

# Financing of forestry from public funds in the Czech Republic, Estonia, Poland and Slovenia – policy context, organisation and supported activities

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**ABSTRACT:** The paper describes the policy, legislative and organisational context and structure of financing the forestry from public funds in the Czech Republic, Estonia, Poland and Slovenia in the 90's. The first half of the nineties was the period of the most significant changes, whereas more stable and systematic financing of forestry was generally started in the second half of the nineties. The supported activities reflected main problems and challenges facing the forestry in individual countries. In the Czech Republic the substantial support was designed for protective measures and restitution of damaged stands. In Poland, the increase of forest area and restitution of forest stands damaged by air-pollution were the priority. Slovenian budget supported mainly the improvement of road infrastructure, forest management planning, as well as sustainable utilisation of forests through marking of trees for cutting. Estonian forestry received the relatively lowest subsidies allocated mainly to the preparation of management plans and extension services. Subsidies were the most important instruments of support. In Poland, however, tax exemptions and concessions were significantly higher than the value of financial means allocated from the public funds.

**Keywords:** forest policy; public financing; Czech Republic; Estonia; Poland; Slovenia

Social and economic changes that were started in Central and Eastern Europe at the end of the 80's also covered the forestry. At the same time, the global discussion on the environmental protection, including forests, intensified leading to initiating the process devoted to protection of forests and preservation of all their functions in Europe. Economic, organisational, ownership changes in forestry, resulting from the system and structural changes in national economies, were complemented by the rules of balanced forestry and protection of biological diversity, worked out under the Pan-European Process of Forest Protection. Both processes had an impact on the shape of legal and institutional solutions, as well as on the definition of goals and tasks of forestry and instruments of their execution as well as methods of supporting the forestry by the state.

The aim of this paper is to present the methods of financing the forestry from public funds and supported activities in the Czech Republic, Estonia, Poland and Slovenia in the 90's. Discussion about the value of support and financed measures was presented in the policy, legislative and organisational context of financing the forestry in the said countries.

## MATERIALS AND METHODS

Data and information regarding the value of support to forestry from public funds, applied support instruments, legal frameworks as well as the policy context and institutional solutions of forestry financing were collected from statistical yearbooks, electronic data bases concerning forestry, legal acts, reports on the status of forests and other studies, both published as well as prepared for internal use by institutions related to forestry. The materials were collected and developed in 2002 under the international research project EFFE (*Evaluating Financing of Forestry in Europe*). Detailed results of research were presented in unpublished country-level reports that summarise the state of collection of the data developed by project partners in individual countries (CENČIČ, ŠINKO 2003; KACZMAREK 2002; TIKKANEN, RIERA 2002; KAIMRE 2002; KAIMRE, VALGEPEA 2003; KALISZEWSKI et al. 2003; ŠINKO 2002; OTTISCH et al. 2002; ŠIŠÁK et al. 2002; ŠIŠÁK, PULKRAK 2002).

Collecting of full information about the value of support to forestry in the 90's turned out to be impossible. Systems for the financial support to forestry in the aforementioned

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countries are new and their basis was created already after the start of social and economic changes, usually in the mid-90's. Therefore the information about forestry financing at the beginning of the 90's is either unavailable or incomparable with the data from subsequent years. Only the adoption of new legal acts creating the legal framework and institutionalised support to the forestry in new social and economic conditions allowed for the systematic support to forestry, combined with collecting of information on this subject.

Polish report has delivered the most complete picture of forestry financing. It includes the comparable data for the period from 1992 to 1999, however in relation to the extra-budget means (e.g. funds for environmental protection) the data are incomplete. Information included in the Czech report covers the period from 1991 to 1999, whereas the data till 1995 are incomplete, unreliable and hardly comparable with the data from the second half of the 90's. In the case of Estonia the data availability goes back to 1994, and in the case of Slovenia – 1995.

Information about the sum of financial means expended on the execution of programs and means in individual countries was collected and initially presented in national currencies. For the needs of this paper these values were updated and presented in € according to the exchange rate as of 31 December 1999.

## RESULTS AND DISCUSSION

### Forests and forestry

The above-mentioned countries significantly differ in terms of territory, population, area of forests and profile of forestry. The most important comparative data concerning the Czech Republic, Estonia, Poland and Slovenia are presented in Table 1.

