



Accounting and Taxation Issues Concerning the Activity of Forest Exploitation in Romania

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ABSTRACT

The activity of exploitation represents a main sector in the production process of the forest economy. This activity contains works of cropping, collection, transportation and processing of raw wood, by using production means, manuals and mechanized. The Romanian forest fund is managed by the National Department of Forests, by the forestry districts, public and private companies with legal personality, which draw up check balance, balance sheet and their own budget of incomes and expenses. The registering in accounting of the operations in the forest exploitation activity presents numerous features, given by the profile of this activity: specific documents, specific valuation and specific costs of processing. The Fiscal Code stipulates also special taxes for the forest exploitation activity, related to the fact that, there are exploited natural resources, and the activity has a major impact on the environment. In the other hand, the acquisitions and sellings of wood are placed under a special regime of taxation.

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1. Introduction

The importance of the forest in the community life is recognized from ancient times. Unfortunately, nowadays, its needs in a continue increase put in danger the existence of the forest, because of the irrational exploitation, especially of the wood resources, with bad effects on the environmental factors. The bad administration of forests, led in time to the decrease of Romanian forest fund (in the last 100 years, over than 1.35 millions of ha of forest have disappeared).

No matters the type of property, the administration of forests must be made unitary, durable and efficient, in order to ensure a continue regeneration of the forest resource because, a forest administered in a rational way has permanently functions of protection, ecological, social and productive. Otherwise, the importance of the forest is increased by its influence on the ground, climatic factors, hydrological regime, flora and fauna, but also, on the population health.

The forest ensures important economic resources as: raw wood, berries, mushrooms, game, herbs etc. Having an obvious economic importance, the activity of forest exploitation puts special issues in accounting and taxation area, as we will show in the present paper.

2. The forest fund and the forest exploitation in Romania

Being formed by the whole of forests, the Romanian forest fund lies in the public property of the state and administrative-territorial units, and also in the private property of legal and physical persons and administrative-territorial units. The forest fund is subjected to the forestry regime, being administered by technical, economic and legal rules.

The forests administration, no matters the type of property, but also the forestry services, are provided by the state forestry districts (which administrate forests from the public property of the state), and private forestry districts of public interest (set up by administrative-territorial units, but also, by associations of legal and physical persons, forest owners). The forest districts have legal personality, draw up check balance and balance sheet and also, their own yearly budget of incomes and expenses.

The forest owners have, according to the forestry regime, the following duties: (6)

- ◆ to ensure the drawing and application of forestry arrangement; this document is drawn up on 10 years by the forestry district, for each production unit, and represents the main document in the forest administration, having a content technical, administrative and economic, ecological founded;
- ◆ to ensure the safety of the forest fund;
- ◆ to make the works of forest regeneration, by the afforestations and care of the young trees;
- ◆ to make the works of prevention and control of forest diseases and pests;
- ◆ to ensure the compliance of prevention and firefighting;

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- ◆ to exploit the raw wood only with authorization and legal documents from the authorities;
- ◆ to ensure the maintenance and repair of the forestry roads which they have in administration;
- ◆ to delimit their forest property in accordance with the property document, and to announce the authorities, in the legal term, about the property selling.

According to their functions, the Romanian forests are divided in two types: forests with a special protection role, situated in the natural protected areas of national interest, and forest for production and protection (for the production of raw wood and other products, but also for the protection of quality of environmental factors). (1)

The forest products are: main products (wood material) and secondary products (berries, mushrooms, herbs), the latest knowing in the last years, a process of cropping and selling in a continue increase.

A main sector of the production process in the forest economy is the forest exploitation, which contains activities of forestry with technical and economic character, made in order to introduce in the economic circuit, the products obtained by the exploitation of wood resources. The resources of wood are cropped and sorted in types of raw wood, removed from the processing place and transported, in order to be delivered for industrialization or consumption.

