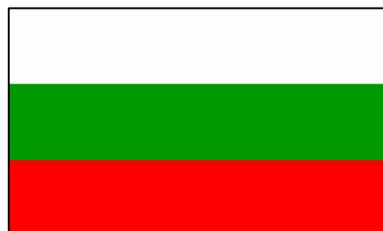




Forests and the Biodiversity Convention

Independent Monitoring of the
Implementation of the Expanded Programme
of Work
in Bulgaria



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Cover: Beech forests in Balkan

Beech forests in Central Balkan National Park near to Kalofer.

Beech forests occupy considerable areas in the Bulgarian mountains. The Central Balkan National Park comprises the largest in Europe protected centennial beech forests. Here one can find more than half of the plant species of Bulgaria, close to two thirds of its medicinal herbs, and eleven plant species that can be found nowhere else in the world.

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ABSTRACT

The current report presents the results from research on the implementation of the CBD expanded programme of work on forest biological diversity (POW) in Bulgaria. The data have been compiled through 3 main channels: 1) desktop review of main strategic documents; 2) questionnaires sent to relevant forest stakeholders in Bulgaria and 3) a national workshop.

The general conclusion of the research is that CBD POW has not been officially implemented in Bulgaria although the findings show that the CBD POW is very relevant to the existent country's conditions. The threats to the forest biological diversity in the country are numerous and the programme provides ideas and suggestions how to overcome them. Partial implementation of the CBD POW objectives have been observed as a result of their correspondence to some priorities of the national forest policy as well as overlap with objectives of other similar instruments already applied in the country. Based on the research results the authors outline some recommendations for better implementation of the CBD POW in Bulgaria in the future.

KEYWORDS

CBD POW, implementation, Bulgaria, forest biodiversity, threats

ACRONYMS

BSPB	Bulgarian Society for the Protection of Birds/ Birdlife, Bulgaria
CBD	Convention on Biological Diversity
CBD POW	Expanded Programme of Work on Forest Biological Diversity of the Convention on Biological Diversity
COP	Conference of the Parties
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
GDP	Gross Domestic Product
GFC	Global Forest Coalition
GVA	Gross Value Added
HCVF	High Conservation Value Forests
MAF	Ministry of Agriculture and Forests
MAFS	Ministry of Agriculture and Food Supply ¹
MoEW	Ministry of Environment and Water
NGO	Non-governmental organization
NFB	National Forestry Board
RDP	Rural Development Programme 2007–2013
SPFSD	Strategic Plan for Forest Sector Development 2007–2011
SAF	State Agency for Forestry ²
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

¹ Former Ministry of Agriculture and Forests.

² Former National Forestry Board.

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1. INTRODUCTION

1.1. Brief description of the environmental, geophysical and socio economic aspects of Bulgaria

Bulgaria is situated on the Balkan Peninsula in South-Eastern Europe. The area of the country is 111 000 km². The population of Bulgaria at the end of 2004 was 7.8 million people. The rural areas represent 81% of the Bulgarian territory and 42% of the population (RDP 2007-2013).

Bulgaria has almost completed the transition process from centrally planned to market economy. GDP per capita in 2005 was 3 513 USD. The economy sector is dominated by the services, followed by the industry. Major exports include herbs (Bulgaria is the world's third largest exporter), wine, machinery, metals and chemicals. Agriculture and forestry make a significant contribution to GDP, exports and employment in Bulgaria. Their relative share in the GVA has been decreasing over the last decade. The fall in the share is explained by the slow and uneven growth of these sectors, and the faster growth of the national economy (RDP 2007-2013).

Considering its small size, Bulgaria has a great variety of topographical features. The average altitude in the country is 470 m. More than two-thirds of the area consists of plains, plateaus, or hilly land with the rest covered by mountains. Bulgaria has a temperate climate with four clearly defined seasons. Average precipitation is about 630 millimeters per square meter per year.

Due to its varied climate and topography as well as specific geographic situation, Bulgaria has rich and unique biodiversity. Endemic plants account for about 5% of the entire flora; 8.8% of non-insect and 4.3% of the insect species in the country are also endemic. The network of protected areas comprises six categories and covers about 4.5% of the country's territory. The EU ecological network NATURA 2000, being at the stage of its completion, is expected to cover more than 30% of the country territory, including more than 85 Special Protection Areas (as per [Council Directive 79/409/EEC on the conservation of wild birds, commonly referred to as the Birds Directive](#)) and more than 180 Special Areas of Conservation (as per [Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora](#), commonly referred to as the EU Habitat Directive).

Although the transition period in Bulgaria after 1989 affected the industry by closing down many factories thus decreasing the levels of pollution, other factors, such as fast and poorly planned mass constructions particularly along the sea coast and in the mountains threaten the environment. Illegal logging and animal poaching continue in protected areas, air and water pollution frequently fail to be controlled and penalized. Farmers continually and illegally burn idle agricultural land to clear it for the next year use, thus causing devastating fires.