### Policy and legal context of financial support to forestry

The Act on Forests, passed by the Polish Parliament already in 1991, is the legal basis for financing the forestry from public funds in Poland. Pursuant to this Act, the State Forests National Forest Holding, administrating the

majority of public forests in Poland, can receive subsidies for the buying out of forests as well as land reclamation and afforestation, management and protection of forests in the case of a threat to their sustainability, resulting from the impact of industrial pollutants or a natural disaster caused by abiotic or biotic agents (stand conversion), as well as management of nature reserves and protection of specific species of plants and animals. The state support to private forest owners covers in part or in full expenses on afforestation of lands, preparation of forest management plans and stand conversion in the case of threat to forest sustainability posed by abiotic and biotic agents. Furthermore, the Act commits the State Forests to cover the expenses on protective actions in private forests in the case of such occurrence of harmful organisms that threatens the sustainability of the forest, as well as the expenses on extension services in the area of forestry and – in particularly justified cases – to provide the private owners free of charge with seedlings of forest trees and shrubs for reforestation. Apart from the possibility of receiving subsidies from public funds, the owners and managers of forests received a substantial support in the form of forest tax concessions and exemptions when the forest stand does not have a production function or this function is limited.

In 1997 the Parliament amended the Forest Act. The catalogue of activities financed from the state budget in the State Forests was extended to include land purchase in order to preserve its natural appearance, implementation of National Program for the Enlargement of Forest Cover (which has been actually run since 1995), performing periodic national inventories of forests, updating the status of forest resources and running of the data base about forest resources and forest stands, preparation and implementation of plans for protection of nature reserves managed by the State Forests and financing the forest education of the population in Promotional Forest Complexes (the forests in which the pro-ecological forestry is promoted).

In April 1997 the government adopted a document National Forest Policy that specified in detail the goals, priorities and expected effects of the execution of forest policy in Poland. The document refers to the State Ecological Policy adopted in 1991, Principles of Forestry Management and Agenda 21, adopted during the UN Conference

Table 1. General information about forests and forestry in the Czech Republic, Estonia, Poland and Slovenia (figures for 1999)

	Czech Republic	Estonia	Poland	Slovenia
Country population (mill)	10.3	1.4	38.7	1.9
Country area (ths km <sup>2</sup> )	78.9	45.2	312.7	20.3
Forest area (ths ha)	2,634	2,143	8,850	1,110
Forest coverage (%)	33.4	47.4	28.3	55
Growing stock (mill m <sup>3</sup> )	625	353	1,693	231
Fellings (mill m <sup>3</sup> )	14.2	12.7	26.0	2.6
Share of public forests (%)	63.4	38	82.8	30
Contribution of forestry to GDP (%)	0.7	2.7	0.4	0.4
Employment in forestry (ths)	33.3	9.6	44.4	2.2

in Rio de Janeiro in 1992 and the Ministers' Declarations at the Conference on the Protection of Forests in Europe from Strasbourg and Helsinki. As the main goal of forest policy, the document intends to define the complex of activities shaping the man's relations to the forest that will enable to maintain the multifunctional nature of forests in the evolving natural and socio-economic conditions. Among others, this goal should be accomplished through an increase in the national forest resources, improvement of their status and integrated protection and promotion of the pro-ecological economically sustainable multifunctional forestry. Despite of its size and detail level, the document does not determine any specific economic instruments to be used for the accomplishment of the forest policy goals.

Despite a few attempts made during the period of 10 years since the beginning of economic changes, the process of forest restitution in Poland has not been started yet. There is neither political consensus regarding the advisability of forest restitution nor a detailed method of performing such an operation. It seems that no significant changes will take place in the forthcoming years.

Economic changes in Estonia started as early as in 1987, when the implementation of crucial economic reforms began. The land owned by the state or farmers' association was granted as perpetual usufruct to private owners. In the subsequent years, the private agricultural property was legalised as a result of ownership reform. In August 1991, Estonia regained independence.

The first Forest Act of Estonia in the new socio-economic circumstances was passed by the Parliament in 1993. The aim of the Act was to establish and support the development of the private forestry sector in Estonia. The Act committed the state budget to cover the expenses on the preparation of forest management plans in private forests. However, as the pressure from various interest groups grew (state-owned institutions, forestry enterprises, private forest owners, conservationists), the work on the Estonian Forestry Development Program started soon in the Ministry of Environment, setting the overall goals for the forestry sector and determining the means for their accomplishment. According to this document, completed in 1995, the state was obliged to help the forest owners by supporting their organisation, financing extension services and preparation of forest management plans, as well as it was obliged to control the quality of such services.

In connection with the growing share of private forests and the need to define the regulations regarding the forest management in new conditions, in January 1999 the Estonian Parliament passed the amendment of the Forest Act. A new Act refers to the rules of economically sustainable forestry developed under the Pan-European Process. However, the issue of forestry financing from public funds is treated very generally in the new Act and is limited only to preserving the provisions of the Forestry Development Program of 1995.

