# Financing of forestry from public sources in the Czech Republic

## L. Šišák

Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague, Prague, Czech Republic

ABSTRACT: Financial means for multifunctional forestry activities come from different public sources, both national and international ones. There are several basic types of financial instruments used for the supporting of non-market forest services, both direct and indirect ones. Financial means should be accounted and treated separately by their different social and economic essence, as proper subsidies, compensations and payments for services. Financial means going to forestry are generally considered as subsidies in the Czech Republic (CR). But overall it can be stated that only a small part of the financial sources going to forestry via the Ministry of Agriculture is real subsidies. Out of the annual average of 657 million CZK of financial sources going to forestry through the mediation of the Ministry of Agriculture, indicated officially as subsidies, only 279 million CZK (42.5%) were real subsidies flowing into forestry in the period 2004–2009.

Keywords: forestry; financing conception; financial instruments; Czech Republic

Forestry is generally considered as an important multifunctional activity with economic, ecological and social impacts on the society, reproducing and securing both market and non-market forest services. Support of multifunctional forestry activities and especially financial aid comes from different public sources both national and international – especially from European Union (EU).

Under a multifunctional concept of forestry and forest management, the economic effectiveness of forestry based only on market timber production can be considerably affected by claims of intensification of non-market forest services. Forestry as a timber production activity can be restricted for different reasons to a great extent, but especially for an improvement of non-market forest environmental services.

It becomes more and more evident that forest market production (especially timber production) and occasionally other traditional forest market products will not be able to finance the increasing demand of the public for non-market forest services in particular countries. The supplying of such services usually enhances costs of production and reduces incomes from timber supplies. Therefore, forest owners and lessees have to look for other possibilities how to include traditional non-market forest products and services into the market frame (SISAK 2004).

An important role in the promotion of forest services can be played by conflicts of interests between different groups of stakeholders in the framework of society in particular countries. Concrete detail structures of financial instruments promoting nonmarket forest services can be different in the practice of particular countries (Kaliszewski 2004), having various forms, importance, intensity and efficiency. Nevertheless, generally, the principles of the instruments are very similar in different countries. The instruments are not very often independent but, in general, they are mutually linked, interrelated. Among many different types of instru-

Supported by the Ministry of Agriculture of the Czech Republic, Projects No. QH71296 and No. 92A197.

ments promoting non-market forest services, the greatest attention is focused above all on economic instruments and among them especially on financial instruments. The structure of multifunctional forestry financing was discussed by Schmithüsen et al. (2009) and by Schmithüsen (2004). Important analyses were performed dealing with problems of forestry financing from public sources, both national and international ones, in socio-economic conditions similar to the CR. In this case the following contributions can be cited by Šálka (2002), Kovalčík et al. (2010) and Kovalčík (2011a, b).

On the other hand, there is a lack of analyses dealing with the share of non-market forest services used by the population of the CR. Since 1994 regular annual analyses have been performed only in the areas of forest frequentation by the population of the CR, and of non-wood forest product collection and its socio-economic importance in the CR, using face to face interviews in representative samples (quota selection) of the CR population (Report ... 2009).

### MATERIAL AND METHODS

There are many basic financial instruments, both the direct and indirect ones, that are used for the promotion of multifunctional forestry. In the framework of the Czech Republic (CR) we can generally speak about the following tools: subsidies, compensations, tax concessions, soft loans, purchase of forestlands, purchase of forest services, ecolabelling, voluntary agreements, research grants, extension, consultant and advisory services, and information campaigns. Of them, the essence of subsidies, compensations and purchases of forest services has been analysed in greater detail.

The official documents considering generally the national, regional and also international budget funds for the forestry sector as subsidies into forestry were analysed. The investigation was based mainly on annual reports issued by the Ministry of Agriculture: Reports on the State of Forests and Forestry in the Czech Republic (2005, 2007, 2009). The cited reports were at disposal in the period of the analysis performed, covering the years 2004–2009.

