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## **Innovative ideas for improving attractiveness of forestry sector for women (survey results)**

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# **INNOVATIONS IN FORESTRY, WOOD PROCESSING AND FURNITURE MANUFACTURING**

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## 5. INNOVATIVE IDEAS FOR IMPROVING ATTRACTIVENESS OF FORESTRY SECTOR FOR WOMEN (SURVEY RESULTS)

Rossitsa Chobanova, Daniela Georgieva

Employment of women is an important source for development of each economy. The specifics of attractiveness of such employment in forestry sector are affected by many factors. Here the focus is on the impact of gross national minimum wage of women employed in forestry in Bulgaria, minimum monthly insurance income, work in forestry and maternity leave, education and training of women working in the forestry sector in Bulgaria.

### 5.1 EMPLOYMENT OF WOMEN IN FORESTRY SECTOR IN BULGARIA

In 2015 the employment rate among men and women especially at the age between 20 and 64 years in Bulgaria is 67.1% (Employment rate, age group 20-64, European countries [Data file]. Retrieved from <http://ec.europa.eu/eurostat/web/europe-2020-indicators>). A priority objective of Bulgaria is to increase the employment rate of people at the age between 20 and 64 years, up to 76% by 2020 (Europe 2020: National reform programme, 2015, p. 49). To do that for each year from 2015 to 2020 the considered ratio should mark an annual growth of approximately 1.58 percentage points. It should be noted that for the period 2000 - 2015 the highest percentages of employment rate are recorded in 2008 (70.70%) which has dropped after the economic crisis of 2008.

In 2015 the number of employed women in Bulgaria is approximately 9 percentage points higher than the number of employed men. Such kind of data could be considered as positive when it comes to the participation of females in the labor market. When it comes to forestry sector the employment of women differs from the general employment in the economy (Chobanova & Georgieva, 2017). It could be noted that although at national level there is overall improvement in employment rates, the data for the forestry sector indicates lower activity in the labor market. This could be due to:

- Different payment and minimum monthly insurance income of women employed in forestry.
- Activities that could be harmful for the health of females.
- Different working conditions and social status of females in forestry sector that have come back from maternity leave.

- Level of education.

Here we characterize some of these factors.

## **5.2 GROSS NATIONAL MINIMUM WAGE OF WOMEN EMPLOYED IN FORESTRY IN BULGARIA**

There is a common understanding, supported by several arguments that there is a positive correlation between women's participation in the labor market and the payment they receive (Cuberes & Teignier, 2011, p. 9). Women that are employed in the forestry sector mainly rely on the gross wages that are specified in their employment contracts (Chobanova & Georgieva, 2017). A significant influence over the formation of the contracted gross wage have the minimum wage for the country per year and the minimum monthly insurance income by professions and positions per year.

There is a tendency of increasing of annual average women wages in forestry during the period 2010-2015 (See Fig.1). This is due to the fact that the gross national minimum wage regulates the minimum amount of salary, which women employed in the forestry sector must receive as remuneration. As a result of changes in economic, political and social level, the amount of the minimum wage (for all professions and positions in the country) increases annually and in 2017 it is 460 BGN (around 235 EUR). This as well is a factor that affects the increasing income of employed women in the forestry sector.

On a legal point of a view our legislator gives the right to equal payment of males and females (Labor code, 2016, art. 243). ). The pointed by some authors pay gap between men and women working in the forestry sector in Bulgaria (Cuberes & Teignier, 2015, p.1; Revenga & Shetty, 2012, p. 40-43), was confirmed for the further period. The average annual wage of women for 2010 were 13% less than those of man and 17% less in 2015. It could be noted that the average annual wage of women employed in the sector in 2010 is 5196 BGN (around 2658 EUR) and in 2015 is 7608 BGN (around 3893 EUR). The average annual wage received by the men in the sector in 2010 is 5978 BGN (around 3058 EUR) and in 2015 is 9133 BGN (around 4671 EUR).

The pay gap between men and women working in the forestry sector in Bulgaria has been increased (see figure 1).