The Forest Act, passed by the Parliament in November 1995, is a legal basis for supporting the forestry from

public funds in the Czech Republic. The legal act refers to the National Forest Policy adopted a year ago and based on the Resolutions of Ministerial Conferences in Strasbourg and Helsinki. The main goal of forest policy – according to the document – is the permanent preservation of forests for future generations, while maintaining all their functions with simultaneous support and safeguard of public interests in all types of forest ownership. The overall goal should be achieved on the basis of long- and short-term goals, including the most important goals such as: protection and revitalisation of forest stands damaged by air pollution, conservation of stable forest ecosystems, protection of biodiversity and conversion of the composition of forest stands to natural composition, completion of the process of re-privatisation of forests, achievement of the high quality of forest management planning and support to small forest owners through extension services and support to their associations.

At the beginning of 1996, the Forest Act introduced a completely new system of forestry financing from public funds. Its aim is to provide and increase non-market forest goods and services for the population, whereas as a rule it excludes direct support to market services such as timber production. The most important activities supported by the state include completion of the process of forest re-privatisation, improvement of the health status of forest ecosystems, protection of biodiversity, development of non-market forest goods and services, forest management in state forests, forest planning, forest education and research as well as extension services for small forest owners and support to the foundation of their associations.

In 1999 the Ministry of Agriculture worked out a document *Concept of Forest Policy for the Period Before Accession of the Czech Republic to the European Union*, integrating the goals of forest policy with the activities related to the country's preparations for the membership in EU. Furthermore, the work on a National Forest Program has started that will present general rules of forest policy to be used in practice.

Since the beginning of the 90's, the process of forest re-privatisation has been conducted in the Czech Republic. In the period from 1990 to 1999 the proportion of state forests decreased from approx. 96% to 63%, and the proportion of private owners increased from 0.1% to 23%. Nearly 13% of forests are under the municipal supervision.

The National Forest Program, which is the main document of forest policy in Slovenia, was passed by the Parliament of this country in 1996. The main goals of the policy include conservation and sustainable development of forests with regard to their biodiversity and all their ecological, social and production functions, environmental protection and improvement of living conditions in rural areas. The issues regarding forestry financing were included in a separate chapter of this document. It was assumed that forest owners were materially responsible for performing all the required work in their forests. As regards state forests, this obligation must be fulfilled by

the state, performing the required tasks through the Slovenian Fund of Land and Forests.

A detailed catalogue of activities subsidised or co-financed by the Treasury was included in the Forest Act passed in 1993. Under this Act the state budget was obliged to cover expenses on the public forestry service and to perform the work which is a part of its obligations, the planning work in protected forests and torrent areas in special-purpose forests, as well as to pay the compensation for constraints of property rights in forests declared as special-purpose forests and for the purchase of forests which the State declares to be protected forests or special-purpose forests. Furthermore, some activities requiring additional financing from the state budget were defined: silvicultural and protective measures and measures for maintaining the habitat of wildlife, forest nursery and plantation activities, research and development activities in forestry, reclamation and change in private forests, measures for fire protection of forests in the Karst region, building and maintenance of forest roads and restoration of forests damaged by fire and as a result of climatic damage to stands. Furthermore, forest owners with permanent residence in economically underdeveloped areas and areas bordering with Italy, Austria, Hungary and Croatia are entitled to extra co-financing from the state budget for carrying out some specific activities in their forests.

### **Institutional context of forestry financing**

In the Czech Republic the Forestry Department of Ministry of Agriculture supervises district and regional authorities methodically. Under the Act the main task of the Department is to directly manage the forest sector and to execute the duties of the central body of State administration in forest and game management. The tasks and decisions of the Ministry are carried out and supervised in practice by regional and district offices. District offices take decisions on landscape changes and planning and activities in the forests. Their competence also includes, among others, approval of forest management plans and supervision over compliance with the provisions of Forest Act, appointment and recalling of forestry service employees and collection and keeping of forest management records. Regional offices are responsible for implementation and supervision over the program of financial support to the forestry by the Ministry of Agriculture.

The financial means supporting the Czech forestry came from the state budget. In a few cases private forest companies providing services in forests received subsidies of investments from the Supporting and Guarantee Farmers' and Forestry Fund.

The Ministry of Environment supervises the forest sector in Estonia. The Forest Department of the Ministry coordinates the implementation of forest policy and evaluates its effectiveness. Its tasks also include preparation of new legal acts and cooperation of extension and support services for private forest owners. 15 County Environmental Departments introduce legal regulations and super-

vise the forestry management at the local level. They are responsible for the implementation of all policies related to the environment. Their authority includes, among others, data collection concerning natural resources, review and approval of forest notifications (declarations of forest owners regarding performance of specific activities in forests), management of forests that are in the process of privatisation until its completion and evaluation of the quality of forest regeneration.

