

## THE FOREST FUND AS AN INSTRUMENT FOR ADDRESSING BUDGET DEFICIT IN POLISH FOREST DISTRICTS

Sławomir Jerzy Snarski✉

ORCID: 0000-0002-9562-2608

Białystok University of Technology

Wiejska Street 45E, 15-351 Białystok, Poland

### ABSTRACT

**Motives:** The forest fund was established to ensure the financial stability of forest districts whose operations are financed by the State Forests National Forest Holding in Poland. However, the main role of the forest fund is to distribute funds from high-income forest districts to districts reporting a budget deficit.

**Aim:** The purpose of this paper was to analyse and evaluate the model of managing forest fund resources in view of the provisions of the applicable legal regulations.

**Results:** Between 2013 and 2020, the allocation of funds to forest districts reporting losses did not contribute to fair and rational distribution of resources, nor did it eliminate differences in the financial performance of forest districts operating under various environmental and economic conditions and implementing nature promotion and social education activities. The mechanism by which timber sales (operating costs that reduce profit) can be deducted from the forest fund raises serious doubt. Districts that benefit from such write-offs can program the amount of deductions in the forest fund. The above violates the principle of tax equality which states that tax laws should be applied in an identical manner to all taxpayers. A decrease in profits posted by forest districts reduces the central government's revenues in virtue of the taxes paid by the State Forests.

**Keywords:** forest districts, funding system, public forests, special purpose fund

### INTRODUCTION

The forest performs three basic functions, either naturally or as a result of human activity. First of all, the forest performs a protective function, which is closely related to the protection of the air (absorption of pollutants, including dust and carbon dioxide, and the production of oxygen), soil (limiting or stopping soil erosion) and water (regulating water conditions, creating an appropriate microclimate). Secondly, it has a production function, which consists in supplying

wood (the basic raw material, which is a renewable energy source) and undergrowth. Thirdly, it also has a social function, which consists in the fact that, on the one hand, the forest is a workplace, and on the other hand, it is a space for rest, recreation or sports for the vast majority of society (Paradowski, 2020). In the Forest Act of 28 September 1991 (Official Journal of Laws of 2020, Item 1463, as amended), the Polish legislator clearly emphasizes the leading role of the protective function of the forest (Ziemblicki, 2015). The concept of ecosystem services constitutes a more

✉ s.snarski@pb.edu.pl

anthropocentric approach to this issue. It distinguishes three categories of services that can be applied to forests: provisioning services (e.g. food, timber), regulating and supporting services (e.g. climate regulation, flood prevention), as well as cultural services (e.g. aesthetic, recreational, educational values) (Boćkowski & Rogowski, 2018).

Poland is one of the six Member States of the European Union (as well as Sweden, Finland, Spain, France and Germany) with the largest forest areas (Supreme Audit Office, 2021). As of 31 December 2020, the forest area in Poland is 9,260 thousand ha, placing forest cover at 29.6%. Public forests dominate the ownership structure of forests in Poland (80.7%) (Statistics Poland, 2021). The State Forests National Forest Holding (hereinafter referred to as ‘the State Forests’) is a state organizational unit without legal personality that manages forests owned by the State Treasury. The main task of the State Forests is to carry out sustainable forest management according to the principles of universal forest protection, sustainability of their maintenance, continuity and sustainable use of all the above indicated forest functions and enhancement of forest resources. It operates on the basis of financial independence and covers the costs of this activity from its own revenues (Szramka & Adamowicz, 2017). The main source of income for the State Forests is the sale of wood raw material from the forests entrusted to the management of the State Treasury (General Directorate of the State Forests, 2021).

One of the main principles governing the financial management of the State Forests is “the decentralisation of operations with the simultaneous centralisation of strategic decision-making” (Kuźma, 2018). Pursuant to Art. 35 of the Forest Act, local head foresters independently manage forests in forest divisions based on forest management plans and are responsible for the condition of forests. However, the natural and economic conditions of the activity of individual forest districts, including forest production, are extremely diverse and depend on such factors as: the area and range of forest complexes, the age and species structure

of stands, the share of protective forests, the area of stands excluded from harvesting (Wysocka-Fijorek, 2016). Due to the influence of these factors, forest districts managing in favourable conditions achieve a high level of profitability and can be economically independent, while units burdened with additional expenditure on the implementation of non-production functions are not able to generate funds that would enable the principle of self-financing to be maintained (Adamowicz et al., 2014).

In order to ensure the financial stability of forest districts within the financial system of the State Forests, the forest fund was established, which is primarily a mechanism for redistributing funds from high income forest districts to deficit units (Bieluk & Leśkiewicz, 2017; Piekutin & Gruchała, 2006). The state of the forest fund as on 31 December 2020 was PLN 731.5 million, which makes the problem of managing the funds of this financial instrument an issue of significant importance (General Directorate of the State Forests, 2021).

