



**USAID**  
FROM THE AMERICAN PEOPLE

# **FOREST VALUATION**

ITS USE IN MONITORING THE PERFORMANCE OF A STATE  
FOREST MANAGEMENT ORGANIZATION

A REPORT FOR THE RS AUDITOR GENERAL

**15 July 2005**

This publication was produced for review by the United States Agency for International Development. It was prepared by:

**Emerging Markets Group, Inc.**

**USAID Bosnia & Herzegovina Cluster Competitiveness Activity**

**John Cantrill**

# CONTENTS

<b>1.</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
1.1	Valuation methods and purpose.....	1
1.2	Accounting practice of state forest management organizations.....	1
1.3	Usefulness of forest valuation for performance monitoring.....	1
1.4	Monitoring performance of a state forest management service .....	2
1.5	Recommendations for the Republika Srpske .....	2
<b>2.</b>	<b>BACKGROUND .....</b>	<b>2</b>
2.1	Purposes and methods of forest valuation.....	3
2.2	Valuation for sale or lease.....	3
2.3	Valuation for showing financial performance and financial position .....	3
2.4	Valuation to show the economic value of forest resources .....	3
2.5	General limitations of forest valuation methods .....	4
<b>3.</b>	<b>ACCOUNTING PRACTICES OF STATE FOREST MANAGEMENT ORGANIZATIONS .....</b>	<b>4</b>
3.1	Examples of current practice.....	4
3.1.1	Forest Enterprise England.....	5
3.1.2	Forests New South Wales.....	5
3.1.3	Coillte .....	6
3.1.4	US Forest Service .....	6
3.1.5	Österreichische Bundesforste AG (ÖBf AG) .....	6
3.2	Comment on current practice.....	6
3.3	Usefulness of forest valuation for assessing performance.....	7
<b>4.</b>	<b>ASSESSING THE PERFORMANCE OF STATE FOREST MANAGEMENT ORGANIZATIONS .....</b>	<b>8</b>
<b>5.</b>	<b>WHAT IS APPROPRIATE FOR THE REPUBLIKA SRPSKE AND SRPSKE SUME?.....</b>	<b>10</b>
5.1	Independent voluntary certification.....	11
5.2	Data requirements for monitoring the performance of Srpske Sume .....	11
5.3	Compatibility with other current developments in the Republika Srpske.....	11

<b>GLOSSARY</b>	
Carbon sequestration	The absorption of Carbon by plants
Company	An organization with the legal status of company (or firm) according to the law of the relevant country.
Cost of capital	The cost to an organization of having the use of the capital (money) it needs to operate
Economic value	The value of an asset in terms of its contribution to the economy (of a country or region), which may include the value of products and services which are not traded.
Financial value	The value of an asset in money terms excluding, for example, its aesthetic value
Forest	An area of land, substantially covered with trees, as defined by the law of the relevant country.
Forests	Plural of forest
Government department	An administrative part of a government, usually within a Ministry.
Net Present Value	The value today of future revenues and costs, after discounting at an appropriate rate of interest, which rate is usually an organization's cost of capital. Used to assess the value of an asset or to compare alternative investments.
Non-departmental public body	An organization funded by government and within "the public sector" but outside the main structures and departments of government.
Performance measurement	A generic activity: the measurement or estimation of the performance of an organization, in financial, operational, environmental or social terms.
Performance measure	Noun, singular: a measure of the performance of an organization
Public Enterprise	As defined in the RS Law on Public Enterprises
State forest management organization	An organization which is responsible for the management of state-owned forests
Steward	A person or organization providing stewardship
Stewardship	The careful and responsible management of something entrusted to one's care (often used about a natural resource, such as forest or land)

## **1. EXECUTIVE SUMMARY**

This note has been prepared for the RS Auditor General, following his request for advice on valuation of forests and performance measurement of forest management organizations.

