

MANAGEMENT OF HEALTH, SAFETY AND WELLBEING OF EMPLOYEES IN THE BUSINESS SYSTEM

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Summary

Risk assessment and the implementation of measures for a healthy and safe work before the employee starts working, is the basic principle of the prevention of occupational injuries, occupational diseases and diseases related to work.

Bearing that in mind, the goal of this paper is to describe the activities of employers and employees in the field of health, safety and wellbeing of employees in a particular business system as well as to measure progress in safety management by analysing data on occupational injuries, occupational diseases and diseases related to work.

The research conducted in this paper is based on information and data collected from the public company "Vojvodinašume" and on the description from literature sources. For the purpose of processing the collected data, we used descriptive statistical methods and the data proper are presented graphically and in tabular form in order to facilitate analysis and comparison.

Results of the research showed that the number of occupational injuries in the public company "Vojvodinašume" in the period from 2004 to 2013 reduced, particularly the number of minor injuries. However, the public company "Vojvodinašume", in addition to reducing the number of minor injuries, is obliged to eliminate major and fatal occupational injuries, as well as to enable effective prevention of the occurrence of occupational diseases and diseases related to work.

Key words: health, safety, wellbeing, business system, injuries.

JEL: Q23, J81, K32, L73, M54

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Introduction

Human resources management in today's modern business represents one of the key factors of survival and development of any business system, as well as the most important and valuable resource which is available.

The concepts of health and safety are closely related, but a difference must be made between them. Health is a broader concept than the concept of safety, and it is difficult to give its precise definition. Most commonly, health is defined negatively, as the absence of disease, injury or mental or emotional problems, which can reduce the normal activity of people. A negative definition is not a true definition, but health maintenance refers to the maintenance of the overall wellbeing of the individual. Safety usually refers to physical, not mental or emotional wellbeing of an individual. The wellbeing, on the other hand, includes not only the questions of the physical conditions in which the employees work, but also a way of thinking about dealing with people, which is attributed to the view that a worker who is satisfied with the job is more productive (Živković, 2012).

Workers are fully aware of the importance of health, safety and wellbeing because it refers to their life and future, and therefore they lead a fierce campaign to raise awareness of employers of the importance of these issues.

Within the business system, it is possible to identify four key areas that form the framework for the emergence of difficulties and health problems in the workplace (Orlić, 2005):

- environmental factors (noise, poor lighting, poor ventilation, poor temperature control, unpleasant fumes, smoking, too many people, isolation, vibration, poorly designed furniture or equipment, inadequate nutrition, etc.);
- factors of the work design (poorly designed work, conflicting goals, role conflict, too much or too little work, monotonous and repetitive work, underestimation of skills, too little or too much supervision, lack of involvement in decision-making, permanent seating, inadequate breaks, etc.);
- factors of the employment contract (low salary, shift work, overtime work, job insecurity, unfair procedures related to promotion, lack of recognition, etc.) and
- interpersonal relations (poor relationship with colleagues, national or religious discrimination, poor communication, customer and consumer complaints, etc.).

Occupational injuries and diseases may cause considerable costs to society and companies, and when costs are taken into account, mining, construction, forestry and transportation are on the top of the list (Lebeau et al., 2014). Forestry in general and logging in particular are still among the three most hazardous sectors in European countries (Cabeças, 2007). In addition, a significant correlation between the lack of experience of workers and a higher accident rate was found (Wang et al., 2003; Bentley et al., 2002; Shaffer and Milburn, 1999; Lefort et al., 2003).

Faced with this problem in the business system, many employers today are trying to help employees to overcome difficulties that lead to health deterioration. Although no single method guarantees that the difficulties will be reduced, certain strategies can help in

managing and improving the health of employees.

Help and improving of the health and wellbeing of employees comprise the education of employees on safety at work. Regardless of a technological advancement, forestry work remains the one of the most dangerous activities, particularly when workers do not receive proper training (Klun and Medved, 2007). Training on safety at work aims to communicate the nature of workplace risks to employees so as, to raise their awareness of the rules and procedures of safety and to make them behave in accordance with these rules. This education can be carried out separately, or as a part of a broader programme, including lectures, discussions, films, exercises with role plays, posters and the like. Disciplinary measures can also be imposed in case of violation of safety rules. Occupational health and wellbeing are a broad area, which includes physical and mental wellbeing, and therefore emphasizes the need for constant upgrading and improvement of training on occupational safety.