The structure of the production process of the wood exploitation contains: main processes (cropping, collecting, transportation, manipulation and processing); secondary processes; serving processes and annexes processes. These works are realized with manual and mechanized tools.

Accounting of this sector follows and registers all the operations during the technological circuit of exploitation.

3. Forestry Statistics

The surface of Romanian forest fund measured, at the end of the year 2012, 6529 thousands of ha, representing 27.3% from the surface of the country, and the forests volume was estimated at 1340 millions of m³, representing 97.6% from the national forest fund.

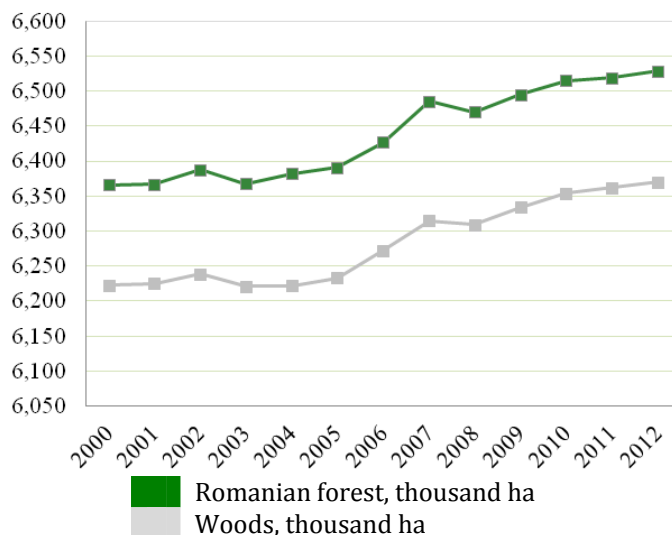


Fig. 1. The evolution of the Romanian forest fund in the period 2000-2012

Source: INS

The distribution of the forest fund is the following: 3245 thousands of ha in public property of the state; 1041 thousands of ha in public property of the administrative-territorial units; 2167 thousands of ha in private property of legal and physical persons, and 76 thousands of ha in private property of the administrative-territorial units.

The administration of the national forest fund is provided by 326 public forestry districts from the structure of the National Department of Forests "Romsilva", and by 140 private forestry districts.

The volume of raw wood resources which can be exploited, is established through the forestry arrangements, and the volume which can be yearly cropped, is calculated by dividing the volume which can be exploited, to the number of the years of validity stipulated in the forestry arrangement (the period is usually 10 years, without the forests from species with fast growing up, for which the arrangement is available 5 years).

Table 1. The volume of the raw wood yearly exploited

The volume of cuttings thousands of m ³	2000	2005	2006	2007	2008	2009	2010	2011	2012
	14,285	15,671	15,684	17,238	16,705	16,520	16,992	18,705	19,081

Source: INS

From the presented data, it's obvious the increase of the volume of exploited wood, reaching the record of 19 millions of m³ in the year 2012. From this quantity, ~3 millions of m³ are purchased by the Austrian company Schweighofer, which processes and exports wood.

According to a Greenpeace study, Romania loses 3 ha of forest each hour. From the analysis of the cuttings on types of trees, the conclusion is that, the most of them are included in the category of resinous trees (beech).

The forestations made in the period 2000-2011 reached thousand of ha, in the year 2011 being registered the biggest afforested surface, 13,539 ha. Instead, the surface of cuttings reached millions of ha, with the maximum of 1,650 thousands of ha in the year 2007.

