

## ECONOMICAL APPROACH ON HUNTING

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*Summary:* It was an experimental survey performed in representative, private grounds. A comparison of the calculations we have determined that the income amounts in the free hunting grounds 23.8% of the costs, while costs account for a gate area 30.8% of total costs.

Concretized based on official statistics, back calculations of the population sizes of the various wildlife species, the hunting price lists, using a simulation calculation model with variable parameters for a particular area of mathematical statistical analyzes of data from experimental data and their own qualified estimates made calculations that were compared with the experimental data obtained. It was a satisfactory agreement of the total outcome of the assessment carried out of the hunting industry in the Czech Republic with the experimental data found. According to the calculations of the income amount to 31.2% of the total cost of the hunting industry is in well-run hunting grounds. The difference between the inexpressive its own experimental survey performed and the calculations carried out for the whole territory of the Czech Republic can be influenced by the local, natural and economic conditions of the selected experimental region attribute.

Should be mentioned in this context that in the performed qualified estimates the rule of their minimization by the attachment of the estimate in the lower region of the variation of the estimated data has been complied. Probably this fact contributed to the moderate positive results of the calculations against the experimental data collection. If you look at the percentage of the evaluated cost of items of game management as an indicator of their importance in the overall spectrum of hunting activity, can be found that they are involved in the actual hunt with only 10.8%. The caring for the game, monitoring, conservation and the protection of ordinary hunting industry do about it with 55.7% for the largest share of the hunting activity. The cost of materials for game feeding in distress makes a total of 5.9%, 0.7% and Wild field cost of hunting and feeding facilities make up 3.5%. The cost of hunting dogs-secrecy shall be 14%, while the rent that together with the wild damages to the forest passed 8.6%.

*Key words:* economics of hunting, game management, game evaluation, hunting revenues, hunting costs.

### Introduction

The theme of this work is the result of the need for a representation of the economic background of the current Czech hunting system. The economic issues arise in the current Czech hunting more and more into the foreground of the interests of hunters.

The overall social changes after 1989 led to a renewal of the market economy in the Czech Republic and thus helping to strengthen the position of economics in all areas of human activities. This trend did not last to the unsolved economic problems and disregarded the exercise of hunting rights gradually gained in confidence. The present view of hunting is characterized by a broad spectrum of human activities, which are carried out in nature, and wild game, as a component of the ecosystem is addressed. The hunting was thus granted the task of one of the basic components of modern management of nature to represent. The work of thousands of hunters, the majority of which is provided free of charge and at leisure, creates significant value, which make an important contribution to human society.

With a lack of economic evaluation of the entire spectrum of activities associated with hunting, the majority of the public is not even able to make a basic idea about the expenses and revenues, which are connected with the ordinary exercise of hunting rights. For an assessment of the importance of hunting, it is therefore necessary to know the value of the money spent and work of human hands. An evaluation of the activities of hunting carries with the help of economic well for a big increase in public acceptance of the hunting community. Our effort was a framework overview of expenditure and revenue in the various divisions of these activities create. The complexity of the problem that has to be solved is through the interdisciplinary nature of hunting and given the diversity of local, natural and economic conditions.

One of the basic questions of economics of hunting is the evaluation of wild game as an object of the game management. The valid legislation of the Czech Republic does not allow direct assessment of wild game as a natural resource. The game has, like in Germany, state "res nullius" i.e. no one's business. We recommend that the cost method as the most suitable helper method for indirect assessment of wild game as a natural resource. It goes by the costs that are necessary to safeguard the existence and need from wild populations. The sum of all costs required to maintain the environment of the game and the sustainable use of wild resources are needed, gives us the basic information about the value of this natural treasure

All civilized countries regard the game as an indivisible part of nature, which are protected as a community and what care must be taken to. To meet this societal interest can create an instrument that determined in the interest of long-term conservation of all wild species, their value. In this study, the economic consequences are

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expressed with the legal obligations of the user area, thus creating a basis for the evaluation of wild game as a component of the ecosystem. Scores are based on the cost of the statutory wildlife management, game prizes, hunting lease prices, importance of the social status of the individual being in the wild population and the level of danger of the peer-reviewed piece of game. We recommend using the results of the work as a possible aid in the determination of the social value of the game.

### Calculations and results

#### Income from hunting economy

The numerical size of wild populations, hunting is a source of usable growth, the basis of the income of the users of hunting grounds.

