Report on

Situational Analysis on
Occupational Health and Safety in
Sri Lanka

Department of Community Medicine,
Faculty of Medicine, University of Colombo

World Health Organization Collaborating Centre for
Training and Research in Occupational Health
November 2016
This study is an agreed programme of work of the workplan of the World Health Organisation Collaborating Centre for Training and Research in Occupational Health of the Department of Community Medicine of the Faculty of Medicine, University of Colombo, Sri Lanka, to be conducted during the re-designated period 2016-2020. The product will achieve the objective of the Global Master Plan for Occupational Health, Priority 4 on strengthening health systems, governance, capacity and service delivery for workers’ health and of Global product 4.3 on strengthening national health policies and systems regarding workers' health and national occupational health and safety profiles.
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<tr>
<td>DCS</td>
<td>Department of Census and Statistics</td>
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<td>EPZ</td>
<td>Export Processing Zone</td>
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<tr>
<td>IPs</td>
<td>Industrial Parks</td>
</tr>
<tr>
<td>BOI</td>
<td>Board of Investment</td>
</tr>
<tr>
<td>FTZ</td>
<td>Free Trade Zone</td>
</tr>
<tr>
<td>WHO-CC</td>
<td>World Health Organisation Collaborating Centre</td>
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<td>GMP</td>
<td>Global Master Plan</td>
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<td>ISIC</td>
<td>International Standards Industries Classification</td>
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<td>OH</td>
<td>Occupational Health</td>
</tr>
<tr>
<td>CFIE</td>
<td>Chief Factory Inspecting Engineer</td>
</tr>
<tr>
<td>ICTAD</td>
<td>Institute for Construction Training and Development</td>
</tr>
<tr>
<td>CIDA</td>
<td>Construction Industry Development Authority</td>
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<tr>
<td>NAITA</td>
<td>National Apprentice and Industrial Training Authority</td>
</tr>
<tr>
<td>NIBM</td>
<td>National Institute of Business Management</td>
</tr>
<tr>
<td>NIPM</td>
<td>National Institute of Personnel Management</td>
</tr>
<tr>
<td>OSH</td>
<td>Occupational Safety and Health</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>DWCP</td>
<td>Decent Work Country Programme</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>E&amp;OH</td>
<td>Environment and Occupational Health</td>
</tr>
<tr>
<td>MOOH</td>
<td>Medical Officers of Health</td>
</tr>
<tr>
<td>PHII</td>
<td>Public Health Inspectors</td>
</tr>
<tr>
<td>NIHS</td>
<td>National Institute of Health Sciences</td>
</tr>
<tr>
<td>OHSAS</td>
<td>Occupational Health and Safety Assessment Series</td>
</tr>
<tr>
<td>EFC</td>
<td>Employers’ Federation of Ceylon</td>
</tr>
<tr>
<td>PGIIM</td>
<td>Postgraduate Institute of Medicine</td>
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</table>
EXECUTIVE SUMMARY

This study was undertaken by the World Health Organisation Collaborating Centre for Training and Research in Occupational Health of the Department of Community Medicine of the Faculty of Medicine, University of Colombo, Sri Lanka to determine the current status of occupational health and safety in this country. Information was gathered by visiting stakeholder organizations that contribute in many ways to provide health and safety to the working population in this country and holding discussions with key personnel in such institutions, perusing publications, survey reports, annual reports and legislative enactments and by browsing through website of such organisations.

The responsibility of implementing occupational health and safety practices in the country lies chiefly with the Department of Labour supported by the Ministry of Health. The legislation pertaining to safety, health and welfare of workers in industries was in operation for over half a century with the responsibility of enforcement vested in the Department of Labour. However, due to various constraints the enforcement of this legislation has not been satisfactory. With the introduction of OHSAS 18001 certification, some of the large scale industries have resorted towards adopting good health and safety practices. The same situation prevails in majority of the industries setup under the BOI. However, a large proportion of the industries which are small and medium sized do not pay due attention to the practice of occupational health and safety.

It is observed that one of the major shortcomings in the implementation of the Factories Ordinance is the lack of an adequate number of inspection personnel. Since 1982, the Department of Community Medicine of the Faculty of Medicine University of Colombo have been training medical officers of health and public health inspectors in occupational health with the objective of assisting the factory inspectorate for providing basic inspection services through the primary healthcare programme of the Ministry of Health. However, it appears that this does not seem to have operated as expected. Health and safety training is now been conducted by the Environmental and Occupational Health Unit that function under the Directorate of the E&OH of the Ministry of Health. Besides there are several other institutes
that provide training to health and safety personnel at different level with a view to meet the requirements of inspecting personnel identified in the proposed Occupational Safety, Health and Welfare at Work Act.

Few universities and other educational institutions include a component of occupational health and safety relevant to their field of training. The importance of doing so needs to be emphasized. It is also recommended that all courses of training in universities and other higher educational institutions include a component of occupational health and safety in their curricula.

The need for reporting accidents, injuries and diseases and the objective of doing so is not understood by many industrialists. In instances where reporting of these incidents occurs, the main reason is seen to be to facilitate payment of compensation. Whilst industries should be encouraged to report accidents and injuries, the factory inspectorate should provide a feedback by analyzing and publishing them in a weekly/monthly report. The reporting of accidents, injuries and disease that occur at work or while commuting to and from work does not take place by the hospitals. The reason being that the health records does not provide for the collection of such information.

The proposed Occupational Safety, Health and Welfare Act is yet to be finalized. The work on drafting its regulations need to be expedited. It is envisaged that this Act when enforced will eliminate many of the shortcomings in the existing Factories Ordinance. This expectation will be realized only if the proposed infrastructure is set in place early. This would demand not only the establishment of a multidisciplinary council but the appointment of a large cadre of officers to undertake a variety of tasks identified as essential for the implementation of the Act and the enforcement of the varied inspection functions. How this could be achieved in the near future is difficult to predict.
1.0 GENERAL BACKGROUND

1.1 Introduction
Sri Lanka has one of the best healthcare delivery systems in the Asian Region. Despite the favorable health indices, occupational health services in the areas of surveillance and health interventions faces significant challenges. Hence, there is a need to identify priority areas that require attention in occupational health and safety for Sri Lanka.

The total population of Sri Lanka as enumerated by the Census of Population and Housing in 2012 was 20.35 million. The average annual population growth rate was 0.7 percent according to the 2012 census as against 1.2 percent in the Census of Population and Housing conducted in 2001. The average annual population growth rate for the period of 1981-2012 was 1.02 percent. It is evident that the rate of population growth is declining. The Sex Ratio has declined from 99.2 males per 100 female in 2001 to 93.8 males per 100 females in 2012, showing a significant increase in the female population.

According to the Census of Population and Housing, 2012, the number of persons in the population above 15 years of age who had the capacity to be economically active was 15.2 million persons, of which 48 percent or 7,266,234 persons were males while 52 percent or 7,961,539 persons were females. However, despite their capacity to be economically active only 7,857,370 persons have been economically active for a minimum period of 26 weeks out of a duration of 52 weeks preceding the census. Of this economically active population 93 percent was found to be engaged in employment while the balance 7 percent or 521,938 persons were not employed.

According to the Labour Force Survey conducted by the Department of Census and Statistics in 2015, the economically active population defined as the “labour force” is about 8.2 million out of the 15.2 million of household population and the Labour force participation rate was 53.8 percent. It has increased by 0.6 percent when compared to the preceding year.
However, the total employment stands at 7.8 million. While the total Labour Force has increased from 8.0 million to 8.2 million by 2 percent the employed population too has increased from 7.7 million to 7.8 million by 1.7 percent from 2014 to 2015.²

Considering the employment rate by sex, over 90 percent for both sexes have been engaged in economic activity. Employed person is one who is a paid employee, employer, own account worker or unpaid family worker during the reference period, for wage or salary, profit or some family gain. The employment rate has been over 90 percent for both sexes within last ten years and higher for males than females.²

Table 1: Percentage distribution of currently employed persons by employment status for both sexes, 2004-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Employed</th>
<th>Employment Status (Percentage)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Employees</td>
<td></td>
<td>Employers</td>
<td>Own Account Workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Public</td>
<td>Private</td>
<td>Total</td>
</tr>
<tr>
<td>**2004</td>
<td>100.0</td>
<td>59.4</td>
<td>13.0</td>
<td>46.4</td>
<td>2.9</td>
</tr>
<tr>
<td>2005</td>
<td>100.0</td>
<td>59.4</td>
<td>13.3</td>
<td>46.1</td>
<td>3.1</td>
</tr>
<tr>
<td>#2006</td>
<td>100.0</td>
<td>55.5</td>
<td>13.3</td>
<td>42.1</td>
<td>3.1</td>
</tr>
<tr>
<td>#2007</td>
<td>100.0</td>
<td>56.5</td>
<td>13.4</td>
<td>42.7</td>
<td>2.8</td>
</tr>
<tr>
<td>*2008</td>
<td>100.0</td>
<td>56.4</td>
<td>13.8</td>
<td>41.2</td>
<td>2.9</td>
</tr>
<tr>
<td>*2009</td>
<td>100.0</td>
<td>57.6</td>
<td>15.2</td>
<td>42.1</td>
<td>2.6</td>
</tr>
<tr>
<td>*2010</td>
<td>100.0</td>
<td>55.5</td>
<td>15.5</td>
<td>41.2</td>
<td>2.6</td>
</tr>
<tr>
<td>2011</td>
<td>100.0</td>
<td>54.9</td>
<td>14.3</td>
<td>40.5</td>
<td>2.9</td>
</tr>
<tr>
<td>2012</td>
<td>100.0</td>
<td>56.4</td>
<td>14.4</td>
<td>41.2</td>
<td>2.8</td>
</tr>
<tr>
<td>2013</td>
<td>100.0</td>
<td>55.7</td>
<td>15.1</td>
<td>40.5</td>
<td>3.0</td>
</tr>
<tr>
<td>2014</td>
<td>100.0</td>
<td>56.4</td>
<td>15.1</td>
<td>40.9</td>
<td>2.7</td>
</tr>
<tr>
<td>2015</td>
<td>100.0</td>
<td>56.1</td>
<td>15.3</td>
<td>41.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: Department of Census & Statistics - Sri Lanka Labour Force Survey

Note: * Including Eastern Province but Excluding Northern Province

** Excluding Mullativu, Kilinochchi Districts

Figures from 2013 onwards all the districts were included. (working age was 15 years and over).

