

**FAO/Czech Republic Forestry Policy Workshop  
Trends in Forest Use and Conservation – Policy Options for Action  
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## **Country report**

### **BULGARIA**

## **Trends in Forest Use and Conservation- Policy Options for Action**

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### **EXECUTIVE SUMMARY**

Bulgarian society perceives forests as part of the national wealth and identity. Their economic, social and ecological functions are of significant importance to the sustainable development of society and for improving the quality of life, especially in rural and mountain areas. To a great extent these functions are unique not only in a national but in a global aspect.

As a result of the political and economic changes in Bulgaria after 1989, the Bulgarian forest sector is in a period of reform, directed towards functioning under market economy conditions and respect of ownership. The complexity of this transition is additionally predefined by the tense social and economic situation in the country. And because of that, a number of negative changes in the development of the whole society and the economy have had their impact on the forest sector too.

The objective conditions impose the necessity for creating an effective system for multipurpose forest management and the development of a modern forest industry that requires innovative strategic decisions. At the same time, the commitments made on a number of important international agreements and in the process of accession to the EU, faced Bulgaria with some global dynamic challenges. To formulate an appropriate response to the pending issues, in October 2002, the Government of Bulgaria launched a process of formulating a National Forest Policy and Strategy (NFPS). The process was and is a major undertaking, involving inputs from experts as well as all relevant stakeholder groups and society as a whole and it sets the stage for all major decisions concerning the sector for the next 10 years. The document looks at the forest sector including both forestry and forest industry – woodworking, furniture, pulp and paper industry.

The National Forest Policy and Strategy is based on a number of world-recognized principles adopted by FAO, IPF/IFF and MCPFE. The over-riding principles are: wide participation of stakeholders, inter-sectoral approach, conformity with the national legislation, integration with the National Plan for Economic Development and the other strategic environmental and biodiversity conservation documents, agreement with international engagements, initiatives and conventions related to forests, partnership in implementation and, increasing public awareness.

These principles are encapsulated in the vision for the future development of the forest sector:

*“The Bulgarian forest is a national asset. The resources of the forest ecosystems retain their ecological, social and economic functions for improving the quality of life of people. Forests are professionally managed in a stable forest sector with broad public support and mutual respect and integration of the interests of all stakeholders.”*

The main goals set for the forest sector are:-

- Sustainable development of an economically viable forest sector through multifunctional forest management in market economy conditions.
- To comply the goals and the means for the sustainable development of the forest sector with international criteria.
- To provide for national and international financial recourses and to support the development of the sector.

In general terms, the achievement of these goals could only be possible through:

**Environmental aspects:**

- Extension of the forest area;
- Acceleration of the silvicultural and forest protection activities;
- Conservation and restoration of the biological and landscape diversity components through mainstreaming biodiversity into forest management practices.
- Extension of the protected areas network;
- Enhancement of the role and the contribution of forests for mitigating climate changes.

**Social aspects:**

- Creation of additional employment in the sector;
- Enhancement of motivation and qualifications of forest workers;
- Adequate use of tourist and recreational potential of forests;
- Reforms in the fuel-wood supply policy for local population.

**Economic aspects:**

Increase in the revenues for the sector from:

- market orientation of the commercial functions of forests;
- increase and reorganization of harvesting;
- increased production and export of forest industry products;
- development of alternative uses for the forest resource;
- improved effectiveness of the control in forests etc.

## CONTRIBUTION OF FORESTS

### ***Forest Resources***

Some 600–700 years ago, nearly the entire land area of Bulgaria was covered by forests. Intensive anthropogenic activity gradually reduced the forest cover to about 30% of the country territory. Most of the remaining forests are located in the mountainous and semi-mountainous areas.