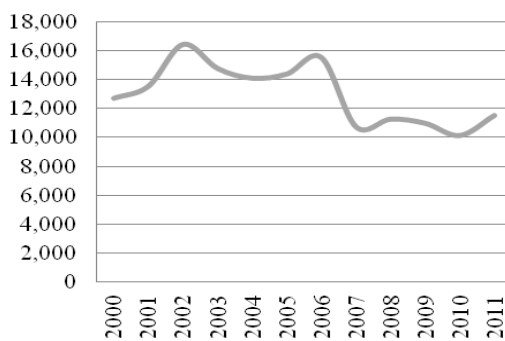


Fig. 2. The surface of forestations in the period 2000-2011 (ha)

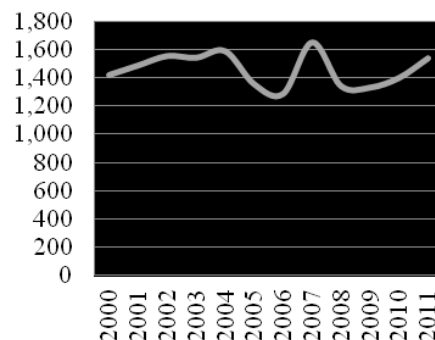


Fig. 3. The surface of cuttings in the period 2000-2012 (thousand ha)

Source: INS

Unfortunately, the illegal cuttings represent a very current subject. According to the information given by the Ministry of Environment and Romsilva, the total volume of illegal cuttings from the forest fund, in public and private property, in the period 2005-2011, reached 633,500 m³. Taking into consideration the fact that, the average volume of raw wood for one ha is 217 m³, the conclusion is that, in this period, the forest was illegally cleared on a surface of 291,932 ha.

Otherwise, the forest and the processing industry of forest products represent an important source of economic growth and ensure numerous jobs.

Analyzing the Romanian production of round wood in the period 2000-2012, the maximum of 16,943 thousands of m³ was reached in the year 2012, and the minimum of 12,559 thousands of m³ was reached in the year 2009. For timber, the trend was in decrease until 2007, followed by a gradual increase until 2012.

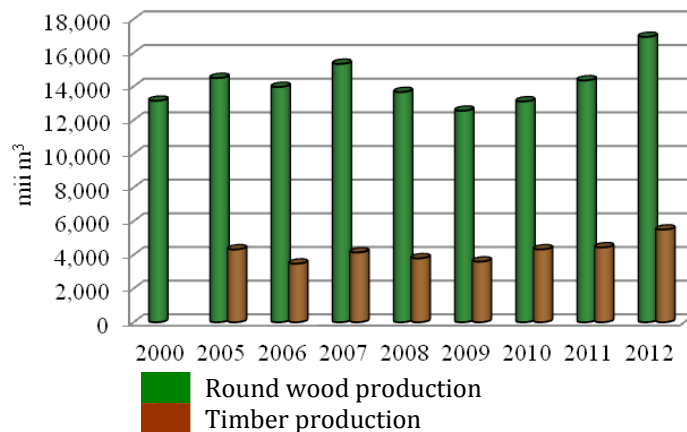


Fig. 4. The production of round wood and timber in the period 2000-2012)

Source: Eurostat

In terms of international trade with wood in the period 2008-2012, statistics show that the minimum volume of imports, 799,859 thousands of \$, was reached in the year 2010, instead, the exports value grew up considerable, reaching the maximum, 1,788,219 thousands of \$ in the year 2012.

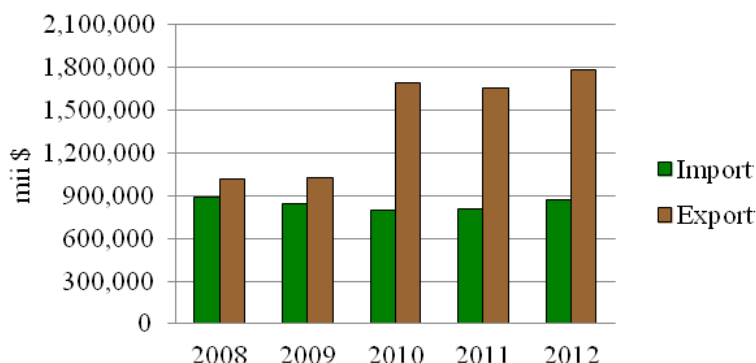


Fig. 5. Import/Export of Romanian forest products in the period 2008-2012
Source: FAO Forest Product 2012

Romania is situated in the top of the biggest importers of round wood from the category of conifers, occupying the 19th place in the year 2012. The most important suppliers are: Ukraine (614 thousands of m³), followed by Belarus and Germany.