# Excluding Northern & Eastern Provinces
Table 1 shows the percentage distribution of employed population by employment status. The majority of employed persons were employees in private sector which was 41.0 percent in 2015. Around 32 percent of employed persons were own account workers and they were assisted by 8.4 percent of unpaid family workers.

Table 2: Distribution of currently employed persons by major industrial groups for both sexes (based on ISIC Rev. 4)

<table>
<thead>
<tr>
<th>Industry Code</th>
<th>Industry category</th>
<th>Employed persons (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Agriculture forestry and Fishery</td>
<td>28.7</td>
</tr>
<tr>
<td>B</td>
<td>Mining and Quarrying</td>
<td>0.8</td>
</tr>
<tr>
<td>C</td>
<td>Manufacturing</td>
<td>18.0</td>
</tr>
<tr>
<td>D, E, F</td>
<td>Construction, Electricity, Gas, Steam and Air Conditioning supply, Water supply,</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>Sewerage, Waste Management and Remediation Activities.</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Wholesale and Retail trade, Repair of Motor Vehicles and Motor Cycles.</td>
<td>13.5</td>
</tr>
<tr>
<td>H</td>
<td>Transportation and Storage</td>
<td>6.5</td>
</tr>
<tr>
<td>I</td>
<td>Accommodation and Food services activity</td>
<td>2.6</td>
</tr>
<tr>
<td>J</td>
<td>Information and communication</td>
<td>0.7</td>
</tr>
<tr>
<td>K</td>
<td>Financial and Insurance activities</td>
<td>1.8</td>
</tr>
<tr>
<td>M</td>
<td>Professional and Scientific and Technical activities</td>
<td>0.8</td>
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<tr>
<td>N</td>
<td>Administrative and Support service activities.</td>
<td>1.5</td>
</tr>
<tr>
<td>O</td>
<td>Public administration and Defense compulsory social security</td>
<td>7.7</td>
</tr>
<tr>
<td>P</td>
<td>Education</td>
<td>4.1</td>
</tr>
<tr>
<td>Q</td>
<td>Human health and Social work activities</td>
<td>1.8</td>
</tr>
<tr>
<td>S</td>
<td>Other service activities</td>
<td>1.8</td>
</tr>
<tr>
<td>T</td>
<td>Activities of households as employers, undifferentiated goods and services -</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Producing activities of households for own use</td>
<td></td>
</tr>
<tr>
<td>L, R, U</td>
<td>Real Estate activities, Arts, Entertainment and Recreation and Activities of extra</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>territorial organizations &amp; bodies</td>
<td></td>
</tr>
</tbody>
</table>

Source: Department of Census and Statistics - Sri Lanka Labour Force Survey

Note: Figures from 2013 onwards all the districts were included. (working age was 15 years and over).

ISIC: International Standards Industries Classification

Table 2 gives a detailed breakdown of the employed persons based on ISIC (Rev. 4) industrial classification. This shows that a large segment (28.7%) of the currently employed
Population is engaged in agriculture, forestry and fisheries. Followed by 18 percent in the manufacturing industry.

Industrial promotion zones have been established in different parts of the country since 1983 to encourage foreign investments and produce goods for the export market. These industrial zones have enabled a large number of Sri Lankans to find employment. Table 3 gives the employment statistics for the trade zones by sectors.

Table 3: Employment statistics of Export Processing Zone (EPZ) Enterprises, as at end of 2015

<table>
<thead>
<tr>
<th>Zone</th>
<th>Grand Total (2015)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Biyagama EPZ</td>
<td>14,997</td>
<td>9,950</td>
<td>24,947</td>
<td></td>
</tr>
<tr>
<td>Katunayake EPZ</td>
<td>16,862</td>
<td>21,022</td>
<td>37,884</td>
<td></td>
</tr>
<tr>
<td>Koggala EPZ</td>
<td>3,856</td>
<td>9,081</td>
<td>12,937</td>
<td></td>
</tr>
<tr>
<td>Malwatte EPP</td>
<td>472</td>
<td>1,291</td>
<td>1,763</td>
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<tr>
<td>Mirijjawila IP</td>
<td>296</td>
<td>1,270</td>
<td>1,566</td>
<td></td>
</tr>
<tr>
<td>Mirigama EPZ</td>
<td>1,298</td>
<td>2,274</td>
<td>3,572</td>
<td></td>
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<tr>
<td>Mawathagama EPZ</td>
<td>1,085</td>
<td>3,476</td>
<td>4,561</td>
<td></td>
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<tr>
<td>Polgahawela EPZ</td>
<td>1,082</td>
<td>3,160</td>
<td>4,242</td>
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<tr>
<td>Kandy IP</td>
<td>2,155</td>
<td>5,664</td>
<td>7,819</td>
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<tr>
<td>Seethawaka EPZ</td>
<td>10,146</td>
<td>11,616</td>
<td>21,820</td>
<td></td>
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<tr>
<td>Horana EPZ</td>
<td>1,823</td>
<td>149</td>
<td>1,972</td>
<td></td>
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<tr>
<td>Wathupitiwala EPZ</td>
<td>3,232</td>
<td>6,256</td>
<td>9,488</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>57,304</strong></td>
<td><strong>75,209</strong></td>
<td><strong>132,571</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Board of Investments, Sri Lanka (BOI)

Note: Grand Total does not tally with the male total and female total due to the non-availability of correct employment figures by gender.

Table 3 shows the number of employed persons in export processing zones by sex. There were 132,571 persons being employed during the year 2015. Out of these employed persons, the largest number being, 37,884 were employed at Katunayake FTZ. This was about 29.0 percent of the total employment. The second highest zone was Biyagama and its percentage share was 19.0 to the total employment. Considering the gender distribution of the employed persons, except for Biyagama EPZ and Horana EPZ the females outnumbered the males in all other zones.³
Table 4: No. of industrial establishments and persons engaged by industry sector and division, Sri Lanka -2011

<table>
<thead>
<tr>
<th>Industry sector/industry division</th>
<th>Establishments with 5 or more persons engaged</th>
<th>Establishments with 25 or more persons engaged</th>
<th>Establishments with less than 25 persons engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Establishments</td>
<td>Persons Engaged</td>
<td>No. of Establishments</td>
</tr>
<tr>
<td>C Mining and Quarrying</td>
<td>2,191</td>
<td>20,392</td>
<td>33</td>
</tr>
<tr>
<td>D Manufacturing</td>
<td>16,341</td>
<td>681,179</td>
<td>2,554</td>
</tr>
<tr>
<td>E Electricity, Gas and Water</td>
<td>37</td>
<td>26,406</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Total by sector</td>
<td>18,569</td>
<td>727,978</td>
</tr>
<tr>
<td>14. Other Mining and Quarrying</td>
<td>2,191</td>
<td>20,392</td>
<td>33</td>
</tr>
<tr>
<td>15 Manu.of food products &amp; beverages</td>
<td>4,265</td>
<td>127,131</td>
<td>881</td>
</tr>
<tr>
<td>16. Manufacture of tobacco products</td>
<td>122</td>
<td>5,180</td>
<td>17</td>
</tr>
<tr>
<td>17. Manu.of Textiles</td>
<td>1,977</td>
<td>54,342</td>
<td>186</td>
</tr>
<tr>
<td>18. Manu.of wearing Apparel, dressing &amp; dyeing of fur</td>
<td>1,553</td>
<td>282,254</td>
<td>482</td>
</tr>
<tr>
<td>19. Tanning and dressing of leather; manu. of luggage, handbags &amp; footwear</td>
<td>282</td>
<td>10,896</td>
<td>38</td>
</tr>
<tr>
<td>20. Manu.of wood &amp; products of wood &amp; cork except furniture</td>
<td>1,388</td>
<td>13,188</td>
<td>41</td>
</tr>
<tr>
<td>21. Manu.of paper and paper products</td>
<td>146</td>
<td>5,716</td>
<td>57</td>
</tr>
<tr>
<td>22. Publishing, printing and reproduction of recorded media</td>
<td>470</td>
<td>17,856</td>
<td>78</td>
</tr>
<tr>
<td>23. Manu.of coke refined petroleum products and nuclear fuel</td>
<td>4</td>
<td>2,821</td>
<td>-</td>
</tr>
<tr>
<td>24. Manu.of chemicals &amp; chemical products</td>
<td>511</td>
<td>15,487</td>
<td>104</td>
</tr>
<tr>
<td>25. Manufacture of rubber and plastic products</td>
<td>600</td>
<td>50,152</td>
<td>253</td>
</tr>
<tr>
<td>26. Manu. of other non metallic mineral products</td>
<td>2,275</td>
<td>30,437</td>
<td>74</td>
</tr>
<tr>
<td>27. Manu.of basic metals .</td>
<td>153</td>
<td>4,792</td>
<td>36</td>
</tr>
<tr>
<td>28. Manu.of fabricated metal products except machinery equipments</td>
<td>688</td>
<td>10,007</td>
<td>63</td>
</tr>
<tr>
<td>29. Manu.of Machinery &amp; equipments (n.e.c.)</td>
<td>109</td>
<td>3,120</td>
<td>26</td>
</tr>
<tr>
<td>30. Manu.of office, accounting and computing machinery</td>
<td>5</td>
<td>1,872</td>
<td>5</td>
</tr>
<tr>
<td>31. Manu.of Electrical machinery&amp; apparatus (n.e.c)</td>
<td>77</td>
<td>5,882</td>
<td>32</td>
</tr>
<tr>
<td>32. Manu.of Radio, TV &amp; communication equipment and apparatus .</td>
<td>25</td>
<td>2,941</td>
<td>9</td>
</tr>
<tr>
<td>33. Manu.of medical, precision &amp; optical instruments, watches &amp; clocks</td>
<td>4</td>
<td>146</td>
<td>-</td>
</tr>
<tr>
<td>34. Manu.of motor vehicles, trailers &amp; semi-trailers</td>
<td>45</td>
<td>1,414</td>
<td>11</td>
</tr>
<tr>
<td>35. Manu.of other transport equipment</td>
<td>29</td>
<td>5,316</td>
<td>16</td>
</tr>
<tr>
<td>36. Manu.of furniture, Manufacturing of n.e.c.</td>
<td>1,603</td>
<td>29,888</td>
<td>4</td>
</tr>
<tr>
<td>37. Recycling</td>
<td>10</td>
<td>332</td>
<td>5</td>
</tr>
<tr>
<td>40. Electricity, Gas, Steam and Hot water supply</td>
<td>15</td>
<td>16,492</td>
<td>8</td>
</tr>
<tr>
<td>41. Collection, purification and distribution of water</td>
<td>22</td>
<td>9,914</td>
<td>121,426</td>
</tr>
<tr>
<td>Total by division</td>
<td>18,569</td>
<td>727,978</td>
<td>2,595</td>
</tr>
</tbody>
</table>