Estonian forestry received support mainly from the state budget. Furthermore, in June 1995 the Parliament passed the Act on Forest Fund, determining the procedure of utilisation of forest revenues transferred to the state budget. The Act created the Forest Fund, with contributions coming from 18% income tax imposed on forestry, financing the expenses on management of state forests and covering the expenses on certain state's liabilities towards other forest owners. The Forest Fund financed silvicultural measures and investments in state forests, administrative costs of state forest districts and County Forestry Boards as well as forest research. Furthermore, the Fund supported the extension services in private forests. The Fund functioned till January 1999; however there is no available information about the value of financial support transferred through it.

Slovenia has a different organisational structure. The Ministry of Agriculture, Forestry and Food is the main institution responsible for the formulation of goals of forest policy and other policies related to the forestry management and preparation of legal acts related to the forestry. Slovenian Forest Service is the central institution for the implementation of forest policy, exerting a significant influence on its formulation. The Slovenian Forest Service includes organisational units at various levels of administration: one central unit, 14 regional units, 94 local units and 430 district units. The main tasks of Forest Service include preparation of programs and plans for protection of forests, investment programs, regional forest management plans and game management plans, planning the maintenance of forest roads and monitoring of their implementation and provision of extension services to forest owners.

The Ministry of Agriculture, Forestry and Food is the source of financing the Slovenian Forest Service and investments in forests. Furthermore, the Fund for Agricultural Land and Forests of the Republic of Slovenia is involved in financing of state forests. Its main task is to ensure the most effective management of state forests. The Fund concludes agreements with private forest entrepreneurs who perform services in state forests, however the supervision over their execution is vested in the Slovenian Forest Service.

A specific organisational structure of forestry management is in Poland. The State Forests National Forest Holding (PGL LP) manages the state-owned forests (about 95% of public forests in Poland). It is a state-owned organisational unit with no legal representation and represents the Treasury with respect to property management. The

Table 2. The value of funding from the public means to forestry in the Czech Republic, Estonia, Poland and Slovenia in the period of 1991–1999 (in mill €, 1999-values)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Czech Republic	70.3	30.1	37.1	33.5	32.2	41.1	22.0	27.4	27.4	321.3
Estonia	n.a.			0.02	0.1	0.1	0.4	0.4	0.7	1.8
Poland	n.a.	2.6	3.3	13.9	25.2	25.7	16.8	15.3	16.4	119.2
Slovenia	n.a.				14.4	14.7	16.3	17.2	19.1	81.7

n.a. – no data available

State Forests operate as a self-dependent economic entity. PGL LP consists of the General Directorate of the State Forests, 17 regional directorates of the State Forests and over 430 forest districts. The Minister of Environment (till 2001 – Minister of Environmental Protection, Natural Resources and Forestry) supervises the State Forests. The forests that are not state-owned are supervised by county governors and – in certain cases – heads of the regions.

Financial means supporting the forestry in Poland mainly come from the state budget. Some activities were also financed from other sources: National Fund for Environmental Protection and Water Management and regional funds for environmental protection and water management, utilising the financial means received from penalties and fees for the use of environment, PHARE Fund (afforestations) and loans from the World Bank. Furthermore, afforestations on private land are supported by the forest fund – an internal fund of the State Forests.

### Value of financial support

The value of funding from the public funds for forestry in individual years discussed in the studied countries is presented in Table 2, and graphically in Fig. 1.

The Czech forestry received the highest support from public funds – over € 321 million. Financing was unstable and differed significantly year-to-year. Since 1991 over 40 forestry support programs and measures have been implemented in the Czech Republic, which also puts this country at the first place among studied countries. The state

budget allocated the highest subsidies in 1991. The main goal of the support was the protection against air pollution and maintenance of their non-wood-producing functions. In the first half of the 90's the forests in the Czech Republic (similarly like in the case of Poland) were characterised by the worst health condition among European countries, caused mainly by the strong air pollution in this part of the Continent. In 1992–1995, in the period of the most significant ownership changes and adoption of new forestry legislation and financing system, support was addressed mainly to forest management in private forests and protection of forests and their non-wood-producing functions. Since 1996 the financing has been addressed mainly to execution of protective activities, improvement of forest stand quality, forest conservation, maintenance of the infrastructure in forests as well as to the preparation of forest management plans and extension services for private owners.

In the period from 1992 to 1999 the Polish forestry received an amount of approx. € 120 million. The funds were spent for the implementation of seven supporting programs and measures. The highest amount was allocated to the afforestation program and conversion of forest stands damaged by air pollution and fires. As in the case of the Czech Republic, the value of financial means varied between years, reaching the peak value in 1996.