The analysis is related to the respective institutional framework of the forestry sector and its development. The State forest administration consists of three levels – ministerial, regional and local. Ministerial and regional offices are especially responsible for implementing the financial contribution programmes.

#### **RESULTS**

Financing of forestry from public sources in the Czech Republic traditionally comes from numerous institutions and programmes. The system of forestry financing in the CR is rather complicated (SISAK, PULKRAB 2002; SISAK et al. 2002; SISAK, CHYTRY 2004; JARSKY 2005; SISAK 2007). Previous analyses accentuated the need to create a networked and simpler system of financing. However, the opposite is the case.

Currently, the way of forestry funding is inadequately organised because funds from regional and national authorities have not been integrated sufficiently with each other. Furthermore, there is no clear distinction between subsidies, compensations and payments for the benefits the forests provide. It is desirable that the compensations of economic loss caused by delivering of environmental services are clearly separated from the subsidies and accounted for separately. This would contribute to a substantially higher standard of decision-making on resource allocation and to a greater transparency of forestry funding, not only within the Czech Republic but also across the European Union (SISAK 2007). Financial means from public resources should be divided into:

- (a) **subsidies** from public budgets (donation, gift, contribution, support) paid by the society, by the public, its parts, communities, based on regulations and paid to forest owners and lessees for such multifunctional forest management that meets desired societal requirements; financial means that should have motivation effects but they are very often used instead of compensations and purchase of services.
  - The owners and lessees must ask for subsidies but they are not entitled to receive such finance, depending on additional circumstances. Forest owners are completely in an uneven, underprivileged position to the institutions paying for the provision of non-market forest services needed, demanded by the society and its parts (very often imposed by law and related regulations).
- (b) **compensations** (reimbursement for economic detriments) paid by the society, by the public, its parts, communities, based on payments for economic losses to forest owners and lessees, caused by forest management restrictions increasing expenses and reducing incomes, i.e. deteriorating the economic efficiency of timber production, caused by non-market requirements of the society (no donations, subsidies). The owners and lessees must ask for compensations and they are entitled to receive such

finance in accordance with respective regulations. Forest owners and lessees have a partially equal economic and political position to the institutions paying for the provision of nonmarket forest services needed, demanded by the society and its parts (very often imposed by law and related regulations).

(c) **purchase** of forest services paid by the society, by the public, its parts, communities, based on market nature payments for intensified environmental services provided by multifunctional forestry to the public (no donations, subsidies nor compensations). Forest owners and lessees are in an equal economic and political position with those paying for respective services.

Public budget finance going to forestry is traditionally perceived as subsidies but it is highly questionable to indicate all the mentioned funds as support, thus subsidies (gifts from taxes, from public budgets) from political and economic points of view both in the CR and in the international environment (EU).

The persons who receive such information can get an entirely unrealistic and biased conception of reality and as a result, they can react and make decisions in an inadequate way. The situation and trend of funds flowing into forestry over the recent years (the data is available from) can be seen in the following structure presented in Tables 1–3.

The government financial obligations (Table 1) considered generally and traditionally as subsidies do not represent in reality the financial support in terms of subsidies for owners, lessees, or forest managers. In fact, they are not any donations from public resources given to subjects in forestry by the society. They are not even compensations, i.e. payments for economic losses to those subjects that implement the particular works either by order or compulsion to satisfy public interest or for general welfare. The concern is completely different; they are regular payments for services required by the government because of public (governmental) interest. It is a purchase of services required by the State. Otherwise, these services would not and could not be normally implemented in the market economy. This cannot be ignored. We have to acknowledge the government (public) needs for such payments and allocate the given volumes of funds and services into relevant categories.