### **1.1 Valuation methods and purpose**

There are three main reasons for preparing a valuation of forests:

- To establish a fair price for sale or lease
- To report financial performance / position of forest management organizations
- To show the economic value of the products and services which forests provide

There are four commonly used methods for valuing forests:

- Historic costs of establishment and maintenance
- Compounded costs of establishment and maintenance
- Net Present Value (NPV) – the discounted value today of future revenues and costs
- Open market value

Care is needed in selecting the method of valuation. The method chosen to value forests should suit the reason for preparing the valuation and the type of forests being valued. All valuation methods require good, detailed data about the forests. All valuation methods except the “historic cost” method require some assumptions: they are not completely objective. The “open market” method requires an active, efficient market in forests which only exists in some countries – and not in BiH.

### **1.2 Accounting practice of state forest management organizations**

The accounting practice used by other state forest management services regarding valuation of forests varies considerably: there is no internationally accepted “best practice”. Precise ownership of state forests varies from country to country. Accounting practice depends on ownership, the status of the management organization, the laws of the country, forest policy, governmental accounting policy and convention.

Examples are given of the accounting practice of 5 state forest management services, to illustrate the range of practice. Of these, the most directly comparable to Srpske Sume are:

- Forests New South Wales (Australia) – is a Public Trading Enterprise. It owns some but not all the forests it manages and does include the value of forests in its balance sheet.
- Österreichische Bundesforste AG (ÖBf AG) – is a public limited company. It does not own the forests it manages and for that reason does not include their value in accounts.

As there is not an “international best practice” for treatment of forest valuation, the RS can develop its own practice. This should suit its own policy, legislation and circumstances, subject to adoption of the principles required for transparency and accountability.

### **1.3 Usefulness of forest valuation for performance monitoring**

Even for organizations which do value their forests for accounting purposes, forest valuation is not commonly used for short term performance monitoring. The reasons for this include:

- Some valuation methods are only suitable for (man-made) plantation forests. (Very little of the RS forest is plantation.)
- Valuation methods which use market prices for estimating revenues are subject to distortion because of fluctuation caused by seasonality, economic cycles, etc.

- Valuation is heavily dependent on the quality of forest inventory data. Preparing forest inventory data is expensive and time consuming, especially in natural forest.

Overall, forest valuation is not an exact science: in the short term, the confidence limits on the valuation may be wider than the actual change in value from one year to the next.

## **1.4 Monitoring performance of a state forest management service**

Most (OECD) state forest management organizations report on and are monitored against two groups of performance measures:

- the quality of the organization's stewardship of the state forests
- the organization's efficiency

State forest management organizations have developed specific indicators for each measure of performance. (Examples are given.) The measures and indicators should suit the policy objectives and resources of the country and the type of forests.

Measures can be developed to monitor the integrity and transparency of an organization. However, unless the "Board" and executives of the organization want to ensure legality and integrity of operation, such measures would have to be applied by external audit.

## **1.5 Recommendations for the Republika Srpske**

It is unlikely that a valuation of forests can contribute significantly to monitoring the short and medium term (up to 5 years) performance of Srpske Sume (or a successor organization). A valuation may be a useful part of more transparency to reduce corruption. The data necessary for valuation of Srpske Sume forests are not currently available in a suitable form.

Government should develop a range of performance measures for the organization, linked to forest policy. As an interim measure, in the absence of a forest policy, some sensible assumptions about policy can be made.

All such performance measures require good quality data about the forests: this does not currently exist. Thus Government should give extra resources and effort to ensuring that the proposed forest inventory is implemented quickly and effectively. The inventory methodology should take account of the requirements for performance monitoring.

Independent voluntary certification may have a part to play in the effective monitoring of Srpske Sume. At least it creates the requirement for much greater transparency and for investigation and assessment by an independent organization.

The development and application of performance measures for Srpske Sume should be coordinated with:

- Current work within the Forest Development and Conservation Project on implementation of current laws, pricing / sales of timber and funding of forestry
- The development of the statutes etc for the proposed new organization "RS Sume"
- Current and new legislation, on forestry, companies and on public enterprises

## **2. BACKGROUND**

This note has been prepared by the USAID CCA project for the Auditor General of the Republika Srpske in response to his request for advice on the valuation of forest assets and on performance measurement of state forest management companies. The purpose of the note is to provide the Auditor General with information and recommendations from which his office can draw for its forthcoming report of the 2003 audit of Srpske Suma.