The financial support to the Slovenian forestry increased gradually since the middle to the end of the 90's. In 1995 to 1999 the forestry of this country received subsidies in the amount of nearly € 82 million. It is a relatively very high value, bearing in mind the size of this country, the

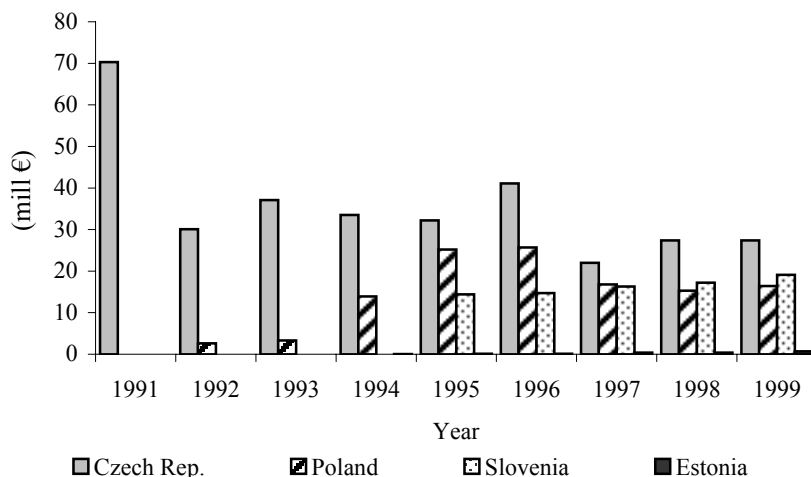


Fig. 1. The value of funding from the public means to forestry in the Czech Republic, Estonia, Poland and Slovenia in the period of 1991–1999 (1999-values)

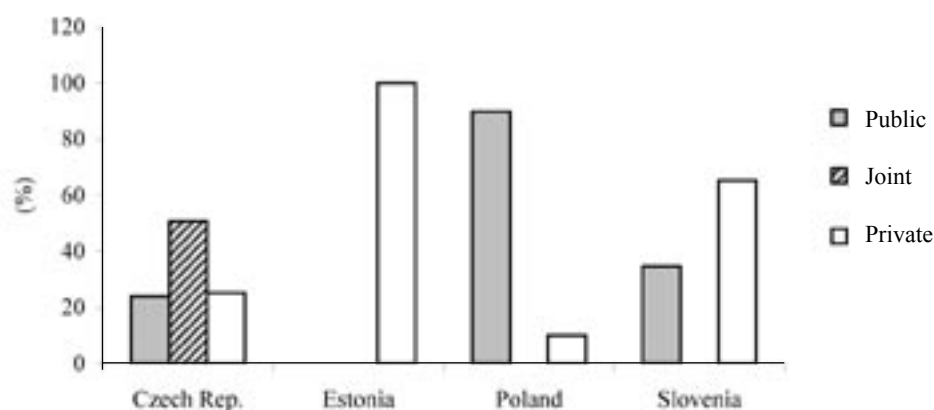


Fig. 2. Financing of forestry according to types of ownership in the Czech Republic, Estonia, Poland and Slovenia

area of forests and the length of the financing period. The subsidies were allocated mainly to the improvement of road infrastructure in forests, forest management planning and silvicultural planning as well as regulation of cutting volume (marking of trees for cutting).

The lowest amount of money was allocated to the forests in Estonia – only € 1.76 million. The support covered only private forests and mainly one measure – preparation of forest management plans. Only at the end of the decade the support was extended to nature conservation in the forests and extension services for private forest owners. There was a significant growth of allocated amounts from the state budget at the end of the 90's, which is connected with the advancement of the re-privatisation process and gradual growth of the area of private forests in the country.

In terms of forest area units, the highest support was provided to the Slovenian forestry (€ 14.72 annually per 1 ha of forest area, taking into account only those years in which the support was granted). The budget of the Czech Republic allocated just slightly less for supporting the forestry programs, i.e. € 13.55/ha/year. A significantly lower financing of forestry was observed in Poland (€ 1.68/ha/year) and in Estonia (€ 0.13/ha/year).

Fig. 2 presents the distribution of financial support between the forests of various types of ownerships in the studied countries. In Estonia the entire financing was

allocated to the supporting programs in private forests. This results from the opinion prevailing among forest wardens and politicians of this country that forestry must be a profitable sector of economy and must cover all the expenses from its revenues. The state support is limited, to a large degree, to the preparation of forest management plans for private owners who received the actual ownership titles in the 90's. The state budget also finances the cost of extension services for private forest owners. Both means are supposed to assist new owners in running the economically sustainable forestry management.

Private forest owners in Slovenia and in the Czech Republic received, directly or indirectly, 65.3 and 23.9% of support allocated to forestry in these countries, respectively. Furthermore, over 50% of financial means in the Czech Republic were designed for the implementation of joint programs – private and public. The lowest financial support was received by private owners in Poland – just 10% of all the funds allocated for supporting the forestry management, whereas the share of private forests in the total forest area in Poland is almost twice as high.

