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**Comparing occupational safety and health (OSH) developments,
in various countries, in the framework of economic globalisation**

Invited paper submitted by the International Labour Organisation (ILO)¹

¹ Paper written by Alberto López-Valcárcel, SafeWork Program, International Labour Office (ILO).
Email address: lopezv@ilo.org

I. Introduction

1. One of the issues that frequently emerges in the framework of economic integration and the liberalisation of international trade, in relation to occupational safety and health (OSH), is the identification of differences among countries that may significantly influence the implementation of these processes.
2. The identification of these differences is important for a number of reasons:
 - First, to identify asymmetries among OSH national systems, with a view to their later harmonisation, in either a context where it is considered that the economic development which implies economic integration and openness should be accompanied by social integration and progress; or, in a context where it is considered that a certain harmonisation in the field of OSH is essential for the international market to work well.
 - Second, comparison is also important for the identification of possible deficiencies in the OSH infrastructure, with respect to other countries, in a context in which it is considered that the prevention of occupational risks is an important factor in the country's competitiveness.
 - Finally, the fear of "social dumping" could also be a reason for comparison. The question here is the identification of possible sources of unfair competition in a context where some minimal levels of OSH conditions would have been previously defined, below which one would fall into "social dumping".

II. Reasons for the comparison

II.I The search for convergence in the field of OSH

3. Countries are not just economic units, but they are above all societies formed by people with an enormous variety of social needs and demands. Therefore, social integration and progress should accompany the economic development that is brought about by economic integration and openness.
4. In this social integration and progress, OSH integration and development plays an important role as the European Union and NAFTA (the North American Free Trade Agreement) have already shown.
5. The objective of OSH integration is the convergence of occupational (accidents and diseases) risk, in the same way as the objective of economic integration is the convergence of per capita income. However, as it cannot be otherwise, the road towards convergence in occupational risks passes through the harmonisation of certain instruments available at the national level, and used by different countries to reduce these risks (OSH legislation, enforcement, information, training, etc).

II.II The need for harmonisation for the international market to work well

6. For international trade to work well, certain aspects of the OSH national systems need to be harmonised. Thus, the identification of certain asymmetries that could obstruct trade, and therefore economic integration, is another reason for comparison.
7. As tariffs are eliminated or reduced, as is currently occurring with regional economic integration agreements and with the signing of multilateral trade agreements in the framework of the World Trade Organisation (WTO), technical barriers to trade become more significant. Technical standards, particularly those related to product safety, could block international trade as effectively as high tariffs did in the past. Therefore, harmonisation of product safety standards has become a prerequisite for economic integration and for free trade.

II.III Consideration of OSH as a factor in competitiveness

8. The identification of strengths and weakness in the OSH national infrastructure, with regard to improving its efficiency, could also be a reason for comparison.

9. As Garely said, competitiveness has become to economics what gravity is to physics, a force that is very difficult to avoid. Globalisation has favoured a greater attention to the competitiveness of national economies, and the OSH national systems are being more and more frequently examined in terms of their contribution to the country's competitiveness.

10. Thus, OSH regulations and national programs are being asked to demonstrate their economic efficiency in risk prevention. The new competitiveness requirements, it is argued, require OSH regulations and national programs to be economically efficient for their opportunity costs to be minimised.

II.IV The fear of "social dumping"

11. Conversely, the reason for comparison could also be to try to identify potential sources of unfair competition, as a result of keeping OSH conditions at a level that is considered unacceptable. The identification of these potential sources of "social dumping" implies that there is already a definition of the minimum level below which one would fall into "social dumping". However a broad agreement on this point is still far from being achieved.

12. One of the reasons that led to the creation of the ILO was, indeed, the idea of resorting to international labour standards for countries to improve their conditions of work, in their enterprises, without the fear of being at a disadvantage in the international market with regard to enterprises of other countries.

III. Types of comparison

III.I Comparing OSH capability and infrastructure available in the country

13. A first approach would be to compare the capability or infrastructure within the country, at the national level, for the efficient management of OSH. This type of comparison implies the evaluation of each of the different instruments and resources that have been set up and mobilised, at the national level, in order to make possible, promote and control the prevention of occupational risk in enterprises.