Source: Annual Survey of Industries, Department of Census and Statistics, 2012.
Table 4 given a breakdown of the number of establishments and number of persons employed by sector and division and categorized according to numbers employed as equal and less than 5, less than 25 and greater than 25.

At present there is no count of the number of registrable factories under the Factories Ordinance. However, during the year 2015 only about 26,200 had been registered at the Safety Division of the Department of Labour (Table 5). It is estimated that about 60% of the country’s labour force is employed in the informal sector, a sector which is considered to be more difficult to regulate and monitor. Hence large number of them function without any supervision from the health and safety authorities. The first ever comprehensive economic census is currently being conducted by the Department of Census and Statistics (DCS) with the main objective of identifying the informal economy. The economic census which started on July 2013 by now has reached its final stage. DCS officers visited business entities at all levels – from large scale to household based businesses when conducting the census. (http://www.dailymirror.lk/56123/economic-census-to-identify-sri-lanka-s-informal-sector#sthash.2zGy1GG3.dpuf).

For the first time in Sri Lanka the Department of Census and Statistics conducted a national survey on self-reported (without medical tests or clinical proof) health from all individuals of selected households. The survey covered all districts of the country and was conducted over a period of 12 months in 2014. This survey included a sample of 25,000 housing units. Among the variables the survey covered were, accidents, where accidents occurred, number of times received treatment for accidents etc.
Table 5: Number of factories registered with the Department of Labour – 2004-2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Factories Registered</td>
<td>12,461</td>
<td>13,196</td>
<td>13,981</td>
<td>14,751</td>
<td>16,153</td>
<td>18,096</td>
<td>19,823</td>
<td>20,870</td>
<td>22,316</td>
<td>23,844</td>
<td>25,236</td>
<td>26,198</td>
</tr>
<tr>
<td>Factories Inspected</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>3,029</td>
<td>2,695</td>
<td>2,939</td>
<td>3,332</td>
<td>4,004</td>
<td>4,140</td>
<td>3,865</td>
<td>4,754</td>
<td>6,191</td>
<td>6,118</td>
<td>4,809</td>
<td>4,732</td>
</tr>
<tr>
<td>Non-Power</td>
<td>19</td>
<td>56</td>
<td>34</td>
<td>42</td>
<td>39</td>
<td>25</td>
<td>62</td>
<td>53</td>
<td>54</td>
<td>62</td>
<td>76</td>
<td>96</td>
</tr>
<tr>
<td>Others</td>
<td>174</td>
<td>91</td>
<td>83</td>
<td>78</td>
<td>154</td>
<td>151</td>
<td>147</td>
<td>136</td>
<td>114</td>
<td>122</td>
<td>100</td>
<td>262</td>
</tr>
<tr>
<td>Complaints received</td>
<td>151</td>
<td>117</td>
<td>114</td>
<td>133</td>
<td>71</td>
<td>104</td>
<td>73</td>
<td>75</td>
<td>77</td>
<td>80</td>
<td>77</td>
<td>79</td>
</tr>
<tr>
<td>Complaints Investigated</td>
<td>139</td>
<td>91</td>
<td>97</td>
<td>144</td>
<td>96</td>
<td>104</td>
<td>126</td>
<td>73</td>
<td>67</td>
<td>84</td>
<td>68</td>
<td>69</td>
</tr>
<tr>
<td>Buid. Plans checked</td>
<td>99</td>
<td>97</td>
<td>133</td>
<td>143</td>
<td>79</td>
<td>63</td>
<td>100</td>
<td>122</td>
<td>96</td>
<td>90</td>
<td>80</td>
<td>130</td>
</tr>
<tr>
<td>Court cases filed</td>
<td>21</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>18</td>
<td>10</td>
<td>23</td>
<td>16</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Cases concluded</td>
<td>27</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>7</td>
<td>11</td>
<td>10</td>
<td>20</td>
<td>7</td>
<td>18</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>Fatal Accidents reported</td>
<td>36</td>
<td>48</td>
<td>84</td>
<td>77</td>
<td>49</td>
<td>76</td>
<td>64</td>
<td>60</td>
<td>80</td>
<td>71</td>
<td>68</td>
<td>76</td>
</tr>
<tr>
<td>Non-fatal accidents reported</td>
<td>1,165</td>
<td>1,566</td>
<td>1,740</td>
<td>1,755</td>
<td>1,523</td>
<td>1,449</td>
<td>1,456</td>
<td>1,313</td>
<td>1,319</td>
<td>1,344</td>
<td>1,361</td>
<td>1,251</td>
</tr>
</tbody>
</table>

Source: Department of Labour, 2015

Table 6 below gives the prevalence of accidents that occurred during a period of three months by age and gender.

Table 6: Prevalence of accidents during a period of three months by age and gender (per 1000 persons)

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 14</td>
<td>7</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>15-24</td>
<td>14</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>25-59</td>
<td>17</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>60 and above</td>
<td>19</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>8</td>
<td>11</td>
</tr>
</tbody>
</table>
It is seen that more males compared to females met with accidents during the reference period. This was seen in all age groups. The highest prevalence was reported from males over 60 years of age.

Table 7: Percentage distribution of accidents by place of occurrence and age.

<table>
<thead>
<tr>
<th>Place of occurrence of accident</th>
<th>&lt; 14</th>
<th>15-24</th>
<th>25-59</th>
<th>60 and above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of work</td>
<td>1.2</td>
<td>9.5</td>
<td>20.2</td>
<td>7.8</td>
<td>13.9</td>
</tr>
<tr>
<td>Home</td>
<td>57.3</td>
<td>40.7</td>
<td>36.5</td>
<td>50.4</td>
<td>42.6</td>
</tr>
<tr>
<td>Road traffic accident</td>
<td>20.7</td>
<td>39.9</td>
<td>33.2</td>
<td>28.5</td>
<td>31.4</td>
</tr>
<tr>
<td>Other</td>
<td>20.7</td>
<td>9.9</td>
<td>10.0</td>
<td>13.4</td>
<td>12.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

When considering accidents by the place where it occurred and by age of victim, majority of the time (42.6%) accidents had occurred at home, followed by 31.4% on the road and 13.9% at the workplace. Workplace accidents were highest in the age group of 25-59 years.

Table 8: Percentage distribution of accidents occurred at place of work by occupation.

<table>
<thead>
<tr>
<th>Occupational group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unidentified</td>
<td>0.8</td>
</tr>
<tr>
<td>Senior officials and managers</td>
<td>0.8</td>
</tr>
<tr>
<td>Professionals</td>
<td>1.1</td>
</tr>
<tr>
<td>Technical and associate professionals</td>
<td>5.0</td>
</tr>
<tr>
<td>Clerks</td>
<td>0.9</td>
</tr>
<tr>
<td>Proprietors and managers of enterprises</td>
<td>6.6</td>
</tr>
<tr>
<td>Sales and service workers</td>
<td>15.7</td>
</tr>
<tr>
<td>Skilled agricultural and fishery workers</td>
<td>34.2</td>
</tr>
<tr>
<td>Craft and related workers</td>
<td>10.3</td>
</tr>
<tr>
<td>Plant and machine operators and assemblers</td>
<td>24.7</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The highest percentage of accidents are concentrated among skilled agricultural and fishery workers (34.2%) and plant and machine operators and assemblers (24.7%) both of whom are engaged in machinery use.

As for the provision of occupational health and safety, large scale industries, especially multinational organizations, have ensured the establishment of occupational health and safety activities in their organizations. However, a large number of organizations do not provide any such services. Small and medium sized industries are hardly concerned with occupational health and safety.