However, learning depends on previous knowledge available, quality and nature of previous education as well as on how developed the capacity for learning is. There are different types of learning which require different methods and approaches of lecturers. Compared to the previous period, activities related to the treatment of employees may be less relevant today for those who deal with human resources, but they are still important (Torrington et al., 2004).

The main purpose of effective safety programmes in the organization is to prevent injuries and accidents at work (Miletić, 2013). The focus of policies related to the health and safety of personnel is safe interaction between employees and work environment. The system of health and safety at work involves the interaction of several different factors such as: legislation, inspection, insurance, technical knowledge and solutions, occupational health services and health protection, notifying, education, research and other (Martinović and Tanasković, 2014). All the factors that arise in the work process in the workplace and in the work environment, which could cause serious occupational injury or damage to health, that is, illness of an employee, represent dangers and harms in terms of regulations on safety and health at work. Risk assessment and the implementation of measures for a healthy and safe work before the employee starts the working, is the basic principle of prevention of injuries at work, occupational diseases and diseases related to work. The perception of risk is of crucial importance for workers, since it prevents workers from exposing themselves to unnecessary risks, therefore, it is an essential element of training and preventive measures (Albizu-Urionabarrenetxea et al., 2013).

Bearing that in mind, the goal of this paper is to describe the activities of employers and employees in the field of health, safety and wellbeing of employees in a particular business system as well as to measure progress in safety management by analysing data on occupational injuries, occupational diseases and diseases related to work.

Method of research and sources of data

The research conducted in this paper is based on information and data collected from the public company “Vojvodinašume” (hereafter PC “Vojvodinašume”) and on the description from literature sources.

Information was obtained primarily through personal communications, that is, interview. The interview was conducted with the employed persons in the Service for General and Personnel Affairs and the Sector for Development and Informatics, responsible for human resources management. By talking to the respondents, information about their experiences in doing the job as well as about the company policy in terms of human resources management, referring in particular to the development and issues of health, safety and wellbeing of the employees was gathered. Similarly, their assessments of the situation and prospects for the future are presented. In addition to the interview with the employed persons in the company, data from internal company records were also collected. The analysis of literature sources has come to certain conclusions and attitudes related to the observed area of human resources management.

For processing the collected data, we used descriptive statistical methods and the data proper are presented graphically and in tabular form in order to facilitate the analysis and comparison.

Results of the research and discussion

The PC “Vojvodinašume” based in Petrovaradin was founded in 2002 with the aim to integrally manage forests and manage protected natural areas and hunting grounds in accordance with the principles of sustainable development and profitability by increasing forestation and improvement of the existing forest fund of AP Vojvodina. PC „Vojvodinašume“ belongs to huge companies with a complex organisational structure *Scheme 1*.

Scheme 1. The organisational structure of PC “Vojvodinašume”

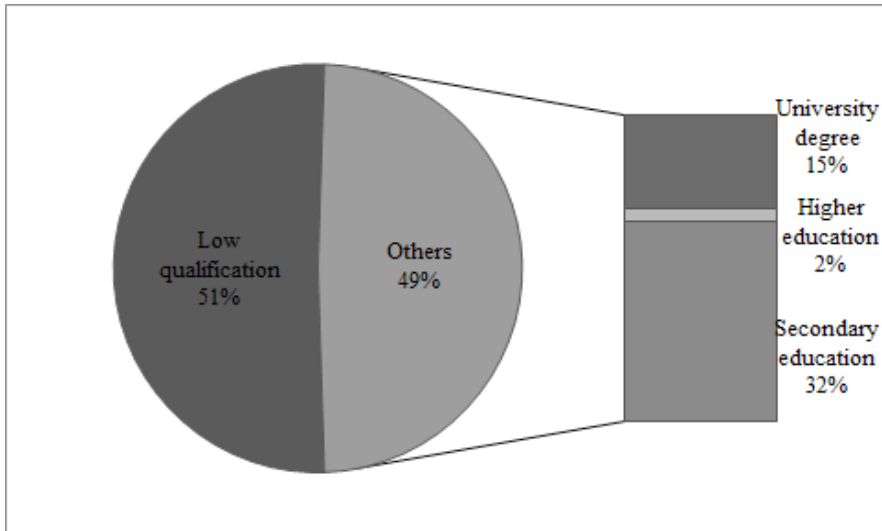


Source: www.vojvodinasume.rs

The number of the employees in 2014 amounted to 1,580, while the plan is to have 1,560 employees in 2015. The largest number (over 50%) are workers with low skills, therefore,

special attention should be paid to their professional training for the tasks they perform, which is one of the most important preconditions for safe work (*Graph 1*).