Considering the importance of the research problem indicated above and the fact that sustainable forest management carried out by the State Forests is significantly exceeding the annual accounting period, and the effects of management are largely determined by natural and economic factors (Wysocka-Fijorek, 2016), the aim of this article is an attempt to analyse and evaluate the management of forest fund resources allocated to the implementation of tasks specified in the Forest Act.

## LITERATURE REVIEW

Despite the importance of the issues related to the proper conduct of forest management in state-owned forests in Poland based on the resources of the forest fund, it has been a topic raised sporadically in the doctrine and has been limited almost exclusively to articles in Polish scientific journals. Moreover, the research contained therein was limited only to the scope of activities of individual organizational units of the State Forests (research based on the example of the Regional Directorate of the State Forests

in Wrocław – Adamowicz et al., 2014; research based on the example of the Regional Directorate of the State Forests in Radom – Piekutin, 2006) or to a period of one year (e.g. the research covered the year 2014 – Stebnicki, 2018). Thus, the current scientific studies relating to the matter being the subject of this article do not constitute an in-depth, exhaustive analysis of the subject matter mainly due to their fragmentary nature. On the other hand, in the case of research and analyses concerning long-term periods, it should be stated that the data on which they were based have lost their validity (e.g. they related to the years 2002–2010 – Dyduch, 2012). The analysis of the functioning of the forest fund included in this study, covering the years 2013–2020, is intended to allow for the identification and evaluation of trends in the management of this fund's resources based on the most up-to-date data possible, which may give rise to actions aimed at better use of the production and non-production functions of organization units of the State Forests.

## MATERIALS AND METHODS

Research on the theoretical considerations of the analysed problem was carried out on the basis of the literature relating to the research area and applicable law. In order to analyse legislation in the field under study, the formal-dogmatic method was used. The empirical research in the field of forest fund management in Poland, including in particular the structure of revenues and expenditures from this fund, was based on data from the annual financial and economic reports of the General Directorate of the State Forests, official statistical data, as well as post-audit information of the Supreme Audit Office. All relevant data relating to the subject of this article were presented for the whole country and not for a representative sample of state forest units. The time scope of the conducted research covered the years 2013–2020.

## RESULTS

In the Polish legal system it is possible to establish, under a separate act, a state special purpose fund, which is an organizational form of management of public finances, used to collect public funds from specific sources for the implementation of separate state tasks. It does not have legal personality, as it constitutes a separate bank account which is at the disposal of the body indicated in the founding act. The costs of the state special purpose fund may be covered only within the financial resources available, including current revenues, subsidies from the state budget and remnants of funds from previous periods (Szołno-Koguc, 2007). Thus, the direct implication of separating funds in the form of a special purpose fund is to ensure sources of financing for a specific area of state activity considered to be of particular importance (Dyduch, 2012). Taking into account the legal nature of the state special purpose fund, it should be stated that in this matter we are dealing with a departure from some general budgetary principles, in particular from the principle of material unity, which requires those involved not to bind specific budget revenues to strictly defined tasks financed from this budget, and from the principle of annuality, according to which the budget is drawn up and adopted for one year (Sadowska, 2015).

The activity of the State Forests and their organizational units is carried out on the basis of an economic account. As part of the management, the following activities are carried out: administrative, economic (in the field of forest management in forest districts) and additional – production and services for forest management, subject to corporate income tax if the expenses related to the production of goods or the provision of services as part of this activity are not higher than their purchase outside the State Forests. The revenues of the State Forests are the sum of revenues of their organizational units. In particular, the sources of revenues are: 1) sale of wood and forest by-products, agricultural, meadow and fishery products, materials, goods and unnecessary fixed assets, 2) leasing or renting of forests, land and other

real estate, including the leasing of hunting areas, 3) tourist and recreational development of forests, 4) monetary operations and 5) other sources. Forest districts transfer to the account of the General Directorate of the State Forests, determined annually by the Director General, part of the profit from additional activities (Danecka & Radecki, 2021).

In accordance with the provisions of the Public Finance Act of 27 August 2009 (Official Journal of Laws of 2021, Item 305, as amended), the forest fund has all the features of a special purpose fund (Bartniczak, 2009). It was established on the basis of the Forest Act as an integral element of the State Forests financial system. The resources of the forest fund not used in a given calendar year constitute the fund's income in the following calendar year. In Art. 57 (1) the aforementioned act also specified the sources of income for the forest fund. Resources of the forest fund constitute: 1) basic write-off calculated from the value of wood sales, charged to the operating costs of forest districts; 2) receivables resulting from damage: resulting from the impact of industrial gases and dusts, for premature tree felling and for damage caused by fires, mining and geological works; 3) penalties and fees related to the exclusion of forest land from production; 4) budget subsidies, with the exception of targeted subsidies from the state budget for tasks commissioned by the government

administration; 5) income from the sale of stocks and shares in companies; 6) other income earned on behalf of this fund (see Table 1). The general manager of the forest fund is the Director General of the State Forests (Bieluk & Leśkiewicz, 2017; Kuźma, 2018).