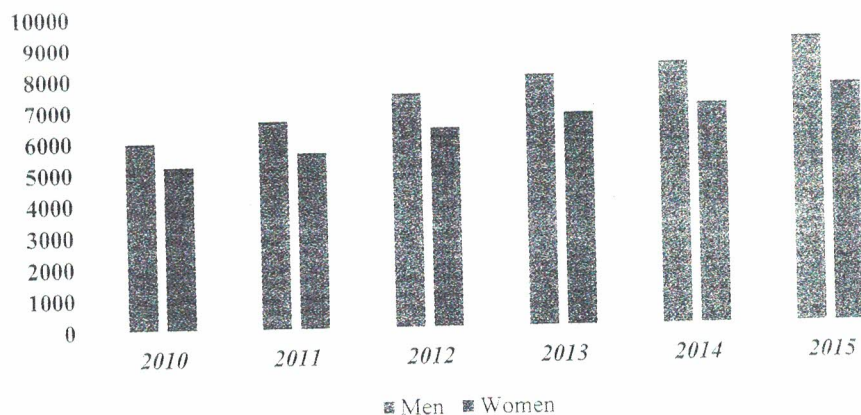


Figure 1. Average annual wages of men and women employed in sector "Agriculture, forestry and fishing", 2010-2015, in BGN  
Source: calculated using data from National Statistical Institute, 2016

As main reasons for the existence of such gap the following factors were identified in EU. (Tracking the gender pay gap in the European Union, 2014, p. 5-7):

- the presence of discrimination on the workplace;
- different working tasks that are given to men and women;
- various practices that employers provide to men and women regarding their career development and skill trainings;
- underestimation of the skills women can develop or already have;
- the opportunities women to reconcile work and family responsibilities.

When it comes to remuneration in forestry sector in Bulgaria, the collected and analyzed data from the survey showed that, there is a hesitation in the satisfaction level of the wages female receives. Women do not fully agree that the remuneration corresponds to the work they do and their qualifications and skills. They expressed dissatisfaction with the way wages are formed in forestry as general. The surveyed women agreed that additional remuneration would motivate them to make more efforts in fulfilling their work duties.

It must be noted that there is no significant deviations from the way of forming the wage of employees working in the forestry sector compared to other economic sectors in Bulgaria. But employees in the forestry sector those are receiving additional remunerations for working overtime and on Sundays are almost twice less than the country's total number of people receiving additional payments (Stefanova - Bogdanska, 2014).

### 5.3 MINIMUM MONTHLY INSURANCE INCOME OF WOMEN EMPLOYED IN FORESTRY IN BULGARIA

Among the most important reasons/factors that influences the surveyed women to choice a position in the forestry sector, besides the need of a job, it is the minimum monthly insurance income for the position itself. It is so because the minimum monthly insurance income serves as a basis for calculating the compulsory and voluntary contributions that are made for and by the insured person. Social security contributions have an important role for the representatives of female sex in determining the amount of compensations that must be paid by the National Insurance Institute in terms of general sickness and maternity leave.

According to the surveyed women the minimum monthly insurance income is high in the forestry sector. If we analyze that statement on the basis of annually changes of the minimum insurance income it is relevant, because for the period 2010 - 2017 there is an increase among all qualifying groups of professions employed in forestry sector (Chobanova & Georgieva, 2017). This increase is largely due to changes in the minimum wage during the years. If we analyze the changes of the indicator only between the groups of professions employed in the forestry sector it could be seen that for forestry jobs that do not require special qualification from 2010 to 2013 (inclusive) the amount of minimum monthly insurance income is higher than the amount of gross national minimum monthly wages for the same period. From 2013 to 2017 (inclusive) both indicators are aligned (see table 1).

For the period 2016 - 2017 the amount of the minimum monthly insurance income for skilled workers (not including managers) in forestry is equivalent to that of the country minimum wage. In this basis the legislature introduces equal insurance relations for the qualified and non-qualified staff (Social Security Fund Budget Act, Appendix № 1 to Art. 9, para. 1, p. 1, by years). This could be pointed as a negative factor affecting the attractiveness of the sector when it comes to women employment.

The difference of the data from the legislative analyzes and the survey results can be explained with the fact that 67.9 % of the respondents are managers. In this respect it could be pointed the minimum monthly insurance income of the managers in forestry for 2017 is approximately two times higher than the gross national minimum wage for the same period. In addition the insurance income is in a direct link to the wage of the employed person.



Table 1. Minimum monthly insurance income in forestry, 2010 – 2017, in BGN

Years	Managers	Specialists	Technicians and associate professionals	Administrative support	Employed in public services, trade and security	Skilled workers in agriculture, forestry, hunting and fishing	Qualified workers and craftsmen	Machine operators and assemblers	Professions that do not require d special qualifications
2010	621	444	392	380	320	352	392	397	270
2011	655	466	412	400	336	370	411	457	283
2012	684	487	431	418	351	387	429	478	296
2013	700	500	450	430	390	400	440	490	320
2014	750	525	472	451	400	400	450	490	340
2015	780	546	491	469	416	416	468	510	360
2016	900	620	530	480	450	420	520	500	420
2017	900	620	530	480	460	460	520	500	460

Source: Collected from Social Security Fund Budget Act, Appendix № 1 to Art. 9, para. 1, p. 1, per years

The low rates of the minimum insurance income for the qualified (not including managers) and non-qualified female staff in forestry enterprises have negative effects to maternity leave and the opportunities for raising a child. In order to increase female participation in the labor market in the forestry sector, it is appropriate and helpful to increase the minimum insurance income and to bind it to the qualifications of employees. This could help women towards reconciling work, private life and motherhood.