Graph 1. The educational structure of the employees in the PC “Vojvodinašume”



Source: The calculation of the authors on the basis of internal documentation of the PC “Vojvodinašume”

The governing bodies of the company are (Nonić, 2010):

- Managing Board, which consists of 11 members (of which 5 are representatives of companies), and it is appointed by the Assembly of AP Vojvodina;
- Supervisory Board, which consists of 5 members (of which 2 are representatives of companies), and it is appointed by the Assembly of AP Vojvodina;
- Company Director appointed by the Assembly of AP Vojvodina and
- Executive Board of Directors, which is an auxiliary executive board of directors and the members of which, as a rule, are assistant directors and heads of departments.

The activity of the PC "Vojvodinašume" is such that it requires an ongoing commitment and support to the creation of safe working conditions by the management. Improving all segments of operations of PC "Vojvodinašume", for the purpose of ecologically sound, socially just and cost-effective management of forest resources, also means an ongoing commitment and support to the creation of safe and healthy working conditions.

Following changes in the legislation, which was introduced the *Act on Safety and Health at Work* in 2005, PC “Vojvodinašume” adopted general and specific acts, that are consistent with new legislation and by-laws. The most important of these is *Regulations concerning Safety and Health at Work*, adopted in 2006, and within it the following programmes and decisions:

- *The programme of training employees for safe and healthy work;*
- *The training programme for employees for first aid;*
- *The decision on the scope, manner and deadlines, inspection and testing of equipment for the work, the process of their maintenance in good condition and keeping records of their maintenance and*
- *The decision on the cases and way of checking employees under the influence of alcohol and other addictions.*

Special emphasis is given to the adoption of *Act of risk assessment for all work places in a working environment*, which was one of the basic requirements of the new law. Risk assessment is the systematic recording and evaluation of all factors in the work process which can cause occupational injuries, diseases or damage to the health of employees and determining possibilities, that is, ways to prevent, eliminate or reduce risks. PC "Vojvodinašume" also operates, controls and monitors health and safety at work on the basis of and in accordance with the following most important laws and regulations of the Republic of Serbia:

- *Law on safety and health at work* ("Off. Gazette of RS", no. 101/05);
- *Law on fire protection* ("Off. Gazette of RS", no. 111/09);
- *Regulations on preventive measures for safe and healthy work at the workplace* ("Off. Gazette of RS", no. 21/09);
- *Regulations on preventive measures for safe and healthy work when using the means and equipment for personal protection at work* ("Off. Gazette of RS", no. 92/08);
- *Regulations on the inspection and testing of work equipment and testing of working environment conditions* ("Off. Gazette of RS", no. 94/2006, 108/2006 - corr. and 114/2014);
- *Regulations on the content and manner of issuing the report form on occupational injury, occupational disease and disease related to work* ("Off. Gazette of RS", no. 72/06, 84/06 - corr.);
- *Regulations on general measures of protection at work from the hazardous effects of electricity in buildings intended for work, and working premises on site* ("Off. Gazette of SRS" no. 21/89);
- *Regulations on special measures for protection at work in forestry* ("Off. Gazette of SRS" no. 33/88);
- *Regulations on equipment and procedures for first aid and organizing rescue service in case of an accident at work* ("Off. Gazette of SFRY", no. 21/71);
- *Regulations on special measures for protection at work in the mechanical processing and processing of wood and similar materials* ("Off. Gazette of SRS" no. 51/88);

- *Regulations on safety and health at work on temporary or mobile construction sites* (“Off. Gazette of RS”, no. 14/09 and 95/2010) and
- *Regulations on preventive measures for safe and healthy work in case of manual handling of loads* (“Off. Gazette of RS”, no. 106/09).