The data presented in Table 1 show that in 2013–2020 there was a significant increase in the revenues of the forest fund, i.e. from PLN 1,138.6 million in 2013 to PLN 1,687.3 million in 2018. The percentage share of revenues from the sale of wood in the total revenues of the State Forests was as follows: in 2013 – 86.9%, in 2014 – 88.7%, in 2015 – 87.9%, in 2016 – 88.6%, in 2017 – 88.6%, in 2018 – 87.5% and in 2019 – 87.2%. In 2020, the revenues from the sale of wood accounted for 87.7% of the total revenues of the State Forests (General Directorate of the State Forests, 2021). By far the most important source of the fund's revenues was the basic write-off calculated on the value of wood sales, charged to the costs of forest districts – in individual years of the analysed period it constituted from 66.5% (in 2019) to 85.1% (in 2014) of the forest fund's revenues overall.

The amount of this write-off, calculated as a percentage share in the revenues from the sale of wood planned for a given calendar year, was determined for the State Forests every year by a decision of the Minister of the Environment at the request of the Director General of the State

**Table 1.** Sources of revenues for the forest fund in 2013–2020

Sources of revenues for the forest fund	The amount of the forest fund's revenues (in PLN million)							
	2013	2014	2015	2016	2017	2018	2019	2020
Basic write-off calculated on the value of wood sales, charged to the costs of forest districts	913.1	1,026.9	1,039.0	1,040.5	1,147.7	1,270.5	1,113.1	1,053.4
Subsidiary forest fund income*	42.9	38.2	46.1	42.9	38.0	40.5	41.2	41.7
Penalties and fees related to the exclusion of forest land from production	114.1	119.0	138.8	103.1	254.3	274.8	144.6	137.6
Other revenues related to forests not owned by the State Treasury and national parks	6.2	6.0	4.4	4.5	4.5	3.9	3.2	0.9
Other revenues related to the State Forests	62.3	16.0	15.5	57.8	54.4	97.6	301.6	153.4
Income from the sale of stocks and shares in companies	0.0	0.0	0.0	0.0	71.4	0.0	0.0	0.0
Total	1,138.6	1,206.1	1,243.8	1,248.8	1,570.3	1,687.3	1,603.7	1,387.0

\* Financial resources related to the exclusion from the production of forests not owned by the State Treasury and forests under perpetual usufruct of national parks.

Source: own preparation based on the financial and economic reports of the State Forests for 2013–2020. Retrieved from: <https://www.lasy.gov.pl/pl/informacje/publikacje/informacje-statystyczne-i-raporty/sprawozdanie-finansowo-gospodarcze-pgl-lp>.

Forests (Danecka & Radecki, 2021). Furthermore, the Director General of the State Forests could determine the amount of the write-off for individual regional directorates of the State Forests, and the directors of regional directorates could determine the amount of the write-off for individual forest districts (Wysocka-Fijorek, 2016). In 2013–2020, the amount of the basic write-off determined by the Minister of the Environment for the State Forests as an organizational unit based on annual financial and economic plans ranged from 14% (in 2016, 2019 and 2020) to 14.87% (in 2018) of revenues from the sale of wood. The above clearly shows that despite the remarks of the Supreme Audit Office regarding the excessively high level of the basic write-off in 2005–2008 (i.e. at the level of 14% of revenues from the sale of wood) (Supreme Audit Office, 2009), in some years of the analysed period, the amount of this write-off increased further. Another important source of the forest fund's revenues were measures related to compensation for the negative impact of economic entities on the condition of forest resources, in particular, receivables, penalties and fees related to the exclusion of forest land from production, and receivables resulting from compensation for damages and premature felling of stands. The share of these revenues in the fund's total revenues in the analysed period ranged from 8.3% in 2016 to 16.3% in 2018. In turn, the income resulting from participation in companies was relatively insignificant in 2013–2020 compared to other sources of funding for the forest fund.

The primary purpose of the forest fund is to provide financial support to deficient forest districts which manage forests in unfavourable natural and economic conditions (Kuźma, 2018). The resources of the forest fund are allocated primarily to forest districts to compensate for deficiencies arising from the implementation of forest management tasks and tasks related to public administration in the field of forestry (Dyduch, 2016). Pursuant to Article 58 (2) of the Forest Act, the aforementioned resources can be used for: 1) joint ventures of organizational units of the State Forests, in particular in the field of forest management; 2) scientific research; 3) creating

infrastructure necessary for forest management; 4) preparation of forest management plans; 5) work related to the assessment and forecasting of the condition of forests and forest resources; 6) nature protection in forests carried out using forest management methods; 7) the use by the State Treasury of forests or land intended for afforestation; 8) organization of training in the field of estimating hunting damage; 9) other forest management tasks. The catalogue of purposes on which funds from the forest fund may be spent is therefore non-numerative. As a result, it allows financing a wide range of forest management tasks, as indicated in Table 2 (Danecka & Radecki, 2021).