#### The game

The details of the shooting dynamics of the major game species in the Czech Republic show a significant and permanent increase in the deer tracks. After a brief decline in the mid-nineties show all deer species, with the exception of the muffle game, a repeated increase in their stocks. The spring base stocks exceed counted, with the exception of deer, clearly the standard spring base stocks. In deer, they amounted 166%, 99.6% in roe deer, mouflon at 146%, 125% for fallow deer, sika deer at 504% and 434% in wild boar with the standard spring base stocks. The calculations return to the real population sizes of the game is even bigger. Only then, we can explain that despite of the rising numbers Annual Statement has still been no collapse of the hoofed animals. This confirms the conjecture that in the Czech Republic at least twice as much living ungulates, as the official statistics indicate. (Table 1)

Table 1: Example of the development of reported deer-hunting resources and the spring line in Czech Republic (source-hunting statistics CSU)

Red deer	1985	1990	1995	2000	2005	2010
Spring stocking	21 571	20 597	17 712	24 373	25 737	27 993
Hunting	16 077	20 849	16 789	18 937	22 108	22 033

A reduction of the existing deer populations to the level of the proposed standard would be stocks, a significantly negative economic impact on the economy of the hunting area user. In theoretical achievement of real game stocks at the height of the standard stocks, were in the wild, the current deer range in deer to 13.5% for fallow deer at 38%, the mouflon to 36%, the sika deer at 2.2% and in wild boar fall to 14%. From these established facts, we conclude that the force acting on the area represents a major economic pressure searching of the factors that have increased the reduction of the hoofed animals in the way.

Table 2: Standard stocks of Deer (2010) according to Regulation of hunting 491/2002 and 2010

(Source-hunting statistics a ČSÚ MIE)

Game Quality-class	Row deer						
	Norma Of stocks (pieces)	Norm. Of area (ha)	Expected Percent production	of	% Population structure	Growth per year=NB Regulation of hunting (pieces)	Hunting plan 2010 (pieces)
I	287	13 928	0,8		40/40/20		
II	2 766	160 388	0,7		39/39/22		
III	5 828	461 449	0,7		39/39/22		
IV	1 111	106 152	0,7		39/39/22		
Free areas	9 992	741 917	0,7		39/39/22	2 728 (27,3% from NB)	20 706
Closed	4 677	25 451				1 279	1 514
Total	14 669	767 368				4 007	22 220

In a theoretical population of deer-standard are 9992 pieces, and the increase would amount to 2728 pieces but this is also the theoretical shooting altitude. The current real shooting of 20 706 piece corresponds to a 1:1 sex ratio, for a deer population size of 75 850 units. (Table 2) Over the last 10 years (2000-2010) it has been an annual average of around 21,000 killed red deer. An average annual production of this shooting down (for a reproduction coefficient 0.7) 30,000 piece of wild adult female are needed. At a theoretical sex ratio of 1:1 and percentage distribution structure of 39/39/22 (%) can be determined using the "method of back calculation" to a population size of about 76'900 pieces.

We made the same calculation with a gender ratio of 1:2 (in favor of the female game) and percentage distribution structure of 26/52/22 (%), we come to a theoretical population size of about 57'700 pieces. The actual population size of the bowl game influence the hunting range of paying hunters. The income from the hunting fees can form an important part of the proceeds of hunting economy. In the calculations of the potential income from the hunting trophy hunting of the wild, it was assumed that the official shooting statistics. The proportion of the trophy game was determined by means of mathematical models, assuming a normal representation of ages in the populations and natural sex ratio 1:1. The ongoing, in long-term, shows figures derived from the shooting down of the increase in deer population. A significant shift is in sex ratio in favor of the female deer. At the same time, there is an increase in the proportion of the Young game population. In this context, it is important to remember that in the case of a constant total population size, the same influence on the environment (wildlife damage) and the same associated with managing wildlife material, time and transportation costs, the proportion of the most revenue-making male part of the population of a 1:1 sex ratio and 40% of the total stock at a 1:2 sex ratio, only 25% makes the stock. From this fact we deduce that one can expect that a reduction of the current bowl game has been discontinued, with an accompanying correction of gender relations in the natural state of 1:1, that increased from the hunting of trophy game flowing out extra return that as a result of a mitigate loss is incurred lower production game. The present potential yields of the deer management amount to a total of 1,572,377,100, - CZK (Note: 1 EUR = 25 CZK) annually, or 77% of the total return of the hunting industry. Table 3 - Example of calculation of the deer hunting revenues.