Attempts have been made to rectify this deficiency by providing occupational health services through the primary health care network of the Department of Health Services. With this objective a cadre of medical officers of health, public health inspectors and nurses has been trained at the Department of Community Medicine, Faculty of Medicine, University of Colombo in collaboration with the Department of Labour and the Ministry of Health, since 1982. However, these attempts have not seem to have achieved the expected objectives. This has been largely due to the lack of support from the factory inspectorate of the Department of Labour to health personnel who were trained to identify health and safety problems in workplaces and seek advice if necessary.

There is very little information available on occupational accidents and diseases, although provision is made for the notification of accidents and industrial diseases under the Factories Ordinance. Notification of industrial diseases under the Factories Ordinance is the responsibility of the medical officer who treats the patient, but the Annual Report of the Department of Labour does not indicate that any industrial diseases have been reported.
1.2 Objectives of study

1.2.1 General Objective

To carry out a situational analysis in occupational health and safety in Sri Lanka.

1.2.2 Specific Objectives

1. To prepare a comprehensive report on state-of-the-art on occupational health and safety in this country.

2. To find strengths and weaknesses in the system and provide recommendations for improvements.

2.0 METHODOLOGY

This project is one of the activities of the action plan of the WHO-CC and an objective of the GMP for OH Priority 4, Global product 4.3.

Different approaches were used to gather data/information from departments, institutions, universities, libraries and international organizations on available human resources, services/facilities, and training, research and other activities that are being carried out in relation to occupational health and safety in the country. A graduate of the Allied Health Science Unit of the Faculty of Medicine was employed on a part-time basis for a period of two months, from August to October 2016, to collect the relevant documents and information.

The following methods were employed in gathering data/information:

- discussions/meetings with individuals and groups of people
- reports, manuals and other publications containing published data, and
- Acts, Regulations and Ordinances
- websites of relevant organisations/institutes
3.0 **ASSESSMENT OF LEGAL AND REGULATORY FRAMEWORK**

3.1 **Historical Background**

The history of industrial health and safety in Sri Lanka extends as far back as 1896, with the enactment of the Mines and Machinery Protection Ordinance. This Ordinance mainly covered mines and allied industries. However, in 1926, under section 4 of this Ordinance, certain rules made by the Governor, were published in the Ceylon Government Gazette No. 7553 of 29 October 1926 made applicable to all factories that existed in Sri Lanka at that time. Thereafter, the Government enacted the Workmen’s Compensation Ordinance, Act No. 19 of 1934, making provisions for the payment of compensation to victims of factory accidents. Subsequently, with the development of the industrial sector in Sri Lanka, the Factories Ordinance (Act No 45 of 1942) was promulgated from 1 January 1950. This Ordinance, Chapter 128 of the Legislative Enactments of Sri Lanka, is an Act that makes provision for safety, health and welfare of workers in factories. This Ordinance has subsequently been amended by the following Acts:

- Factories (Amendment) Act No.54 of 1961 – which defines the term 'Occupier'.
- Factories (Amendment) Law No.12 of 1976 - not enforced due non-gazetting of the notified date
- Factories (Amendment) Act No 32 of 1984 – which deals with employment of female workers after 10:00 p.m.
- Factories (Amendment) Act No.18 of 1998 which made provision for increasing the fines specified under the Ordinance.
- Factories (Amendment) Act No.33 of 2000 which extends the coverage of the Ordinance to include the construction industry.
- Factories (Amendment) Act No.19 of 2002, which limits 'overtime' for female workers to two hours a day

In addition to the above, following regulations are also effective.

- Factories (No.1) Regulations 1960
- Factories (Sanitary Conveniences) Regulations 1965
- Factories (Dangerous Occurrences Notification) Regulations 1965
- Factories (Washing facilities General) Regulations 1965
- Factories (General Standards of Lighting) Regulations 1965
- Factories (Meal Room) Regulations 1965
Factories (Steam Boiler Attendants Certificates of competency) Regulations 1965
Factories (Notifiable Industrial Diseases) Regulations 1972
Factories (Protection of Eyes) Regulations 1979
Factories (First Aid) Regulations 1995
Leaflet on first aid

Related documents (forms)
1. Registration form - CFIE-4
2. Accident notification form - Form-10
3. Accident Follow up form - CFIE-1
4. Notice of dangerous occurrences - Form-12
5. Notice of industrial decease - Form-13
6. Form II Format of the General Register

3.2 The Factories Ordinance

The Factories Ordinance is an enactment which makes provisions for safety, health and welfare of worker in factories. This Ordinance has 131 sections. These sections prescribe the minimum standards that should be maintained by the 'occupier' to provide a safe work environment for the workers.

The term 'occupier' is defined in the Ordinance as “the person who has the ultimate control over the affairs of the factory, and where the control of such affairs is entrusted to a managing agent, includes such managing agent”. Legally the occupier is responsible for the implementation of the requirements applicable to factories in the Factories Ordinance.

Considering the behavioral attitudes of the workers, certain provisions in the Ordinance emphasize the duties of the persons employed (Section 95) in factories. What is emphasized in this section is that employees:

- should not willfully interfere with or misuse any means, appliance, convenience or any other thing provided for securing the health, safety or welfare of the persons employed in the factory, and
should use any means or appliance for securing health or safety that is provided under the Ordinance, and

should not willfully and without reasonable cause, do anything likely to endanger himself or others.

Provisions are made under the Ordinance in regard to the following aspects which affect the work environment:

- Cleanliness
- Overcrowding
- Temperature
- Ventilation
- Lighting
- Drainage of floors
- Sanitary conveniences
- Prime movers
- Transmission machinery
- Other machinery
- Vessels containing dangerous liquids
- Self-acting machinery
- Hoists and lifts
- Chains, ropes and lifting tackle
- Cranes and lifting machinery
- Floor, passages and stairs.
- Safe means of access and safe place of employment
- Places where dangerous fumes are liable to be emitted
- Explosive or flammable gases, vapours
- Steam boilers and pressure vessels
- Means of escape in case of fires
- Safety provisions in case of fire
- Supply of drinking water
- Washing facilities
- Accommodation for clothing
- First aid
- Removal of dust and fumes
- Meal rooms
- Protection of eyes
- Lifting excess weight
- Noise
- Electricity
Apart from maintaining the provisions in regard to the above aspects, the occupier is responsible for notifying the following accidents and industrial diseases to the DFIE:

- All fatal accidents
- Accidents that disable any person for more than three days from earning full wages at work.
- Accident that makes any person unconscious as a result of heat, exhaustion, electric shock or inhalation of irrespirable or poisonous fumes or gases.
- Every case of dangerous occurrence such as explosions, fire, collapse of buildings, collapse of cranes, etc.
- Prescribed industrial diseases.

### 3.3 Enforcement of the Factories Ordinance

Enforcement of the Factories Ordinance is vested in the officers of the Industrial Safety Division of the Department of Labour. This division is headed by the Commissioner of Labour (Industrial Safety) and the Chief Factory Inspecting Engineer who are assisted by the Deputy Commissioner of Labour (Technical), the Deputy Chief Factory Inspecting Engineer and a team of Specialists Factory Inspecting Engineers. Services of the division are decentralized through District Factory Inspecting Engineers’ officers at Anuradhapura, Badulla, Colombo, Gampaha, Galle, Jaffna, Kandy, Kalutara, Kurunegala and Ratnapura. A special division, the Division of Occupational Hygiene assists the Factory Inspectorate by carrying out environmental and biological monitoring of workplaces. This Division is headed by the Commissioner of Labour (Occupational Hygiene).

#### 3.3.1 Factories Ordinance of Sri Lanka

The Factories Ordinance defines the term “factory” as premises in which persons are employed in manual labour for the purpose of trade or gain in making, repairing, ornamenting, finishing, washing, cleaning or adopting for sale of any article. Under the amendment No 12 of 1976, places where animals are slaughtered and where such animals are confined prior to slaughter are also included in the definition.
Statistical data of the number of factories registered with the Department of Labour, number of reported fatal accidents and number of reported non-fatal accidents from 2004 to 2015 are shown in Table 5.

The District Factory Inspecting Engineers are responsible for enforcing the Ordinance within their areas of jurisdiction. For this purpose each DFIE is assisted by a few Factory Inspecting Engineers. Each of them are expected to carry out 15 to 20 routine inspections a month. Beside this, they are responsible for investigating fatal and serious accidents. In case of serious violations, especially leading to fatal accidents, the Inspectorate institutes legal action against the occupier of the factory.

Considering the number of factories registered with the factory inspectorate from 2004 to 2015, the number has increased within the period of 11 years by about 110 percent. Of the number of registered factories during the year 2015 only 19 percent have been inspected by the officers of the Department of Labour. The complaints received too have been small in number. With the increase in the number of factories the complaints have declined and remained the same up to date. The number of reported fatal accidents have been around 60-80 over the last 7 years and the non fatal accident around 1,250 to 1,500 for the same period.

Another important function handled by the Inspectorate is the implementation of educational and awareness programmes. For this purpose they are provided with a coach, which serves as a mobile exhibition which assists them in these programmes. However, with the establishment of the National Institute Occupational Health and Safety some of these functions have been taken over by the Institute.
3.4 Industrial Safety Division

This division enforces Factories Ordinance Act No. 45 of 1942 (post amendment) for ensuring occupational safety, health and welfare of employee population. Its main role is working for safety, health and welfare of working employees. The activities of Industrial Safety Division have been decentralized and the branch offices have been established in the Jaffna, Anuradhapura, Kandy, Kalutara, Gampaha, Colombo, Rathnapura, Galle, Kurunegala and Badulla cities.

Enforcement of the Factories Ordinance takes place through the following activities.

