

## **SOCIAL PERCEPTION IN FORESTRY WORKERS ON NEW STYLE MANAGING IN FORESTS**

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### **ABSTRACT**

New style of managing requires besides others so-called sustainable development. In forest it means to work with natural resources and in natural surroundings like before through the medium of new techniques and technologies considerate to the working and living environment. Evidently workers (operators) will work with new evolved techniques. But the question is "Are they able to work considerate to the environment?" According to our operational hypotheses they feel working environment as unfriendly and they have very low cognitive knowledge. We used method of questionnaire. We processed obtained data by a statistic programme SPSS Base 11.0. We put in questionnaire for the present to 817 persons. A sample consists of secondary schools and university students preparing to the forestry occupation, and of technical and economic workers, which are managing or will manage such a working, and of operators of the new technology. Result is that workers are not able to work considerate to the environment. Change of a social atmosphere is ahead of us yet. Forestry management needs to require wholly certainly forms of their work, and to monitor these forms under the threat of sanctions. Ecological education initially in short theses, later on in principle of causality (cause-consequence) have to be learned concurrently.

**Keywords:** behaviour, environment, knowledge, questionnaire, social perception,

### **INTRODUCTION**

Working hypothesis of the faculty project of the investigative object suggests an introduction and usage of new technology considering to the environment. This groundwork of new style managing is distinctly restricted by an attitudes of forestry

workers as toward their own working with considerate techniques, as their own attitude towards working environment. It is almost eliminated, that common forestry workers should act considerable toward a forestry, that they should working in it with regard on his outside-productive function and above all with regard to needs of inhabitants on healthy vital environment. The reason is, that by these workers it deals in the concrete about their working environment, which is seen by them hostile, because there exists from former time stable mental connection of working environment: an adjective working signifies stressing, loading and injurious.

Considerate type of the working behaviour can be enforced on irresponsible workers only outwards under a threat sanction by using of a permanent inspection. Or by help of a permanent cultivating of worker's individuality can reach it from within. We presuppose, that inhabitants and forestry workers cannot pass the judgement about the responsibility for environmental failure without education in ecological relationship, in negative influence of human produced noxious pollution on environmental component and in backward effects of environmental degradation on very human, in short without any reflection of human consciousness about a ecological situation. They cannot nor behave responsible, e. i. with respect to their working and to our vital environment.

Working hypothesis of our objective suggests knowledge advancement by subjects (impletion of a cognitive component of their consciousness with relevant information) with increase of age, education and possible also with their exercise in various leading functions. We expect namely, that perceived knowledge adds and subsequently affects changes in the disposition component of the psychic stability, what we indicate as saturation of the cognitive component of the ecological consciousness and re-aggregation of a personality (increase of values of the health and unpolluted environment). We know, that influences of the environment are directly or indirectly evincible. Therefore we suppose, that after long-time teaching it will come to the alterations of the formerly common attitude towards environment, i.e. an unconscious lethargy. We believe, that an awareness about the health negative incidence of the polluting substances and about the implication of an anthropogenous activities scrolling the attitude towards the environment from the unconscious lethargy to the reflected ecological activities. There are the impletion of ecological consciousness by information, fluctuate of emotion, waking up of new needs on unpolluted environment, evocation of the query next to the personal and social responsibility, in company with the possibility that such activities would opening into the conscious, positive ecological action.

From results of our previous research we supposed, that cognitive component influences all other suppositional components of the ecological consciousness and behaviour. An emotive component predetermines attitude towards the ecological responsibility. An emotive experience bears on personal and familiar anamneses and it influences also the interest about another knowledge. Fact filling of cognitive and affective component then activates processes of human responsibility and reasoning. Ecological responsibility would discharge out in the reflected ecological behaviour, which is predestined by the familiar surroundings. What we understand under term reflected eco-

logical behaviour? A distinction of man against the environment consisting in depiction (answer on query: Who am I ...?), myself-valuation (What kind of human may I have been ...?), destination (What kind of human I want to be ...?), virtue (What can I make ...?) and determination of my social role (What may I have to make ...?).