In terms of exports, Romania has exported timber from the category of conifers in: UAE (305 thousands of m³, representing 12% from the total exports at this category), followed by Egypt, Japan and Saudi Arabia, and timber from the category of hardwood, in: Egypt (453 thousands of m³, representing 60% from the total exports at this category), followed by China (217 thousands of m³, representing 29% from the total exports at this category).

4. Accounting and Taxation Treatment

The activity of forest exploitation in Romania presents special features from the accounting and fiscal point of view.

a) Accounting features consist in: the auction and the guarantee deposited for the acquisition of the raw wood; the special documents of origin for the stocks of wood; the methods of valuation and registering for the wood at the entry moment (from companies or physical persons); the calculation of production costs for the processed wood (timber, pallets, planks etc) and also for the residual products (sawdust); the selling of forest products (to companies or physical persons) and the discharge after selling.

a1. The auction and the guarantee for the acquisition

The companies join the auction based on the conditions book, by depositing a guarantee in the supplier account. The guarantee is registered as a debt on short or long term.

The winner company signs the contract of acquisition with the seller, and receives the guarantee back. She has a term of 10 days to obtain the authorization for forest exploitation, if she doesn't have it, but, if she doesn't obtain the authorization, the auction is cancelled. She has the possibility of subcontracting the exploitation activity to a company which has the authorization, but only if this thing is stipulated in the conditions book and in the contract of acquisition.

The forestry district makes the schedule of payments, and gradually, verifies the way of developing the exploitation activity and the acquisition of the raw wood after exploitation.

a2. The accounting documents for registering

These documents are stipulated in the Standards concerning the wood circulation, and the control of circulation and installations for processing round wood, according to HG 427/2004, with the further amendments, and are the following:

- ◆ The Act of Putting in Value (AVP) is the primary document of origin for the raw wood resulted from the trees catalogued or marked by the forestry district, and authorized to be delivered for exploitation;
- ◆ The Register of Evidence for the Wood Materials is the secondary document of origin for the wood materials obtained from warehouses, assortment and processing centers, and markets authorized for trade with wood materials;
- ◆ The Bill of Selling is the secondary document of origin for the wood materials, when, at least one of the parts is physical person, and is used only when the seller is taxable person, exempted of VAT payment;
- ◆ The Fiscal Bill of Selling is the secondary document of origin for the wood materials, when, at least one of the parts is physical person, and is used only when the seller is taxable person, VAT payer;
- ◆ The Fiscal Invoice for Wood Materials is the secondary document of origin for the raw wood and wood materials, both of them being sold between two companies, and is used only when the seller is taxable person, VAT payer;

- ◆ The Invoice for Wood Materials is the secondary document of origin for the raw wood and wood materials sold between two companies, and is used only when the seller is taxable person, exempted of VAT payment;
- ◆ The Notice for Wood Materials is used both for sell and buy, together with the invoice or fiscal invoice for wood materials;
- ◆ The Cutting Report is used to reflect the activity of wood processing (for example, the production of pallets), and takes into consideration the percentages-standard of cutting (70% timber; 18% residual materials; 10% sawdust and 2% technological losses);

For selling the processed wood (finished products) to the client, it's used the ordinary invoice.