## **2.1 Purposes and methods of forest valuation**

There are three main purposes for valuing forests:

- to establish a fair price for the outright sale of a forest or a fair rent when leasing a forest;
- to report financial performance and financial position in the accounts of companies (and other types of body that own and manage forest assets) and to monitor financial performance and financial position over time;
- to show the economic value of forest assets to a country, including the contribution of each product and service to the total economic value, and to monitor changes in that economic value.

## **2.2 Valuation for sale or lease**

Valuation for the purpose of sale or lease can be done using 'open market value' or 'existing use value' (see Annex 1) by comparison with prices paid for similar forests. If there is not a well established market for forests or the number of transactions is too low to be able to determine market value with reasonable certainty, it is common to use "Net Present Value" (calculated by discounting future income and expenditure using an appropriate rate of interest) as an alternative.

Any projection of income and expenditure involves many assumptions. In calculations of Net Present Value, the assumptions that are made about the future growth of the forest and the future prices for forest goods and services are particularly important. The choice of discount rate is also very important because a small difference in the rate can have a large effect on the Present Value.

## **2.3 Valuation for showing financial performance and financial position**

The International Accounting Standards allow the use of two methods for valuing forests in company accounts. The first involves valuing the land and the trees separately with the trees valued as 'unfinished goods'. The second method is "open market value". Both methods have their disadvantages, which are described later in this note.

There is no internationally accepted 'best practice method' for valuing forests for inclusion in the balance sheet of a state forest management organization. Some such organizations do not show the value of the assets in their accounts. Organizations that do show the value use different methods. These include:

- historic cost of establishing and maintaining the forests to the present day;
- capitalized cost of establishing and maintaining the forests to the present day;
- net present value, calculated by estimating future revenues and costs and discounting their value to the present day;
- the open market value or existing use value of the forest.

The first two of these methods are only suitable for application to "man-made" plantation forests, where the costs of establishment have been recorded, and are not suitable for application to natural forests.

Examples of the current valuation practice of some state forest management organizations are given later in this note.

## **2.4 Valuation to show the economic value of forest resources**

In general terms, the value of forest resources to a country is the economic value of all the products and services that the forests provide to the people of that country. In economic valuation, traded goods and services (for example timber and secondary forest products) and

non-traded goods and services (for example the flood prevention and soil erosion prevention 'services' provided by forests) are assigned their true economic value.

However, calculation of economic value is not yet an exact science: there is not an internationally agreed "best practice method" for calculating the economic value of forests. Some of the areas of discussion include the location of beneficiaries, market prices, and prices for services which are not traded. For example, the economic value of flood prevention by a forest in one country may be received by people in another country. In OECD countries, timber is generally traded in an unrestricted market and the price established by the market can be accepted as the economic value. In some countries, timber may be traded at prices set by the government, rather than by a free market. In less developed countries, it often happens that state forest management companies provide fuel wood to rural households at discounted prices or free of charge because of the social policy of the country; the value used as the economic value could be the market value, or if there is not a well established market it could be the price of the energy equivalent of gas or electricity. Valuing non-traded goods and services, such as flood prevention or fishery protection can be complicated: methodologies have been developed for the different types of goods and services that flow from forests but all have limitations.

## **2.5 General limitations of forest valuation methods**

There are a number of factors which limit the potential use of forest valuation, which make valuations less accurate or which reduce the ease with which an accurate valuation can be calculated. As a result, the value placed on a forest can frequently be contentious. Some of these generic limitations are as follows:

- In order to be accurate and meaningful, all valuation methods require accurate, up to date, data about the forest, including area, species mix, growth, product assortment, etc.
- All valuation methods, except an actual sale in a free-market, require the use of some assumptions: other stakeholders may not agree that the assumptions used are appropriate. Different assumptions may give very different values. All valuation methods which depend on estimates of future revenues and costs may be challenged. There is usually some subjectivity in the choice of discount or compound rate of interest.
- The valuation method which is least likely to be challenged is open-market valuation. However, this method requires an active and efficient market in forests, with enough transactions to avoid possible distortion by a small number of non-typical transactions. Such a market only exists in some countries.

Other more specific limitations of valuation methods are mentioned later.