## **MATERIAL AND METHOD**

We had taken questionnaires on a sample of 817 people working or preparing to occupation in the forestry. Actual sample consists above all from 343 secondary school students (42 % from whole sample). Next 238 university students from Forestry Faculty of Mendel University in Brno (28,1 %), hereof 183 of them in forestry sciences and 55 in landscape sciences. Do not forget, that these subjects otherwise are preparing for the forestry occupation, but during some few years they will create essential part of the middle management. We are also explored 206 technicians and economists (25,2 %), namely from University forest training enterprise Krtiny and from forestry companies. Objective group of workers however consists only from 30 labourer. At these group there exists great neediness. We don't know how to obtain data from the people, who will direct operate with the new technology considering to the environment, to be accomplishing an intended aim - sustainable development in the forestry. The argument is simple: worker-respondent loses at about 3/4 of hour filling of our questionnaire profit, and we are not able to refund him passing wages from financial reason. No-only workers selves will not abstain from work by filling of some "doubtful" questionnaire, but not even control management is not disposed to disengage them, and do that to "unnecessarily" restrain them from productive work.

In our research we used the method of the questionnaire inquiry. The questionnaire contains 31 close and open question, sometimes considerably complicated investigating the respondent attitude toward the environment. Farther it was complemented by 19 anamnesis queries to serve as classifying criteria. Whole data file was statistically processed by SPSS Base program 11.0.

## **SELECT RESULTS**

From previous two tables we can say, that seemingly influence of age on the level of the environmental knowledge does not exist at social categories. As far as this would be apply without any residual, then our entering research hypothesis would be contra

dict to the influence of age on fulfilment of the cognitive component of the consciousness. But from results we can see an inadequacy of the reviewing of ecological knowledge at grammar school students, who presumptuously marked themselves as experts and even as scientists. The "scientist" did not know about any concrete action trying to retrieve damages in environment, and from those, who marked themselves as

**Table 1.** Level of knowledge about environmental problems according to the social categories

SOCIAL CATEGORY	Level of knowledge about Environmental Problems					Total	
	none	small	middle	high	expert scientist		
workers		6	22	2		30	
sec. school stud.		70	238	30	3	2	343
univ. forest. stud.		38	119	25	1		183
univ. landsc. stud.		13	39	3			55
technic.+econom.	1	11	148	39	7		206
Total	1	138	566	99	11	2	817

**Table 2.** Means of knowledge level about environmental problems

SOCIAL CATEGORY	workers	second. school students	uni. forest. students	uni. landsc. students	technic.+ec onom.
arithmetic mean	2,87	2,92	2,94	2,82	3,19
95% interval dependability	2,68-3,06	2,85-2,98	2,85-3,03	2,68-2,96	3,11-3,28

**Table 3.** Valuation of the environmental quality in district of inhabitancy

ENVIRONMENTAL QUALITY	apprenticeship		secondary school		university	
	N	%	N	%	N	%
it is good	7	28.0	169	35.5	113	35.8
it is moderate	16	64.0	275	57.8	177	56.0
it is bad	1	4.0	17	3.6	18	5.7
none answer	1	4.0	15	3.2	8	2.5
Total	25	100.0	476	100.0	316	100.0

**Table 4.** Valuation of own attitudes towards given environment in the district of inhabitancy

ATTITUDE to the environ. QUALITY	apprenticeship		Secondary school		university	
	N	%	N	%	N	%
It is all one to me	0	0	12	2.5	3	0.9
There are mistakes, but I have not anxiety	9	36.0	266	55.9	163	51.6
It is so much problem, that I have fear	1	4.0	46	9.7	41	13.0
No answer	15	60.0	152	31.9	109	34.5
Total	25	100.0	476	100.0	316	100.0

“experts”, 60 % did not name anything. The two “scientist” did not also introduced any concrete example of consequences damaged the environment in district of their permanent residence. That is demonstration, how were detected “kidders” and provide lie-score by means of contingency tables of various variables.

From the next two tables we can see the influence of the education on the environment valuation.

From the first table we can see, that apprentices differ in their valuation in low statistic significance from secondary school and university students. Does it mean that the frequency varieties are only accidentally or are learners more optimistic? In any case in the second valuation 60 % of learner did not replay, which testify about their smaller knowledge or about their inconsistent omission in the second valuation. In any case it is explicit, that respondent’s fear becomes numerous with increase of the education level, what is consistent with the entering hypotheses. Here is statistic significance of frequencies statistical significant on 0,05 level of significance.