The analysis of the data presented in Table 2 shows that, in addition to the redistribution of funds between forest districts, the forest fund was also used to finance the creation of infrastructure for forest management, preparation of forest management plans, and joint ventures of organizational units of the State Forests. In the analysed period the share of expenditure on the latter type of tasks in total expenditure increased significantly from 7.3% in 2015 to 10.5% in 2017. Joint ventures included, among others, construction of fixed assets in forest nurseries, pest control, flood removal and IT investments (Supreme Audit Office, 2015). A significant position among the expenditure from the forest fund was also occupied by scientific research (a decrease in expenditure from PLN 65.7 million in 2017 to PLN 31.9 million in 2020), tasks specified in art. 58 (3) and (3a) of the Forest Act (increase in expenditure from PLN 30.6 million in 2013 to PLN 61.3 million in 2017 and 2018), and other forest management tasks (increase in expenditure from PLN 5.7 thousand in 2016 to PLN 107 million in 2017). The remaining categories of expenditure presented in Table 2, i.e. work related to the assessment and forecasting of the condition of forests and forest resources, were significantly less important in the years 2013–2020.

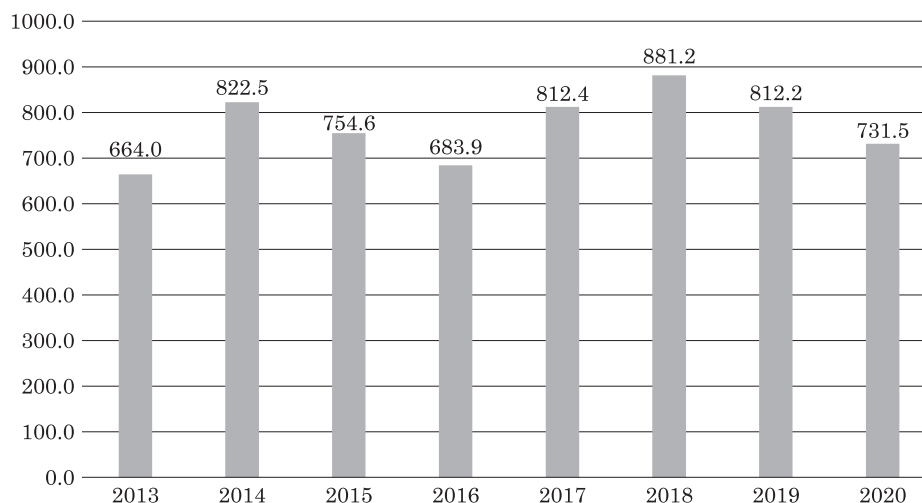
In the period covered by the research it was possible to observe the maintenance of a high level of unused resources of the forest fund at the end of each year, constituting the income of this fund

**Table 2.** The use of resources from the forest fund in 2013-2020

The use of resources from the forest fund	The amount of expenditure from the forest fund (in PLN million)							
	2013	2014	2015	2016	2017	2018	2019	2020
Compensation for the shortage of funds generated in the implementation of forest management tasks and tasks related to public administration in the field of forestry, including co-financing of special units	946.6	640.7	925.7	987.6	941.0	1,191.2	1,249.1	1,189.3
Creating infrastructure necessary for forest management	67.3	160.4	140.6	42.6	42.0	25.8	31.3	10.3
Joint ventures of organizational units of the State Forests	102.9	90.5	96.3	103.9	152.1	157.2	170.0	76.2
Co-financing of the tasks specified in Art. 58 (3) and (3a) of the Forest Act*	30.6	34.1	28.9	55.0	61.3	61.3	42.6	44.7
Preparation of forest management plans	61.2	68.6	70.4	74.7	72.7	71.2	69.8	65.0
Scientific research	42.9	45.0	42.1	50.0	65.7	52.9	44.6	31.9
Work related to the assessment and forecasting of the condition of forests and forest resources	0.8	1.0	1.3	0.0	0.0	0.0	0.0	0.0
Other forest management tasks	15.1	7.3	6.5	5.7	107.0	58.7	65.5	50.3
<b>Total</b>	<b>1,267.4</b>	<b>1,047.6</b>	<b>1,311.8</b>	<b>1,319.5</b>	<b>1,441.8</b>	<b>1,618.4</b>	<b>1,672.9</b>	<b>1,467.7</b>

\* penalties and fees related to the exclusion from production of forests not owned by the State Treasury and forests under perpetual usufruct of national parks intended, in particular, for afforestation of land not owned by the State Treasury, implementation of trees on land not owned by the State Treasury and other work related to the removal of the consequences of disasters and conducting management in non-state forests, as well as activities necessary for nature protection carried out using forest management methods.