a3. The valuation of the raw wood at the entry moment

Calculating the acquisition cost for the wood, starts from the value of raw wood written in the Act of Putting in Value (APV), from which there are deduced the branches, the shell and the technological losses (considered at the standard percentage of 2%), and the result is the net value at which the entry is registered in accounting. For registering, it's used the account of raw materials at third parts. After cropping and transportation, it's registered the entry of raw materials, if the supplier is physical person. If the supplier is a VAT payer company, it's registered the entry of raw materials, and also the reverse charge, with the VAT simplification formula. In the case of imports from outside the EU, the acquisition cost is formed by the following elements: (8)

- ◆ the value of the wood from the external invoice, converted in the national currency available in the day when the Import Custom Statement is drawn up;
- ◆ the external transportation and insurance costs, converted in the national currency available in the day when the Import Custom Statement is drawn up, and included in the acquisition cost, depending on the INCOTERMS conditions (FOB, CAF, CIF etc);
- ◆ the custom tax and the custom commission, calculated at the total amount;

If the acquisition is made from inside EU (the suppliers are EU members), the import taxes and commissions are not applied, and also, the client must register the reverse charge with the VAT simplification formula.

4. The costs of processing

The result of the production process of wood consists in: finished products (timber, pallets, planks etc) and residual products (sawdust).The book-keeping of these products is made in separated analytics of stocks accounts, and the valuation is made at standard cost (fixed).

At the end of the month, when the production cost is known, there are calculated the differences between the standard cost and the production cost, and they are registered in accounting for entries and discharges. (7) The differences can be favorable (when the production cost is smaller than the standard cost), and unfavorable (when the production cost is bigger than the standard cost). In the first case they show an economy of expenses and are registered with "minus", and in the second case, a waste of expenses and are registered with "plus".

The discharges after selling are registered at standard cost, as the entries. At the end of the month, they are weighted with a repartition coefficient, calculated as a ratio between the cost differences and the stock value (calculating the coefficient, there are took into consideration the stock at the beginning of the month, and also the entries during the month of calculation).

The production cost of the forest products is formed depending on the direct and indirect expenses, made in order to obtain the production (the administration expenses are deduced directly from the profit).

In the category of direct expenses, there are included:

- ◆ expenses with raw wood, representing the acquisition cost of the consumed wood, calculated from the consumption notice and related to the consumption standards, at the weighted average cost, if there were many entries during the month (for example, for the pallets production, the consumption-standard of timber is $\sim 0.029 \text{ m}^3/\text{piece}$);
- ◆ expenses with nails and other materials, representing the acquisition cost of the consumed materials, calculated from the consumption notice and related to the consumption standards (for example, for the pallets production, the consumption-standard for nails is 0.35 kg/piece);
- ◆ expenses with the direct salaries, calculated depending on the tariffs for each operation (cutting, finishing etc);
- ◆ expenses with social contributions, afferent to the direct salaries (15.8% social insurances; 5.2% health insurances; 0.5% unemployment tax; 0.389% risk and professional diseases, this percentage being specific for the activity of forest exploitation ; 0.85% sick leave; 0.25% guarantee of debts concerning salaries).

In the category of indirect expenses, there are included:

- ◆ expenses with the amortization of forestry equipments, transportation means etc;
- ◆ expenses with the indirect salaries and the afferent social contributions;
- ◆ expenses with the transportation costs etc

The indirect expenses are distributed on the finished products depending on the processing stages, using coefficients of supplementation calculated with appropriate bases of distribution.

a5. The selling of the processed products

The selling of forest product in different processing stages is made using a selling price, bigger than the production cost, calculated by adding the producer margin.

If the client is a company, the invoice contains the mention "Reverse charge", but, with the conditions that the both companies must be VAT payers. In the case of selling residual products (sawdust), it's applied collected VAT 24%.

If the client is a physical person, now matters the type of the forest product which is sold, it's applied collected VAT 24%.