## **3. ACCOUNTING PRACTICES OF STATE FOREST MANAGEMENT ORGANIZATIONS**

The accounting practices of state forest management organizations depend on the status of the organization (whether company, government department, or "non-departmental public body"), the laws of the country in question and the policy of the country.

### **3.1 Examples of current practice**

This section summarizes the accounting practices of the organizations that manage the state forests of England, the Australian State of New South Wales, the Republic of Ireland, the USA and Austria. Of these, the organization that is most similar to Srpske Suma in terms of its relationship to the government, the scope of its activities and its rights over the forests that it manages is the Austrian state forest management organization, Österreichische Bundesforste AG (ÖBf AG)

### 3.1.1 Forest Enterprise England

Forest Enterprise England is the “non-departmental public body” that manages the state-owned forests in England. The organization is part of the Forestry Commission of Great Britain, which is the government body responsible for ensuring the sustainable management of state and private forests. Forest Enterprise England does not have a separate legal personality from the Forestry Commission. Although it not established as a company, Forest Enterprise England operates as one, generating income from the sale of standing timber, harvesting and sale of felled timber and from hunting, recreation and other services. Ownership of the forest land and buildings managed by Forest Enterprise England rests with the Minister responsible for Forestry. Ownership of standing and cut trees and other tangible fixed assets is vested in the Forestry Commission.

The value of the forests managed by Forest Enterprise England is shown in the organization’s balance sheet as a single figure; the values of the land and the trees standing on the land are not separated in the balance sheet. Forests managed by Forest Enterprise England are considered to be forest for all time; that is to say, it is presumed that they will always be managed as forest, therefore the land, trees and other assets supported by the land and trees (for example secondary wildlife) are inseparable from each other.

The forests are valued at “existing use” value (See Appendix 1 for a definition). Full valuations at forest district level (equivalent to Srpske Suma’s ‘forest estates’) are made every five years taking account of species mix, age, growth rate and other relevant factors. In intervening years the organization obtains an expert professional opinion on the value (there is no forest value index that can be used as a basis for annual revaluations).

Forest Enterprise England does not report the rate of return on capital employed, though it would be possible to do so using the data reported in its annual accounts. It reports against two main financial performance measures that are set annually by the Minister: operating profit and cash deficit.

### 3.1.2 Forests New South Wales

Forests New South Wales is the body that manages the state forests of the Australian State of New South Wales. The organization is established as a Public Trading Enterprise<sup>1</sup> within the New South Wales Department of Primary Industries. The Enterprise prepares annual financial statements that include the value of the forests that it manages and an annual report that shows, among other measures, the value of the forest estate and the rate of return on assets including the forest estate in the year under report and the previous four years.

Land and timber are valued separately. Land is valued at existing use value. Trees are valued in different ways according to whether the forest is planted forest or natural forest and to the age of the trees (and thus whether they have any commercial value).

- Plantation timber:
  - ‘commercial plantations’ (ie plantations for which a market value can be readily determined for the timber, ie all plantations older than 15 years and plantations between 12 and 15 years in which at least one commercial operation has been carried out) ‘net market value’ derived from standing volumes and current prices less the direct cost of production.
  - ‘non-commercial plantations’ – the capitalized costs of establishment, protection and maintenance.
- Native forest timber: net market value derived from standing volumes and current prices less direct costs of production. Only the standing volume available in a single harvest cycle is valued.

---

<sup>1</sup> A specific legal status of organization, probably equivalent to a Public Enterprise under RS law.

### 3.1.3 Coillte

Coillte is the organization that manages the state forests of the Republic of Ireland. Coillte is established as a state-owned limited company. The company's shareholders are the Minister for Finance and the Minister for Agriculture, Food and Rural Development, who own the shares on behalf of the Irish State.

Coillte owns the forests which it manages. Coillte's annual financial statements include the value of the forests owned. Forests are valued at the historical cost of purchasing the land and of establishing and maintaining the trees on the land. If new forests are created they are reflected in the balance sheet at cost. When an existing stand is felled, the historical cost of establishment, protection and maintenance is charged to the profit and loss account. When a stand is regenerated after felling, the regenerated stand is reflected in the balance sheet at cost. Increases in value due to natural growth are not reflected in the statutory accounts though they are stated in notes to the accounts.