### Funded activities

In individual countries, different measures and activities were supported (Fig. 3 and Table 3). In the Czech

Table 3. Supported measures in the Czech Republic, Estonia, Poland and Slovenia in the period of 1991–1999 (in ths €, 1999-values)

	Czech Republic	Estonia	Poland	Slovenia
Planning	9,435.4	1,668.1	5,060.6	20,185.6
Afforestation and reforestation	36,716.8	0	61,470.7	3,297.8
Forest stand improvement	10,185.4	0	0	8,924.4
Forest protection	174,065.2	0	45,968.1	0
Forest conservation	20,201.4	55.8	2,230.1	3,041.3
Forest utilisation	0	0	0	15,007.8
Infrastructure	23,445.9	0	0	27,251.0
Extension services	10,678.1	33.0	3,073.6	3,446.9
Others	36,542.3	0	1,355.7	490.8
Total	321,270.5	1,756.9	119,158.8	81,645.6

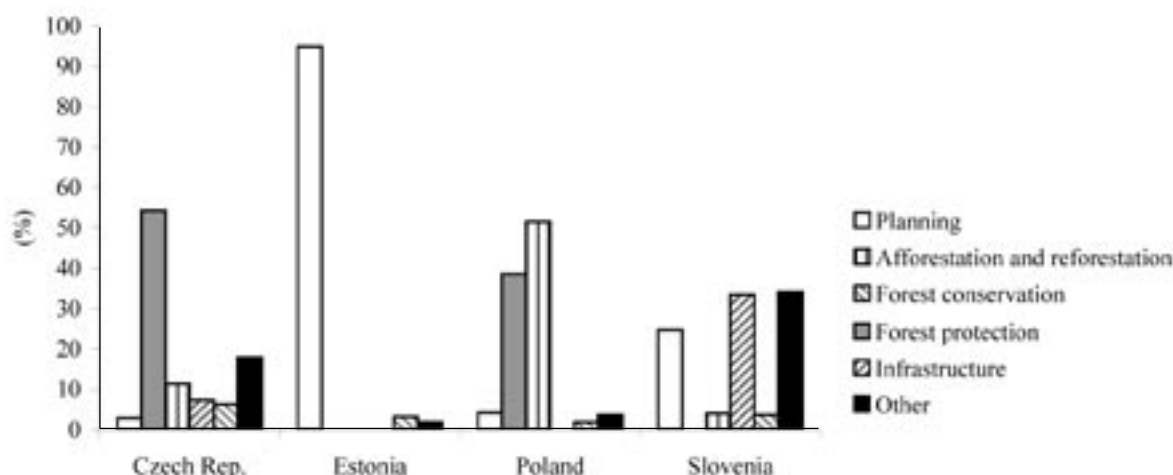


Fig. 3. Supported measures in the Czech Republic, Estonia, Poland and Slovenia

Republic, the majority of financial means (54.2%) was allocated to protective measures in the forests, mainly to the management and restitution of forests damaged by air pollution. Conversion of forest stands damaged by air pollution and fires also consumed a considerable part of subsidies in Poland (38.6%) although in this country the afforestation of agricultural lands was the top priority receiving 51.6% of the total financial support. Protective measures in Estonia have not been supported from public funds, and there are no data concerning the value of support allocated for this purpose in Slovenia.

The afforestation of agricultural lands, being the priority task in Poland, has not been realised at such a scale in any other country. Development of afforestation in Poland results mainly from a low level of forest coverage in this country (28.3%, the lowest level among the studied countries) as well as from a large area of agricultural land of poorer quality, the use of which turned out to be unprofitable in the new economic situation at the beginning of the 90's. The total area of over 115,500 ha of post-agricultural land was afforested in Poland in 1992–1999. In the second half of the 90's in the Czech Republic the afforestation was carried out on the area exceeding 2,200 ha of post-agricultural land, which consumed about 6.5% of all the financial support. Apart from afforestation of post-agricultural land, reforestation was also executed in the Czech Republic (4.9% of financial means). The natural and artificial forest regeneration was also supported in Slovenia (4.0% of the total funds).

The construction and maintenance of forest roads had the highest share in forestry financing from public funds in Slovenia (one third of all the funds). These activities are only co-financed by the central budget (covering about 35% of the total costs of execution of tasks), the remaining part is co-financed by the municipalities. Apart from Slovenia, the construction and maintenance of road infrastructure in the forests was financed in the Czech Republic, however the share in the total support was not significant and amounted to approx. 7%.

