that accompanies the Declaration specifically underlines the importance of efficient labour inspection services.

Effective preventive work in the field of occupational safety and health requires a well-qualified labour inspection system in each country. It must have the capacity for active prevention, the technical equipment and instruments needed for precise, reliable diagnosis, and services that are nationwide in their coverage and able to reach into sectors of production where workers have less labour protection.

The challenge to occupational safety and health, and to its professionals, is thus to contribute to the elaboration of training programmes for labour inspectors and other public officials, and to strengthen and modernize the capacities of labour ministries as regards the prevention of occupational accidents and diseases. These programmes could be centred on: (i) the hierarchization and social recognition of labour inspection services; (ii) the improvement of their officials’ technical capacities and competencies; (iii) the improvement of the overall quality of their professional performance.

**Seventh challenge: the quality of safety, worker health and working conditions within micro-enterprises, small-scale enterprises and the informal sector – the big challenge.**

This is the major challenge because it affects more than ninety per cent of the workers in Latin America and the Caribbean.

First, the challenge in micro-enterprises and small enterprises. What are the outstanding task for occupational safety and health in this sector? Four kinds of action appear necessary: (i) The development of practical, voluntary action should be promoted in micro and small enterprises in order to achieve low-cost improvements in working conditions and occupational safety and health. (ii) Cooperation should be promoted among groups of enterprises that wish to take joint initiatives to improve
the installations and the welfare services that they offer their employees, such as transport services, canteens and childcare. (iii) Cooperation between enterprise owners and managers and their workers should be extended in order to identify problems concerning working conditions and the monitoring of occupational safety and health and to seek solutions. (iv) The introduction of processes of continual improvement in working conditions and the working environment should be encouraged, so as to create a positive impact on enterprises’ productivity and competitiveness.

The dramatic case of the working conditions of informal sector workers needs to be addressed. To get this problem into focus, let us look at the case of the informal urban sector and ask, “What are the conditions under which these workers operate?” These workers should not be seen as a natural part of the urban landscape, but rather as men, women, young people and children who are trying to survive and who, in order to do so, work on the street. What are the characteristics of their working and living conditions?

If one analyses the situation of urban informal sector workers in Latin America – but also in the other developing countries – it will be found that they live in precarious dwellings, in areas far away from where they work. They lack good transport services. They lack health and welfare services at work. They lack social protection. They work in an unsafe and often insalubrious environment. They are often unaware of the kinds of hazard to which they are exposed. They have low incomes and low productivity and they do not have any capital with which to improve their businesses. And, for many of them, home and workplace are one and the same.

The challenge facing occupational health and safety and its professionals is therefore to find effective ways of improving the conditions in which these people work. Broadly, this should include individual and collective awareness-raising exercises, as well as practical training and mobilization and lobbying vis-a-vis those in office who have generated the growth of this sector. So all of this begs the question: should we improve the working conditions of urban informal workers, or should we create new opportunities, so that street work will no longer exist?
Eighth challenge: putting across the vision and model of a national workplace safety and health system.

While it may not be possible to observe and analyse the functioning (or misfunctioning) of all the national-level components that go to make up a national policy on occupational safety and health, any attempts to sectoralize this will lead to partial advances and retreats, to a bureaucratization of inspection and investigation, and to redundancy among partial measures and regulations.

The way to overcome these limitations is to take, once and for all, a systemic approach that enables us to identify all the components of the system, assess all its deficiencies and limitations, detect the presence or absence of links between its components, remove the barriers that impede such links and interactions and, above all, create opportunities to improve the efficiency of the system.

A systemic approach will, for example, make it possible to find out why the principles needed for the establishment of a national policy are lacking. From there, one can go on to determine the need to formulate, implement and periodically re-examine a coherent national policy on worker safety and health and the working environment. The aim of this policy would, for example, be to prevent accidents and damage to health that occur during work or as a result of work, or that are related to work activity, so as to reduce to the minimum, as far as is reasonable and feasible, the causes of the hazards inherent to the working environment.

The lack of national policies and legislative measures, due to the absence of a systemic approach, in turn gives rise to the sectorialization of regulations, to the superimposition of technical standards, to the emergence of multiple bodies devoted to overseeing compliance with the standards, and to the duplication of monitoring efforts.