Health and safety at work of all employees are always a priority, especially of contractors, who are an important segment in business operations of the company. Contractors in forestry, carrying out the following work: in the production of wood assortments (harvest, production and transport), the construction of forest roads, silviculture and forest protection and the like, must meet the requirements in accordance with the *Law on safety and health at work, Regulations on special measures for protection at work in forestry* and other laws and by-laws. They must also meet the requirements in terms of technical equipment and personnel for performing work. In order to get acquainted with the dangers and hazards during performing of cutting, making and attraction of wood assortments, PC “Vojvodinašume” delivers, upon signing the contract, to every contractor *Study on planning and performing works on using forests*.

In this way, employers are obliged to provide their workers as much as possible in the practice with health, safety and wellbeing at work. On the other hand, the duty of the employees is to take care of their own safety and the safety of others at work, as well as of health, which appears to be a more difficult form of responsibility for the individual.

Therefore, the mutual work of employers and employees is necessary for the purpose of improving this area by supporting, in full measure, legislation in the field of safety and health at work, raising awareness in this field, improving knowledge and skills, and establishing a culture of work and creation of preconditions for wellbeing.

Recognizing the importance of safety and health at work, PC “Vojvodinašume” obliged the directors of forest holdings to inform all employees and contractors doing the jobs concerning forest use about the importance of safety and protection at work. All the workers while carrying out their works are obliged to comply with certain safety rules, and the most important are:

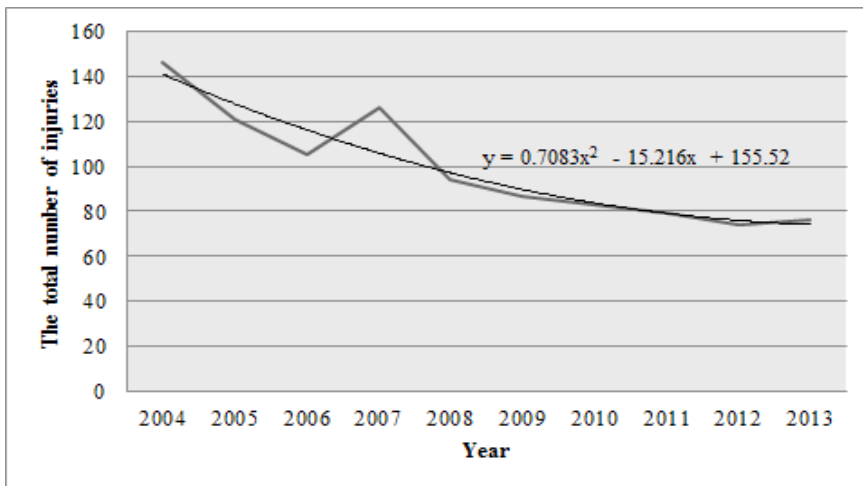
- to be trained for work and safe work with a tool they handle as well as medically fit to perform tasks with increased risk, as determined by the competent services of occupational medicine;
- to use, during work, means and equipment for personal safety at work (protective helmet, protective clothing, shoes, gloves, etc.);
- to use the means for the work (chainsaws, tractors, transport means, etc.) that comply with the prescribed measures for safe and healthy work, ensuring the control of their use in accordance with the purpose and
- to possess medical supplies for first aid at the site, to be trained for first aid, as well as to provide transportation to the nearest health facility in case of injury or illness of workers.

Within the company, there are Officers for safety and health at work, who perform control and professional supervision over the implementation of measures and safety regulations at work and propose measures for eliminations of observed shortcomings. In exercising control and supervision, the officer in charge of safety and health at work may prohibit the work in the workplace or the use of means for the work in the case when an immediate threat to life or health of the employee is determined.

Every company must follow the efforts aimed at the achievement of safety and health in the workplace, and periodic reports should be written (Terzić, 2012). Statistics on accidents and injuries at work should be compared over time to see the changes that have occurred. Using this analysis, we can measure progress in safety management. Regarding that, contractors in PC “Vojvodinašume” are obliged to report occupational injuries to competent labour inspection and the competent authority for internal affairs in accordance with Article 50 of *Law on Safety and Health at Work* as well as to the manager of worksite of PC “Vojvodinašume” so that records on injuries could be kept. The company has an obligation to comply with certain standards keeping records on occupational injuries of all workers engaged.