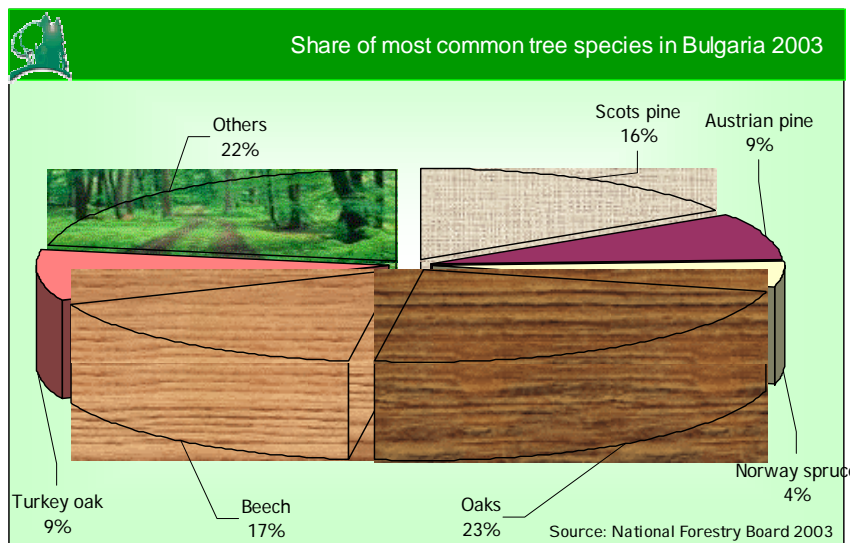
However, in recent decades the forest area in Bulgaria has been steadily expanding. In the past 35 years, the forest cover increased from 3.1 million ha to 3.4 million ha. The forest fund (total forest area in administrative terms including non-forested areas) is even larger, 4.0 million ha accounting for 34% of the territory in Bulgaria. The expansion of the forest area has taken place mainly at the expense of lands not suited for agricultural use.

Some 1.5 million hectares have been afforested during the last 50 years. By 1989 the rate of afforestation had decreased significantly (5,000 - 7, 000 ha per year) while some 15,000 ha was envisaged in the Forest Management Plans (FMPs). The decline in afforestation was due to a decrease in the level of investment and increased priority for natural regeneration.

Coniferous forests (including dwarf mountain pine *Pinus mugo* Turra) cover 32.6% of the forested area or 1145.7 th. ha. These forests are represented mainly by Scots pine (*Pinus sylvestris* L.), Austrian pine (*Pinus nigra* Arn.) and Norway spruce (*Picea abies* L./Karst.) Broadleaved forests (mainly oaks – *Quercus petarea* Liebl., *Q. frainetto* Ten., *Q. cerris* L. and beech – *Fagus sylvatica*) account for 67 % of forest area, and 56 % of stand volume.

The distribution of the most common tree species is shown in Figure 1.

**Figure 1**



The current priority - sustainability of forest plantations - is achieved by an increase in the proportion of local broad-leaved tree species, a decrease in the initial stocking rate of plantations, the establishment of mixed plantations and afforestation using forest tree and shrub species in their natural ranges. Establishment operations are undertaken principally on state forest fund territories and particularly on areas destroyed by fire, stands and plantations damaged by drought, clearings and bare areas.

The average growing stock per hectare in 2000 was 156 m<sup>3</sup>. During the last 35 years the total growing stock more than doubled from 252.2 million m<sup>3</sup> in 1965 to 526.1 million m<sup>3</sup> in 2000. Total annual increment of the forests is estimated as 12.3 million m<sup>3</sup>. Broadleaved forests account for 67% of forest area, and 56% of stand volume (Table 1). Coniferous forests occupy only 33% of the area, but as they have high stocking level, their share of growing stock is 44.

**Table 1 Main Statistical Characteristics of the Forest Fund Regarding Forest Types in Year 2000**

Forest type	Forested area, ha		Total growing stock, m <sup>3</sup>		Mean age, years	Mean increment per ha	Mean stock per ha	Mean stand density
	ha	%	m <sup>3</sup>	%				
Conifers	1 114 674	33.0	231 822 686	44	42	6,735	221	0,75
High stem broadleaved forests	704 374	20.8	148 293 645	28	67	3,574	193	0,74
Forests for reconstruction	535 438	15.8	23 790 301	5	48	1,022	44	0,60

Coppice forests for conversion	900 309	26.6	115 304 775	22	48	2,971	130	0,76
Coppice forests	1 23 349	3.65	6 851 720	1	20	4,051	55	0,80
<b>Total</b>	<b>3 375 117</b>	<b>100.0</b>	<b>526 063 127</b>	<b>100</b>	<b>49</b>	<b>4,00</b>	<b>156</b>	<b>0,73</b>

The large-scale afforestation activities from the middle of the last century resulted in a sudden increase in the area covered by coniferous forest. After 1990 the area of conifer forests started to decline and at the end of 2000 represented 33% of the forest area (1.12 millions ha). This trend is expected to continue into the future.