Table 3: Example of the deer hunting revenues calculation. Calculation of the average number of points and fees for the price of hunting deer II and III.

Age class (price in EUR, price lists, source of a LČR VLS)

Age	Total individuals	Ø Points	+,-	+,- %	∑ Price	+,-	+,- %	Ø Price	+,-	+,- %
5	400	144,8	0,3	0,2	388666	6281	1,6	972	16	1,6
6	346	147,3	0,3	0,2	369011	8670	2,3	1067	25	2,3
7	307	161,1	0,3	0,2	565662	9692	1,7	1843	32	1,7
8	278	164,2	0,5	0,3	583195	13097	2,2	2098	47	2,2
9	256	164,8	0,7	0,4	535673	21285	4,0	2092	83	4,0
10	238	165,2	0,6	0,4	509087	15539	3,1	2139	65	3,1
11	223	164,5	1,0	0,6	461037	19005	4,1	2067	85	4,1
12	211	170,9	1,1	0,6	589887	33027	5,6	2796	157	5,6
13	200	171,1	1,3	0,8	555540	35763	6,4	2778	179	6,4
14 +	191	171,1	1,5	0,9	537478	31837	5,9	2814	167	5,9
Total	2650	160,4	0,7	0,4	5095237	194196	3,8	1923	73	3,8

The largest percentage of the total income of the hunting economy represents 33% of the fees on hunting wild boar. Continue to follow the returns from deer-game sales (23%) and fees from the hunt for deer (21%).

#### *The small wild game*

The trims of the low-commercial wild, which is tied with their life on the open landscape, in the wild, compared to the situation 30 years ago, is declined significantly. This phenomenon affects in a pan-European scale and is associated with significant changes in European cultural landscape, and agricultural intensification of agriculture in the context. The decrease in the trims of wild populations of game pheasant is partially offset by the artificial breeding of pheasants in pheasant's farm. For this reason, the wild pheasant hunt should be reduced in total range and it is not as evident as the hare. A similar situation as with pheasants can be seen in wild ducks. Here, too, ducks and geese live of artificial breeding side by side from the wild populations. According to the Czech Institute of Statistics in 2004 in the Czech Republic 327 784 of game ducks were hunted down. Compared with data of Komarek (1945), this is compared to the thirties of the twentieth century, more than a tenfold increase in the wild duck-hunting bag. The potential present income from small wild game management amount to 461 501 600, - CZK per year, or 23% of the total income of the hunting industry. The fees for small game hunting participate with approximately 19% of the total return of the hunting industry. (Table 4). Next follow the returns from small wild game sales (3%) and (1%) from the production of Balge.

Table 4: Hunting of small game (Ø 2000-2004) and their earnings in case of a fee hunting (Source Statistics ČSÚ, MIE and price lists of hunting fees)

Game species	Total hunting (pieces)	Ø Price for 1 piece Hunting fees (CZK)	Total income Hunting fees (CZK)	%
Pheasant	547 228	450.-	246 252 600.-	62,3
Wild duck	316 713	330.-	104 515 290.-	26,5
Hare	73 768	600.-	44 260 800.-	11,2
Total	937 709	-	395 028 690.-	100,0

Compared with similar districts in the South Moravian Austrian border area, small game is evidence that it at a low intensive game management, under the terms of the current agricultural landscape, and it is very possible to achieve good game management results. The basic requirement for an improved situation in the low wildlife management is a deliberate landscaping. Only in this way can be re-created habitats that meet the biological needs of small game. This must be accompanied in parallel with intensive work Hege in the sense of assurance of coverage options, food supply and protection against harmful factors. In the case of an intensification of all hunters union activities in connection with the desirable increase in the small game facing, with a significant increase in the cost of the currently existing small game hunting economy to be expected. Even the current transportation costs and the amount by the amount of work time spent in connection with the regulation of hunting of small game predators 133 392 234, - CZK annually. Here is the current income from the hunting of predators of only 13,718,145, - CZK. From this striking discrepancy between cost and endurance, it is clear that the main motive for this work is the numerical regulation of excess inventory of predators. In other words, it is about the effort to achieve a more equitable balance between predators and their prey.

*Cost of the user area.*

The hunter is legally required to protect the wildlife and to nurture it.