Only three measures – preparation of forest management plans, forest conservation and extension services – were financed in all four countries. A significant part of financial means in Estonia, nearly 95%, was allocated for management planning. The support was provided to the inventory of forest resources and preparation of forest management plans for private forests, the area of which is constantly growing as a result of re-privatisation. The forest management planning for private owners was also financed in Poland and in the Czech Republic, accounting for 4.2% and 2.9% of all the financial means allocated for the support to forestry, respectively. The situation in Slovenia seems to be specific in this context, and the support for this purpose reached the value of about one fourth of all the subsidies and was allocated both to the preparation of forest management plans (general plans) as well as silvicultural plans (operational plans) and covered private as well as public forests.

The nature conservation was the second measure supported in all the studied countries. In the Czech Republic over 6% of financial support was allocated to the protection of endangered populations of wild animal species. In Slovenia the conservation of wildlife habitats and management of wildlife populations in public and private forests consumed over 3.5% of subsidies from public funds, and in Estonia – over 3% (protection of key-habitats in private forests). In Poland the proportionally lowest support was allocated to the running of nature reserves and protection of endangered flora and fauna species in the State Forests – only 1.9% of the total value of financial support.

The extension services, covering mainly professional training and consultancy for private owners, were of the highest importance in Slovenia and in the Czech Republic, where 4.2% and 3.3% of the state support were allocated for this purpose, respectively. In Slovenia the support was granted for training of private forest owners. In the Czech Republic the scope of financing of activities was broader and covered the support to licensed forest professionals, assisting the owners in the proper forest management,

training and consulting. The extension services in Estonia included consultancy for forest owners, whereas in Poland, which is an exception here, apart from the typical technical consultancy for private forest owners (provided by the State Forests), also ecological education of the population was introduced through the establishment of educational centres and chambers as well as natural trails in the Forest Promotional Areas.

In all countries except for Estonia, the support measures specific for individual countries were implemented. In Poland they included the purchase of forests and lands for afforestation by the State Forests and ecological education of the population. In Slovenia, the forest nurseries and marking trees for cutting were subsidised in private and public forests (which is very important when clear cuttings are banned in the forests of this country). 18.4% of subsidies were allocated to the marking of trees for cutting with the participation of an expert from the Slovenian Forest Service, which is an obligatory action in all the forests. Therefore, it is the third measure – after construction and maintenance of forest roads and management and silvicultural planning – supported by the Slovenian budget. The torrent control was a typical measure in the Czech Republic (6.3% of all the means), as well as the development of environment and nature-friendly technologies of wood harvesting, investment support in private forests, support to military forests and grouping of small-size forest owners.

### **Tax concessions and exemptions**

Apart from the direct financing, the forestry of three out of the four studied countries received support in the form of tax concessions and exemptions. This form of forestry support was not adopted in Estonia only.

In Slovenia, the tax concessions were of minor importance as compared to the direct financial support. The owners of private land received agricultural tax exemption for the period of 20 years in the case of afforestation of agricultural lands. The owners whose income from the forestry decreased as a result of catastrophic events in their forests were also entitled to tax exemptions. The total value of tax exemptions in Slovenia amounted to about € 130,000, which was less than 0.2% of the total value of subsidies, whereas the value of tax exemptions resulting from the afforestation of agricultural land was of marginal importance.

Protective forests and special-purpose forests (22.3% of forest area) in the Czech Republic are exempted from the land tax. Furthermore, the owners of forests damaged by air-pollution are granted substantial concessions from this tax. The estimated value of tax concessions amounted to over € 24 million in the years 1993–1999, which accounted for about 7.5% of the value of subsidies received by the Czech forestry in the 90's. Furthermore, there are some minor tax concessions related to the forestry whose value is difficult to estimate. Most important concessions include road tax exemption for wheeled tractors and their trailers in forestry and reduced VAT on firewood.

In view of the above data, the situation of forestry in Poland is absolutely exceptional. Forest owners are obliged to pay the forest tax, being a type of income tax (based on potential income), the value of which depends on the main tree species in a forest stand and site fertility. Until 1996 the forest stands up to 40 years of age, forests within nature reserves, protective forests and forests listed in the register of natural monuments (the total of about 65% of all forests) were exempted from the forest tax. Starting from 1997 the tax exemption was maintained only in relation to the forest stands up to 40 years of age, whereas the remaining forests, so far covered by the tax exemption, have been covered by the tax concession amounting (per area unit) to about 65% of the value of normal forest tax, on average. The total value of forest tax concessions and exemptions in 1992–1999 amounted to about € 281 million, thus over 2.3 times more than the value of all funding.