Services presented in Table 2 must be divided into two groups. The first item, aerial liming and fertilising in air-polluted areas, is carried out to restore site quality or site and production conditions impaired in forests as a result of anthropic activities, i.e. damage caused by domestic or international industrial pollution. The State has not been able to cover economic losses and damage caused

Table 1. Government financial obligations subject to the Forest Act (mil. CZK)\*

Activities	'						
	2004	2005	2006	2007	2008	2009	– Average
Soil reclamation and torrent control <sup>c</sup>	57	25	29	68	71	43	49
Licensed forest managers (consultants) <sup>c</sup>	127	132	139	147	152	160	143
Forest management guidelines <sup>c</sup>	19	19	23	24	20	23	21
Soil improving and stabilising species <sup>c</sup>	10	10	11	10	10	13	11
Total Services	213	186	202	249	253	239	224

<sup>&</sup>lt;sup>c</sup>purchase of forest services, \*1 CZK = 0.030-0.025 EUR

Table 2. Services provided by the government for forestry (mil. CZK)\*

Activities	Year						A
	2004	2005	2006	2007	2008	2009	– Average
Aerial liming and fertilising, polluted areas <sup>b</sup>	58	26	45	22	44	19	36
Aerial fire fighting service <sup>a</sup>	14	2	15	10	25	1	11
Large-scale measures for forest protection <sup>a</sup>	3	5	2	1	1	2	2
Consultancy <sup>a</sup>	8	22	23	23	21	33	22
Other services <sup>a</sup>	4	4	6	3	6	6	5
Total	87	59	91	59	97	61	76

 $<sup>^{</sup>a}$ subsidies,  $^{b}$ compensations,  $^{*}1$  CZK = 0.030–0.025 EUR

to owners by negative externalities of industry, not even per curiam. The State compensates a part of the detriments and damage in this way; however, quite insufficiently. Therefore, it is not right if the government administration claims that the forest owners are subsidized, financially supported, even presented with charitable gifts for the regulation of site and production conditions. The forests were damaged by industrial production and pollutants within the framework of society and government, and thus the damage must be righteously compensated.

The other three items (2–5) can be considered as subsidies, financial contributions donated by the government to help subjects in forestry. Nevertheless, they are not only pure subsidies focused on the reinforcement of the production function; they also follow to a great extent the societal desire to improve the quality of forests and all their nonmarket functions in the public interest.

Of the items listed in Table 3, item No.1 (Regeneration of forests damaged by air pollution) can be regarded as compensation, i.e. recovery for the detriment and damage caused to the forest owners by air pollution. It is a similar case like in Table 2, item No. 1, while items 2 and 7 (Table 3) can be considered as real subsidies, i.e. financial assistance to provide relevant activities, even though these activities are also connected with the needs of society as a whole, not just with the needs of the given subjects.

Items 3–6 can be described as the purchase of particular services required by society and the state administration. Comparing the available funds on the one hand and the real expenses on the other hand, we can say that in a number of items, the payments compared to really spent costs are quite insufficient. In this way, the government is trying to shift a substantial part of the expenses, which were imposed by the government, for the activities imple-

mented on its own behalf onto the shoulders of forest owners. It should be reiterated, these are not essentially subsidies, donations, contributions to someone for their own activities. Item No. 3 (grouping of the small-sized forest owners) is the current focus of the public administration; it simplifies bureaucracy and organization of the public forest administration and its financial demands and at the same time improves the quality of multifunctional forest management, which is a societal concern. Item No. 4 can be interpreted as the purchasing of services by the government because the public interest is the forest owner, manager or lessee using more lower-impact technologies, which are, however, less economically efficient than the conventional ones.

Items No. 5 and 6 represent typical purchases of services. The care of enumerated endangered species of wild animals and cost covering is considered as a subsidy while in reality it is a purchase of forest service produced by forest owners and lessees. As for item 6, the government administration traditionally tends to claim that the forest management plan is an instrument of the forest owner, manager or lessee who need it to manage their forest property (it truly might have been so long ago). Nevertheless, if it really currently worked in this way, then the government would not state that the owners are obliged to manage forests according to the forest management plan (Forest Act No. 289/1995). Furthermore, the government would not order that the relevant subjects are obliged to have the forest management plan elaborated by authorised companies to a predetermined level of quality and thus for a given price, that they need to have it approved by the state forest administration authorities and then adhere to it when managing their forest property.