Analysis of the total number of occupational injuries in PC “Vojvodinašume” per year in the period from 2004 to 2013 shows that the total number of injuries at the end of the observed period almost halved (*Graph 2*).

Graph 2. The trend of the total number of occupational injuries in PC “Vojvodinašume” in the period from 2004 to 2013

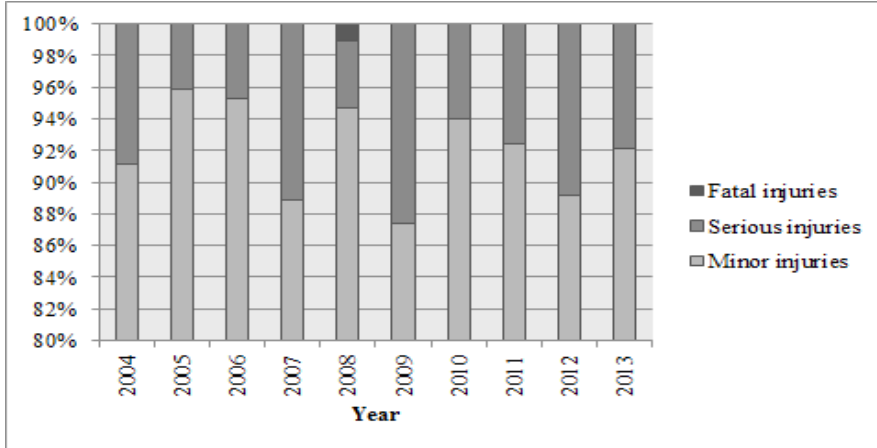


Source: The calculation of the authors on the basis of internal documentation of PC “Vojvodinašume”

Based on the statistical analysis of data time series on the total number of occupational injuries in PC “Vojvodinašume” in the reporting period, it can be concluded that the trend of the total number of occupational injuries is decreasing.

Regarding the total number of injuries per each year, minor injuries have the highest percentage of participation (over 85%) (Graph 3).

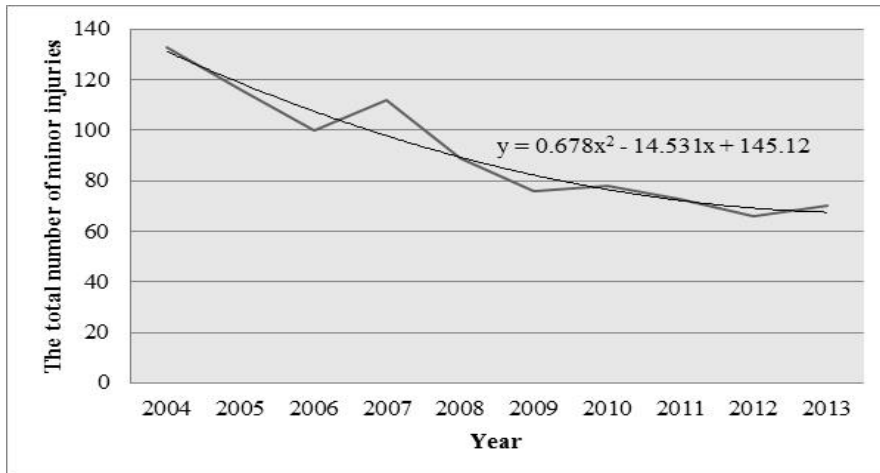
Graph 3. The structure of the occupational injuries in PC “Vojvodinašume” per year in the period from 2004 to 2013



Source: The calculation of the authors on the basis of internal documentation PC “Vojvodinašume”

On the basis of the analysis of data time series on the total number of minor occupational injuries in PC “Vojvodinašume” in the reporting period, it can be concluded that the trend of the total number of minor occupational injuries shows the noticeable decline (Graph 4).