### ***Non-timber Forest Resources***

Bulgaria has a significant non-timber forest resource – medicinal plants, mushrooms, forest fruits etc. Deep traditions and experience in the field of hunting management exist and is evidenced by the fact that some of the world-record trophies for red deer and wild boar have been obtained in Bulgaria.

About 85% of the country's territory is assigned for hunting, and hunting and fishing are of growing interest to the public. Game management was carried out systematically and rather effectively until the beginning of the 1990s. However, since then game stocks have decreased drastically. The analysis of the data from game inventory during the last 12 years showed a continuous decrease in the number of the main game species (red deer, roe deer, fallow deer, small game).

Medicinal and aromatic plants are used as raw material for producing a broad range of goods. Typical of Bulgaria is the extensive use of plants as alternative medicine, traditional utilization of wild species of herbs, as well as export of large quantities of plants. It is reported that some 15 500 tons of herbs are being exported annually, generating an average income of some USD 35.5 million (Forest Sector Analysis 2003).

### ***Biodiversity Conservation***

The Bulgarian forest resource contains environmental values, which are unique in European and even global terms. According to Temperate and Boreal Forest Resource Assessment (TBFRA) the area of virgin forests in Bulgaria is 257 000 ha, which in absolute terms is the third largest area in the whole of Europe excepting Sweden and Finland.

The management of Bulgarian forests is a key factor for conservation of the biological and landscape diversity. Bulgarian forests are home to:

- Over 80% of the protected plants;
- Over 60% of the animals threatened with extinction;
- Over 60% of the priorities for protection habitats;
- Eight of the twelve unique landscape complexes, determined in the National Strategy for Protection of the Biological Diversity as unique and representative for the Bulgarian biological diversity;

- The populations of 43 world endangered species.

In order to protect this diversity, 3 National Parks, 10 Nature Parks, 55 reserves and 35 maintained reserves have been established. (Tables 2)

**Table 2 Protected Areas in Bulgaria**

No	Category	Total number of PA in Bulgaria in 2002	Total area of PA in Bulgaria (ha) in 2002	Area included in the forest fund in 2000	Percentage of PA within the Forest fund
1	Reserves	55	76 979.0	58 177.00	75.58
2	Support Reserves	35	4 517.1	945.00	20.92
3	National Parks	3	150 362.3	119 226.00	79.29
4	Nature Parks	11	247 604.0	179 338.09	72.43
5	Protected landscapes	146	39 000.2	21 878.00	56.10
6	Natural landmarks	473	23 318.3	10 007.00	42.91
	<b>Total</b>	<b>723</b>	<b>541780.9</b>	<b>389 571.09</b>	<b>71.91</b>

Source: NFB

### **Water and Soil Protection**

Water and soil protection have high significance in Bulgaria. More than half of the land area is sloped 20% or more, and about 60% of the country territory is potentially threatened with erosion. There are 2000 water streams with torrential regime. Bulgarian forests also provide about 85% of the water flow in the country or nearly 3.6 billion m<sup>3</sup> of clear drinkable water.

Some 14% of Bulgarian forests have as a primary goal the protection of the soil against erosion and water balance maintenance. To-date, about 660 000 ha of erosion-prone areas have been afforested including more than 20 000 ha of protective belts. However, the last 10 years show a sharp decrease in afforestation activities against erosion and construction of protective equipment. There are also about 900 000 ha of land outside the forest fund, which are severely affected by erosion but do not benefit from significant protection programs.

### **Harvesting and forest industries**

Timber harvesting is carried out through regeneration fellings, sanitary fellings and thinnings. New stands are established mainly through natural regeneration. Clearfellings are carried out to a very limited extent. They are applied in stand reconstruction and in tending of stands with species requiring intensive management; the maximum size of clearcutting areas is limited to 5 ha. The average harvesting volume envisaged in the FMPs for 1996-2000 was 5.2 million m<sup>3</sup>/annum. Compared to the estimated increment, the average harvesting volume planned accounted for only 37%. Actual harvesting averaged 4.4 million m<sup>3</sup>/annum, of which 72% was industrial harvesting and 28% harvesting for the local population. Some 34% (1.1 million m<sup>3</sup>) of the annual industrial

harvesting is softwood and 66% or 2.1 million m<sup>3</sup> is hardwood. The percentage distribution of the coniferous timber by assortments – large, medium, small and fuel wood is 37:34:15:14 and for hardwoods – 18:15:4:63.