### **CONCLUSIONS**

Social and economic changes, started at the turn of the 80's and 90's, initiated the creation of the new frameworks of forest policy, legislation, organisation, ownership transformations and formation of the systems of financial support to forestry in the countries of Central and Eastern Europe. The first half of the nineties was a period of the most significant changes in these areas, and systematic financing of forestry management and collection of information in this respect was generally started in the second half of the 90's. In all the countries, except for Slovenia, the financial support in the decade of the 90's was unstable and variable.

Subsidies were the most important among the instruments of support. Polish forestry is an exception here, where the value of tax exemptions and concessions in the forests not generating the income (young forest stands, protective forests, nature reserves) was significantly higher than the value of financial means allocated from the state budget and other public funds.

The supported activities reflected main problems and challenges facing the forestry management in individual countries. In the Czech Republic, due to the catastrophic health of forests in this country, the substantial support was designed for protection of forests and restitution of damaged forest stands. In Poland, the increase of forest area and utilisation of agricultural areas of poorest quality and – as in the case of neighbouring Czech Republic – restitution of forest stands damaged by air-pollution were the priority. The most important measures financed in Slovenia included the improvement of road infrastructure, management planning and silvicultural planning as well as support to the economically sustainable forestry management through marking of trees for cutting. The forestry in Estonia, which as a rule was supposed to generate income and ensure self-financing, received the relatively lowest subsidies allocated mainly to support the forest man-

agement of private forest owners, through management planning and professional consultancy.

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#### References

- CENČIČ L., ŠINKO M., 2003. Evaluating financing of forestry in Europe. Country-level report – Slovenia. [Manuscript.]
- KACZMAREK K., 2002. Financial Instruments in Polish Forest Policy. In: OTTITSCH A., TIKKANEN I., RIERA P. (eds.), Financial Instruments of Forest Policy. EFI Proc. No. 42: 159–166.
- KAIMRE P., 2002. Allocation of Public Funds in Estonian Forestry. In: OTTITSCH A., TIKKANEN I., RIERA P. (eds.), Financial Instruments of Forest Policy. EFI Proc. No. 42: 175–179.

- KAIMRE P., VALGEPEA M., 2003. Evaluating financing of forestry in Europe. Country-level report – Estonia. [Manuscript.]
- KALISZEWSKI A., GONZALEZ HERNANDEZ G., KACZMAREK K., 2003. Evaluating financing of forestry in Europe. Country-level report – Poland. [Manuscript.]
- ŠINKO M., 2002. (Post)-Transitional Financing of Forestry – The Case of Slovenia. In: OTTITSCH A., TIKKANEN I., RIERA P. (eds.), Financial Instruments of Forest Policy. EFI Proc. No. 42: 167–174.
- ŠIŠÁK L. et al., 2002. Evaluating financing of forestry in Europe. Country-level report – Czech Republic. [Manuscript.]
- ŠIŠÁK L., PULKRAK K., 2002. Nature and Structure of Financial Means Supporting for Forestry Sector in the Czech Republic – Instruments of the Czech State Forest Policy. In: OTTITSCH A., TIKKANEN I., RIERA P. (eds.), Financial Instruments of Forest Policy. EFI Proc. No. 42: 151–157.

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## Finanční podpory lesního hospodářství z veřejných zdrojů v České republice, Estonsku, Polsku a Slovinsku – politický kontext, organizace a podporované činnosti

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**ABSTRAKT:** Příspěvek se zabývá politickým, legislativním a organizačním kontextem a strukturou finančních podpor lesního hospodářství z veřejných zdrojů v České republice, Estonsku, Polsku a Slovinsku v devadesátých letech. V první polovině tohoto období docházelo k častým výrazným změnám. Stabilnější systém finančních podpor obecně vznikl ve druhé polovině devadesátých let. Podporované činnosti odrážely hlavní problémy, které bylo nutné řešit v lesním hospodářství jednotlivých zemí. V České republice byla výrazná podpora věnována ochranným opatřením v lesích postižených imisemi a restitučním procesům. V Polsku patřily mezi finančně podporované priority zvyšování výměry lesů a restituce lesů poškozených imisemi. Ze slovinského státního rozpočtu bylo podporováno zejména zkvalitnění cestní dopravní sítě, lesní hospodářské plánování, ale i vyznačování těžeb s cílem zajištění principů trvalosti. Estonské lesní hospodářství obdrželo nejnižší finanční podpory, které byly zaměřeny především na zpracování lesních hospodářských plánů a na vzdělávání. Dotace byly nejvýznamnějším ekonomickým nástrojem podpor. V Polsku byla ale hodnota daňových osvobození a úlev významně vyšší než hodnota dotací z veřejných zdrojů.

**Klíčová slova:** lesnická politika; finanční podpory z veřejných zdrojů; Česká republika; Estonsko; Polsko; Slovinsko

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