Research Article
Eur J Forest Eng 2018, 4(2): 63-69
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A Research on Work Satisfaction of Forest Workers

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Abstract

Forestry works have an important work branch in the Eastern Black Sea Region because of the wealth of forested areas, the multiplicity of forest villages, the intense forestry activities and the lack of different income sources of forest villagers. Therefore, forestry activities are one of the main industries for forest villagers to prevent unemployment and to reduce income imbalance between different regions. Forestry activities differ from other sectors because of work difficulty, hard working conditions, limited time, temporary work, low revenue and legal dimension of work. Harvesting works should be done by forest villagers in accordance with article 40 of Forest Law. The analysis of the socio-economic structure of a community is important both in giving photographs of the current period and in presenting the transformations of working class dynamics over time. In this study, the relationship between the demographic features of forest workers and work satisfaction was examined. Within the scope of the study, a questionnaire including questions about personal characteristics, family structures, economic incomes and work satisfaction was applied to the workers. As a result, it was determined that 35.83% of all workers were between 31 and 40 ages and primary school (35%). In addition, forest workers had no income sources except for forest (77.5%), and most of the workers were the livelihoods of their families (81.4%) and working for 6-8 hours. Most of them are satisfied with forest workers (65.83%), and the main reasons for not being satisfied were determined as low income, lack of social security and difficult working conditions (18.33%).

Keywords: Demographic structure, Forest workers, Eastern Black Sea Region

1. Introduction

In the age of technology, a number of problems have arisen about the occupational health and safety after the industrial revolution. These problems, which were not considered very important at first, were taken into account especially in the labor intensive works by affecting their efficiency. The psychology and the job satisfaction of the workers have a positive effect on the work efficiency. This has increased the importance given to the determination of job satisfaction of the workers in difficult jobs, especially in demanding jobs such as harvesting works. Increase in workers' income, social welfare level and socioeconomic structure have a positive effect on job satisfaction.

Forestry activities adopted by the International Labor Organization (ILO) in the 3-D (dirty, difficult and dangerous) works class; (ILO, 1998; Mitchell et al., 2001; Bentley et al., 2005; Potočnik et al., 2009a; Lindroos and Burström, 2010). Forestry is defined as the whole of the work affected by many factors related to the nature conditions, depending on the principles in the forest areas having various tree species, bushes and various living things, which can positively affect the demands of the goods and services of people. Some of the most important forestry activities are counted as timber harvesting, stand maintenance, fertilization, pruning, stream improvement, forest road construction and maintenance. One of the most dangerous forest works in terms of occupational health and safety is the harvesting activities. These involve falling, pruning, peeling, logging, primer transport, loading, transporting and unloading (Acar, 1998) (Figure 1).

Harvesting activities are carried away from the settlements, difficult topographic conditions, open to the weather conditions. Also, these works have disadvantage such as limited work time, dependent on the soil, heavy work object and insufficient mechanization (Unver et al., 2013; Acar and Senturk, 1997). Forestry is in the NACE's Hazard Classes list of hazardous work. Forestry Works are in the group A, which is called Agriculture, Forestry and Fisheries in the NACE Workplace Hazard Classes List, in section 02.10 coded "Forestry and other forestry activities" and in code 02.40 "Supporting activities for forestry". (Turkish Official Gazette, 2012; Unver, 2012).