The forest road density is on average 7.9 m/ha, which is a low figure compared to other European countries with broadly similar topographic conditions (e.g. in Austria 36 m/ha, Switzerland 40 m/ha, France 26 m/ha, Germany 45 m/ha). The average transportation distance is about 150-200 km. Skidding distances can be up to 2 km.

All types of timber-based industries are represented in the forest sector except mediapan (MDF). Small enterprises dominate the sector. As a general rule, their equipment is old and ineffective and there is significant shortage of drying kilns for large timber.

Some new investment projects have recently been implemented in some of the formerly state-owned large wood processing enterprises. As a result a significant progress in their work is observed and their processing capacities reached 1 million m<sup>3</sup> for technological coniferous timber and about 600 thousand m<sup>3</sup> for processing of hardwoods.

After 1989, the forest industry declined sharply but since 1997 the manufacture of wood based products and furniture has increased continuously. Some favourable influences have been the significant investments made in some of the former state-owned big enterprises producing panel boards, pulp and paper. The sector has a positive export balance. In 2001 the export of timber products was 3.5 times greater than imports.

The production of furniture shows a continuous increase and the furniture enterprises retain the potential to compete successfully on domestic and foreign markets. Furniture enterprises produce a relatively wide spectrum of products. Bulgaria is an exporter of timber furniture and the export volume is gradually increasing. The same is true for imports, however the export value is 2.6-2.7 times higher than imports.

### ***Institutional Arrangements and Contribution to GDP***

As of 01 January, 2003 the state forest fund accounted for 85.9% of total forest area and the non-state 14.1% - 8% private individuals, 5% municipalities with the remainder split among religious communities, schools, co-operatives etc.

The responsibility for the management of the state forest fund rests with the National Forestry Board in the Ministry of Agriculture and Forestry – 82.1% and the Ministry of Environment and Waters (MoEW) – 3.6 % (exclusive state ownership). At present, the biggest share of revenues for the forest sector comes from timber sales. However, the state forest administration is fully dependant on the State budget.

Estimates indicate that about 35 000 employees work in the forest sector, with the greater share being in the forest industry. While Bulgaria is a net exporter of wooden furniture and exports exceed imports by a factor of 2,6 – 2,7, the forest sector makes only a modest

contribution to GDP. In the year 2000, the services sector had the biggest share of GDP – more than half – followed by the industrial sector accounting for slightly more than a quarter. The agricultural sector (forestry and agriculture) had the lowest share, and the share of forestry for the year 2000 was 0.5%. The contribution of the forest industry was 2.2%. However, estimates of GDP value typically underestimate or ignore the contribution of environmental or non-market functions of forests (e.g. soil and water protection, biodiversity, recreation). The value of environmental and social benefits associated with forests is considerable but is still not fully evaluated.

## MAIN ISSUES

### ***Forest resources***

Some of the challenges for the sustainable use of the forest resource after 1989 relate to the illegal activities, poor tendings of young stands, and increased human activities in forests. Thinnings have been continuously underachieved. This has a negative impact on the tree species composition of young forests, reduces their stability and quality of timber and makes them more vulnerable to pests, diseases and forest fires. The reduction in the activities for the conversion of coppice stands to high-stem forests increased their average age and resulted in reduced increment and deterioration of the assortment structure of the growing stock, deterioration in their health condition and led to more and more frequent occurrences of above normal mortality resulting in reduced opportunity and potential for natural regeneration. The regeneration fellings applied so far lead to the formation of even-aged stands with a uniform structure. The implementation of selection systems, which promote the formation of multi-aged stands are not commonly practiced.

Another threat is forest fires. Some 133 000 hectares have been damaged by fire during the last 11 years or 3.5% of the whole forest area. Over 20 000 hectares of forest, damaged between 1999 and 2001 are in need of rehabilitation. The fires have concerned mainly young coniferous stands, but also different type of mature stands, including some broadleaved tree species. Analysis of the cause of forest fires in Bulgaria is still inadequate.