Source: own preparation based on the financial and economic reports of the State Forests for 2013–2020. Available at <https://www.lasy.gov.pl/pl/informacje/publikacje/informacje-statystyczne-i-raporty/sprawozdanie-finansowo-gospodarcze-pgl-lp>.



**Fig. 1.** The amount of unused resources from the forestry fund in 2013–2020 (funds as of 31 December in million PLN)

Source: author's own study based on [www.stat.gov.pl](http://www.stat.gov.pl)

in the next calendar year (see Fig. 1). According to the information contained in the annual financial and economic reports, the net profit of the State Forests amounted to: PLN 305.0 million in 2013, PLN 421.7 million in 2014, PLN 382.2 million in 2015, PLN 404.0 million PLN in 2016, PLN 435.1 million in 2017, PLN 537.1 million in 2018, PLN 415.0 million in 2019 and PLN 487.6 million in 2020 (General Directorate of the State Forests, 2021). The main direction of spending the resources of the forest fund was the so-called gross subsidy for the activities of non-profit forest districts, which mainly indicates the economic purpose of creating this fund (Bartniczak, 2009). The share of expenditure on compensating for the shortage of funds arising from the implementation of forest management tasks and tasks related to public administration in the field of forestry in the total expenditure incurred from the forest fund ranged from 61.2% in 2014 to 75.7% in 2019. The amount of these funds was each time included in the financial and economic plans of the State Forests (Bieluk & Leśkiewicz, 2017).

In the Polish doctrine of forestry sciences, the principles of forest fund distribution raise doubts as to whether the method of their distribution is rational and fair, and whether it leads to an even development of forest districts throughout the country (Piekutin, 2006; Buraczewski, 2013; Adamowicz et al., 2014; Stebnicki, 2018). On the one hand, arguments are raised that the importance of the State Forests' tasks related to the preservation, protection and enhancement of forest resources is a justification for recognizing the specific nature of forest management, including its financial aspects, and the task of the forest fund – through the appropriate transfer of funds from income units to deficit units – so it is possible to implement the tasks resulting from the Forest Act in an even manner throughout the country (Buraczewski, 2013; Bieluk & Leśkiewicz, 2017). On the other hand, it is emphasized that among highly commercial forest districts with a positive forest fund balance, there is a conviction that the State Forests' organisational units with a negative balance operate at their expense. It is easier for forest districts to obtain subsidies from

the forest fund than to try to maximize the economic effects in other branches of activity or to reduce the administrative costs (Stebnicki, 2018). The amount of the write-off to the forest fund and gross subsidies for the activities of non-profit forest districts have a direct impact on the capital of forest districts and their financial result, which significantly affects the development of specific organizational units and the implementation of their natural, social and economic functions (Adamowicz et al., 2014).

It should be pointed out that the minister responsible for the environment, at the request of the Director General of the State Forests, by means of a decision, annually determines the amount of the basic write-off calculated from the value of timber sales for the State Forests, which is charged to the operating costs of forest districts. The Director General may determine the amount of the allowance for individual regional directorates, and the director of the regional directorate of the State Forests can do likewise for individual forest districts. The mechanism of determining the amount of the basic write-off, which is the cost of activity reducing profit, by entities potentially interested in its amount, raises serious doubts as to compliance with the principle of tax equality, which means the obligation to apply tax law in the same way to all taxpayers. This is because a reduction in profit means a simultaneous reduction in revenues to the state budget from taxes due paid by the State Forests. Therefore, neither the Director General, nor individual directors of the regional directorates of the State Forests should have any influence in determining the amount of the basic allowance or deciding on the amount of taxation of the activities carried out by their subordinate units of the State Forests.

The forest fund is an important instrument to compensate for the shortage of financial resources in the basic and administrative activities of forest districts where the costs of forestry activities exceed the revenues from this activity (Danecka & Radecki, 2021). As can be seen from the presented data, a forest fund is a financial instrument that supports the implementation of tasks related to both forest

production and non-production activities. It should be noted that some forest districts in which the revenues generated are not sufficient to cover the costs of the tasks specified in the Forest Act would not be able to conduct forest management without support from the fund in question (Buraczewski, 2013). However, permanent co-financing of deficit organizational units does not solve the problem of rational equalization of financial disproportions arising as a result of forest management in various economic and environmental conditions and the performance of natural and social functions (Stebnicki, 2018).