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Received 25 Dec 2018; Accepted 31 Dec 2018
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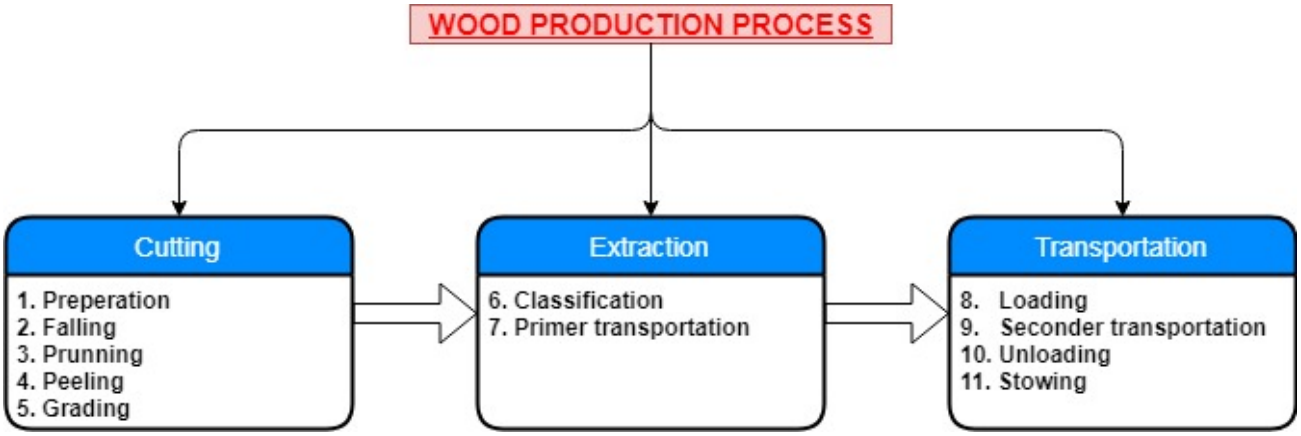

Figure 1. Wood production process

Harvesting activities have been done by forest villagers or tender cooperatives according to article 40 of Forest Law No. 6831. This situation reduces the possibility of pre-training forest workers to become qualified. The villagers who not have any training about harvesting works are generally learn this work by trial and error method. This leads to a negative impact on the health and safety of workers and increases the risk of accidents (Acar and Unver, 2008). In recent years, it has become widespread by contracting sales method to contractors. Forestry workers usually work in the spring and summer months, and the majority of them are temporary and seasonal. Very few are considered to be permanent workers. On the basis of all forest works, only 1% of the workers who work are qualified as permanent forest workers (Senturk and Acar, 1997).

Forest villagers account for about 9% of the total population in Turkey. With the increase in the migration from the village to the city since the 1980s, the young population living in the forest villages has declined considerably and the average age of the population has increased. The number of people in forest villages is about 7.101.072 according to 2013 data (Orkoop, 2018). The amount of forest villagers in forest and near villages are about 2.163.390 and 4.938.651, respectively. Forest villagers have the lowest share of national income. In this study, the relationship between the demographic features of forest workers and work satisfaction was examined.

2. Material and Methods

This study was carried out on forest workers and demographic structures of workers in the borders of the Trabzon Forest Directorate and Giresun Forest Directorate in the Eastern Black Sea Region, have been studied (Figure 2).

The study was conducted on 120 forest workers, all of whom were selected by random sampling method. In the study, questionnaires consisting of 10 questions about demographic characteristics, 5 related to works, 3 related to habits and 2 related to work satisfaction were used. The questionnaire was conducted with face-to-face interview method by 3 forest engineers.