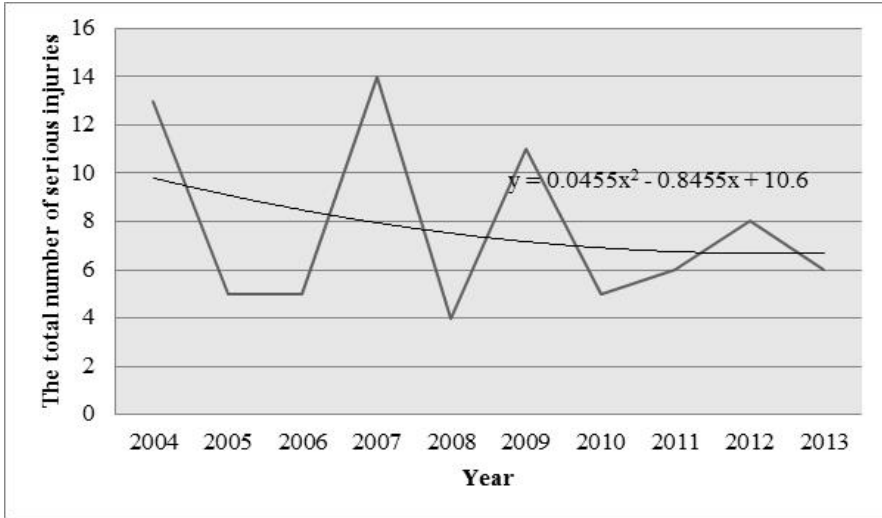
Graph 4. The trend of the total number of minor occupational injuries in PC “Vojvodinašume” in the period from 2004 to 2013



Source: The calculation of the authors on the basis of internal documentation of PC “Vojvodinašume”

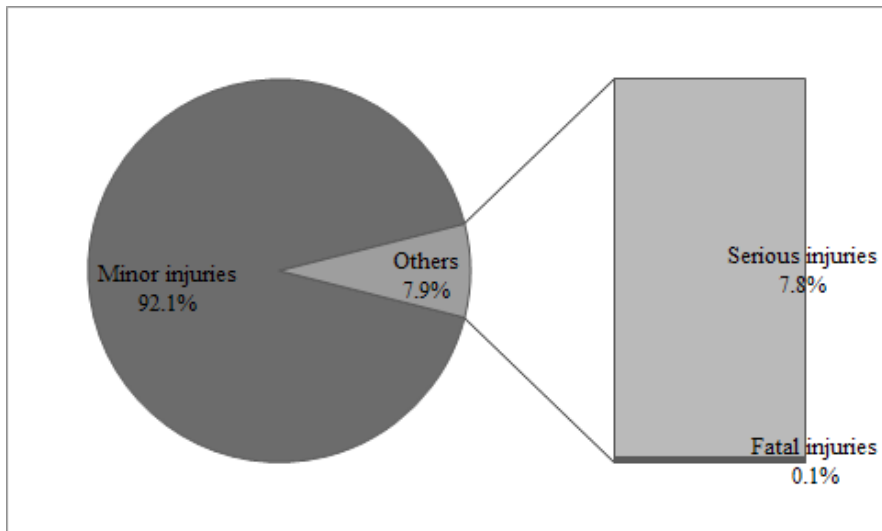
In contrast to this indicator, the trend of the total number of serious injuries in PC “Vojvodinašume” in the reporting period, does not have a significant tendency to decline, but the injuries are, however, reduced (Graph 5).

Graph 5. The trend of the total number of serious occupational injuries in PC “Vojvodinašume” in the period from 2004 to 2013



Source: The calculation of the authors on the basis of internal documentation of PC “Vojvodinašume”

Graph 6. The structure of the total number of occupational injuries in PC “Vojvodinašume” for the period from 2004 to 2014



Source: The calculation of the authors on the basis of internal documentation of PC “Vojvodinašume”

Observing the entire period of research from 2004 to 2013 in PC “Vojvodinašume”, a total of 991 injuries occurred involving lumberjacks, tractor drivers and drivers of a tractor with crane, construction machinery drivers, forestry workers and other workers while in 2008, 1 person was tragically injured (fatal injuries). The largest number of injuries were with minor consequences (92.13% or 913 injuries), while 7.77% or 77 injuries were with severe consequences (*Graph 6*).

Statistical analysis showed that in the period of investigation from 2004 to 2013 in PC “Vojvodinašume”, there were averagely of 99.1 occupational injuries per year, of which most were minor injuries of 91.3, while there were averagely 7.7 serious injuries per year. It should be noted that of the total number of injuries 1.21% or 12 injuries were occupational which resulted in occupational diseases which is averagely 1.2 such injuries per year.