### ***Non-timber Forest Resources***

After the political changes followed by the crisis in the economy, game stocks for the last decade have decreased drastically. Analysis of data from the game inventory during the last 12 years shows a continuous decrease in the number of the main game species (red deer, roe deer, fallow deer, small game). An exception is the numbers of wild boar, which have remained stable and has become a major hunting species in the country. The majority of the breeding units for production of small game use only about 15 – 20 % of their capacity and as a result pheasant and Rock partridge are only found quite rarely. The existing problems have led to deterioration in the hunting management activities, including their financial aspects. With regard to organized hunting tourism, the level varies between 5 to 20 % (for different species) of the total allowed game cull.

The management of non-wood resources requires significant improvement. The key problem is poor surveillance of harvesting. Harvested wild species of herbs can be legally collected for “personal use” without any registration, but there is limited control over this practice. The harvested amounts considerably exceed what is needed for personal consumption; the documented harvest of herbs is about five times lower than the exported quantity.

No assessments on the availability of the non-wood resources are carried out and estimates on the sustainability of current use cannot be established. Harvesting

technology is often ill suited for the purpose, and lack of local processing capacity prevents generation of added value.

### ***Biodiversity Conservation***

The increased human activities in the forests in the last 100 years and the national economic development have led to:

- Various use of more and more forest areas, and forest products;
- Fragmentation of forest ecosystems;
- Homogenization of tree composition and the age of the forest stands;
- Significant changes in the biological and landscape diversity as a result of forest fires.

All these factors had a specific impact on biodiversity on a genetic, species and ecosystem level.

In recent years increased attention has been paid to conservation of forest biodiversity. The efforts made by the Government have been supported and complemented by a large number of donor assisted projects. However, despite substantial allocation of resources for biodiversity conservation, the various interventions tend to remain isolated and suffer from poor co-ordination. There is also a lack of qualified staff in the National Forestry Board and the Regional Forestry Boards, and biodiversity conservation is not emphasized as a field of expertise.

Biodiversity conservation has not yet been able to make its way into the mainstream of forest management. The main intervention is to steer the tree species composition towards “optimum” in the thinnings of natural forests. This optimum reflects the composition of tree species in a naturally developed stand. Otherwise, the maintenance of biodiversity at the level of species and key habitats is not clearly addressed in the present forest management operations. For instance, the amount of decaying wood in the production forests is too low to provide habitats for species dependent on this type of resource.

### ***Water and Soil Protection***

The risk for large-scale erosion is well recognized in the guidelines for forest management operations (e.g. ban on clear fellings, special attention to operations on southern and western slopes). Small-scale damages, however, are caused by road construction and off-road transportation of timber. In addition, unauthorized activities and forest fires have contributed to landslides and other type of erosion. The adverse impacts on water bodies are mainly related to uncontrolled erosion, performance of cutting operations, and construction and maintenance of forest roads. The Bulgarian legislation does not require environmental impact assessment on construction of forest roads.

### ***Harvesting and forest industries***

There are more than 5,500 woodworking companies in Bulgaria. Saw mills (2,041) represent 37% of companies and more than 80% are sole traders or small limited companies with less than three people employed. The overall technological base is poor with production less than 30% of potential. Raw material supply to the sawmills is haphazard. The majority of timber is sold standing. This makes it impossible to sell diversified assortments, and reduces the price range and the possibility added value; in addition, it introduces an incentive to cheat. The lengths are often inappropriate for the market and log utilisation is extremely poor with high wastage. The majority of sawmills do not utilise the primary (off cuts) and secondary (dust, chips and shavings) residues. New regulations regarding wood sales and wood harvesting will be required.

Harvesting technology is rather outdated reflecting both limited investment capacity in the sector as well as the low labor cost, which keeps manual methods competitive.

According to the NFPS, approximately 477 000 m<sup>3</sup> of the present annual allowable cut is inaccessible due the lack of forest roads. Accessible mature wood resources are intensively utilized in Bulgaria owing to the high demand for saw logs and other large dimension wood assortments. Locally, over-exploitation of easily accessible resources may occur.

The main issues regarding forest industry include:

- The production processes suffer from difficult and unreliable access to raw material. Low quality wood is mainly supplied, which is unsuited for high value sawn wood and furniture.
- There are no secure markets for furniture and wood products. The enterprise management is poor.
- There is lack of understanding of the role of standards in modern industry. Only a small number of the European standards in the sector are adopted.
- High requirements for loan mortgages are imposed by the financial institutions in Bulgaria, which is an obstacle for investment in the sector.