14. These instruments and resources for OSH at the national level constitute what has become known as the OSH National System, that basically includes the following components:

- (a) Legislation, regulations and standards.
- (b) Inspection services, enforcement and control.
- (c) Education, training, information and awareness.
- (d) Research, studies and statistics.
- (e) Advisory and technical assistance services.

III.II Comparing recognition and respect of certain OSH workers' rights

15. A simpler approach, but also less complete, would be to renounce comparing the full infrastructure and capability of the countries and to limit oneself to evaluating to what extent different countries recognise certain OSH basic rights and also evaluating to what extent these rights are being respected.

16. ILO Conventions and Recommendations in the field of OSH recognise a number of OSH workers' rights that are currently being used as a reference for this type of comparison, for example:

- (a) the right to be informed and trained in OSH matters;
- (b) the right to participate in OSH activities; and
- (c) the right to be consulted on OSH matters;

III.III. Comparing OSH management, or codes of conduct, in enterprises

17. OSH developments between different countries, could also be compared by evaluating to what extent the enterprises of these countries apply certain standardised OSH management systems, for example, the "ILO-OSH 2001 Guidelines on Occupational Safety and Health Management Systems", or other OSH codes of conduct. With regard to the current tendency towards certification as a kind of passport for the enterprises to the international market, it can be said that the ILO-OSH 2001 does not require certification, but it also does not exclude certification as a means of recognition of good practice, if that is the wish of the country implementing the guidelines.

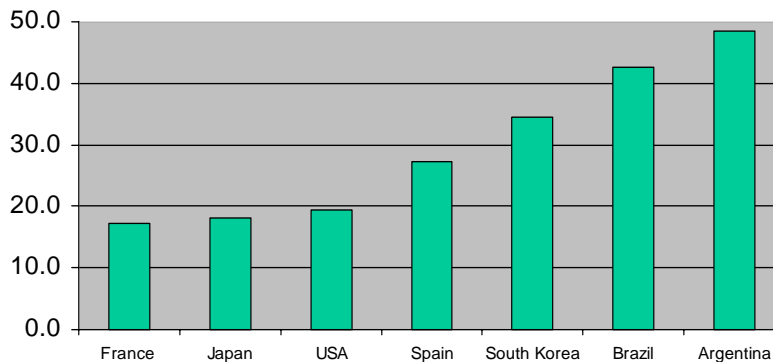
III.IV. Comparing levels of OSH risk

18. The level of OSH risk in a country, expressed by its fatality rate, is probably the best way of measuring its performance in the field. But one should be aware of the limitations of comparing countries' fatality rates.

19. One factor to be taken into consideration is that the level of OSH risk of a country is influenced, to a great extent, by the distribution of its workforce. Thus, countries that have their working populations mainly employed in the so-called "hazardous sectors" (fishing, agriculture, mining, construction, etc.) will have a "natural" fatality rate much higher than countries with only a tiny proportion of their working force employed in these sectors.

20. To overcome this circumstance we could compare fatality rates of only one sector of economic activity, like construction, which has a significant presence in all countries. The next figure shows fatality rates in the construction industry, in a number of countries².

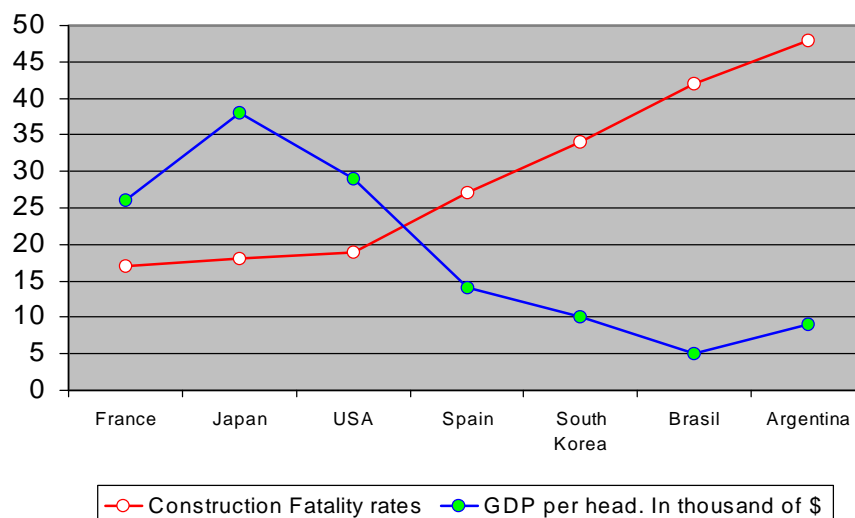
Fatality rates in the construction industry
(Fatalities / 100,000 workers exposed)



² South Korea (1994). Brazil (1995). Argentina, France and USA (1996). Japan and Spain (1998)

21. But, again, when reading this information we should bear in mind the difficulty of comparing national accident data, and the limitations of this kind of benchmarking. First, because of the different ways statistical data are collected³. Second, because definitions of occupational accidents (even fatalities) differ from country to country. And third, because construction accident rates have a natural tendency to rise during boom conditions, and to decline when the industry enters recession.