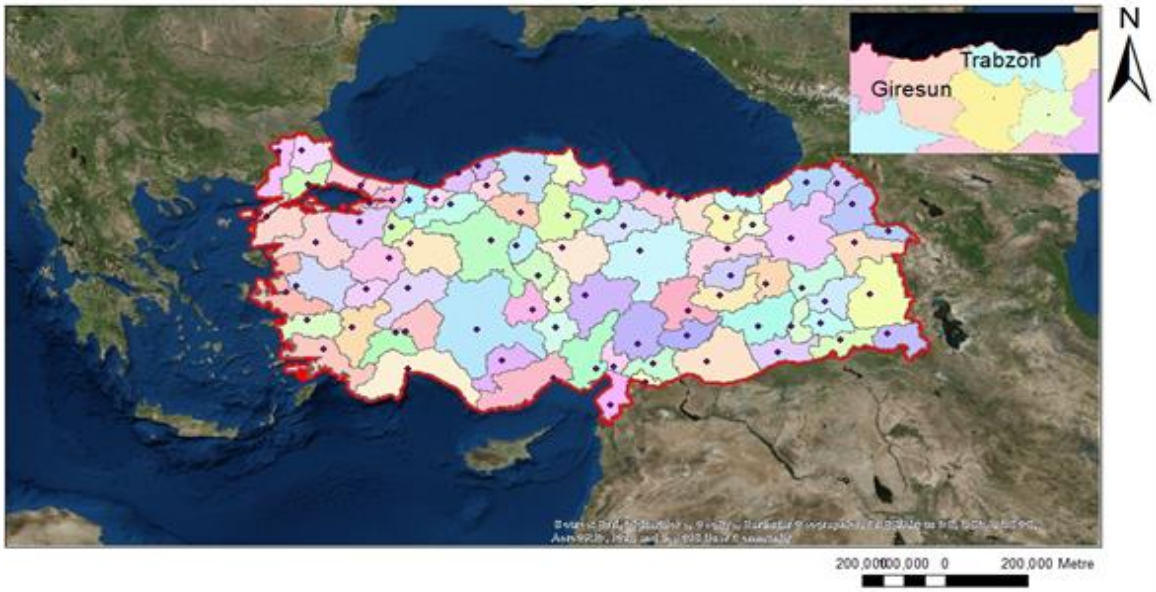

Figure 2. Location of the study area

The relationship between the demographic features of workers and work satisfaction was determined by chi-squared analysis using SPSS 22.0 package program. Also frequency analysis was done to determine percentage of data.

3. Results and Discussion

3.1. Demographic Characteristics of The Forest Workers

The frequency values of the demographic characteristics of the workers are given in Table 1. These questions gender, age, place of living, marital status, educational background, family member, number of people living, family income status and have income out of forestry. 28.3% of the workers were female workers and the mean age group of all participants was predominantly the second group (31-40 years). About half of the participants live in the village (45%) and 77.5% of them are married. The level of education is evaluated under 4 different groups and 35% of the workers are primary school graduates. In previous studies, the level of education in general is at primary level, the rate of marriages in forest workers is higher and the average age of forest workers is over 30 years (Enez et al., 2008). Family members of the respondents were 4 to 5 people, and 59.1% were living in the same household. When other studies are examined, it is seen that the number of family members of the forest workers is 4-5 and they live together with them (Enez, 2008). While 71.6% of the workers stated that they provided the livelihood of their families. 77.5% of the workers had no income other than forestry. In a similar study, 49.4% of the participants stated that they had no income except forestry (Enez et al., 2008). The reason for the difference is thought to be based on the geographical and social situation of the working areas. In the Eastern Black Sea region, forestry is a top priority job. The reason for this difference is thought to be that the geographical conditions of the region are not suitable for agricultural works and similar sources.

Table 1. Frequency values of the demographic characteristics of workers

Groups	Category	Males		Females		Total	
		(N)	(%)	(N)	(%)	(N)	(%)
Gender	Female	---	---	34	---	34	28.33
	Male	86	100	---	100	86	71.67
Age	18-30	15	17.44	7	20.59	22	18.33
	31-40	30	34.88	13	38.24	43	35.83
	41-50	30	34.88	11	32.35	41	34.17
	50<…	11	12.79	3	8.82	14	11.67
Place Of Residence	City	31	36.05	17	50	48	40.00
	Burg	7	8.14	11	32.35	18	15.00
	Village	36	41.86	18	52.94	54	45.00
Marriage Status	Married	64	74.42	29	85.29	93	77.50
	Single	17	19.77	4	11.76	21	17.50
	Widow	5	5.81	1	2.94	6	5.00
Education Status	Primary S.	26	30.23	16	47.06	42	35.00
	Junior High S.	34	39.53	5	14.71	39	32.50
	High S.	20	23.26	7	20.59	27	22.50
	Others.	4	4.65	8	23.53	12	10.00
Family Members	1-3 Persons	17	19.77	2	5.88	19	15.83
	4-5 Persons	53	61.63	22	64.71	75	62.50
	5 Persons < ..	16	18.60	10	29.41	26	21.67
Living Together	1-3 Persons	26	30.23	5	14.71	31	25.83
	4-5 Persons	47	54.65	24	70.59	71	59.17
	5 Persons < ..	13	15.12	5	14.71	18	15.00
Income Source Of Family	Yes	68	79.07	18	52.94	86	71.67
	No	18	20.93	16	47.06	34	28.33
Making Money Except Forestry	Yes	23	26.74	4	11.76	27	22.50
	No	63	73.26	30	88.24	93	77.50

3.2. Evaluation of Work Features

Evaluation of forest work features are given in Table 2. These questions are related to the type of work, experience, work change, transportation facilities, walking time and working hours.