#### 5.4 WORK IN FORESTRY AND MATERNITY LEAVE OF WOMEN IN BULGARIA

It is believed that parenting has a significant impact over female employment (Country report Bulgaria, 2016, p.38), which is a factor that has strong impact on the productivity and competitiveness of the forestry enterprises. In Bulgaria for the period 2007-2014 the percentage of women who are not working due to maternity leave or to take care of elderly has increased by 5 percentage points (Labor force participation

of women, 2015, p.15.). However, in 2014 employed women in Bulgaria between 20 and 49 years old who have children under the age of 6 are approximately 13.5 percentage points less than employed women without children. This data is above the EU average percentage for the same period (13.2%) (Labor force participation of women, 2015, p.4). In this regard, women who participated in the survey shared concerns about reconciling job tasks and their family's duties. More concretely, women experience difficulties when taking care of their children and working at the same time. Another fear that a surveyed woman shares is the possibility of having to return to work before using the entire maternity leave. Because of the specific of the work tasks in the forestry sector, reproductive behavior of women should be taken into account as well when it comes to the factors indirectly affecting competition on the labor market (Gencheva & Marinova, p.70). This behavior is mainly connected to concerns over the negative impact of workflow and working conditions on the embryo (fetus). In this regard when it comes to risks and factors affecting the health and reproductive performance of women in the forestry sector, the following factors are very important for the females that participated in the survey (see table 2):

- wood dust;
- outdoor work;
- unfavorable microclimate (temperature, humidity, air velocity);
- biological agents (microorganisms, parasites, bacteria and viruses and forest animals);
- prolonged walking and/or standing on forest terrain.

As factors that have little or no influence on the state of female health the surveyed women pointed electricity; static electricity; fire hazard and radiation (ultraviolet, infrared, laser, ionizing).

In accordance to the European legal framework (Council Directive 2010/18/EU), Bulgarian legislation defines the pregnant women and mothers as a risk group, providing them specific legal protection. In this regard female employees in forestry sector have the right to leave 410 days due to pregnancy and childbirth for each child (Labor Code article 163). It should be noted that there is a risk of loss of skills and competencies related to protracted maternity leave (European Commission 2013 Employment and Social Developments in Europe; Organisation for Economic Co-operation and Development [OECD] 2012, Closing the Gender Gap).

When it comes to the activities that females must conduct in forestry jobs it should be noted that main risks affecting the health and reproductive performance of women, according to the surveyed women, are factors from the outside environment. Therefore, forestry sector in Bulgaria is a sector with a low risk in terms of safety and security for women.

Table 2: Major hazards for the employed women in forestry sector

<i>Danger (type / category):</i>	<i>Health issues due to the forestry dangers:</i>
Microclimatic (temperature, humidity, air velocity)	Heat strokes, fatigues and colds
Biomechanical and biological	Physical strains, nervous-mental tension, damages to the bone marrow
Noise (hearing, ultrasonic, infrasound range)	Fatigue and stress, temporary hearing loss, permanent loss of hearing
Electricity, including static electricity	Electrocution burns and unpleasant sensations due to static electricity. Acute effects for the vegetative-vascular system, chronic effects
Thermal (high or low object temperatures)	Thermal burns and frostbite due to fire and explosions
Radiation (ultraviolet, infrared, laser)	Impairment of vision, skin damages, blinding chronic effects
Lighting that does not meet the performance requirements	Visual fatigues, a prerequisite for the emergence of other hazards
Chemical	Burnings, respiratory tract damages, irritations (breathing, skin, eyes)

## 5.5 EDUCATION AND TRAINING OF WOMEN WORKING IN THE FORESTRY SECTOR

Generally the level of the education in forestry sector is lower than in others. Its improvement is a component of policy target on EU and national level. By 2020 40% of all women and men in Europe who are at the age between 30 and 34 years should acquire tertiary or equivalent education (Europe 2020 strategy for smart, sustainable and inclusive growth, p.13). For Bulgaria the target is 36%. It should be noted that in 2016 the percentage of women and men who are at the age between 30 and 34 years and have tertiary or equivalent education is 33.4%, which marks a positive trend. The performance of education in forestry sector differs from the national level according to Eurostat. The data shows that women who are employed in the forestry sector in Bulgaria have low level of education and skills (Chobanova & Georgieva, 2017). In this respect the impact of this factor could not be defined as positive for improving competitiveness in the forestry sector. Overcoming this state of the art could be pointed out the lack of specific programs/courses and methods for improving women's skills and their job performances. However we must note that women participated in