• Inspection of factories
• Registration of factories
• Approval of building plans
• Investigation of accidents
• Attend coroner’s courts to give expert evidence
• Investigation of complaints
• Institute legal actions
• Conduct safety awareness programmes
• Analysis of accidents
• Appointment of authorized officers

The other important activities being,

• Advisory services for improvement of work environment in factories
• Participation in national committees with regard to Safety & Health of work personal
• Safety auditing of factories
• Preparation of curriculum on Safety, Health & Welfare for educational institutions such as ICTAD, NAITA, NIBM and NIPM.

3.5 Occupational Hygiene Division

This organization was established to serve as a research and monitoring unit to support industrialists to maintain the work environment of factories as laid down under the Factories Ordinance. On request from the occupier of a factory, it undertakes monitoring of the
working environment, conducts biological monitoring, conducts audits on occupational health and safety and awareness programmes,

Based on the findings, officers of this Division give free technical advice to industrial establishments to improve the work environment. The unit also conducts training programmes, especially on health related work environmental problems. Unfortunately, few occupiers make use of this facility. Besides the above work, the Division supports the inspectorate when information on environmental factors in factories is required for enforcement purposes. The Division also conducts medical examinations to determine temporary and permanent disabilities to employees’ due to injuries.

The Main functions of the division are,

- To promote and maintain the highest possible level of physical, mental and social well-being of the Sri Lankan workforce.
- To prevent workers deviating from good health to ill health due to exposure to hazards and risks encountered at work.
- To provide consultancy, advisory and advocacy services on occupational health
- To provide training, educational and awareness programs on occupational health
- To provide environmental and biological monitoring facilities to industries
- To embark on research activities aimed at improving occupational health of workers.

The secondary function are,

- To intervene in conflict situations between employers and employees
- To assist the chief factory inspecting engineer and his staff in matters pertaining to occupational health.
- To provide expert evidence in legal matters
- To provide assistance to the Department of Health Services in analysis of biological specimens.
- To collaborate with other government and semi-government institutions in matters relevant to occupational health.
3.6 National Institute of Occupational Safety and Health (NIOSH)

National Institute of Occupational Safety and Health was established on 28th April 2005 as an affiliated body to the Ministry of Labour and Labour Relations by National Vocational Safety and Health Institution Act No. 38 of 2009.

NIOSH is committed to provide better working conditions for the working population, through increasing awareness of and adherence to appropriate health and safety legislation. Their activities are implemented to disseminate updated information and to provide advisory and consultancy services. The institute educate and train employers, employees and all other categories of people as well as conduct investigation studies, surveys and research in the field of occupational safety and health. The institute is also dedicated towards preventing accidents and diseases by promoting the enforcement of health and safety policy and methodologies.

Following are the activities conducted by the institute:

- Short term training, and programmes leading to a certificate and diploma in occupational safety and health. Training is conducted for industrial nurses and to the plantation, industrial sectors and to the construction industry.
- Laboratory services to the industry for environmental and biological monitoring of noise, dust, light, air quality, heat and humidity
- Pre and periodic medical examinations of workers to assess whether the worker is suitable for the specific job and also whether the workers’ health status is good and is physically fit to perform the work efficiently with no burden to the countries health expenditure and loss to the industry in terms of absenteeism and rapid turnover in industries.
- Company medical examinations which include physical examination, blood testing, lung function testing and audiometric examination.
- Audits / risk assessments and hazard identification at the request of the industry.
- Celebration of the national occupational safety and health week in collaboration with all stakeholders. This is an annual event.
3.7 **Office of the Commissioner of Workmen's Compensation**

The main function of this office is to inquire into the claims made by the workmen who meet with accidents in the course of their employment. This office functions entire, on a judicial capacity. The Commissioner, Additional Commissioner and the Deputy Commissioner are full time Judicial Officers. The office of the Commissioner for Workmen’s Compensation is vested with both District Court and Magisterial powers in enforcing its orders. The primary role of the Commissioner for Workmen’s Compensation, is to implement the Workmen’s Compensation Ordinance No. 19 of 1984 as amended finally in the year 2005.

The objective of this Ordinance is to obtain compensation from employers to workmen injured from accidents while at work or to workmen suffering from diseases attributable to the nature of employment and to their dependents in case of death of workmen from such causes.

The Commissioner for Workmen’s Compensation carries out the following activities to realize the above objective.

- Receipt of complaints claiming workmen’s compensation.
- Conducting inquiries in to the accepted applications for compensation and settlement of the problem either by obtaining the claim or by rejecting it.
- Collection of compensatory payments from employers.
- Payment of compensation to disabled or diseased workmen or to the dependents of dead workmen.

According to the provisions to the Ordinance inquiries into payment of compensation should be conducted in the area itself where the accident occurred. Therefore, mobile courts are held in many places of the Island.

The payment of compensation by employers in case of fatal accidents should be through the Commissioner for Workmen’s Compensation. But compensation in case of non- fatal
accidents can even be paid direct to the disabled or diseased workmen with the approval of the Commissioner for Workmen’s compensation. When such direct payment is made a memorandum stating that the payment was made with the agreement of both the employer and the workmen should be signed and sent to the Commissioner for Workmen’s Compensation to be registered at his office.

When applying for compensation, the claim has to be made by the workman injured in the accident or by one of his dependants, in the event of the workman’s death, to the Commissioner within two years of the occurrence of the accident. Form "A" together with a medical certificate from a qualified medical practitioner (Form "S") in a non-fatal accident and in a fatal accident, form "B" together with death certificate shall be submitted.

For the benefit of under aged dependents of deceased workmen, the compensation due to them are deposited with the National Savings Bank, under the trusteeship of the Commissioner for Workmen’s Compensation. After they complete 18 years of age the pass books concerned are handed over to them. If there is evidence to show that a child who has not attained the due age limit needs assistance for education, maintenance or medical treatment, the interest due on the amount lying to the credit of the under aged dependent, at the bank, can be paid to the guardian, at the discretion of the Commissioner for Workmen’s Compensation.

Table 9 shows the number of industrial accidents settled and payment of compensation to injured employees due to accidents while being engaged in service of both private & public sectors during the period of 2003 to 2015, under the workmen's Compensation Ordinance No.19 of 1934. After passing the amendments to the above Act in 1990, employees were eligible to claim more compensation for the damages while working at their usual work places. Although, the non-fatal accidents have increased in the year 2015 comparatively to the year 2014, the number of fatal accidents have decreased by a considerable amount in the period. The total number of industrial accidents has also declined during this period.
Table 9: Number of industrial accidents settled and compensation paid, 2003 - 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Industrial Accidents Settled</th>
<th>Compensation paid (Rs. '000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fatal</td>
<td>Non-fatal</td>
</tr>
<tr>
<td>2003</td>
<td>139</td>
<td>185</td>
</tr>
<tr>
<td>2004</td>
<td>129</td>
<td>156</td>
</tr>
<tr>
<td>2005</td>
<td>177</td>
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<td>2006</td>
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<td>2007</td>
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<tr>
<td>2008</td>
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<td>2009</td>
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<td>108</td>
</tr>
<tr>
<td>2015</td>
<td>125</td>
<td>122</td>
</tr>
<tr>
<td>up to June '16</td>
<td>66</td>
<td>140</td>
</tr>
</tbody>
</table>

Source: Office of the Commissioner for Workmen's Compensation.
Note: * unpublished data through personal communication
Note: Increase of payments are due to enhanced rates of compensation under the amendment to the Workmen's Compensation Act on 15th of 1990.

3.7 New legislation

The Department of Labour is to bring in a new legislation by the name of Occupational Health and Safety Welfare Act.\textsuperscript{6} to the Health and Safety at Work Act of the UK to cover health and safety practices in \textit{all} workplaces. Hence, the provisions of the Act are applicable to all places of work including state institutions.

The Act defines the responsibilities of the employers, planners, builders, designers, manufacturers, suppliers, self-employed persons and persons in control of workplaces, and workers in respect of safety and health in the workplace.

The employer is held responsible for ensuring that all possible and practical measures are taken in respect of safety and health of all workers in the workplace, as well as their welfare. These responsibilities include the provision and application of safe processes, systems of work and tasks and all preventive and protective measures to ensure a safe working
environment. Emphasis is laid on the importance of informing the workers of all possible risks and the use of protective clothing and equipment.

The new Act also places responsibility on builders, planners and designers to ensure that buildings and constructions are safe and healthy in every respect. Designers and manufacturers and suppliers of tools, machinery and equipment are held responsible for ensuring that these are safe and without risk of injury.

Responsibility is placed on the worker to cooperate with the employer in fulfilling his duty towards maintaining safety and health in the workplace, not to willfully resort to any activity that would endanger themselves or other workers, and to use any protective clothing or equipment provided to the worker.

The Act also requires the appointment of occupational safety and health officers in all workplaces with more than 100 employees, and the appointment of safety and health representatives in workplaces with over 25 workers.

An important feature envisaged in the Act is the setting up of a National Council for Safety Health and Welfare, chaired by the Secretary of the Ministry of Labour with representation from ministries, corporations and departments responsible for health, industries, environment, finance, agriculture and women (six members), three members representing employers and three representing interests of workers, three professional persons nominated by the Minister of Labour. The Commissioner General of Labour, the Chief Factory Inspecting Engineer and the Chief Medical Officer of the Department of Labour are ex-officio members. An important function of the Council is to review legislation relating to safety, health and welfare at work and recommend enactment of legislation to amend repeal, expand or clarify existing legislation. It will also be responsible for formulation of national policies and strategies related to OSH training and research, development of codes of practice, standards and guidelines, and the publication of annual statistics on OSH.