The research results showed that in the years 2013–2020 the financial situation of the forest fund was favourable and stable. The main source of its revenues was the obligatory basic write-off calculated on the value of wood sales, charged to the costs of forest districts. Financial resources from the forest fund were spent mainly on compensating for the shortage of funds arising from the implementation of forest management tasks in forest districts with unfavourable environmental and economic conditions for forest management (up to 75.7% of the total fund expenditure). It should also be mentioned that the statutory catalogue of tasks financed from the forest fund is open, which significantly hinders the assessment of the purposefulness of the expenses incurred under this fund, and therefore requires clarification.

Importantly, the above issue was the subject of an audit by the Supreme Audit Office for the years 2011–2013. The audit found that the State Forests did not calculate the actual shortages, and the previously transferred amounts of planned shortages were not settled, which was inconsistent with Art. 58 (1) of the Forest Act. As a result, deficiencies in the financial resources of forest districts were not equalized to the level of their actual size. In the opinion of the Supreme Audit Office, this led to a situation in which forest districts in which the actual deficits in the implementation of forest management tasks in 2011–2013 exceeded the planned amounts did not receive a subsidy from the forest fund for this purpose, for example in the Regional Directorate of State Forests

in Wrocław a total of PLN 5.8 million, the Kamienna Góra Forest District, despite the fact that in 2013 it achieved a negative result on forestry activities (PLN -1.8 million), it did not receive funds from the forest fund to compensate for shortages (Supreme Audit Office, 2015). Dyduch points out that the financial means from the forest fund accumulated in the bank accounts of the Directorate General of the State Forests had a significant impact on the high level of financial liquidity of the State Forests (Dyduch, 2012). The reason for the high level of unused resources of the forest fund at the end of each year, constituting the income of this fund in the next calendar year, as shown in Figure 1, could be the lack of an in-depth analysis of the actual demand for resources from the forest fund in order to determine the appropriate level of the basic write-off, determined by the Minister of the Environment at the request of the Director General of the State Forests, which resulted in its overstatement.

## CONCLUSIONS

The provisions of the Forest Act indicate both the sources of income for this fund and determine that this fund is a form of managing financial means for the purposes specified in the aforementioned legal act. In order to ensure the financial stability of the forest districts, the State Forests' financing system was based on covering operating costs from the generated revenues. The nature of the funds collected by the State Forests speaks in favour of spending at least some of them under the special-purpose fund, which is the forest fund. The administration of the resources of the forest fund is therefore subject to specific rigours, different from those applicable to other resources at the disposal of the State Forests. In particular, the principles of fund management ensure the possibility of the accumulation of unused funds in a given budgetary year and allocating them for the implementation of tasks in the following years. On the one hand, this ensures that the same tasks are financed from the funds accumulated in this



way, and on the other hand, it gives more flexibility in managing these funds.

The rules for the functioning of the forest fund have not been precisely defined in the Forest Act, which results in differentiation in the manner of its division (Stebnicki, 2018). In the analysed period of 2013–2020, the role of the forest fund was reduced primarily to the redistribution of funds from income forest districts to forest districts where the funds obtained from the sale of wood did not balance outlays on forest management. Although the application of such a mechanism allowed for the financial independence of the State Forests and contributed to the protection of forest resources in Poland, the main drawback of such a solution was the lack of stimulation of non-profit forest districts to increase the economic effects of their activities. Therefore, the functioning system of co-financing deficit forest districts did not ensure a fully rational form of covering financial shortages resulting from the diversification of forest management conditions. In addition, audits on the financial management of the State Forests carried out by the Supreme Audit Office revealed certain irregularities in the compensation of planned and not actual shortages in the implementation of forest management tasks and irregularities in the distribution of profit, disrupting the principles of financing the activities of forest districts in relation to the rules resulting from the law. In the analysed period of time, a high level of unused resources of the forest fund, constituting the fund's income in the following calendar year, was maintained at the end of each year.

Serious doubts are raised by the mechanism of determining the amount of the basic write-off of the fund from the sale of timber, which is a cost of activity reducing profit. Entities potentially interested in its amount have a direct impact on its level by programming the amount of the write-off to the forest fund, which violates the principle of tax equality that means the obligation to apply tax law in the same way to all taxpayers. The decrease in profit means a simultaneous decrease in the state budget revenues from taxes due paid by the State Forests.

Bearing in mind the data presented in this study, it should be stated that the financial resources of the forest fund should be collected and used to the extent necessary to perform the tasks specified in the Forest Act. However, the method of dividing the subsidy from this fund should encourage forest districts to increase their revenues from sustainable forest management.