the survey do not believe that by increasing the number of common educational trainings will contribute to greater productivity and development of the sector. At the same time women responds that the hardships they experience when trying to combine work tasks with family obligations, another main concern of females working in the forestry sector is their job performance. More precisely they worry about a possibility of a lack of career development and at the same time they do not want to disappoint their employer by dropping down the quality of their work performance. An interesting fact is that even though the surveyed women do not believe in the positive correlation between education and job performance 60.4% of the people participated in the survey stated that they have tertiary education. Such kind of data can lead to the assumptions that the education they have is not appropriate for their job positions or they do not know how to use the knowledge they possess in real working environment. In this respect it is important the trainings and the education which women receive to correspond to the specific needs of the job position as well as the learning style of the person (Georgieva, 2016).

## **5.6 CONCLUSIONS AND RECOMMENDATIONS**

Based on the data collected from the survey and the interviews it could be assumed that there are two main factors that influence the attractiveness of forestry sector towards women in Bulgaria.

The first one is the payment of the respective job position in forestry. In this respect women do not agree with the statement that they receive salary which is responding to the qualification and efforts they make during the implementation of the job tasks. The surveyed fully agree that additional payment would motivate them to make more efforts in carrying out their duties.

The second one is the minimum monthly insurance income. According to the data collected and analyzed from the survey, women take into account this factor when searching and applying for a job position. In this respect women who have positions as managers in forestry are satisfied with the monthly insurance income they have. According to women, working in forestry sector, who are currently on maternity leave, pending their pregnancy and birth, or parents of children up to 6 years old – they receive quite a low maternity compensation because of the low insurance income that were paid for them before the pregnancy.

The data from the survey has shown that women working in forestry sector express desire to remain on their current position and in the same sector. They do not have fears of losing their jobs but they experience a need for constantly proving themselves and showing their

skills at work. The surveyed women do not believe in traditional education as a factor which improves the productivity and development of the sector. But according to women, working in forestry sector, who are currently on maternity leave, pending their pregnancy and birth, or parents of children up to 6 years old – additional trainings are needed especially for women during their maternity leave. In this respect non-traditional long distance learning techniques and online courses could be an appropriate educational form for all workers that must be absent from work for a long period of time. Such trainings must correspond to the specifics of the job position and the learning style of the person. It would be useful a separate survey to be done of the factors that lead women to disagree about the positive correlation between education and the sectoral productivity.

Based on the conducted individual interviews with women, working in forestry sector, who are currently on maternity leave, pending their pregnancy and birth, or parents of children up to 6 years old, some measures could be suggested:

1. Employers to provide childcare facilities to their employees, which have an easy access and are not expensive. Childcare services in the country are underdeveloped and expensive, and only 11% of children under the age of 3 attend kindergartens for more than 30 hours per week (Country report Bulgaria, 2016, p.38). This is 23 percentage points below the target of the European Council in this area and could negatively affect over women participation in labor market (Chobanova & Georgieva, 2017).
2. Employers to provide flexible working hours to women when the maternity leave is over and the mother must return to work. This is a legislative right (Labor code, article 167, p. b) which aims to help mothers throughout the adaptation process from maternity leave to perform well on their jobs. However, part-time work is not a common practice in Bulgaria and less than 5% of employees do not work full-time jobs (Labor force participation of women, 2015, p.5). It should be noted that there is no data from the conducted survey that showed women to be well aware of this right.
3. Employers to transfer females that have returned from maternity leave to suitable job where there is no outdoor task to participate in. Once again this is a legislative right that the surveyed group of women stated is aware of. But the conducted survey showed no data of women who take advantage of this right.
4. Improving women job skills and qualification by providing virtual trainings during the maternity leave or just before the leave ends. As a supplement of the virtual office activity an electronic platform for distance learning (VEP) will be developed. By using the platform any person will be able to gain information about the forestry sector and capacities in the eligible area. VEP will provide information

about the recent novelties and innovations in the world, needed by target he t group of the region. The educational platform will be constructed according to the best EU and world practices and to requirements of the target group. The platform will provide respective information on the sector, the main activities, the needed skills, the possibilities for start-ups, the development of women in the forestry and so on. All needed courses will be developed according to the requirements extracted from the analysis of the data collected during the first activity, but also will take into account existing good practices. An expert will be hired to prepare specific skill development lessons for women. For the development of the platform, first, the requirements of the VEP will be concretized. After this step, follows a clarification of the technical and functional characteristics and selection of proprietary e-learning systems. Furthermore, in the next step an e-distance learning platform will be set and tested. Finally, all information included in the platform will be translated in Bulgarian and Macedonian by using a licensed translator.

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