An important innovation in the Act is the appointment of a multidisciplinary group of inspectors with qualifications and training in engineering, medicine, occupational hygiene, ergonomics, psychology, chemistry, occupational health and safety management, and environmental science.
Transitional provisions are made for the Factories Ordinance and its subsequent amendments to continue to be in force until repealed or replaced by the new Act. The Factories Ordinance and its subsequent amendments will be repealed after five years of commencement of the new Act.
4.0 OVERVIEW OF ORGANISATIONS INVOLVED IN OCCUPATIONAL HEALTH AND SAFETY

The *enforcement* of the Occupational Health and Safety legislation comes directly under the purview of the Ministry of Labour. The Safety Division of the Department of Labour carries out the enforcement of the Ordinance while the Hygiene Division is responsible for monitoring of the work environment and conducting research. The National Institute for Occupational Safety and Health deals with policy matters and training in OSH. Detailed information about these three divisions is given in Chapter 3.

This chapter deals with information gathered from reports, interviews carried out with officials of other organizations which are directly or indirectly involved in various aspects of OSH and from websites of the relevant organisations.

4.1 International Labour Organization (ILO)

The main goal of International Labour Organisation (ILO) is to achieve decent work for all, so that everyone can work in ‘conditions of freedom, equity, security and human dignity’. ILO provides technical assistance to its member states through a Decent Work Country Programme (DWCP), which details the policies, strategies and results required to realize progress in each country, towards the goal of decent work for all. In Sri Lanka DWCP 2013-2017 has been developed by the ILO in full consultation with the tripartite partners, Ministry of Labour and Labour relations, the Employers’ Federation of Ceylon and the Trade Unions.

The International Labor Organization (ILO) has supported the Department of Labour in developing the new legislation, Occupational Safety, Health and Welfare Act and also supported the government to expedite its passage through the parliament. ILO provides financial support to print safety posters, translate books, develop educational material and conduct the annual safety week.
4.2 World Health Organisation (WHO)

WHO’s work on occupational health is governed by the Global Plan of Action on Workers’ Health 2008-2017\(^9\), endorsed by the World Health Assembly in 2007. The objective being to achieve full coverage of all workers, including, farmers, migrants, and workers in small enterprises and the informal sector to essential interventions and basic health services for the prevention and control of occupational and work related diseases and injuries.

Furthermore, the Sustainable Development Goals adopted by the UN General Assembly in 2015 include several targets related to occupational health, such as providing all workers with coverage to social protection against occupational diseases and injuries and promoting safe and secure working environments of all workers, including migrant workers, particularly women migrants and those in precarious employment.

The office of the WHO representative in Sri Lanka disburse funds from the biennial country budget to the Occupational and Environmental Health Unit of the Ministry of Health and to the Faculty of Medicine, University of Colombo to conduct activities based on project proposals approved by the WHO, the primary objective being to provide occupational health services to the working population in the country through the primary health programme of the Ministry of Health. The function and activities of the WHO Collaborating Centre for Training and Research in Occupational Health is dealt under section 4.2 under universities.

4.3 Ministry of Health, Nutrition and Indigenous Medicine

4.3.1 Directorate of Environmental and Occupational Health

The focal point for occupational health and safety in the healthcare sector lies with the Occupational Health Unit of the Directorate of Environmental and Occupational Health of the Ministry of Health, Nutrition and Indigenous Medicine. The primary objective of the Occupational Health Unit is to plan, implement, monitor and evaluate the National Occupational Health programme of the Ministry of Health.

The Directorate of E&OH has embarked on a programme to develop occupational health of all workers in workplaces in Sri Lanka. The main objectives of the programme being,
1. To promote and maintain the highest degree of health among workers
2. To prevent adverse effects on health caused by the working conditions among workers
3. To protect workers from occupational risks resulting from factors adverse to health
4. To adapt work to humans

The implementation of the occupational health activities in the health sector are carried out mainly through the primary health care units of the Ministry of Health through the Medical Officers of Health (MOOH) and the Public Health Inspectors (PHII). The MOOH and PHII are expected to visit workplaces and identify hazards in the work environment, advice on preventive and protective measures, carry out health promotion activities, advice on basic health facilities, such as, safe drinking water, sanitary latrines, meal and changing rooms, adequate washing facilities, and facilities for first-aid at workplaces.

Occupational Health Units would be set up at district level to better facilitate the implementation of the occupational health programme and to strengthen the coordination between the Directorate of the Environmental and Occupational Health and the preventive health care system of the country. At present three such units are established in Gampaha, Galle and Hambantota Regional Director of Health Service areas.

The Directorate of Environmental and Occupational Health carried out several activities to strengthen the occupational health programme. Its main functions are,

- To prevent occupational injuries and diseases and to promote a safe and healthy culture within workplaces through the implementation of the National Occupational Safety and Health Policy. The policy was developed jointly by the Ministries of Health and Labour and Labour Relations and launched in June 2014.
- To conduct programmes for capacity building at provincial and district level public health staff in occupational health and safety. Occupational health issues in the informal sector will be addressed by the trained healthcare personnel.
- To conducting operational research to plan interventions on occupational health and safety.
To raise awareness on occupational health and safety among different categories of workers, such as, workers in trade zones that come under the Board of Investments.

To train and educate undergraduate and post graduate medical students on occupational health and safety through teaching at undergraduate courses and MSc and MD Community Medicine programmes conducted by the Post Graduate Institute of Medicine, University of Colombo and at extension courses in occupational health conducted by the Department of Community Medicine of the Faculty of Medicine, University of Colombo.

The directorate also collaborates with Ministries of Environment, Labour, Education and Water Resources Board and the Central Environmental Authority through the conduct of various programmes.

4.3.2 National Institute of Health Sciences (NIHS)

The primary health care staff of the Ministry of Health are trained at the NIHS at Kalutara. The NIHS provides basic training in occupational health to these officers.

4.4 Sri Lanka Standards Institution (SLSI)

SLSI is a certification body for OHSAS 18001:2007. It refers to Occupational Health and Safety Management Systems and sets requirements on occupational health and safety aspects of any organization. OHSAS 18001 has been developed to be compatible with the ISO 9001 (Quality) and ISO 14001 (Environment) management systems standards, in order to facilitate the integration of quality, environment and occupational health and safety management systems by organizations that wish to do so. The Systems Certification Division of the SLSI has trained and qualified auditors and the rules and regulations for certification have been established in compliance with international guidelines. SLSI also provides training on OHSAS 18001.
4.5 **Board of Investment of Sri Lanka (BOI)**

There are twelve export processing zones (EPZs) that operate under the purview of the BOI. There are also other BOI enterprises that operate outside the EPZs in Sri Lanka. The labour laws of the country are also applicable to BOI enterprises, and the Ministry and the Department of Labour are responsible for enforcement of these regulations.

There are Industrial Relations Officers employed under the BOI, who are responsible for providing advisory services and guidance to employers and employees in fostering closer labour-management cooperation at the enterprise level on all aspects in the area of industrial relations through routine inspections. They are also expected to conduct compliance audits which include audits on health and safety.

Information on EPZ and IPS under BOI are given in Annex I

4.6 **Employers’ Federation of Ceylon (EFC)**

The main function of the organization is to look after the interest of its member establishments on matters related to labour law and industrial relations. The EFC also makes representations on behalf of employers to the Government, Ministry of Labour, Department of Labour and other relevant agencies on matters pertaining to labour policy, labour legislation, wages, etc. and is recognized as the representative employer organisation in Sri Lanka by the Ministry of Labour and the International Labour Organization. Direct services to members include advice on matters pertaining to labour law, industrial relations and human resource management, representation in labour courts, facilitation of dispute settlement and collective bargaining agreements and training.

A special unit of the federation conducts general in-house training on OSH. It also undertakes training at worksites on request. Besides undertaking training, it works in close collaboration with the Department of Labour on policy development and safety auditing of Factories. It maintains, in collaboration with CIS centre in Geneva, an information network on chemical safety in workplaces. These programmes are funded by the membership of the
Federation and the ILO. The EFC is also involved in activities relating to employment mediation, occupational safety and health and corporate social responsibility.

4.7 Ceylon National Chamber of Industries (CNCI)

The Ceylon National Chamber of Industries is the premier industries’ chamber in the country which is established by the act of parliament. The membership of the chamber comprise of small industries. The Chamber conducts training programmes for their membership on OSH. At present they function as a stakeholder of a UNIDO project on “Strengthening International Certification Capacity in Sri Lanka” with particular reference to Social Accountability Standard (SA 8000) and Food Safety Standard (HACCP/ISO22000). CNCI is a member of the sub committee in organizing the National Safety and Health Week with the Ministry of Labour Relations and Manpower. The cost of activities they conduct on OSH are charged from the members. They also conduct an annual award ceremony “Achiever of Industrial Excellence”. For this award the industries are assessed through a questionnaire which includes activities on OSH.

4.8 Construction Industry Development Authority (CIDA)

CIDA was established as the successor to the Institute for Construction Training and Development (ICTAD) under the provisions of the Construction Industry Development Act No. 33 of 2014. The Act came into operation on 29th December 2014. CIDA comes under the purview of the Ministry of Housing and Construction. The mission of CIDA is development, facilitation and regulations of training, expertise and quality assurance in the construction industry within the framework of national policies and aspirations in pursuit of technological, economical and social progress and upliftment of our country.

CIDA carries out its functions through four operational divisions, namely industry services division, construction industry development division, construction equipment training division, and industrial training division. The training division plans and conducts training activities annually in order to accomplish training requirements of public and private sector institutions and individuals who contribute in all aspects to the development and sustainability of the construction industry in this country. Training activities are basically
organized at three human resources levels in terms of managerial, supervisory and craftsmen. Among the many training programmes conducted, the following programmes are conducted related to health and safety in the construction industry.