1.2. Characterization of the forests occurring in Bulgaria

The Bulgarian forest fund³ amounts to 4.1 million hectares (ha) and comprises up to 34% of the country's territory, but only 3.65 million ha (89.7%) of the 4.1 million ha is actually wooded⁴. The rest, nearly 10% of the whole area, is non-wooded land; this consists of forest roads, nurseries, mountain pastures, rocky areas, rivers, etc. Most of the forests are located in

³According to the Forest Act "**forest fund**" is each territory out of the borders of a settlement, intended mainly for forests, comprising of forests and shrubs as well as lands designated for afforestation and unproductive forest lands, as mentioned in the land cadastre.

⁴MAF 2006 data is used for the analysis in this section.

the mountainous (ca 80% of the Bulgarian forests) and semi-mountainous areas (Yonov & Velichkov 2004).

There is a tendency for increasing of the forest cover in Bulgaria. Forest cover is expanding mainly through afforestation and natural succession taking place in abandoned agricultural lands which are mostly municipality and privately owned.

Broadleaved forests (mainly oaks and beech) dominate with 70.4% of all forest area. Coniferous forests (represented mainly by Scots pine, Austrian pine and Norway spruce) occupy only 29.6% of the area. Most of the forests are young; the average age of forests is ca. 51 years, but the range is very wide. Plantations occupy 26.6% of forested territory (RDP 2007-2013).

The total annual increment reached 14 million m³ in 2005. The average harvesting volume according to the official data for the period 1996 - 2006 was 5.2 million m³/a. Industrial harvesting, representing 73 % of the total amount, and cuttings by local population 23 %.

Bulgaria has a significant non-timber forest resource – medicinal plants, mushrooms, forest fruits etc. About 85% of the country's territory is assigned for hunting, with both hunting and fishing being of growing interest to the public. Despite this fact game stocks have been decreasing drastically in the last years.

Forests and forestry play an important role in rural Bulgaria as a provider of employment, recreation, tourism, water and other public amenities.

The Bulgarian forest resource is very valuable environmentally, and can be said to be unique not just in European but also in global terms. Bulgarian forests play an important role in preserving over 60% of the country's priority habitats; over 80% of the protected plant species; and over 60% of the endangered animal species. They are home to populations of 43 of the world's endangered species; and they comprise eight of the twelve landscape complexes which were defined in the national strategy for preservation of biodiversity as unique and representative of Bulgarian biodiversity. In order to protect this diversity 3 National Parks, 10 Nature Parks, 55 reserves and 35 maintained reserves have been established (SPFSD 2007–2011).

Bulgaria's forests provide about 85% of the water flow in the country; and some 14% of them have been designated as having, as their primary function, a crucial role in the protection of the soil against erosion and the maintenance of water balance (Yonov & Velichkov 2004).

In order to protect this diversity and the important ecosystem services of the forest, a network of protected areas has been established. More than 71 % of the Bulgarian protected areas are within the forest fund. Managing authorities for protected areas are divided between the Ministry of Environment and Water (responsible for the management of national parks, reserves and maintained reserves which are exclusive state property) and the State Agency for Forestry (former National Forestry Board).

1.3. Forest land tenure regime and forest management situation in Bulgaria

A long restitution process started in 1995, transferring state forest to ownership of non-state entities. Together with the state owned there are now also big and small-size private forests, with big proportion falling in municipality property. According to MAF 2006 78.1% of the total forest territory is currently owned by the state. The remaining 21.9% (890,783 ha) includes:

1. Municipal forests (464,929 ha or 11.4% of total forest cover)
2. Private forests (393,680 ha or 9.7% of total forest cover)
3. Other types of ownership (32,174 ha or 0.8% of total forest cover).

A great problem in forest policy is the big number of small-scale forest owners all over Bulgaria. There are only around 150 individual estates bigger than 50 hectares. The municipal

forests are usually several hundred hectares. More than 30% of all private forest owners live in big cities without any relationship to their ownership. Additionally, big part of both individual owners and municipalities are often located in the most handicapped areas of the country. It is understandable that they give high priority for obtaining cash income from their property. They have no motivation to do appropriate and expensive silviculture activities in their forests. This is a high risk for the sustainability of forest management both in terms of timber production and environment (WWF Bulgaria 2007).

The restitution process is not finished yet but the overall tendency is on increasing of shares of small and municipality forests.