Under protection is defined: protection of wildlife before: -unfavorable environmental influences - infectious diseases - harmful human interventions - free-roaming pets, - protect the living conditions of the game, - to ensure peace in the area and protection of hunting equipment.

Wildlife management is defined: - Conservation of natural life condition of the game - to maintain balance between the game and their environment and professional oriented interventions - Selective improvement of breeding game and adaptation of wildlife populations at optimum level - the number, sex ratio and population structure.

*Legal obligations of the user area:*

§ 3 (1) - maintaining the balance between the game-resources and their environment, preservation of nature of the game, selective increase of quality of game breeding and adaptation of wildlife populations at optimum level.

§ 3 (2) backup of wildlife management - the number, sex ratio and population structure

§ 11 (1) - in the interest of wildlife protection, depending on the nature of area, a commitment to care for farms and other suitable hiding places for wild and / or formation of wild field Obligation to operate a game feeding, agitation, salt licks and watering -

§ 11 (4). To feed the game in distress properly and to ensure the protection of wildlife a request for appointment of a gamekeeper - § 12 (1) To protect a proper game management a

request for appointment of a hunting farmer -

§ 35 (1) - wildlife counting and monitoring, annual development of a district management plan and its fulfillment. § 36 (1) (2), § 59 (2c) after determining the

hunting administration to conduct a wildlife census in the area.

§ 44 (1) duty to keep hunting dogs in the area and use

All these activities are built on economic foundations

The cost of the area user, which proceed from the most important from the Hunting Act certain obligations are, particularly the costs of wildlife protection and assurance of proper game management (salaries of game wardens and game keepers), time and transportation costs associated with fulfilling the law duties of the area user (game count and monitoring, regulation of hooved animals and predators, common hunting, -), feed cost for game feeding in hard times, costs of area facilities and costs for the system of game field and farms. Next come the cost of dog ownership and ammo. (Table 5 - Example of calculation of the costs of wildlife protection and assurance of proper game management; Table 6 - Example of calculation of the annual requirements for feed, Table 7 and 8 - Examples of the calculation of feed costs)

Costs for game management and backup of a proper game management

Economic balance for the management area is necessary to take into consideration that the activities of gamekeepers and hunting hosts will be rewarded.

Table 5: Example of cost calculated for protection and assurance of proper game management -Pay and car charges for a gamekeeper

Work Order 25%	45 Hours	765 990 Hours	9 191 880 Hours	98.- CZK/Std.	900 804 240.-
Activity	1 Gamekeeper monthly	Total in the Czech Republic monthly (17 022 gamekeepers)	Total in the Czech Republic annually (17 022 gamekeepers)	Cost-records	Total in the Czech Republic annually (CZK)
gamekeeper - employees in the Czech Republic and annually total car charges					1 066 258 080.-

Charges - Hunting protection: - gamekeeper 1066258 080th - CZK per year (17 022 gamekeeper) - Hunting protection & support duty 562 806 336th - CZK per year (97 304 hunters) - Hunting economists 976th CZK 415 472 per year (5674 hunt hosts).

*Charges of feed for the hard times*

*Calculation of the feed requirement*

Table 6: Example of calculated the annual requirements for feed for the spring stocks of game (Spring stocks determines by back-calculations based on long-term average shooting levels calculated for 195 feeding days.)

The game	FJB Return calculation (piece)	An annual requirements for food			
		Roughages (t)	Concentrate (t)	Juice food (t)	Salt (t)
Red deer	51 260	24 990	4 998	9 996	154
Deer	299 100	29 162	11 665	17 497	299
Sika deer	16 884	4 939	989	1 646	33,8
Fallow	17 160	5 019	1 004	1 673	34,3
Mouflon	15 480	2 414	605	605	23,2
Chamois	350	54,5	14	14	0,26
Wirginia-Deer	195	56,5	12	20	0,39
Ukupno	-	66 635	19 287	31 451	545

Calculation of feed costs

Tables 7 and 8: Examples of calculated of feed charges

Table 7: Average annual feed costs for roe deer

Feed	Quantity (q)	Ø Price (CZK/q)	Total price (CZK)
Roughage	291 620	189.-	55 116 180.-
Concentrates	116 650	300.-	34 995 000.-
Juice feed	174 970	125.-	21 871 250.-
Salt	2 990	990.-	2 960 100.-
Total for roe deer			114 942 530.-