Of the workers participating in the study, 52.20% worked in the nursery and 47.50% worked in the production of wood. 95.8% of the workers participating in the study have been working in the forestry sector for 1 to 3 years, and 72.5% have previously been served in different sectors. In previous studies, similar findings were found in terms of work experience. This shows that experience in forestry is low (Enez, et al., 2008; Gumus and Turk, 2011; Gumus and Turk, 2012). It was determined that 85.8% of the participants provided access to the workplaces with their own facilities and 70% of them walked to the work place between 10 minutes and 1 hour. The workers declared that they worked between 6-8 hours (62.5%) daily average (Enez, 2008).

3.3. Evaluation of Findings on Forest Workers' Habits

Evaluation of Findings on Forest Workers' Habits are given in Table 3. These questions are related to smoking, use alcohol and tea coffee habits. It was determined that 17.50% of the workers who participated in the survey describes themselves as smokers and 30.83% of them states that they smoke but not properly. The majority of the participants (82.50%) stated that they did not use alcohol. 54.17% of the workers stated that they often consume tea and coffee. Enez et al. (2014) studies, it is observed that there are fewer habits such as alcohol and cigarettes in forest workers.

3.4. Evaluation of Findings on Job Satisfaction of Forest Workers

Evaluation of Findings on Job Satisfaction of Forest Workers are given in Table 4. These questions are related to income satisfaction and job satisfaction.

Table 2. Frequency values related to work characteristics of workers

Groups	Categories	Males		Females		Total	
		(N)	(%)	(N)	(%)	(N)	(%)
Work	Nursery	40	46.51	23	26.74	63	52.50
	Production	46	53.49	11	12.79	57	47.50
Experience	1-2-3 years	81	94.19	34	100	115	95.83
	> 3 years	5	5.81	---	---	5	4.17
Work Change	Yes	31	36.05	2	5.88	33	27.50
	No	55	63.95	32	94.12	87	72.50
Transportation	Own facilities	71	82.56	32	94.12	103	85.83
	Employer	15	17.44	2	5.88	17	14.17
Walking Time	10 minutess – 1 hour	58	67.44	26	76.47	84	70
	1 – 2 hours	19	22.09	6	17.65	25	20.83
	2 – 4 hours	9	10.47	2	5.88	11	9.17
Working Time	4 – 6 hours	2	2.33	---	---	2	1.67
	6 – 8 hours	52	60.47	23	67.65	75	62.50
	> 8 hours	32	37.21	11	32.35	43	35.83

Table 3. Frequency values of workers' habits

Groups	Category	Males		Females		Total	
		(N)	(%)	(N)	(%)	(N)	(%)
Smoking	Yes	21	24.42	-	-	21	17.50
	Smoking Less	31	36.05	6	17.65	37	30.83
	No Smoking	34	39.53	28	82.35	62	51.67
Alcohol	Yes	15	17.44	6	17.65	21	17.50
	No	71	82.56	28	82.35	99	82.50
Tea and Coffee	Much	53	61.63	12	35.29	65	54.17
	Less	30	34.88	20	58.82	50	41.67
	Never	3	3.49	2	5.88	5	4.17

Table 4. Frequency values related to job satisfaction of workers

Groups	Category	Males		Females		Total	
		(N)	(%)	(N)	(%)	(N)	(%)
Income Satisfaction	Yes	66	76.74	32	94.12	98	81.67
	No	20	23.26	2	5.88	22	18.33
Job Satisfaction	Yes	52	60.47	27	79.41	79	65.83
	No	34	39.53	7	20.59	41	34.17

81.67% of the participants are satisfied with their income. It was determined that the female individuals are more satisfied (94.12%) than male with their incomes. It was determined that 65.83% of the workers are satisfied with their job and female workers are more satisfied with their jobs (79.41%) than male workers (60.47%). In a previous study it was revealed that 43% of forestry workers were not satisfied with their work. It was stated that the reason for not being satisfied was low salary and heavy work tempo. However, in general, job satisfaction was observed to be higher (Gandeseca et al., 2001). It is determined that the workers want to maximize their wages for intensive forestry activities (Gallis, 2006; Ostberg, 1980; Studstrom-Frisk, 1984). However, this study showed that workers were generally satisfied with their work. This may be due to the fact that the workers are generally people living in rural areas and their expectations are low.

3.5. Statistical Analysis

In this study, the Chi-square test was applied to determine the relationship between the demographic characteristics (age, gender, education level, marital status, education level) and work satisfaction type (Table 5).