22. The next figure shows construction fatality rates in relation to the Gross Domestic Product (GDP) per capita⁴ in the same countries.



23. The table shows a clear correlation (though not linear) between fatality rates and economic development and, though this correlation can be interpreted in a number of different ways, one thing is sure: good safety performance and good economic performance go hand in hand. I suggest we discuss other possible readings of this table in the general discussion we will have after the presentation.

IV. Indicators

24. Different types of comparisons require different kinds of indicators.

IV.I. System or infrastructure indicators

25. System or infrastructure indicators are used to evaluate OSH capabilities or infrastructures of a country, or what has become known as its OSH national systems.

³ Countries in which it is compulsory to report accidents at work in order to qualify for treatment and compensation under workers' compensation schemes record almost all accidents, but in most countries that is not the case.

⁴ GDP per capita data corresponds to the year 1998.

26. The OSH national systems consist of various elements or components, and each of these components should be evaluated, and will require their own set of indicators. The following are some examples:

(a) *Legislation, regulations and standards component*

- OSH national Act or Law (yes/no)
- Tripartite participation in the regulatory process (y/n)
- Public information in the regulatory process (y/n)
- OSH committees. Regulation (y/n); committees in operation (%)
- OSH management system regulation or standard (y/n)
- Internationally harmonised standards and regulations (#)

(b) *Inspection services, enforcement and control component*

- OSH inspectors /100.000 workers
- Sector specialised (% all inspectors)
- Geographically decentralised (% all inspectors)
- Inspection yearly coverage (% all enterprises)
- Inspection yearly coverage (% all workers)
- Fatalities investigation coverage (% all fatalities)

(c) *Training, information and awareness component*

- General OSH training (# hours /100,000 workers)
- Specialised OSH training ((# hours /100,000 workers)
- OSH in curricula of technical faculties (% all faculties)
- OSH in curricula of medicine faculties (% all faculties)
- General OSH periodical publications (#)
- OSH national promotion campaigns (y/n)
- OSH information centres (#)

(d) *Research, studies and statistics component*

- Notification of occupational accidents (% notified)
- Occupational accidents national statistics (yes/no)
- OSH national studies by sector (#, periodicity)
- Cost-benefit studies (#)
- National surveys on OSH working conditions (#, periodicity)
- OSH scientific periodical publications (#)
- OSH congress & conferences (# national & international)

(e) *Advisory and technical assistance service*

- OSH services coverage (% of workers)
- Working OSH professionals (# /100.000 workers)
- Workers' compensation coverage (% workers)
- Occupational medical examinations (#/100.000 work.)
- Analytical hygiene centres (# centres; # analysis)
- Personal Protective Equipment certification centres (yes/no)
- Machinery certification centres (yes/no)

IV.II. Performance indicators

27. The objective of OSH is to minimise OSH risks. Consequently the level of OSH risk will probably be the best way of measuring the performance of a given country in this field. Two families of indicators are

currently being used to evaluate the level of these risks: (a) occupational accident rates; and (b) (OSH) working conditions indicators.

(a) *Occupational accident rates*

28. The sixteenth International Conference of Labour Statisticians (Geneva, October 1998) recommended the following accident rates:

- The frequency rate of occupational injury
- The incidence rate of occupational injury
- The severity rate of occupational injury
- Days lost per occupational injury

(b) *Working conditions indicators*

29. The European Foundation for the Improvement of Living and Working Conditions regularly conducts EU-wide surveys on working conditions. Here are some examples of the OSH indicators used in these surveys:

- % of workers exposed to noise in the workplace
- % of workers inhaling vapours, fumes, dust, etc
- % of workers working in painful or tiring positions
- % of workers moving or carrying heavy loads
- Average weekly working hours

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