From so far obtained sample over two thirds of respondents designated, that their knowledge about environment problems are intermediate. Take a look how they evaluate the environment in the district of their permanent residence to the contrary of reality determined according to the specifications made in the ecological data bank of TERPLAN Prague.

Here is statistical significant drift to the moderate values. Over half of respondents pessimistically designated the environmental quality in relatively unpolluted district as moderate. On the contrary in the districts with the intermediate environmental quality over one third of respondents optimistically designate environmental quality as good.

**Table 5.** Valuation of environmental quality in the district of their permanent residence to his real quality

Real quality	Designated environmental quality					Total
		good	moderate	bad	no answer	
Environment relatively unpolluted	N	86	111	1	3	201
	%	42,8%	55,2%	0,5%	1,5%	100,0%
Environment intermediate polluted	N	181	303	22	18	524
	%	34,5%	57,8%	4,2%	3,4%	100,0%
Environment highly polluted	N	21	52	13	3	89
	%	23,6%	58,4%	14,6%	3,4%	100,0%
Total	4N	288	466	36	24	814
	%	35,4%	57,2%	4,4%	2,9%	100,0%

**Table 6.** Contingency table of the real environmental quality and the valuation of the respondent's attitudes

REAL QUALITY	ATTITUDES OF RESPONDENT'S				Total
	it is all one to me	they are mistakes, but I have not anxiety	it is so much problem, that I have fear	no answer	
Environment Relatively Unpolluted	N 4 % 2,0%	109 54,2%	16 8,0%	72 35,8%	201 100,0%
Environment intermediate polluted	N 8 % 1,5%	276 52,7%	55 10,5%	185 35,3%	524 100,0%
Environment highly polluted	N 3 % 3,4%	50 56,2%	17 19,1%	19 21,3%	89 100,0%
Total	N 15 % 1,8%	453 53,4%	88 10,8%	276 33,9%	814 100,0%

And in districts with high-polluted environment almost one quarter of respondents designated environmental quality as good and over half of them as moderate. From of that can you see that reasons of respondents are significantly differentiated from the real state. Thus incorrect reasons can come into existence only in the consequence of their short knowledge. This finding means that saturation of cognitive component of respondents consciousness by knowledge about the environment is weak, false positive and it is burdened by high subjective mistakes, which are contradict to their consideration about theirs mainly medium knowledge!

A how respondents equalise with the state of environment in districts of their permanent residence? Thereon answer next table.

**Table 7.** Valuation of influence of agriculture on environment according to the education

Influence of Agriculture on Environment	apprenticeship		second. school		university	
	N	%	N	%	N	%
contributes to the betterment	6	24.0	40	8.4	28	8.9
has no influence	3	12.0	40	8.4	16	5.1
damages, to a little extent	11	44.0	248	52.1	171	54.1
has a worsening impact			92	19.3	78	24.7
I do not know	4	16.0	31	6.5	13	4.1
no answer	1	4.0	25	5.3	10	3.2
Total	25	100.0	476	100.0	316	100.0

**Table 8.** Valuation of influence of forestry on environment according to the education

Influence of Forestry on Environment	apprenticeship		second. school		university	
	N	%	N	%	N	%
contributes to the betterment	14	56.0	316	66.4	190	60.1
has no influence	2	8.0	56	11.8	30	9.5
damages, to a little extent	7	28.0	82	17.2	76	24.1
has a worsening impact	1	4.0	7	1.5	7	2.2
I do not know	1	4.0	11	2.3	8	2.5
no answer			4	0.8	5	1.6
Total	25	100.0	476	100.0	316	100.0

There is positive findings that the attitudes expressed by answers “It is all one to me”, namely in the districts with relatively unpolluted environment decreased to the contrary to the primary research from years 1986/87 highly statistic significantly. As well it is important that attitudes with the apprehension escalate in respondents from the districts of their inhabitancy with intermediate and high-polluted environment. Though a percentage of the fear occurrence in respondents indicate that damages on the environment and indirect on a health of inhabitants continue to be of low motivating to the positive ecological attitude and dealing.

**Table 9.** Answers according to the education degree on query: “Can be extend the industrial production without devastating the nature?”