In its annual report the company does not highlight rate of return on assets, though the information presented in the annual financial statements would enable it to do so. It highlights, among other things, turnover, profit and capital expenditure.

### 3.1.4 US Forest Service

The US Forest Service is the "non departmental public body" that manages the more than 75 million hectares of state forest land in the USA. The agency does not show the value of the forests that it manages in its annual financial statements.

The US Government considers the state-owned forests to belong to, and be set aside and managed for the benefit of US citizens. The assets have a value to US citizens as environmental resources, recreation and attractive landscape, culture and heritage and wilderness, as well as the commodities and revenue they provide to the Federal Government, States and Counties. The US Government considers these values to be literally priceless, meaning that it is not possible to establish a price for them.

### 3.1.5 Österreichische Bundesforste AG (ÖBf AG)

ÖBf AG is the company that manages the state forests of Austria. The company is established as a limited company with all shares held by the Government on behalf of the Austrian State. ÖBf AG does not show the value of the forests that it manages in its annual financial statements.

ÖBf has the right to manage the Austrian state forests but does not own them. Therefore, ÖBf does not include the asset in its accounts as a matter of principle. This is in contrast to the accounting practice of Forest Enterprise England, which includes in its accounts the value of the forests that it manages, even though it does not own the forests.

## **3.2 Comment on current practice**

From the examples above it can be seen that:

- The precise legal ownership of state forests varies from country to country
- There is not a consistent practice regarding the valuation of forests amongst these countries
- Even amongst countries which have the comparable ownership and management arrangements, practice regarding use of a valuation of forests is not consistent.

As there is not an "international best practice" for treatment of forest valuation, the Republika Srpske can develop its own practice on this matter, to suit its own policy, legislation and circumstances, subject also to adoption of the principles required for transparency and accountability.

Before developing such a practice, it is essential to assess whether or not the use of a forest valuation can be helpful in monitoring the performance of Republika Srpske.

### 3.3 Usefulness of forest valuation for assessing performance

As the examples in the previous section show, some state forest management organizations do include in their accounts the value of the forests that they manage and they apply different methods for determining the value. However, the utility of including the value of the forest is questionable. The reasons are the following.

- Including the value of the forest in the balance sheet of state forest management organizations does not show the true financial position of the company.

The position reflected in the balance sheet presupposes that the assets could be sold to cancel the liabilities of the organization. There are a number of problems with this presumption:

If the organization does not own the asset, that organization is not legally in a position to liquidate the asset. The sale could only be made with the authority of the person in whom ownership rests on behalf of the state. If that person is a Minister with the power to dispose of state forest without reference to any other person, it may be possible to proceed with the sale without hindrance, depending on whether Parliament and members of the public decided to oppose the sale. If the law of the country reserves the power to sell state forests to the Parliament, it is likely that a sale would run into political problems.

Where ownership of the asset and of the management organization is in the same hands (for example OBF, US Forest Service, Forests New South Wales) any proposal to sell part or all of the asset would become a political matter. Depending on the importance that the people of the country attach to state ownership of the asset, any proposal could be blocked as a result of public opposition.

Where the management organization owns the asset (for example Coillte), this means that the asset is owned at the same time by the government (because the government owns the management organization) and a proposal to dispose of any part of the asset could run into the same problems as in the previous case.

Another potential complication is that the value of the forest dominates the balance sheet; for example, Coillte's balance sheet for 2003-04 shows 1,271,000,000 Euros of tangible assets of which 1,206,000,000 Euros is forest. Small percentage errors in the estimation of the value of the asset can have a large effect on the difference between stated value and actual value.

- Change over time in the stated financial value of the forest is not a helpful performance measure.

It might be supposed that one useful measure of a state forest management organization's performance would be changes in the value of the forest. An increase in the value of the forests would demonstrate that the organization is acting as a good steward. If the value decreases, the organization could be identified as acting irresponsibly.