## REFERENCES

- Adamowicz, K., Dyrzcz, A., & Szramka, H. (2014). Wpływ redystrybucji środków funduszu leśnego na rentowność nadleśnictw [Effect of redistribution of forestry fund financial resources on the economic profitability of the forest districts]. *Sylwan*, 158(7), 483–490. <https://doi.org/10.26202/sylwan.2014036>.
- Adamowicz, K., Dyrzcz, A., Szczypta, P., Zydrón, A., Michalski, K., & Szramka, H. (2017). Wpływ funduszu leśnego na wartość poszczególnych pozycji bilansu finansowego gospodarstwa leśnego [The effect of the forest special purpose fund on values of individual items in the balance sheet of a forest management unit], *Acta Scientiarum Polonorum. Silvarum Colendarum Ratio et Industria Lignaria*, 16(3), 157–164. <https://doi.org/10.17306/J.AFW.2017.3.15>.
- Bartniczak, B. (2009). Fundusz ochrony gruntów rolnych oraz fundusz leśny jako ekologiczne fundusze celowe [Agricultural land protection fund and forest fund as ecological funds], *Equilibrium*, 2(3), 89–97.
- Bieluk, J., & Leśkiewicz, K. (2017). *Ustawa o lasach. Komentarz [Forest Act. Legal commentary]*. Warsaw: Publishers C.H. Beck.
- Boćkowski, M., & Rogowski, W. (2018). Wycena usług ekosystemowych oraz ich zastosowanie w rachunku ekonomicznym – praktyczne przykłady w zarządzaniu zasobami przyrodniczymi [Valuation of Ecosystem Services and Their Application in Economic Calculation: Practical Examples of Managing Natural Resources]. *Studia i Prace Kolegium Zarządzania i Finansów*, 167, 37–64.
- Buraczewski, A. (2013). *Podstawy rachunkowości i gospodarki finansowej w Lasach Państwowych [Fundamentals of accounting and financial management in the State Forests]*. Poznań: Wydawnictwo Uniwersytetu Przyrodniczego w Poznaniu [University Publisher – Poznan University of Life Sciences].

- Danecka, D., & Radecki, W. (2021). *Ustawa o lasach. Komentarz [Forest Act. Legal commentary]*. Warsaw: Wolters Kluwer Polska.
- Dyduch, J. (2012). Analiza i ocena funkcjonowania Funduszu Leśnego w latach 2002–2010 [An Analysis and Assessment of the Functioning of the Forestry Fund in 2002–2010]. *Zeszyty Naukowe Polskiego Towarzystwa Ekonomicznego [Polish Economic Society Publisher]*, 13, 309–318.
- Dyduch, J. (2016). Wykorzystanie funduszu leśnego w ochronie zasobów naturalnych w Polsce [The use of the Forest Fund in the protection of natural resources in Poland]. *Ekonomia i Środowisko [Economics and Environment]*, 59(4), 76–86.
- General Directorate of the State Forests. (2021). *Sprawozdanie finansowo-gospodarcze za 2020 rok [Financial and economic report for 2020]*. Retrieved from: [https://www.lasy.gov.pl/pl/informacje/publikacje/informacje-statystyczne-i-raporty/sprawozdanie-finansowo-gospodarcze-pgl-lp/sprawozdanie-finansowo-gospodarcze-pgl-lp-za-2020-rok\\_.pdf/view](https://www.lasy.gov.pl/pl/informacje/publikacje/informacje-statystyczne-i-raporty/sprawozdanie-finansowo-gospodarcze-pgl-lp/sprawozdanie-finansowo-gospodarcze-pgl-lp-za-2020-rok_.pdf/view) (04.02.2022).
- Habuda, A., & Radecki, W. (2016). Zarządzanie lasami [Forest management]. In A. Habuda (Ed.). *Polskie prawo leśne [Polish forest law]* (pp. 263–292). Warsaw: Wydawnictwo Difin.
- Kropiewnicka, M., & Ostrowiecki, D. (2014). Zmiany w Lasach Państwowych. Analiza modelu gospodarki leśnej w Polsce [Changes in the State Forests. Analysis of the model of forest management in Poland]. In B. Rakoczy, M. Szalewska, & K. Karpus (Eds.). *Prawne aspekty gospodarowania zasobami środowiska. Korzystanie z zasobów środowiska [Legal aspects of managing environmental resources. Use of environmental resources]* (pp. 221–230). Toruń: Wydawnictwo TNOiK „Dom Organizatora”.
- Kuźma, M. (2018). Financial Management of State Forests National Forest Holding in Relation to Challenges of Sustainable Development of Forestry. *Optimum. Economic Studies*, 4(94), 87–95. <http://dx.doi.org/10.15290/oes.2018.04.94.08>.
- Maćkowiak, E. (2016). Finansowe podstawy działalności Państwowych Gospodarstw Leśnych Lasy Państwowe [The Financial Basis of the State Forests Activities]. *Problemy Zarządzania [Management Issues]*, 4(63), 113–122.
- Paradowski, Ł. (2020). Rozwój lasów prywatnych w zmieniających się uwarunkowaniach środowiskowych i gospodarczych [Development of private forests in changing environmental and economic conditions]. In W. Gil, P. Gołos, & M. Sułkowska (Eds.). *Międzynarodowa Konferencja “Lasy prywatne – szanse, problemy, rozwiązania” [Proceedings of International Conference “Private forests – opportunities, problems, solutions”]* (pp. 17–28). Sękocin Stary: Instytut Badawczy Leśnictwa.
- Piekutin, J. (2006). Analiza funkcjonowania funduszu leśnego w systemie finansowania Lasów Państwowych na przykładzie Regionalnej Dyrekcji Lasów Państwowych w Radomiu [The Analysis of Forestry Fund Role in the Financial System of State Forests on the Example of Regional Directorate of State Forests in Radom]. *Sylvan*, 150(6), 3–18. <https://doi.org/10.26202/sylvan.2005172>.
- Piekutin, J., & Gruchała, A. (2006). Miejsce i rola funduszu leśnego w systemie finansowym Lasów Państwowych [The role of the Forestry Fund in State Forests financial system]. *Sylvan*, 150(2), 37–45. <https://doi.org/10.26202/sylvan.2005102>.
- Sadowska, B. (2015). Rachunkowość w Państwowym Gospodarstwie Leśnym Lasy Państwowe [Accounting in the State Forests National Forest Holding]. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu [Research Papers of Wrocław University of Economics]*, 390, 215–226.
- State Forests National Forest Holding. (2021). *Raport o stanie lasów w Polsce 2020 [Report on the condition of forests in Poland 2020]*. Retrieved from: <https://www.lasy.gov.pl/pl/informacje/publikacje/informacje-statystyczne-i-raporty/raport-o-stanie-lasow/raport-o-lasach-2020.pdf/view> (04.02.2022).
- Statistics Poland. (2021). *Rocznik Statystyczny Leśnictwa 2020 [Statistical Yearbook of Forestry 2020]*. Retrieved from: <https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-statystyczny-lesnictwa-2021,13,4.html> (04.02.2022).
- Stebnicki, M. (2018). Rola funduszu leśnego w wyrównywaniu niedoborów finansowych w nadleśnictwach [The role of the forest fund in balancing the deficit of Forest Districts]. *Zarządzanie Publiczne [Public Governance]*, 1(43), 104–116. <https://doi.org/10.15678/ZP.2018.43.1.07>.
- Supreme Audit Office. (2009). *Informacja o wynikach kontroli gospodarowania środkami funduszu leśnego [Information on the results of the control of Forest Fund management]*. Retrieved from: <https://www.nik.gov.pl/plik/id,68,vp,68.pdf> (04.02.2022).