Selling forest products generates in accounting incomes from sell, making these companies taxable persons with the tax on incomes from exploitation of natural resources. (5)

In the case of exports, these operations are exempted of VAT payment, with the right of deduction. The sell price of the wood, written in the external invoice, is formed by the production cost and the producer margin. The selling operation is registered without collected VAT (the VAT share is "zero"). The exports are also exempted of custom taxes and commissions, in order to encourage this type of operations. The incomes from the selling are registered at the national currency, available in the day when the external invoice is drawn up. (8)

b) Taxation features consist in the fact that, the activity of forest exploitation has as subject the natural resources, with influences on the environmental factors. In the other hand, the acquisition and selling operations with wood are often affected by the phenomenon of fiscal evasion. As a result, the Fiscal Code stipulates, for these three aspects, specific taxes, but also, a special regime of taxation concerning VAT.

b1. The tax on income from the exploitation of natural resources

The tax is stipulated by OG 6/2013, being applied starting with 01.02.2013 (also for the wood resources exploited before 01.02.2013, but sold after this date). The legal share is 0.5%, and the taxation base is formed by the incomes obtained from the forest exploitation. It's paid by the companies which exploit wood, having an authorization in this respect. The term of payment to the State Budget is until 25 of the next month, after the month when the income was obtained, and the tax is managed by the Financial Territorial Authority, through the Statement 100 "Statement concerning the taxes due to the State Budget".

In this respect, there are necessary a good calculation of the production cost for the forest products, and an accurate identification of incomes.

- ◆ The companies which sell forest resources obtained by processing, and the products hadn't bear transformations (they weren't included in other products), must pay the tax of 0.5%, applied to the incomes obtained by selling these products.
- ◆ The companies which use the exploited forest resources as raw materials, in order to obtain other products, and the price of these resources is quotable at the Stock Exchange, must pay the tax of 0.5% for the part of the income obtained by selling the finished products, afferent to the value of the raw materials.

The formula for calculating the income obtained by selling the finished products, afferent to the value of raw materials, is the following:

$$VMP = QV \times K \times PM, \text{ with } K = \frac{QC}{QC + \Delta S}, \text{ where:}$$

QV=the total quantity of finished products sold during the calculation month (the similar wares purchased from other companies, are not included);

K=the average production coefficient;

PM=the arithmetic mean of the reference prices on types of forest resources, established by the authority depending on the international quote of these resources, available for the calculation month;

QC=the quantity of forest resources consumed in the production process, in the calculation month (the forest resources purchased from other companies, are not included);

QO=the total quantity of finished products, obtained in the calculation month;

ΔS =the net variation of the partial processed products registered in the calculation month (the quantity of partial processed products at the end of the month, minus the quantity of partial processed products at the beginning of the month).

- ◆ The companies which use the exploited forest resources as raw materials, in order to obtain other products, and the price of these resources is not quotable at the Stock Exchange, must pay the tax of 0.5% for the part of the income obtained by selling finished products, afferent to the accounting value of the forest resources, used in order to obtain the finished products which have been sold, value which includes also all the taxes paid for exploitation.

The part from the income obtained by selling the finishes products, afferent to the accounting value of the exploited forest resources, used in order to obtain the finished products which have been sold, is calculated with the formula:

$$\text{VMP} = \text{QV} \times \text{K} \times \text{CME}, \text{ with } \text{K} = \frac{\text{QC}}{\text{QO} + \Delta\text{S}}, \text{ where:}$$

QV=the total quantity of finished products, sold in the calculation month (the similar wares purchased from others companies, are not included);

K=the average production coefficient;

CME=the average exploitation cost of the forest resources, for the calculation month;

QC=the quantity of forest resources consumed in the production process, in the calculation month;

QO=the total quantity of finished products, obtained in the calculation month;

ΔS=the net variation of the partial processed products obtained in the calculation month (the quantity of partial processed products at the end of the month, minus the quantity of partial processed products at the beginning of the month).