Table 8: Average annual feed costs for ruminant deer

Feed	Quantity (q)	Ø Price CZK/q)	Total price (CZK)
Roughage	374 730	121.-	45 342 330.-
Concentrates	76 220	308.-	23 475 760.-
Juice food	139 540	125.-	17 442 500.-
Salt	2 460	990.-	2 435 400.-
Total for ruminant deer			88 695 990.-

The total average cost for deer feeding and small game for each year 385 253 952. - from CZK.  
Cost of hunting equipment

Table 9: Example of calculation - the number of hunting equipment for Wildlife feeding (Source Statistics MIE ČSÚ a)

Type of hunting equipment	Quantity (Pieces)	Ø size	Ø within 1 area (pieces)	Quantity Piece/1 ha
Salt lick	94 254	---	16,6	0,0141
Feeders	46 943	3,3 m <sup>2</sup>	8,3	0,0070
Game feeding	83 367	2,8 m <sup>3</sup>	14,7	0,0125
Drinkers	8 668	15,6 m <sup>3</sup>	1,5	0,0013

Table 10: Example of calculation - the number, value and annual costs of the facilities for monitoring and hunting of wildlife (source - experimental investigation, SLP MZLU Brno Masaryk)

Facility	Quantity piece on 1 ha area	Quantity Facilities in Czech (Pieces)	Ø on 1 area (Piece)	Best Director Award (CZK)	Best Director Award total (CZK)	Year amortization (10%) (CZK)
Watchtower	0,0095	63 565	11	1 050.-	66 743 250.-	6 674 325.-
Crow nest	0,0127	84 976	15	6 900.-	586 334 400.-	58 633 440.-
Total value of facilities					653 077 650.-	
Total annual amortization						65 307 765.-

Deer feeding facilities for Hunting - costs 163 185 910th - CZK annually. Equipment for monitoring and hunting of game costs 65 307 765th - CZK annually.

Costs of managing the game field and temporary sheds

With wild field scale of 1 hectare per district and Inclusive of the subsidy, the cost per year would amount to CZK 45 390 000.

Costs of monitoring of wildlife

Obligation of time, after determination of the hunting administration to conduct a wildlife counting in the area.

Cost: 255 120 600, - CZK annually

Table 11: Example of calculation of cost-game count and game monitoring

Monitoring	1 Hunter	Total Czech Republic (97 300 hunters)	records	Total Czech Republic (CZK)
Game counting (\$59 /2 /c)	24 Hours ( 3 x 8 )	2 335 200 Hours	98.- CZK/hour.	228 849 600.-
Car cost (3x 15 km)	45 km (3 x 15 )	4 378 500 km	6.- CZK/km	26 271 000.-
Total cost of the game count and game monitoring				255 120 600.-

Adapting costs of hooved animals in optimal level individual hunting - time and cost of transportation

Total cost of adapting the hooved animals at optimum level by individual hunt 784th year 332 934 - from CZK

Regulatory costs for predatory game

Costs of predators hunting for hair - skinning time, transport

Total annual cost make 133 392 234th - from CZK.

Costs of time and transportation for the Company in connection with hunting

Output data: number of areas, average amount of hunting bag, the estimated number of hunts for wild boar and small game, need for personnel, technical assurance of the hunts.

Table 12: Calculation Example - Estimating the cost of game hunts (Source - Statistics ČSÚ a MIE)

Wild boar	Hunts total (Quantity)	Time 1 hunt (hours)	costs time expense for 1 hunt (CZK)	Transport car for 1 hunt (km)	Costs transport car for 1 hunt (CZK)	Costs rent Farm Tractor for 1 hunt (CZK)	Total costs for 1 hunt (CZK)
turncoat	16 177						
piglet	26 390						
total	42 567	112 (14x8Std.)	10 976.-	90 (6x15km)	540.-	1 600.- (200.- x 8Std.)	13 116.-
Total Czech Republic 8513 hunts for wild boar x 13 116.- CZK = 111 656 508.- CZK							

The procedure for estimating the costs:

Personnel Requirements: 3 people - organization of hunting (leader, leaderpost), 10 drivers (including 5 dog leader), a tractor driver

Technical security: tractor (rented), 6 cars

Estimated total cost to the organization and conduct of the company hunts for wild boar and small game make 358th year 232 473 - of CZK

Cost for ammo for hunting

Output data: launch amount of each game species, estimate the success rate shot, hunting ammo prices

Total estimated annual cost of hunting ammo consumption make 50 281 372- of CZK

Costs of deer feeding-time and transport

Output data: duration of deer hunting, personnel requirements, technical security - Transport

Total annual cost of time and transport, published in the legal obligation for deer hunting makes 1332572 944 of CZK

Cost for the hunting dog ownership

Number of hunting dogs, the Regulation No 244/2002

Basic expenses: Purchasing a puppy or adult dog trained use, accommodate and discharge, feeding, vaccination, necessary veterinary care, insurance, dog license fees and club fees, equipment and training aids.