An approach based on a national system of workplace safety and health would, moreover, permit identification of the system components that relate to safety information, technical education and training, scientific and technological research, and the communication and propagation of knowledge in this field.
The challenge here is to produce a diagnosis of the situation of the national occupational safety and health system, identify its elements, detect its capacities and limitations and draw up proposals for modernizing and strengthening it.

**Ninth challenge: building occupational safety and health values into national education.**

Safety culture, which was the fourth challenge, leads on to another consideration, relating to safety education as part of everyday life.

This reflection may be illustrated by a tale from the time when the author was working for the ILO in Europe. He was living in a small village in the French countryside, very near to Geneva. One Sunday morning, he drove off from home in his car. Turning into an avenue, he found himself behind a boy aged around seven or eight who was riding his little bicycle about ten metres ahead of the car. Keeping an eye on him, the author drove slowly along. On his head, the boy had a safety helmet. They travelled on like this for about two hundred metres, until the boy reached an intersection. He then raised his right arm and held it out horizontally to indicate his intention of turning right.

This signal was obviously the result of one or more lessons that child had received at school on how to ride a bicycle through the streets of his village. The simple gesture impressed upon the author the value and results of an early but necessary education in the art of riding along a street. This boy was applying safety culture in his day-to-day life.

Safety and health professionals should urge that educational curricula and programmes, at all levels but particularly in primary school, should include the values of safety culture.

**Tenth challenge: contributing to a convergence of occupational health, safety and environment standards.**

The tenth and last challenge for workplace safety and health is at the national level and concerns the need to seek convergence, so as to harmonize occupational safety and health legislation among the countries of the region.
On the one hand, the globalization process has opened up new opportunities to accelerate world economic growth, increase employment creation and reduce poverty. But, on the other hand, there is no guarantee that this will automatically result in greater social justice. Indeed, the hopes born when the economy was opened up and globalized are now turning into disillusion for large sections of the population, and new protectionist temptations have begun to emerge.

To quote ILO Director-General Juan Somavia: “Unless the majority of people feel that they are benefiting from the new global economy, it will be vulnerable to social conflict.” Thus, if the liberalization of trade is to be fully supported by the populace, an adequate balance must be achieved between economic growth on the one hand and social progress on the other.

According to López-Valcárcel (ILO, 1996), workplace safety and health play a prominent role in the process of economic integration which is taking place as a result of globalization. This has, for example, manifested itself in two important schemes for regional economic integration – the European Union and the North American Free Trade Agreement.

The aim of integration in occupational safety and health is to achieve convergence among the risk levels for accidents and occupational diseases. This convergence is needed in order to avoid a sort of social dumping, under which some countries offer worse conditions than others as regards workplace safety and health, and thus lower labour costs.

The route to convergence of occupational risk levels among different countries is via the harmonization of certain standards or regulations aimed at improving workplace safety and health.

In the case of the Andean countries, the importance of the Cartagena de Indias Declaration should be emphasized. One example of this is the decision, embodied in the Declaration, to have common workplace health and safety standards. This will guarantee a minimum quality standard for working conditions, which will thus be
similar in the different Andean countries. It will thus help to prevent the kind of social dumping that benefits some countries to the detriment of others.

One way of ensuring common standards is for these countries to move towards a systematic and sustained convergence of national law and practice on safety, health and conditions at work. This convergence would be strengthened by a trend in the Andean countries tend towards homogenizing their respective legislations.

In this respect, the national legislations of the Andean countries should incline towards establishing: (i) similar principles for a national policy in this field; (ii) the various aspects of action that could be taken at national level; (iii) relevant action that should be taken within enterprises. The two ILO international standards that correspond to these needs are, the Occupational Safety and Health Convention (No.155), 1981, and the Occupational Health Services Convention (No.161), 1985. Among the Andean countries, Venezuela alone has ratified the first of these Conventions, and Colombia is in the process of ratifying the second.

In conclusion, at the dawn of the twenty-first century, occupational safety and health, as disciplines at the service of social progress, face a number of important challenges. Naturally, occupational health and safety professionals have a major responsibility to turn these challenges into achievements. They must fight for workers to be able to contribute fully, and without risks, to building the wealth of nations. Better working conditions, prevention of occupational hazards and the promotion of safety culture will enable the Latin American countries to achieve and maintain a sustained economic growth, together with just social progress for all their people.

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Notes