The conclusions for the stipulations of the Fiscal Code are the following:

- ◆ the base of calculation for the tax, is the income obtained from the exploitation of the forest resources, only for the part of the income afferent to the own resources of the company, and not for the resources purchased from other companies, as raw materials or wares;
- ◆ if the company doesn't have activity of resources processing in a month, and she sells finished products from the stock, obtained in the previous period, in order to obtain the base of calculation for the tax, she must use the average coefficient of the last month when the processing activity took place.

The income tax is recognized in accounting as a company expense and also, as a liability to the State Budget.

b2. The environmental tax

This tax is stipulated by OUG 196/2005, modified by the Law 105/2006. The legal share it's 2%, and the taxation base is formed by the incomes obtained by selling raw wood and/or wood products.

It's paid by the forests administrators and owners, who obtain these incomes. The term of payment to the Environment Fund is until 25 of the next month, after the month when the incomes of selling were obtained.

According to OG 192/2014 concerning the calculation of taxes due to the Environmental Fund, companies are exempted of paying this tax for the following forest products: firewood; ornamental trees; Christmas trees; osier and young trees.

The environmental tax is recognized in accounting as a company expense, and also as a special fund, due to the Ministry of Environment, Watters and Forests.

b3. The reverse charge concerning VAT

The measure of VAT simplification was adopted in the year 2003, in order to prevent or, at least to decrease the phenomenon of fiscal evasion in the case of wood trade.

This measure is stipulated by the Law 571/2003 concerning the Fiscal Code, with the further amendments, the most recent of them being OG 16/2013.

According to the law, the trade with raw wood and wood materials is subjected to the regime of reverse charge, with the following conditions: the place of operations must be in Romania; both of the parts must be taxable persons, registered for VAT purposes in Romania; the trade must be included in the category of taxable operations.

The reverse charge is not applied in the case of exports and sells of raw wood and wood materials inside the EU, because these two types of operations are exempted of VAT payment with the right of deduction.

According to the Forestry Code, the raw wood includes the standing trees and/or felled trees, entire or parts of them, also those which are in different stages of transformation in the process of forest exploitation. The wood materials include: wood for work, round or chopped; firewood; timber; squared or carved wood; raw wood processed or partial processed.

From the accounting point of view, the reverse charge consists in the following aspects:

- ◆ The supplier must write in the selling invoice of forest products, the mention "Reverse charge", and he registers the debt and the income from selling, at the selling price, without calculating collected VAT.
- ◆ The client registers the liability and the entry of the wood material purchased, at the acquisition cost, and also the simplification formula (Deductible VAT=Collected VAT, with 24% at the acquisition cost).

Registering the collected VAT at the level of deductible VAT represents in fact, paying this tax to the supplier.

The acquisition (the supplier invoice) is registered by the client in the Register of Acquisitions and, in the VAT Statement are registered both, deductible VAT and collected VAT, this fact having "zero effect" on the VAT for payment calculation.

If the supplier didn't apply the reverse charge and drew up the selling invoice with collected VAT that means the client has registered the acquisition with deductible VAT, without collecting at the level of deductibility, and he has paid this tax to the supplier. After the fiscal inspection to the client, when these mistakes are discovered, the supplier can draw up invoices for correction (with minus), in order to adjust the

tax and pay it back to the client. The invoices for correction, drawn up by the supplier, are not included in the VAT Statement of the client.

5. Conclusions

The Romanian forest fund has known an important decrease in the last years, as a result of the irrational exploitation, and also of the illegal cuttings.

The activity of forest exploitation is in a continue development, providing jobs and economic growth, but, in the same time, represents a sector which puts permanently accounting and taxation problems.

From the accounting point of view, these problems consist in: the auction of the raw wood; the valuation of the raw wood at the entry moment; the calculation of the processing costs and the selling of the finished products to the clients.

From the taxation point of view, these problems consist in: the way to obtain the calculation base for the tax on the income from the forest resources exploitation and for the environmental tax, but also the operations which are included in the regime of reverse charge concerning VAT.

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