Management of state forests and the control of all forests were, till July 2007, the responsibility of the National Forestry Board (NFB) under the jurisdiction of the Ministry of Agriculture and Forests. The NFB is a state budget administration with three level structures. The regional and local structures of NFB are the 16 Regional Forestry Boards, 141 State Forestries, 10 Nature park directorates, 37 Game Breeding Stations and 19 research, seed control, and other stations and sections. Revenues from sales of forest products are transferred to the state treasury and cannot be directly used as working capital for forest operations. At the same time, annual allocation of state budget funds do not recognize the seasonal nature of forest activities and are not sufficient to carry out management functions adequately. Due to these circumstances the forest sector was in a crisis over the last years.



Rhododendron ponticum Strandza

A decree of the Council of Ministers from July 2007 has restructured the National Forestry Board into a State Agency for Forestry with its own budget and resources under the direct jurisdiction of the Council of Ministers. The structure of the newly established SFA is not clear yet. Building on European good practice examples, the basic approach foresees the separation of management and supervisory functions to improve efficiency, transparency and accountability of all institutions involved. It is supposed that the SFA becomes totally independent at the beginning of 2008. Till then amendments of the Forest Act are also envisaged.

2. MAIN AIM AND OBJECTIVE OF THE RESEARCH

In order to address specific issues, several thematic programmes to the Convention on Biological Diversity were elaborated. Given the importance of forests and the fragmentation and degradation of all forest types due to unsustainable forest management, at its sixth meeting in 2002, the Conference of the Parties to the CBD adopted an expanded programme of work on forest biological diversity (CBD POW). The activities of the work programme are intended to provide guidance, and it is the right and responsibility of the Parties to define their priorities and in turn, to implement these activities. The Convention on Biological Diversity has been ratified by the 37th Bulgarian Parliament and has come into force in the country on 16th July 1996. Thus Bulgaria has committed itself to follow the requirements of the CBD and to implement its provisions on national level.

The current research is part of an international project of the Global Forest Coalition and is aimed at conducting an independent monitoring process and preparing a report with recommendations that reflect the visions of all interested parties on the implementation of the CBD POW in Bulgaria.

The outcomes of the process will be presented at the ninth session of the COP to the CBD and should provide input to the long-term development of the CBD POW and the commitments taken up by countries for national level implementation.

3. METHODOLOGY OF THE RESEARCH IN BULGARIA

The methodology of the research is based on holistic and participatory approach that requires consultation and input from all stakeholders involved in the conservation and sustainable use of forest biological diversity in Bulgaria. The purpose of this approach is to engage interested parties in the research, to elicit stakeholders' preferences, interests and perspectives and to determine national priorities and recommendations for action.

The methodology of the research consists of the following main elements:

- gathering of baseline information
- desktop review of main strategic documents that concern directly or indirectly the forest ecosystems and their biological diversity
- identification and characterization of main stakeholders
- meetings and interviews with relevant actors
- questionnaire on the implementation of the CBD POW in Bulgaria
- national workshop

As first step, baseline information that helped elaborating further activities in the monitoring process was gathered. Parallel to that main national documents concerning directly or indirectly the forest ecosystems and their biological diversity were collected (laws, strategies, programmes, action plans, etc.). They were reviewed in order to assess the level of incorporation of forest biodiversity considerations (and thus the goals of the CBD POW) into strategic planning and sectoral policies in the country.

The next step was to identify the main and most important stakeholders, whose needs and interests have to be heard.

The following main stakeholder groups were identified:

- National Forestry Board (now restructured in State Agency for Forestry) – responsible for the management of state and control/ supervision of all forests in Bulgaria
- regional and local structures of the NFB
- Ministry of Environment and Water (MoEW) – National Nature Protection Service which is the responsible institution for protecting the biodiversity in Bulgaria. It also coordinates the implementation of the CBD in Bulgaria.
- Regional structures of the MoEW – 15 Regional Inspectorates of Environment and Water, 3 national park directorates
- Executive Environmental Agency that is responsible for the monitoring of biodiversity incl. forest biological diversity
- Forest and biodiversity research institutions
- Environmental non-governmental organizations dealing with biodiversity issues
- Other non-governmental organizations dealing with forest issues (e.g. private forest owners associations through which private forest owners in Bulgaria were consulted)
- Business associations and organizations related to forest sector
- International funded projects in Bulgaria dealing with biodiversity issues
- Other stakeholders such as directorate "Development of the rural regions" of the Ministry of agriculture and food supplies, etc.

In order to introduce and promote the project, information about it and its objectives was sent to all important stakeholders and put on the website of BSPB/BirdLife Bulgaria. Particular emphasis was placed on reaching regional and local structures of the state institutions and local non-state organizations working on forest biodiversity concerns. Also some consultation meetings with relevant stakeholders – mainly important decision-makers, were organized with this purpose. The meetings were used also for gathering additional information not available at the web.