Not all of the methods used by state forest management organizations to determine the financial value of the forests that they manage are appropriate to the task of monitoring changes in financial value. The historic cost and capitalized cost methods show in different ways the investment that has been made in establishing the forest and do not give a true picture of present financial value. Market values determined by reference to transactions in forest assets are difficult to assess accurately; the confidence limits around the value are so wide that it would not be possible to say with certainty whether the market value has increased or decreased.

The most appropriate method of assessing the changes in financial value is to calculate the net present value of the forest. However, as already noted, calculating net present value requires assumptions to be made about future forest growth and harvest levels, product prices and the investments that need to be made in forest regeneration, protection and maintenance. The calculation is particularly sensitive to the assumptions made about forest growth (and therefore harvest) and product prices, and to the discount rate.

Accurate predictions of forest growth require accurate data on the species, age and growth rates of the trees in the forest (obtained by inventory) and accurate models of the future growth of the trees and of the volume and quality of the products that can be produced from them at the time of harvest. Inventory needs to be repeated at regular intervals. There is no problem here in theory but carrying out regular inventory requires a commitment of resources that may not be guaranteed. If there is not reliable inventory data on which to base a valuation, as is the case in the Republika Srpske, monitoring cannot begin until an inventory has been carried out. Thus, monitoring of the financial value of the forests managed by Srpske Suma probably could not start for two years, which is the time that would be needed to carry out inventory and determine the net present value of the forests.

Generally when the net present value approach is applied, current market prices are used for products that will be harvested in the next 1 to 5 years and an assumption about what the market will pay for products harvested in later years; but what to assume? If current prices appear low compared to historical prices, it might be thought appropriate to assume that prices in the long term will rise. If current prices are high compared to historical prices, it might be thought appropriate to assume that prices in the long term will fall. The question is of academic interest only because the price of products harvested in the future should be determined by the market, not by the forest manager and therefore changes in the financial value of the forest are not an appropriate way of measuring the performance of forest management companies.

The fact that state forest management organizations include the value of forests in the annual accounts is more a reflection of government accounting policy and practice than of utility. In those countries whose state forest management organizations do include the value of forests in their accounts, the organization, the owner of the organization, the owner of the forest and the people served by the forests pay little or no regard to the information. The questions that are of most interest to the Parliament, Government and the people are not answered by showing the financial value of state forests in the accounts of the management organization.

#### **4. ASSESSING THE PERFORMANCE OF STATE FOREST MANAGEMENT ORGANIZATIONS**

All of the state forest management organizations given as examples in this note report on a range of performance measures, whether or not they report the value of the forests in the financial statements. The performance measures address two groups of questions:

- The first group of questions concerns the organization's stewardship of the state forests, whether the organization is taking good care of the forests; in other words, will the forests continue to be healthy and to provide the tradable and non-tradable goods and services (to subsequent generations) for which they are valued?
- The second group of questions concerns the organization's efficiency: whether it is extracting, or allowing other persons to extract, from the forest the maximum value consistent with sustainable use; whether the organization is raising as much revenue for the state budget consistent with sustainable use; and whether it is organized efficiently and carries out its activities in an efficient way.

The performance measures that are chosen in the first group depend on the importance that the country attaches to the various goods and services that the forests provide. Usually they are linked to the objectives of the national forest policy of the country. Examples are given in Table 1 below. The performance measures chosen for natural forests are likely to be different from those chosen for plantations, and those for special purpose and protection forests may be different from those chosen for forest that is not categorized. The same measure may be used to assess performance against different objectives.

**Table 1: Example performance measures for assessing stewardship over state forests**

<b>Forest attribute / policy objective</b>	<b>Example measures</b>
All attributes	Total economic value (but note the difficulties with estimating total economic value mentioned above). Area of forest stocked at the desired density. Level of public satisfaction with the condition of the forest.
Sustainable timber production	Growing stock volume. Ratio of timber harvest to increment.
Environmental protection: - Prevention of soil erosion  - Carbon sequestration	Soil liability to erosion, measured at permanent sample plots. Sediment in rivers flowing out of forest catchments, measured at permanent sample points. Growing stock volume.
Conservation of biodiversity	Population counts of indicator species in permanent sample areas.
Contribution to rural livelihoods	Number of formal jobs in forestry, timber harvesting, wood processing Estimated number of informal jobs in forestry, timber harvesting, wood processing Tonnes of berries, nuts, mushrooms produced in the forest and available for harvest by rural households.