Education and care of the dog: time and car expenses, utility audit Fees and Exhibitions The whole of the Regulation No. 244 certain hunting dogs need, for a given area and their number calculated average sizes of 16 811 hunting dogs is stored with a performance test .Total annual cost to make the hunting dogs entertainment duty due to a qualified estimate of 911 727 774th - from CZK.

Table 13: Assessment of the total costs and expenses of the hunting area user in the Czech Republic

	Price ( CZK)	%	Income ( CZK)	%	Earning ( CZK)
Hoofed game			470 778 150.-	23,15	
Hunting fees			433 214 100.-	21,30	
Hunting fees for Wild Boar			668 384 850.-	32,85	
Small Game			52 754 765.-	2,60	
Bellows			13 718 145.-	0,70	
Hunting fees for small game			395 028 690.-	19,40	
Small game	520 000 000.-	8,00			
Game damage	39 319 000.-	0,60			
Feed for ruminant game	203 638 520.-	3,10			
Feed for free game	113 515 000.-	1,75			
Feed game preserve	24 010 690.-	0,35			
Feed small game	44 089 742.-	0,65			

Huntingequipment Monitoring / hunting	65 307 765.-	1,00			
Wild field / sheds	45 390 000.-	0,70			
Gamekeeper	1 066 258 080.-	16,35			
Hunting safety	562 806 336.-	8,65			
Game Manager	415 472 976.-	6,35			
Game count and monitoring	255 120 600.-	3,90			
Individual hunting the bowl game	332 934 784.-	5,10			
Production of the bellows	133 392 234.-	2,20			
the Community of hunting	232 473 358.-	3,55			
Ammunition	50 281 372.-	0,80			
Game feeding	1 332 572 944.-	20,45			
Hunting Dogs	911 727 774.-	14,00			
total for the Czech Republic	6 511 497 085.- (100,0%)	100,00	2 033 878 700.- (31,2%)	100	-4 477 618 385.- (68,8%)

### Conclusion

The total cost of the hunting industry in the Czech Republic amounted 6511497085, - CZK annually. In contrast, the income are 2,033,878,700, - CZK. The income is 31.2% of the cost of the hunting industry. The annual loss of hunting economy is 4,477,618,385, - CZK. By analyzing the calculated values, we found that the transport costs and accrued time spent working in the context of fulfilling the statutory duties of the district with the highest percentage of users is represented. The most important position represents the labor input in meeting the statutory duty of the wild-feeding (20.5%), followed by game count and hunting (12.6%), regulation of wild stocks - individual hunting deer, common hunting of black-and individual and small game hunting predators (10.8%). Other significant amounts are the salaries of Gamekeeper and hunting hosts to ensure that the legal duty of protecting wildlife and the annual hunting industry (22.7%). The cost of feed for shell and small game together amounts to 5.9% of total costs. The Wild field makes 0.7% of total costs, 2.5% feeding equipment, equipment for hunting and the monitoring of game 1% and 0.8% cost of ammunition. Cost of dog ownership is considerable 14% of total costs. Cost of the rent is area is 8% and the cost of wildlife damage to forest stands to make 0.6% of the total cost.

It is clearly evident that in the field of hunting, the group's activities - such as "wildlife management, monitoring, conservation and protection of orderly hunting economy", from an economic point of view occupies an absolutely dominant position.

We believe that the observed large economic well express the measure of overall social contribution of hunters union activities as part of the landscape and wildlife management in terms of management of natural resources.

A comparison of the active practice of as interests and recreation, with other financially sophisticated ways of using free time (etc. as sporty skiing, horse riding, parachute jumping.), We found that only the hunting at the same time a general social benefit in sense of care for the permanent preservation of natural resources for the whole of human society.

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