Table 1. The most common causes of occupational injuries in PC “Vojvodinašume” in the period from 2004 to 2013

Year	Chainsaw	Inattention of workers	Other means for work	Total number of injuries
2004	16	97	33	146
2005	20	87	14	121
2006	11	74	20	105
2007	16	64	46	126
2008	15	53	26	94
2009	4	47	36	87
2010	6	49	28	83
2011	4	51	24	79
2012	7	49	18	74
2013	8	53	15	76
Min	4	47	14	74
Max	20	97	46	146
Average	10.7	62.4	26	99.1
Total	107	624	260	991
Structure	10.8%	63.0%	26.2%	100.0%

Source: The calculation of the authors on the basis of internal documentation of PC “Vojvodinašume”

Based on these data, it can be concluded that the number of occupational injuries in PC “Vojvodinašume” in the period from 2004 to 2013 decreased. The reason for reducing the number of injuries, is not only the impact of the human factor, but also the impact of factors of improving the technical characteristics of modern machinery and equipment, which are increasingly present in forestry production, as well as the laws and regulations of the Republic of Serbia in accordance with which PC “Vojvodinašume” also operates and

controls and monitors safety and health at work. However, working with forest machines and equipment has severe and tragic consequences, usually because the operators do not operate according to the rules and regulations that exist and that are not sufficiently and consistently respected. This is supported by the fact that, on average, 63% of total occupational injuries in the observed period are caused by inattention of workers (*Table 1*).

The qualification of workers for the work they perform is one of the most important preconditions for safe operation. Therefore, the company must pay even more attention to vocational training and worker training, so that the injuries caused by inattention of workers decrease.

When it comes to workplaces with the highest rate of injuries, according to the records of the company, most of the occupational injuries in the period from 2004 to 2013 were observed in lumberjacks (almost half of all occupational injuries), followed by forestry workers and other workers (*Table 2*).

Table 2. The working positions with the most injuries in PC “Vojvodinašume” in the period from 2004 to 2013

Year	Lumberjack	Tractor driver	Drivers of the tractor with crane	Drivers of construction machinery	Forestry workers	Other workers	Total number of injuries
2004	85	8	10	5	22	16	146
2005	65	8	11	0	13	24	121
2006	58	9	7	2	18	11	105
2007	51	13	3	0	34	25	126
2008	54	8	4	0	16	12	94
2009	30	12	1	1	22	21	87
2010	20	9	1	0	24	29	83
2011	18	10	1	0	28	22	79
2012	33	5	4	0	11	21	74
2013	36	7	0	1	15	17	76
<i>Min</i>	<i>18</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>11</i>	<i>11</i>	<i>74</i>
<i>Max</i>	<i>85</i>	<i>13</i>	<i>11</i>	<i>5</i>	<i>34</i>	<i>29</i>	<i>146</i>
<i>Average</i>	<i>45</i>	<i>8.9</i>	<i>4.2</i>	<i>0.9</i>	<i>20.3</i>	<i>19.8</i>	<i>99.1</i>
<i>Total</i>	<i>450</i>	<i>89</i>	<i>42</i>	<i>9</i>	<i>203</i>	<i>198</i>	<i>991</i>
<i>Structure</i>	<i>45.4%</i>	<i>9.0%</i>	<i>4.2%</i>	<i>0.9%</i>	<i>20.5%</i>	<i>20.0%</i>	<i>100.0%</i>

Source: The calculation of the authors on the basis of internal documentation of PC “Vojvodinašume”

Taking into account the fact that lumberjacks and forest workers have the largest share in the total number of injuries, i.e., workers in the field (in the woods), performing mostly dangerous and difficult physical labours, parts of the body that are mostly injured are the legs and arms (*Table 3*).

Table 3. The parts of the body that are mostly injured in PC “Vojvodinašume” in the period from 2004 to 2013