ANSWERS	apprenticeship		second. school		university	
	N	%	N	%	N	%
yes	8	32.0	98	20.6	54	17.1
to limited extend	11	44.0	237	49.8	193	61.1
no	4	16.0	78	16.4	45	14.2
I don't know	2	8.0	63	13.2	24	7.6
Total	25	100.0	476	100.0	316	100.0

Valuation of forestry is not statistically significant; it comes to this, that differences of frequency are stochastic only. Differences of frequencies about the valuation of agriculture are statistic significant on 0,05 level of statistic significance. Respondents from the apprenticeship understand in larger proportion, that agriculture contribute to the improvement of environment, but heavy deterioration of the environment did not stated even the only one, while these answer gave 19 % of secondary school students and even 25 % of university students. It is also remarkable, that valuation of the agriculture influence is according to the answers of respondents in average about 1,5-scale degree

**Table 10.** Source of the information about consequences of environment deterioration according to the education degree

SOURCE	apprenticeship		secondary school		university	
	N	%	N	%	N	%
daily press	18	72,0	352	73,9	245	77,5
radio	14	56,0	201	42,2	152	48,1
TV	21	84,0	403	84,7	262	82,9
entertaining magazines	0	0,0	14	2,9	13	4,1
professional journals	4	16,0	210	44,1	121	38,3
scientific publication	3	12,0	152	31,9	95	30,1
in chat with friends	8	32,0	216	45,4	159	50,3
in family chat	7	28,0	125	26,3	80	25,3
at school	0	0,0	295	62,0	198	62,7
during training	4	16,0	51	10,8	29	9,2
from polit.+function. speech	5	20,0	42	8,8	34	10,8
from specialist at various action	7	28,0	208	43,7	134	42,4
others	4	16,0	55	11,6	31	9,8
I don't know	25	100,0	2	0,4	4	1,3

worse than valuation of forestry influence.

Seemingly similar is next question, in which we look for respondents' valuation of the industrial production influence on the environment. Testing distribution percent frequencies by means of chi-square test point out 0,05 level statistic significance, that there is connection between education degree and valuation of impact of extend of industrial production. With growing of education there is decrease of positive answers, i.e. falling of false optimism.

We cannot wonder to actual unsatisfactory results about fulfilling of cognitive component of consciousness, when we demonstrate from where respondents draw the information about ecology and consequences of deterioration of the environment.

We found out that mass media lead without any doubt: on the first places is TV (c. 83 %), then daily press (c. 74 %) and then radio round about half of respondents. From here passes importance of true and complex well-information by means of mass media, which would have had employ redactors specialised on ecology and environment. School as a source is on the second place with 62 % (statistic difference of frequencies on 0,05 level of significance). It is remarkable, that school as a source did not introduced any of apprentices. It is expressive discredit, that part of school like an institution determinate to this was named only about two thirds of respondents as a source of information. Malfunction of school parts on insufficiency hereof-social behaviour. Chats with friends (c. 42 %) are on the third place; they have especially meaning for young respondents. Occurrence over 30 % have the data source from expert at action and from

professional journals (statistic difference of frequencies on 0,05 level of significance). Over 20 % of respondents make use of family chat and scientific publication.

## **DISCUSSION**

Into our demonstration of information processing some of questions of our questionnaire inquiry among workers and students preparing for forestry occupation we are showed what means we want detect the state of consciousness and experience of the environment in Czech republic. We will try to confront our results with abroad. It appears outside all disbelief, that filling of the cognitive component of consciousness is still forceless. Important, but expected change of the disposition of all society on environment is still far and away. Effort to introduce and use new technology, considerate to environment preferably will pass by effects next to sometime. It means, that possibility put in force correct operating new technology is in the first stage possible only outwardly, by means of continually checking and sanctions, and this to of that time, until "ecological" precipice of inhabitants will not improved, especially in fieldworkers and managers affecting long-term purpose of protection and creation of environment. However parallel second stage would have pass off, i.e. teaching to the ecological information already from youth, in primary schools, in apprenticeship and secondary schools, for from these students will be in foreseeable time executive workers and managers of basal grade of control, and then especially on universities, for of them will grow up middle managers with a decision making authority and responsibility in given task.