- Construction safety & occupational health training programme
- Diploma course in construction occupational safety and health (DCOSH)
- Certificate course in construction occupational safety and health (CCOSH)

There are two training centers under CIDA, the Construction Equipment Training Centre (CETRAC) at Battaramulla and the Operator Training Centre (OTC) in Anuradhapura which conduct training programmes on a fee levying basis.

4.9 Institute of Personnel Management (IPM) of Sri Lanka
This institute conducts courses on personnel management on a fee levying basis. The full programme includes foundation, certificate and diploma courses which include subjects related to OSH. The diploma course contains a 24 hour modules on OSH.

4.10 Plastic and Rubber Institute (PRI) of Sri Lanka
This institute is established to upgrade the knowledge of employees in plastic and rubber industries. It offers a basic course, a diploma course and a BSc course in rubber technology. Each of these courses contains a module on OSH.

4.11 National Transport Medical Institute
The main function of the organization is to assess medical fitness of the heavy vehicle and public transport drivers. It also undertakes the assessment of the injuries caused to accidental victims of the Ceylon Transport Board (CTB) (a state corporation) for payment of compensation. It is also responsible for dealing with medical problems of CTB employees including their ergonomic problem. Many of its medical officers are trained in OSH by the Faculty of Medicine, University of Colombo. Funds for the payment of compensation are provided by the state and insurance companies. The institute does not provide any training on Accident Prevention for employees.
4.12 Universities

4.12.1 University of Colombo: Department of Community Medicine, Faculty of Medicine and WHO- Collaborating Centre for Training and Research in Occupational Health

The Department of Community Medicine of the Faculty of Medicine, University of Colombo was designated as a World Health Organisation Collaborating Centre for Training and Research in Occupational Health on 30 July 2012. The collaborations between the WHO and the department in the field of occupational health and safety spans over a period of over three decades which originated with training of primary health care workers in occupational health and safety. The objective being to provide occupational health services to the working population in this country through the primary health care programme of the Ministry of Health. At every biennium the country office provided funds under the workers’ health project to the department for training, development of educational material, monitoring and evaluation of the impact of training, for purchase of equipment for basic occupational hygiene investigations and to conduct research. The designation as the WHO-collaborating centre is the outcome of a culmination of activities conducted over the years.

While conducting the regular activities in the field of occupational health, the collaborating center conducts agreed activities during the period of designation. The primary objective of the center is to work towards the mandate of the WHO Global Plan of Action on Workers’ Health 2008-2017 and to towards achieving the targets in occupational health as given in the Sustainable Development Goals.

4.12.1.1. Activities of the Department of Community Medicine in Occupational Health

1. Contributions to the undergraduate teaching programme and to the MSc and MD Community Medicine teaching program of the Postgraduate Institute of Medicine, University of Colombo: The staff of the department conducts lectures, practicals, accompany students
during fields visits to work places where the trainees could observe health hazards and assess possible risks to health and suggest control measures as an academic exercise.

2. **Contributions to other universities**: Prepare lesson material in occupational health for distance education and conducts lectures at the invitation of other universities in occupational health.

3. **Development of educational material** – Educational material has been developed in the form of text books, a manual on safety in the local language, posters and video clips. These are referred by students and professionals in the field of health and safety and is available to be purchased by interested persons in the field and by the industry.

4. **Research**: Research in occupational health is undertaken by the staff and they also undertake to supervise research of candidates registered for PhD and MSc and MD Community Medicine programmes.

5. **Laboratory investigations**: The laboratory is equipped to carry out basic occupational hygiene investigations. These facilities are used by undergraduates and post-graduates in their research projects, during practicals conducted for postgraduate students and by participants following extension courses in occupational health and safety.

6. **Invited lectures**: staff of the department participate at seminars and workshops organized by the industry to educate the employees and employers.

7. **Short term training**: Short term in-service training has been conducted on a regular basis to train MOOH and PHII in occupational health during the past three decades. Now this training is taken over by the E&OH unit of Directorate of Environmental and Occupational Health of the Ministry of Health. Short term training is conducted on request over a duration of 2-3 days for different categories of personnel in the state, armed forces and private sector organisations.
8. *Extension courses:* Extension courses leading to a certificate in OH&S and a Diploma in OH&S are being conducted at present on a fee levying basis during weekend. A postgraduate diploma in OH&S too had been conducted in the past. The participants being medical officers, engineers and officers in charge of health and safety attached to educational institutions and public and private sector organisations. A total of 69 diplomates, 46 postgraduate diplomates and 36 certificates in occupational health and safety have been produced over the years. Arrangements are being made to commence a Masters programe in OH&S in 2017.

9. *Development of an Occupational Health and Safety policy for the University of Colombo:* A policy that could be introduced and implemented in the entire university system in this country. Data is collected using a questionnaire to capture health and safety issues in all work setting in the campus, faculties and in the institutes that come under the umbrella of the University of Colombo. Visits to selected institutions will also be made to supplement the data collected by the questionnaire. The data collected will facilitate the preparation of the policy document. The policy would be ready during the first quarter of 2017.

### 4.12.1.2. Activities of the WHO Collaborating Centre

The department was redesigned for the 2nd term on 30 July 2016. During the period of re-designation from 2016-2020 would function according to agreed terms of reference and work plan. Following are the terms of reference (TOR):

TOR 1. To contribute to the development of human resources for addressing Workers’ Health through training and capacity building activities

TOR 2. To participate in WHO’S multi-center projects on integrating occupational health

TOR 3. To support WHO’s research agenda or promoting occupational health

TOR 4. To collaborate in the implementation of the Global Master Plan (GMP) on Workers’ Health

In accordance with the TOR the centre is currently conducting the following activities:

1. Developing generic training modules on essential interventions on OH for primary care providers. The module when developed would be piloted and its effectiveness
evaluated according to WHO methodology. The WHO working group for this activity comprise of senior staff experienced and with expertise in primary health care and training of primary health care workers in OH from four WHO-CCs. This activity is accordance with the GMP for OH Priority 4, Global product 4.2. This center has taken up the task of developing 2 modules, i) occupational disease ii) medical surveillance of workers. Considerable progress has been made in developing the modules by the Centre.

2. This report on the situational analysis on occupational health and safety. This activity is in accordance with the GMP for OH Priority 4, Global product 4.3.

Several other activities are listed in the Plan of activity for the designated period.

4.12.2 **Postgraduate Institute of Medicine (PGIM)**

Teaching/learning activities in occupational health and safety are conducted by the course unit in Environmental and Occupational Health during the MSc Community Medicine Programme conducted by the PGIM. This course unit runs into 90 hours of teaching/learning activities. Inspection of a factory and presentation of the factory inspection report following the factory visit is also included in the programme. As a fulfillment of the degree the trainees conduct a research and some of them have conducted their research in the field of occupational health. The research conducted in occupational health during the past 20 years by MSc/MD Community Medicine trainee and MSc/MD Medical Administration trainees are listed in Annex II. Research in occupational health is also conducted by trainees offering programmes such as Diploma in Disaster Management.

4.12.3 **University of Moratuwa**

Students following the undergraduate programme in the Faculty of Engineering has to follow a 6 months in-plant training during their 3rd year of study. This training gives the students an exposure to an industrial work setting and also an opportunity to apply the theoretical knowledge they acquired in real work settings.
Lectures in occupational health and safety are conducted at BSc in Facilities Management and BSc in Transport and Logistics Management programmes conducted by the Department of Building Economics of the Faculty of Architecture, University of Moratuwa. This department also conducts two post graduate programs, namely, a Postgraduate Diploma in Occupational Safety and Health Management and a MSc in Occupational Safety and Health Management.

4.12.4 Other universities

The Chemical Engineering Section of the Faculty of Science, University of Peradeniya conducts 20 hours of lectures on industrial safety. The Post Graduate Institute of Science (PGIS), Peradeniya conducts a MSc course in Industrial Chemistry which incorporate 15 hours of course work on Industrial safety and hazards. The BSc Management and IT courses conducted at the University of Kelaniya, includes a few lectures on ergonomics. The Department of Chemistry, Faculty of Natural Sciences in the Open University of Sri Lanka (OUSL) offers a MSc in Environmental Sciences. Ecotoxicology and Pollution Management is a 6 credit course in this programme of study and Occupational and Industrial Toxicology is one course unit which include lectures on important aspects of occupational health and safety.
5.0 DISCUSSION

5.1 Legislation and enforcement

The most important legislative enactment relating to health and safety in factories has been the Factories Ordinance, which has been in force for over half a century. The provisions of this ordinance have been revised over the years but a major drawback in enforcement has been the lack of adequate staff to undertake enforcement activities. There are only a limited number of Factory Inspecting Engineers responsible for enforcement of the provisions of the Ordinance island-wide. As a result, the regular coverage with respect to inspection of even the larger factories is poor.

Though the Ordinance has been in existence for over half a century, not all factories are registered with the factory inspectorate; and again only a fraction of them report accidents to the inspectorate. Information of these accidents is not made accessible by the Department of Labour, and only a broad summary of the accidents is published in the Annual Report of the Department of Labour. Therefore, there is a need to ensure registration of all factories; and analysis at least of the accidents that are reported, so as to highlight the direct and indirect causes of accidents. This information needs to be circulated among the workplaces. Dissemination of such information will pave the way for minimizing accidents in workplaces. For these and other reasons the need to change the mechanism adopted for registration and inspection of the factories has been recognised.