Year	Head	Thorax	Arms	Legs	Other parts of the body	Total number of injuries
2004	22	33	35	56	0	146
2005	23	22	36	40	0	121
2006	21	10	14	50	10	105
2007	15	7	40	52	12	126
2008	17	11	19	43	4	94
2009	13	4	25	36	9	87
2010	13	5	30	30	5	83
2011	13	2	30	27	7	79
2012	12	8	17	27	10	74
2013	6	16	18	25	11	76
<i>Min</i>	<i>6</i>	<i>2</i>	<i>14</i>	<i>25</i>	<i>0</i>	<i>74</i>
<i>Max</i>	<i>23</i>	<i>33</i>	<i>40</i>	<i>56</i>	<i>12</i>	<i>146</i>
<i>Average</i>	<i>15.5</i>	<i>11.8</i>	<i>26.4</i>	<i>38.6</i>	<i>6.8</i>	<i>99.1</i>
<i>Total</i>	<i>155</i>	<i>118</i>	<i>264</i>	<i>386</i>	<i>68</i>	<i>991</i>
<i>Structure</i>	<i>15.6%</i>	<i>11.9%</i>	<i>26.6%</i>	<i>39.0%</i>	<i>6.9%</i>	<i>100.0%</i>

Source: Internal documentation of PC “Vojvodinašume”

Conclusion

Results of the research showed that the number of occupational injuries in the PC “Vojvodinašume” in the period from 2004 to 2013 reduced particularly the number of minor injuries. However, the PC “Vojvodinašume”, in addition to reducing the number of minor injuries, is obliged to eliminate major and fatal occupational injuries, as well as to enable effective prevention of the occupational diseases and diseases related to work.

Statistics on accidents and injuries at work is useful for determining the need for training in this area, and making sure that security policies are in line with existing and new standards set by the state. As the professional competence of workers for the work they perform is one of the most important preconditions for safe operation, great attention is paid to the professional training of workers - contractors in jobs such as lumberjack, forest tractor operator and operator of crane mounted on a truck. In cooperation with the forestry schools, in 2014, this training was attended by about 800 employees - contractors, who gained *Certificate* that they are qualified to perform these operations. However, taking into account the above information about the most common causes of occupational injuries, and that is inattention of workers, a company must devote greater attention to vocational training and training on occupational safety. This does not only fulfil a legal obligation, but also significantly affects the reduction

of the risk of occupational injuries, because the professional qualification and training on occupational safety is one of the basic requirements for safe operation. Managers and personnel specialists should constantly work on improving and developing a safe and healthy work environment for all employees. This is especially important, given that the activity of PC "Vojvodinašume" is such that it requires an ongoing commitment and support to the creation of safe working conditions by the management. In this regard, the most important document that regulates safety and health system is *Regulations on safety and health at work*, adopted in 2006 and *Risk assessment act for all workplaces in the working environment*. In this matter, the control and professional supervision over the implementation of measures and regulations in occupational safety within the company are performed by the officers for safety and health at work.

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MENADŽMENT ZDRAVLJA, BEZBEDNOSTI I DOBROBITI ZAPOSLENIH U POSLOVNOM SISTEMU

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Rezime

Procena rizika i primena mera za zdrav i bezbedan rad pre početka rada zaposlenog na radnom mestu, jeste osnovni princip prevencije od povreda na radu, profesionalnih oboljenja i oboljenja u vezi sa radom.

Imajući to u vidu, cilj ovog rada je da prikaže aktivnosti poslodavca i zaposlenih u oblasti zdravlja, bezbednosti i dobrobiti zaposlenih u konkretnom poslovnom sistemu i da se analizom podataka o povredama na radu, profesionalnim oboljenjima i oboljenjima u vezi sa radom izmeri napredak u upravljanju bezbednošću.

Sprovedena istraživanja u ovom radu zasnovana su na informacijama i podacima prikupljenim iz javnog preduzeća „Vojvodinašume“ i na opisu iz literaturnih izvora. Za obradu prikupljenih podataka korišćeni su deskriptivni statistički metodi, a sami podaci predstavljeni su grafički i tabelarno u cilju njihove lakše analize i komparacije.

Rezultati sprovedenog istraživanja pokazali su da se broj povreda na radu u javnom preduzeću „Vojvodinašume“ u periodu od 2004. do 2013. godine smanjio i to naročito lakih povreda. Međutim, javno preduzeće „Vojvodinašume“ pored smanjivanja broja lakših povreda, ima posebnu obavezu da eliminiše teže i smrtne povrede na radu, kao i da omogući da efektivna preventiva spreči pojavu profesionalnih oboljenja i oboljenja u vezi sa radom.

Ključne reči: zdravlje, bezbednost, dobrobit, poslovni sistem, povrede.

JEL: Q23, J81, K32, L73, M54

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