### ***Forest Ownership and Institutional Arrangements***

The last reform undertaken in the sector was in 1997. The independent forest authority and the national fund “Balgarska gora” were closed down and a new financing mechanism was introduced as part of the Law on the State Budget. As a result the National Forestry Board and the State Forestries are now entirely dependent on the budget and according to these budgeting rules any surplus must be returned at the end of the year, something that creates difficulties in the financing of the NFB. Additionally, these rules do not correspond to the requirements of the specific forest activities. A clear trend can be observed that the state gradually “withdraws” from the financing of the sector (especially in the financing of the forest safeguard activities, management of the protected areas under the governance of the MAF etc.). At the same time, the revenues in the sector are insufficient to cover the budget for the necessary silvicultural activities and

the development of the forest infrastructure. The accumulation of problems as a result of the ineffective management has led to deterioration in condition of forests and extremely negative results in the development of the sector. To overcome these problems enormous investments are needed.

Privately owned forests are small with the majority being less than 1 ha in extent and only 150 private holdings exceed 50 ha. Municipal forests usually cover some hundreds of hectares. About 140 000 ha of forest in protected areas is in non-state ownership. Of this, approximately 40% is in individual ownership, the rest is held mainly by municipalities.

Forest legislation does not address some specific problems of the non-state forest ownership and that is why there are difficulties with its management. Socially significant functions such as protection of soil and water restrict the rights of use for which the owners remain uncompensated.

The owners are still faced with technical difficulties in accessing means of support to the forest sector. The municipalities, on their part, are in the beginning of a process of establishment of specialized forest entities. Their statute, functions and responsibilities are still due to be clarified.

The environmental concerns of the private and communal forestry are mainly related to lack of forest management skills, unawareness of legal requirements, undeveloped support structures and unrealistic expectations of benefits from forests. Since both individual owners and municipalities are often located in the most deprived regions of the countries, it is probable that they will give high priority for obtaining cash income from their property. Most private forest holdings are not large enough to provide the owners with reasonable income unless most of the available resource is immediately exploited, which is a potential risk for the sustainability of forest management both in terms of timber production and environment. Regarding the latter, there is particular concern over the fact that many restituted forests are located on critical watershed protection sites close to villages. In addition, inadequate and inappropriate silvicultural treatments may lead to deterioration of forest resources.

## **POLICY OPTIONS**

The Bulgarian Government is committed to continue reforms to improve living standards and reduce poverty. The Government's program provides a good framework for achieving Bulgaria's main objectives of growth, poverty reduction and EU accession, and a sound basis for external assistance. In the past few years, the country has continued to make good progress in completing reforms and in the adoption of the EU acquis. The EU's 2003 Regular Report on Bulgaria's Progress Towards Accession notes this progress. The report states that Bulgaria is a functioning market economy that would be able to cope with competitive pressure and market forces within the Union in the near term provided that it continues implementing its reform program. It further notes the high degree of macroeconomic stability due to the currency board arrangement, tight fiscal stance and wage moderation.

One of the main priorities set in the Government's development programme is nature-friendly and sustainable management of forest resources, game fauna and protected areas. To formulate an appropriate response to the pending issues in the forest sector, in October 2002, the Government launched a process of formulating a National Forest Policy and Strategy (NFPS). The process is a major undertaking, involving inputs from experts as well as all relevant stakeholder groups and society as a whole and it sets the stage for all major decisions concerning the sector for the next 10 years. NFPS is a reflection

The vision for the future development of the forest sector is seen as:

***“The Bulgarian forest is a national asset. The resources of the forest ecosystems retain their ecological, social and economic functions for improving the quality of life of people. Forests are professionally managed in a stable forest sector with broad public support and mutual respect and integration of the interests of all stakeholders.”***

The main goals set for the forest sector are:-

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- To comply the goals and the means for the sustainable development of the forest sector with international criteria.
- To provide for national and international financial recourses and to support the development of the sector.

In general terms, the achievement of these goals could only be possible through:

### **Environmental aspects:**

- Extension of the forest area;
- Acceleration of the silvicultural and forest protection activities;
- Conservation and restoration of the biological and landscape diversity components through mainstreaming biodiversity into forest management practices.