The measures only become useful after establishing the desired levels for each of the measures. This can only be done after determining the present level and then having a discussion between forest managers, the owners of the forest and the beneficiaries of the forest as to what is possible and appropriate.

Examples of measures that can be used to assess the efficiency of a state forest management organization are set out in Table 2 below. As with the measures in Table 1, it is necessary to establish desired levels and this is normally done as part of the business planning cycle. Comparison with the levels achieved by state management organizations managing similar forests in other countries and with the levels achieved by private forest companies managing similar forests in the same or other countries may both be useful.

**Table 2: Example measures for assessing a forest management organization's efficiency**

<b>Objective</b>	<b>Example measures</b>
Sustainable exploitation	Proportion of territory covered by approved forest management plans.
Earnings from the forest	Operating profit for timber and other traded goods and services. Amount of money received by the state / local budgets – in absolute terms and per cubic metre.
Efficient management	Management costs per hectare / per cubic metre
Efficient operations	Unit costs of key operations
Safe operations	Injuries per 100 members of the work force

Other measures can be used to assess the honesty and transparency with which the organization is managing state forests. For example, it would be technically possible to estimate from surveys of harvested stands the volume of timber actually removed and compare this with the volume declared by the organization, and to estimate the profit that the organization has generated from timber sales and to compare this with the amount that has been returned to the state budget. In countries with mature forest management organizations and where it is generally safe to assume that the organization is interested in ensuring that its staff and customers adhere to the procedures laid down in law and in the organization's internal regulations, such measures are not used. If such measures were to be introduced in countries where that assumption cannot be safely made, it would be necessary to apply the measure by external audit.

## **5. WHAT IS APPROPRIATE FOR THE REPUBLIKA SRPSKE AND SRPSKE SUME?**

Because of the weaknesses in forest valuation discussed above, determining a financial value for the forests that Srpske Sume manages will not be helpful in assessing the short term changes in financial position or in performance of the company. Instead, the government should develop a range of other performance measures that will answer the questions about Srpske Sume's stewardship of state forests that are important for the government and people of Republika Srpske and questions about the company's efficiency.

In the absence of a national forest policy, the government will have to make some assumptions about the products and services that the people of Republika Srpske want from state forests before it can decide on appropriate measures for stewardship. Probably it will be reasonable to assume at least the following:

- state forests should contribute to national economic growth and rural development to the maximum extent consistent with not reducing the capacity of the forest to provide, in the long term, the same range of products and services in the same or higher quantities as at present;
- the capacity of state forests to provide the environmental services of soil protection, flood prevention and carbon sequestration should be maintained at least at present levels and increased in areas where the forest has been degraded;
- the value of state forests to hunting should be maintained at least at present levels and increased where practical, where financially rational and where ecologically sustainable;
- citizens of and visitors to Republika Srpske should have the right to enter state forests for recreation and enjoyment, without fear of land mines, and subject only to restrictions that need to be imposed from time to time for operational reasons.

Performance against all of these objectives can begin to be assessed only after baseline information on the existing position and the desired position in the future have been established. As already noted, this takes time and it will also need resources.

With regard to Srpske Sume's efficiency as a management organization, all of the measures in Table 2 are relevant. The government is now preparing to decide the structure and procedures of the joint stock company that will take over the management of state forests from Srpske Suma. As a result, there is an opportunity to develop and embed in the new company's procedures a business planning cycle that includes a set of performance measures that address the specific concerns of the Parliament and the Government.

Development and monitoring the changing valuation of the state owned forests may be useful as part of the longer term transparency and accountability of the organization, which will be part of the measures required for reducing corruption.

## **5.1 Independent voluntary certification**

Another tool for monitoring and regulating performance that has not been mentioned so far in this note is that of independent certification of forest management. Although introduced originally as a mechanism by which forest management enterprises could demonstrate to their customers that they are managing forests in a responsible way, governments are now turning to certification as an additional mechanism for ensuring that organizations that manage state land are doing so responsibly. Independent certification can strengthen governments' own existing performance monitoring over state forest management organizations by bringing in a third party that has no commercial links to the organization. However, as with any other performance measurement tool, certification is useful only if the power and motivation exists to correct poor performance by the state forest management organization.