The new Act, the Occupational Safety Health and Welfare Act, which is yet to be finalized by the Department of Labour with assistance from ILO is expected to fulfil this need. This Act is based on the Health and Safety at Work Act of the UK, which covers health and safety in all workplaces including factories and is an enabling Act; the provisions under the Factories Act continue to remain in force until regulations are framed under the Health and Safety at Work Act to replace the Factories Act. The Administration of the Act in the UK is vested in the Health and Safety Executive, which reports to the Health and Safety...
Commission, an independent authority of the Government of the UK, responsible for health and safety in workplaces. The Sri Lankan Act would be under the administration of the Ministry of Labour and not under the control of an independent authority. However, the inclusion of a representative group in the National Council is expected to ensure that the Council will function taking into consideration the needs of all representative groups. The Act also envisages the appointment of a multidisciplinary team of inspectors to perform inspections of workplaces. This would require the recruitment and training of a large cadre of officers from the different fields. This is likely to be a huge task which is likely to take several years to recruit at least a minimum number of inspectors.

5.2 Development of human resources in occupational health and safety

The training of primary health care staff i.e. the MOOH and PHI in occupational health and safety commenced in 1982 by the Department of Community Medicine of the Faculty of Medicine, University of Colombo. These programmes were conducted in collaboration with the Departments of Health and Labour with financial assistance given by the WHO. This training was extended to officers in the armed forces, safety officers, safety executives, human resource managers etc. In addition to the above in 2002 the department went a step further to commence a certificate in OH&S and subsequently a Postgraduate diploma and a Diploma in OH&S. These programmes are conducted on a fee levying basis during weekends. Many of the sponsored by their workplaces. It is envisaged to commence a MSc in occupational health and safety in 2017. The training of primary health care staff is now being done by the E&OH unit of the Ministry of Health. The other organisations that conducts H&S training leading to a degree are, the National Institute of Occupational Health and Safety (NIOSH), University of Moratuwa and Construction Industry Development Authority.

One of the objectives of the training of health personnel was to set up group occupational health services at the divisional level under the administration of the medical officers of health supported by public health inspectors and nurses. This objective was not realized. It was then that the Ministry of Health propose to set up occupational health units at district
level under the Deputy Provincial Directors of Health Services. Presently there are three such units setup in the country. It is important that these units maintain a close collaboration with the district factory inspectorate.

Under the new Act there is a need for all establishments to appoint safety officers and safety representatives. Therefore, a large number of persons need to be trained to take up these positions. Even the top management of establishment may need initial training on the new requirements of the Act. It is, therefore, recommended that a committee be appointed with representation from the Department of Labour, Ministry of Health, the Faculty of Medicine and industry to plan the curricula for such training.

It will be necessary for the National Council to initiate action along with relevant institutions to draw up a programme of training for the different categories of officers to be appointed under the new Safety, Health and Welfare at Work Act. The experience of the organisations that already undertake such training can be utilized for this purpose.

### 5.3 Universities and other Institutions

The information gathered from universities which train students in medicine, science, engineering and other technological fields reveals that only some aspects of OSH are included in the training curriculum. Whilst knowledge of health and safety practice is considered important for students in these fields of study, a health and safety component needs to be included as a subject in all courses of training as students need to be informed on how to deal with health and safety matters in whatever occupation they undertake in the future. Common programmes for all undergraduates on health and safety need to be introduced in all universities and postgraduate training institutions.

Professional bodies such as Institute of Personnel Management of Sri Lanka and the Plastic and Rubber Institute of Sri Lanka have already taken the initiative to introduce OSH subjects at various levels in their courses. It may be useful to examine the content of these programmes for introduction of OSH programmes in the courses conducted at universities and other institutions.
The Board of Investment (BOI) Sri Lanka has taken steps to inform industrialists about the OSH and other labour requirements before they set up industries. Besides this they encourage industries to set up workers’ councils. These councils have representation from both employees and management where problems faced by the employees including those on OSH are discussed. But there is no organized system to educate the workers on OSH related matters. Certain trade unions have taken the initiative to educate workers in the FTZ on their rights and obligations so that they could use this knowledge at the workers councils to demand their rights and privileges. This initiative could be extended to include training in OSH as well. The BOI could initiate training programmes in OSH for both employees and employers and also have a system to collect accident data from industries under their purview.

### 5.4 Occupational Health programme of the Ministry of Health

The implementation of occupational health activities in the primary health care settings i.e. through the Medical Officers of Health (MOOH) and the Public Health Inspectors (PHII) should be strengthened. Medical Officers (Environmental and Occupational Health) should be appointed at RDHS level, these appointments together with the establishment of Environmental and Occupational Health Units at district level will enable better facilitation and implementation of the occupational health programme.

Training of primary health care staff should be continued to build-up human resources to address issues related to occupational health. Serving the informal sector which includes the agricultural sector and small scale industries would be primarily through this category of health staff.

### 5.5 Industries

As a result of buyers’ intervention, garment industries now maintain good OSH standards. They have a declared policy on OSH, a safety officer to coordinate OSH activities and safety committees to implement safety activities. Some of the multinational companies, which
follow the policy of the parent company, also have good safety organizations. These are good examples of OSH practice that could be introduced into other industries. It is likely that with the introduction of the new Safety, Health and Welfare Act other organization will also have to fall in line, by establishing OSH organisations. Initial support necessary for establishing OSH activities will have to be given due consideration by the enforcing authority.
6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Legislation and enforcement

1. There are limited number of Factory Inspecting Engineers to enforce the provisions of the Ordinance island-wide. As a result, inspection of factories does not meet full coverage. The number of inspection staff requires to be increased and it is recommended that categories such as medical officers of health, and public health inspectors, who are widely distributed throughout the island be utilised to conduct preliminary inspections after training.

2. There is a need to ensure registration of all factories. The economic census that has been conducted and currently in the process of analysis by the Department of Census and Statistics (DCS) will reveal the number of industries from household to large scale enterprises in this country. The extent of coverage with respect to numbers registered could be commented with the release of data from this census.

3. Reporting of accidents and injuries to the factory inspectorate is poor. All industries should be informed of the importance of maintaining records on accidents and injuries and the importance of reporting accidents and injuries to the factory inspectorate. The factory inspectorate should provide a feedback on reported accidents by analysing them and publishing them in a weekly/monthly report. This will encourage industries to report accidents and injuries. Factories without accidents and injuries should be required to send a 'nil' report in order to ensure the completeness of reported data. Even though occupational accidents are reported to some extent, there is no notification of occupational diseases. A mechanism should be developed for the detection and reporting of occupational disease. Medical officers with necessary knowledge and skills should be produced to meet this requirement.

4. The new Occupational Safety, Health and Welfare at Work Act should be operationalized and enforced as an independent body free from undue interference. It is recommended that competent persons are appointed as members to the Council. This Act would overcome many of the deficiencies seen in the current Act.
5. The Act also envisages the appointment of a multidisciplinary team of inspectors to perform inspections of workplaces. This would require the recruitment and training of a large cadre of officers from different fields. It is important to ensure the training of required categories of staff, utilising the existing training facilities and establishing additional facilities.

6.2 Occupational Health and safety programme of the Ministry of Health

6. Occupational health services should be integrated to the primary health care services of the country. The Occupational Health and safety programme implemented by the Occupational Health Unit of the Directorate of Environmental and Occupational Health (E&OH) should be strengthened by recruiting the required number of trained medical officers in occupational health at RDHS level to facilitate the provision of occupational health services at the grass root level. Establishment of Environmental and Occupational Health Units at district level will enable better facilitation and implementation of the occupational health programme in the country.

6.3 Development of human resources in occupational health and safety

7. Human resources trained in occupational health and safety needs to be strengthened. According to the proposed Act there is a need for all establishments to appoint safety officers and safety representatives, and a large number of persons need to be trained to take up these positions. Even the top management of establishment may need initial training on the new requirements of the Act. It is recommended that a committee be appointed with the representation from the Department of Labour, National Institute of Occupational Safety and Health, Ministry of Health, Faculty of Medicine and industry to plan the curricula for such training and identify institutions that would undertake training. The experience of the organizations that already undertake such training can be utilized for this purpose.

8. The information gathered from universities which train students in medicine, science, engineering and other technological fields reveals that only some aspects of OSH are
included in the training curriculum. It is recommended that common programmes for all undergraduates on health and safety be introduced in all programmes conducted by universities and postgraduate training institutions.

9. The experience gained from professional organisation that have already taken the initiative to introduce OSH subjects in their courses should be utilised to introduce such programmes in courses conducted by other professional bodies.

10. It is recommended that all workplaces establish workers' councils or safety committees with representation from employees and management to promote OSH activities.

### 6.4 Laboratory facilities

11. At present laboratory facilities for the analysis of heavy metals and toxins are limited. The existing laboratories should be upgraded with enhance capacity to carry out investigations.

### 6.5 Industries

12. Garment industries now have a declared policy on OSH, a safety officer to coordinate OSH activities and safety committees to implement safety activities. Some of the multinational companies, which follow the policy of the parent company, also have good safety organizations. It is recommended that other industries follow this example. It is likely that with the introduction of the new Safety, Health and Welfare Act other organization will also have to fall in line.

All factories should be encouraged to establish a system of communication for OSH, which system would, in turn, provide a mechanism for educating workers in safety practices and preventing occupational accidents and diseases.

It is recommended that training departments which would be a most effective mechanism for worker education be established wherever possible. Individual training departments could be considered for large industries whilst group training departments could be set up for cluster groups of factories.
Factory management should to be educated on the importance of maintaining proper records on accidents and the purpose of reporting accidents to the factory inspectorate.

6.5 Proposed Occupational Safety, Health and Welfare at Work Act

13. The proposed Occupational Safety, Health and Welfare at Work Act which is long pending should be finalised and speedily enforced in order to ensure coverage of all workplaces in respect of health and safety. Early action should be taken to train and appoint the proposed cadre of inspection personnel and careful consideration should be given when appointing members to the National Council on Occupational Safety and Health.
7.0 REFERENCES


Annex III

List of Institutions

Board of Investment of Sri Lanka (BOI)
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