- Extension of the protected areas network;
- Enhancement of the role and the contribution of forests for mitigating climate changes.

**Social aspects:**

- Creation of additional employment in the sector;
- Enhancement of motivation and qualifications of forest workers;
- Adequate use of tourist and recreational potential of forests;
- Reforms in the fuel-wood supply policy for local population.

**Economic aspects:**

Increase in the revenues for the sector from:

- market orientation of the commercial functions of forests;
- increase and reorganization of harvesting;
- increased production and export of forest industry products;
- development of alternative uses for the forest resource;
- improved effectiveness of the control in forests etc.

NFPS is not envisaged as a static document but more as a dynamic process, adapting over time, depending on the needs of the sector, the economic environment and the overall government policy. The implementation of the NFPS is the responsibility of all stakeholders in the forest sector. Ministries which impact on the forest sector are obliged to include the NFPS in their decision making processes where relevant.

Furthermore, the Government of Bulgaria has requested a World Bank support to improve forest management and to protect Bulgaria's global biodiversity values. A forestry project for overall development of the sector was considered most needed and timely and assessed to have the best chance of success. The without project alternative was a continuation of the status quo leading to ever increasing funding deficits and eventually implosion of the state forest sector. This would represent a significant threat to the outstanding economic, environmental, and social values that Bulgaria has built up at immense costs over the past 50 years. **The Forest Development Project** was initiated, which would contribute to the Government's reform of the state forestry sector, mainstreaming of biodiversity and environmental values in forest management, investment in silvicultural and fire prevention activities, placing of state forestry on a self-funding basis and support for private forest owners. A key element of the reform is the restructuring of the State forest administration through the separation of the public and commercial management functions.

In result of preparation of this project and implementation of the Governments policy as well a lot of amendments in existing forestry legislation are proposed to The National Assembly

The forestry project would be complemented and interfaced with an EU PHARE Twinning program for strengthening the institutional capacity of the State Forest Administration and the management and business skills of the National Forest Company. The project would also complement the Forestry Measure under the EU SAPARD

programme targeted at the private forestry sector and facilitate its realignment to identified needs and the maximum draw-down of funds.

To enhance the contribution of forests to Bulgaria's sustainable development and people's well-being some other important environmental related strategies and plans are endorsed:

#### **National Environmental Strategy and Action Plan (2000 – 2006)**

The National Environmental Strategy and Action Plan were approved by the Council of Ministers in 2001. They are oriented towards actions and measures improving the implementation of existing legislation with the purpose of enhancing the effectiveness of nature conservation and other environmental measures. Some of the main objectives include:

- Conservation, strengthening and rehabilitation of key ecosystems, habitats, species and genetic resources
- Development of conditions for sustainable use of biological resources
- Improvement of forest status
- Application of preventive measures to avoid damage on environment (EA and permit regimes)

With regard to improvement of forests status the following measures were identified:

- Formulation of National Forest Program (NFP)
- Organization of NFP implementation
- Implementation of priority measures for preventing forest fires

#### **National Action Plan for Climate Change**

The National Action Plan for Climate Change was formulated to fulfill the obligations of the Bulgarian Government following from ratification of the United Nations Framework Convention on Climate Change (ratified SG 28/1995) and the Kyoto Protocol (ratified SG 72/2002). This Plan coordinates the actions of various government institutions to reduce greenhouse gas emissions. The Plan proposes substantial use of renewable energy resources. Forest vegetation is identified as the main carbon sink. The priority actions with respect to forest management are:

- Expanding afforested area (creating forest shelter belts and afforesting abandoned agricultural lands)
- Adapting forest vegetation to climate change especially in areas situated up to 800 meters above sea level (by switching afforestation species, creation of unevenaged forests, improving biodiversity conservation, converting coppice forests into seed stands)

As a country signatory to the Pan-European process for the protection of forests, to the UN Convention on Climate change (the Kyoto Protocol respectively) and the decisions made at the World Meeting for Sustainable Development in Johannesburg, Bulgaria defined its support for the effective production and usage of bio-energy from renewable forest resources, managed in a sustainable way, as a main priority in its national forest policy. In this respect, the implementation of the National Action Plan on Climate

Change and the implementation of the two pilot fuel switch projects envisaged through the support of the Japanese Trust Fund (World Bank) are of great importance.