In the Czech Republic's current socio-economic, cultural and legal environment the forest manage-

Table 3. State subsidies (aids) to forestry by purpose (mil. CZK)\*

Activities							
	2004	2005	2006	2007	2008	2009	– Average
Regeneration of air polluted forests <sup>b</sup>	24	27	16	2	11	10	15
Reforestation and tending of stands <sup>a</sup>	225	248	211	207	270	252	236
Grouping of small forest owners <sup>c</sup>	4	4	3	1	1	1	2
Ecological technologies <sup>c</sup>	26	31	28	30	36	31	30
Endangered species - wild animals <sup>c</sup>	3	4	4	14	12	10	8
Forest management plans <sup>c</sup>	65	70	50	64	55	73	63
Other subsidies <sup>a</sup>	5	3	5	3	2	2	3
Total	352	387	317	321	387	379	357

 $<sup>^{</sup>a}$ subsidies,  $^{b}$ compensations,  $^{c}$ purchase of forest services,  $^{*}1$  CZK = 0.030–0.025 EUR

ment plan is actually not only the owner's instrument but also it is above all an instrument of society and the state administration. Not only is it the administration's tool for ensuring that forest management is in accordance with the current views of politicians and relevant experts but also providing information required by the public administration (including information on the condition of the forests and the development of management with respect to society's needs).

Therefore, the public financial means financing partially forest management plans are not a subsidy in this case, it means they are not either government donation or compensation for a detriment, i.e. higher or extraordinary expenses accrued by the owner, lessee or forest manager in the market environment. In reality, these finances represent purchases of services by the government, especially the acquisition of the forest management plan as an instrument ensuring that the desired standard of forest management is carried out by the owners (according to the institutionalized opinion of public authorities), and they are also a purchase of information for the authorities.

Overall it can be stated that only a small part of the financial resources going to forestry via the Ministry of Agriculture is real subsidies. Out of the annual average of the values from the years 2004 to 2009 (Tables 1–3) amounting to 657 million CZK of financial resources going to forestry through the mediation of the Ministry of Agriculture indicated as subsidies, only 279 million CZK are real subsidies flowing into forestry itself, which is only 42.5% of the indicated funds - significantly less than the stated amount. And even these considerably constrained funds are not provided only to help the forest owners, lessees and forest managers assert themselves in the market but to motivate them to maintain the forests in desired condition, thus, in other words, to serve the public interest.

Out of financial means via the Ministry of Agriculture, there is other finance going to forestry from national and international sources within the Rural Development Programme of the Czech Republic for the Period 2007–2013. Also these programmes have similar conceptual problems like the above analysed programmes.

#### **CONCLUSIONS**

The analysis proves that the situation in forestry financing from public sources is rather confusing and difficult. A relatively large amount of titles and resources raises a presumption of significant provision of financial means for multifunctional forestry. However, these sums are very small in volume and their financial management is complicated and demanding in terms of organization, administration and finance.

Financing (or financial contributions) should be divided into the following categories: compensation for economic losses, purchase of particular services, and subsidies.

Distinction between subsidies, reimbursement and payments for multifunctional forestry is still vague, their clearer separation would contribute to a considerably higher level of decision making with regard to the distribution of resources as well as helping to make funding more transparent not only in the Czech Republic but also across the EU.

#### References

JARSKY V. (2005): Veřejné finance v lesním hospodářství. [Public Finances in Forestry.] Praha, Česká zemědělská univerzita v Praze: 140.

Kaliszewski A. (2004): Financing of forestry from public funds in the Czech Republic, Estonia, Poland and Slovenia – policy context, organisation and supported activities. Journal of Forest Science, *52*: 181–189.