- Supreme Audit Office. (2015). *Gospodarka finansowa Lasów Państwowych* [Financial management of the State Forests]. Retrieved from: <https://www.nik.gov.pl/plik/id,9302,vp,11524.pdf> (04.02.2022).
- Supreme Audit Office. (2021). *Nadzór nad gospodarką leśną w lasach niestanowiących własności Skarbu Państwa* [Supervision over forest management in forests not owned by the State Treasury]. Retrieved from: <https://www.nik.gov.pl/plik/id,23687,vp,26423.pdf> (04.02.2022).
- Szołno-Koguc, J. (2004). Miejsce funduszy celowych w systemie finansów publicznych [Appropriated State funds in public finance system]. *Annales Universitatis Mariae Curie-Skłodowska. Sectio H, Oeconomia*, 38, 97–110.
- Szołno-Koguc, J. (2007). *Funkcjonowanie funduszy celowych w Polsce w świetle zasad racjonalnego gospodarowania środkami publicznymi* [Functioning of special purpose funds in Poland in the light of the principles of rational management of public funds]. Lublin: Wydawnictwo UMCS.
- Szramka, H., & Adamowicz, K. (2017). Kierunki modyfikacji statusu Lasów Państwowych w Polsce [Trends in modification of the status of the State Forests in Poland]. *Sylvan*, 161(5), 355–364. <https://doi.org/10.26202/sylvan.2016057>.
- Ustawa z dnia 27 sierpnia 2009 r. o finansach publicznych [Public Finance Act of August 27, 2009, Journal of Laws of 2021 item 305, as amended] (Poland).
- Ustawa z dnia 28 września 1991 r. o lasach [Forest Act of September 28, 1991, Journal of Laws of 2020 item 1463, as amended] (Poland).
- Wysocka-Fijorek, E. (2016). Analizy ekonomiczne w średniookresowym planowaniu leśnym [Economic Analysis in the Medium-Term Forest Planning]. *Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego w Warszawie. Problemy Rolnictwa Światowego* [Scientific Journal of Warsaw University of Life Sciences – SGGW. Problems of World Agriculture], 16(31), 382–392.
- Ziemblicki, M. (2015). Uwarunkowania prawne nadzoru nad lasami niestanowiącymi własności Skarbu Państwa [Legal conditions of supervision over private forests]. *Białostockie Studia Prawnicze* [Białystok Legal Studies], 18, 297–305.