Along with the support provided for the development of technological projects in the field of energy systems based on wood biomass, the Ministry of Agriculture and Forestry directs its efforts towards ensuring additional energy resources by means of establishing new forests. A great potential in that respect is available, considering the large areas of burnt forests and abandoned agricultural lands.

There are some regulatory preconditions - that provide for ensuring sustainable contribution of our country towards decreasing CO<sub>2</sub> emissions and increasing renewable energy sources through the establishment of new forests, including plantations for biomass.

The current priority - sustainability of forest plantations – is envisaged to be achieved by an increase in the proportion of local broad-leaved tree species, the establishment of mixed plantations and afforestation using forest tree and shrub species in their natural ranges. Establishment operations are undertaken principally on state forest fund territories and particularly on areas destroyed by fire, stands and plantations damaged by drought, clearings and bare areas.

The reserve for the future expansion of the forest cover is estimated as nearly 300 000 ha, of which 127 000 ha is for afforestation of bare lands and the remainder for afforestation of lands unsuited to agriculture. Actions in this direction would be supported by nearly 80% of the Bulgarian population. (NPOC, 2003)

### **National Strategy for Biodiversity Conservation and National Plan for Biodiversity Conservation**

The National Strategy for Biodiversity Conservation and The National Plan for Biodiversity Conservation were approved by Bulgarian Government in 1999 and 2000, respectively. They are focused on biodiversity conservation in situ and promotion of sustainable nature resources use. Strategic actions include:

- Development of legislation and appropriate regulations
- Institutional strengthening and improvement of inter-sectoral coordination
- Development of the Protected Areas System; establishment and maintenance of National Ecology Network
- Rehabilitation and maintenance of priority sites
- Environmental education
- Promotion of sustainable use of natural resources use and eco-tourism

Identification of High Conservation Value Forests and further development of the protected areas network are considered essential for the future biodiversity conservation. The actions envisaged in this direction will take account of the priorities set out in the National Forest Policy and Strategy and will draw on best international practice in

accordance with EU legislation and policies (especially the establishment of the Natura 2000 network), and where appropriate guidelines issued by IUCN.

Forest management planning practice in Bulgaria is currently directed mainly towards production management of timber resources. It is carried out on the level of individual stands, management classes, and ownership categories. The main parameters characteristic for biodiversity conservation, such as forest type, area, situation and connection of the habitats are not yet taken into consideration. At a larger scale, Bulgaria's accession to the **European Landscape Convention** means that forestry practice must increasingly take account of landscape impacts. However, the lack of specific regulations for biodiversity and landscape conservation and management in the forest legislation hampers developments in these matters.

Meanwhile, the EU aims to adopt a Forest Charter during 2004. This will make forests in the expanded EU multifunctional, with funding for forest owners and users to implement sustainable, yet profitable, management practices. Accordingly, in preparation for Bulgaria's accession to the EU, the opportunity exists to undertake a number of key activities in order to maximize revenues from the EU budget, namely:

1. Ensure that all high conservation value forests are included in the Natura 2000 system;
2. Introduce and apply international guidelines for the sustainable management of all forests, especially those outside of designated protected areas;
3. Strengthen the scientific and technical capacities of forest management authorities by reviewing skills and devising training activities;
4. Prepare for funding opportunities such as those to be available for data management (under the European Forestry Information System) and for afforestation, forest management and infrastructure (under the Rural Development Regulation).

Action 2005 – A joint initiative of business and politics to develop the Bulgarian woodworking and furniture industry was developed under the German Bulgarian Technical Cooperation in 2003. It is a comprehensive medium term strategy and action plan for the development of the furniture and wood processing industry in Bulgaria. It identifies the obstacles to development as well as providing a three-tier plan (micro, mezzo and macro) of strategic objectives and recommendations for action.

To achieve its sustainable development objectives, the Bulgarian Government is proactively seeking international support and relations in the field of forestry. Currently, a Bulgarian-Swiss Forestry Programme and a German-Bulgarian Forestry Project are significantly contributing to the well-being of the sector. The country is also playing its role in the Pan-European Process initiated as a result of the MCPFEs and is carefully studying the experience of other European countries, especially these in transition.