Kovalčíκ M. (2011a): Profitability and competitiveness of forestry in European countries. Journal of Forest Science, *57*: 369–376

KOVALČÍK M. (2011b): Hodnotenie efektívnosti hospodárenia na lesnej pode. [Efficiency of forest land management.] Lesnícky časopis – Forestry Journal, *57*: 166–177.

Kovalčík M., Sarvašová Z., Moravčík M. (2010): Financovanie lesného hospodárstva vo vybraných európskych krajinách. [Financing of Forest Management in Chosen European Countries.] In: Financovanie 2010 Lesy – Drevo: International Scientific Conference 2010. Zvolen, 25. November 2010. Zvolen, Technical University of Zvolen [CD-ROM]: 11.

Report on the State of Forests and Forestry of the Czech Republic in 2005 (2005). Available at http://www.uhul.cz/zelenazprava/2005/zz2005.pdf (accessed July 22, 2012).

Report on the State of Forests and Forestry of the Czech Republic in 2007 (2007). Available at http://www.uhul.cz/zelenazprava/2007/zz2007.pdf (accessed July 22, 2012).

Report on the State of Forests and Forestry of the Czech Republic in 2009 (2009). Available at http://www.uhul.cz/zelenazprava/2009/zz2009.pdf (accessed July 22, 2012).

SISAK L. (2004): Promotion of forest environmental services. In: FAO/Czech Republic Forestry Policy Workshop. Trends in Forest Use and Conservation – Policy Options for Action. Turnov, 21.–26. March 2004. Available at http://www.fao.org/DOCREP/MEETING/007/AD744E/AD744E01. htm#P36\_27832 (accessed July 22, 2012).

- SISAK L. (2007): Analýza financování lesního hospodářství z veřejných zdrojů. [Analysis of forestry financing from public sources.] Zprávy lesnického výzkumu, 52: 265–271.
- SISAK L., CHYTRY M. (2004): Analysis financing of forestry in the Czech Republic in the period of transition to market economy. Journal of Forest Science, *50*: 78–85.
- ŠÁLKA J. (2002): Kooperationsbeziehungen im Fonds zur Förderung des Waldes der Slowakischen Republik. Allgemeine Forst- und Jagdzeitung, *173*: 123–131.
- SCHMITHÜSEN F. (2004): Role of land owners in new forest legislation. In: Legal Aspects of European Sustainable Development. Proceedings of the 5<sup>th</sup> International Symposium. Židlochovice, 29.–31. May 2003. Jíloviště-Strnady, VÚLHM: 45–56.
- SCHMITHÜSEN F., KAISER B., SCHMIDHAUSER A., MELLING-HOFF S., KAMMERHOFER A.W. (2009): Unternehmerisches

- Handeln in der Wald- und Holzwirtschaft Betriebswirtschaftliche Grundlagen und Managementprocesse. Gernsbach, Deutscher Betriebswirte-Verlag: 610.
- SISAK L., PULKRAB K., CHYTRY M., BLUDOVSKY Z., ZEMAN M., BROUKAL T., BUKACEK J. (2002): Evaluating Financing of Forestry in Europe Country-level Report. Praha, Česká zemědělská univerzita v Praze: 58.
- SISAK L., PULKRAB K. (2002): Nature and structure of financial means supporting the forestry sector in the Czech Republic Instruments of the Czech State Forest Policy. Proceedings 42. In: Ottitsch A., Tikkanen I., Riera P. (eds): Financial Instruments of Forest Policy. Rovaniemi, 17.–20. June 2001. Joensuu, European Forest Institute: 151–157.

Received for publication July 23, 2012 Accepted after corrections November 26, 2012

Corresponding author:

Prof. Ing. Luděk Šišák, CSc., Czech University of Life Sciences Prague, Faculty of Forestry and Wood Sciences, 165 21 Prague 6-Suchdol, Czech Republic

e-mail: sisak@fld.czu.cz