When Table 5 is examined, a significant relationship was found between gender and job satisfaction. The rate of female dissatisfaction with the work done by men is quite high (male 9.1%; female 90.9%). As a result of this, it is thought that women experienced health problems such as back, waist, neck and joint pain as a result of activities such as bending, lifting and hoeing within the scope of forestry activities.

4. Conclusion and Recommendations

Forest workers, in the Trabzon Regional Directorate of Forestry and Giresun Regional Directorate of Forestry; A survey was conducted in order to determine the status of forest workers and working in harvesting. Statistically a significant relationship was found that between gender and job satisfaction at 95% confidence level. The following results are obtained from the evaluation of the obtained data as percentage (%):

- It has been observed that female and male workers have income satisfaction, and female workers' income satisfaction is higher than male workers.
- It was observed that satisfaction of female workers was higher in job satisfaction due to income satisfaction. The reason for this situation is that women do their job as an additional source of income and men do their job to livelihood of family and others.
- Considering the worker habits, smoking and alcohol habits of women workers were less than men.
- Tea and coffee habits are high in the research area due to the fact that tea production and consumption in the research area is above the national average.
- In both groups, the working hours of the forest workers are between 6-8 hours. This corresponds to the general working hours.
- As a result of walking hours between 10 minutes and 1 hour in both groups, the forest workers are generally forest villagers and they show that they are living close to the place of work. One of the major reasons for this situation is that forest workers are forest villagers in accordance with the relevant article of forest law.

Table 5. Chi-square results

Variables	Gender	Age	Marital Status	Education Level
Job Satisfaction				
Sig.	0.02*	0.666	0.365	0.212
df	1	3	3	3
X^2	4.912	1.569	0.734	4.500
Income Satisfaction				
Sig.	0.264	0.210	0.811	0.787
df	1	3	3	3
X^2	1.249	4.528	0.959	1.060

- Female forestry workers failing to change jobs at a high rate show that female forestry workers have not left their jobs after gaining experience in the jobs they have done. In addition to this, in view of the low industrialization in the region, the lack of employment potential leads to a low rate of change in employment.
- It was observed that the family obligations of the male forest workers were higher than the female forest workers.
- In general, the number of individuals in the family and the number of individuals resident in the same category were observed.
- The majority of male and female workers are in the middle age category (31-40 years). The reason for the absence of children and young workers among forest workers is the duration of compulsory education and the migration of young people (education, work, etc.).
- The proportion of workers aged 40 and over is 45.84%. This ratio shows that the interest in forestry is decreasing and that there will be a problem of finding workers in the near future. Making forestry workmanship more professional and raising income levels will be useful in dealing with this problem.

Accordingly, to ensure that the works carried out in the forestry sector are carried out in a healthier and more economical manner, attention to the following issues will be beneficial in terms of the socioeconomic status and productivity of forest workers.

- Works should be carried out in accordance with a plan.
- Workers need to be carefully selected. that is the selection of workers who are qualified for the work should be taken into consideration.
- In order to shorten the time of departure and return to the workplace, the personnel service system should be developed considering the geographical conditions of the region.
-Forestry workers should be trained in health and work issues in the dead season in order to increase the quality and quantity of the work done or to use the existing labor force more effectively because the education level of forestry workers is at primary school level
- Compared to previous years, although socio-economic change in forest workers is increasing in terms of life satisfaction, it is underdeveloped in general life areas of workers. These underdevelopment measures should be taken and the individual development of forest workers should be increased.
- Tools such as newspapers, radio and television should be provided at workplaces to replace habits such as cigarettes and alcohol.
- In the summer, short-term practical courses should be organized in the direction of worker training. In addition, they must be given bonuses to motivate the workers.
- The opinions of the forest workers on income satisfaction and job satisfaction should be checked periodically and the factors affecting the applicability of these opinions should be examined.

Solving these problems, as in other parts of our country, will enable the workers to work more efficiently by motivating the workers who work in the forestry activities in the areas with a mountainous and rugged terrain with rich forest areas and in the areas where the adverse climatological conditions are high in terms of working conditions. Increasing productivity within business systems will also affect the socioeconomic structures of employees.

Acknowledgement

A part of this paper has been presented at the International Forest Products Congress - ORENKO 2018 on September 26-29, 2018.

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