## **5.2 Data requirements for monitoring the performance of Srpske Sume**

As discussed above, any type of valuation and most other measures of performance will require accurate and up to date information about the forests and other land managed by Srpske Sume. Such data has to be held in a form which makes it easily accessible and easy to aggregate and disaggregate the data according to a variety of factors. Commonly, such data is now held in a Geographic Information System (GIS) which is a type of computer program which combines spatial mapping capacity with a powerful database.

It is our understanding that, at present, such data does not exist. There has been no national level forest inventory since the 1960s and, whilst some more recent inventory data does exist, there is no inventory data available, prepared to a consistent, high standard, for the whole of Srpske Sume forests.

The current Forest Development and Conservation Project, part-funded by a World Bank loan, includes components which will, amongst other things:

- Carry out a national forest inventory, to West European standards, subject to adequate progress between now and December 2005 on the inventory methodology
- Develop and implement a GIS-based Forest Management Information System

However, the results will not be available until approximately 2007 and as a result, neither good data on which to base a valuation, nor good baseline data for other measures of performance will be available until that time.

## **5.3 Compatibility with other current developments in the Republika Srpske**

The development of a policy regarding the use of valuation and other improved performance measures for the state forest management service of the RS is an important and urgent task.

However, it should not be undertaken in isolation from other developments. It is important that development takes place in conjunction with:

- The current work within the (World Bank) Forest Development and Conservation Project regarding the implementation of current laws on forestry institutions, the pricing and sales of timber, the funding of forestry
- The development of the statutes, internal regulations and operating procedures for the proposed new organization “RS Sume” – in turn reflecting the recommendations of OHR to the RS Government in 2004
- Current and new legislation, including the laws on forestry, companies and on public enterprises

These other activities and documents should both inform and be informed by a suitable policy for monitoring the performance of the state forest management organization for the RS.

## Annex 1: Definitions of Open Market Value and Existing Use Value

Open Market Value	Existing Use Value
<p>An opinion of the best price at which the sale of an interest in property would have been completed unconditionally for cash consideration on the date of valuation, assuming:</p> <p>a) a willing seller ;</p> <p>b) that, prior to the date of valuation, there had been a reasonable period (having regard to the nature of the property and the state of the market) for the proper marketing of the interest, for the agreement of the price and terms and for the completion of the sale;</p> <p>c) that the state of the market, level of values and other circumstances were, on any earlier assumed date of exchange of contracts, the same as on the date of valuation;</p> <p>d) that no account is taken of any additional bid by a prospective purchaser with a special interest; and</p> <p>e) that both parties to the transaction had acted knowledgeably, prudently and without compulsion.</p>	<p>An opinion of the best price at which the sale of an interest in property would have been completed unconditionally for cash consideration on the date of valuation, assuming:</p> <p>a) a willing seller ;</p> <p>b) that, prior to the date of valuation, there had been a reasonable period (having regard to the nature of the property and the state of the market) for the proper marketing of the interest, for the agreement of the price and terms and for the completion of the sale;</p> <p>c) that the state of the market, level of values and other circumstances were, on any earlier assumed date of exchange of contracts, the same as on the date of valuation;</p> <p>d) that no account is taken of any additional bid by a prospective purchaser with a special interest;</p> <p>e) that both parties to the transaction had acted knowledgeably, prudently and without compulsion;</p> <p>f) the property can be used for the foreseeable future only for the existing use; and</p> <p><b>g) that vacant possession is provided on completion of the sale of all parts of the property occupied by the business (save that, solely where the property is owned by a public or other non-profit-making body for the delivery of a service, it is assumed that the property will continue to be occupied or let for its existing use).</b></p>

Source: UK Government Office of Government Commerce. Information Note 2/2001. Central Advice Unit of the Property Advisers to the Civil Estate. Downloaded from [http://www.ogc.gov.uk/embedded\\_object.asp?docid=889](http://www.ogc.gov.uk/embedded_object.asp?docid=889)