The next step included the translation and adjustment of the GFC questionnaire to the Bulgarian conditions. The content of the original general document was almost entirely kept. The aim of the questionnaires was to obtain valuable detailed responses from the important stakeholders on the implementation of the CBD POW in Bulgaria. Before sending it to all the above mentioned interested parties per post, it was reviewed and tested with a forester to check if all questions are understandable and could be answered. The answers of the questionnaires were evaluated in accordance with the objectives of the research and will be presented in the next chapters.



Rilska river

In August 2007 a national workshop aimed to collect the viewpoints on the implementation of CBD POW in Bulgaria of all relevant stakeholders was organized in Sofia. All key organizations and groups involved in the previous stages of the process were invited. The aim of the workshop was to ensure clear understanding of all aspects of the project by all actors involved and to identify and discuss the main national underlying causes of forest loss and degradation in Bulgaria in order to formulate national priorities and recommendations for action and future steps on the implementation of the CBD POW in the country.

After the national workshop some additional consultations meetings were conducted in order to verify the results from the research and to draft recommendations.

The results of the research will be broadly disseminated to all interested parties.

4. RESULTS

4.1. Results from the desktop review

The review of strategic documents gives an idea how forest biodiversity issues are incorporated in strategic planning in Bulgaria.

As a whole the strategic documents in the country reflect the modern approaches for forest biodiversity conservation. Thus the ecosystem approach has been included and recommended in e.g. the National Action Plan on Biodiversity Conservation 2005-2010. This Action Plan is in accordance with the The National Biological Diversity Conservation Strategy that provides strategic direction in support of the goals and objectives of the CBD in Bulgaria.

Conservation and restoration of forest biological diversity through multifunctional forest management is also recommended in the National Strategy for Sustainable Development of the Forest Sector in Bulgaria 2006–2015. The strategy proposes also some strategic activities in terms of preserving and maintaining the forest biodiversity such as extending and strengthening the protected areas network, incorporation of forest biodiversity concerns in the legislation, inclusion of biodiversity components inventory in the forest planning, etc. These strategic activities are also incorporated in Key Measure 6 “Conservation and maintenance of the forest biological diversity” of the action plan (SPFSD 2007–2011) to this strategy. Nowadays almost none of the proposed activities have been put into practise.

The main threats to forest biodiversity are also well identified in the strategic documents. Along with threats such as habitat fragmentation, construction etc., the climate change is also mentioned. There is information on the forest species which can adapt to increased temperatures and on vulnerable species, and information on forecasts and results from modeling the climate change impact. Strategic goals for adaptation of forests in Bulgaria to climate change have been proposed in the National Strategy for Sustainable Development of the Forest Sector in Bulgaria 2006–2015. In addition to the climate change, there are measures included in strategic documents, addressing the forest fire prevention.

The institutional capacity of the authorities in Bulgaria in charge of forest management is mentioned vaguely in the Capacity Building Strategy and Plan for Bulgaria’s Implementation of the three Rio Conventions (CBD, UNFCCC, and UNCCD). Although this document is not particularly focused on forest biodiversity, it is the most exhaustive document including cross-sectoral analysis in regard to applying the CBD. The document describes the following problems related to institutional capacity: convention-specific activities are inconsistent and incomplete; the Convention’s synergistic principles, policies and measures are not mainstreamed in economic sectors; the information required for decision making is incomplete, activities for implementation and for reporting to the Conference of Parties are expensive; local authorities, businesses, NGOs and the public are not sufficiently aware and involved in the implementation of CBD.



Gudevica_rhodope

The current review of sectoral policy documents confirmed these observations and particularly the lack of incorporation of forest biodiversity concerns in sectoral policies. This issue is partly addressed by the National Agri-environmental Programme, which includes conservation activities for forest ecosystems along the rivers.

The monitoring and data management of forest biodiversity is addressed by the National Framework for Biodiversity and Protected Areas monitoring. Although this is a consultative document and its implementation is still to be decided (by the National Executive Environmental Agency), it includes a set of indicators for monitoring forest biodiversity. The proposed technological system in this document, for data gathering, analysis and distribution is an important contribution towards knowledge, assessment and monitoring of forest biological diversity in Bulgaria.

Although there are a number of strategic documents in Bulgaria, addressing biodiversity, there is no common strategic approach for forest biodiversity. The information is scattered among the other documents and it is difficult to use it and to gain an overall idea of the situation and

the necessary future activities. Although some scattered actions do resonate with the general sense of the CBD POW, these policies haven't been articulated so that they are explicitly in agreement with the objectives and goals of the CBD POW. The CBD POW is not mentioned in any of the reviewed documents.

4.2. Results from questionnaires on the implementation of the CBD POW in Bulgaria

Over 100 questionnaires were sent to the all above described stakeholders. Responses were received from ca. 66% of the asked stakeholders.

The majority (ca. 80%) of the respondents weren't aware of the CBD POW until receiving the questionnaire and the project-related information on the CBD POW incl. its Bulgarian translation. The respondents that were aware of the programme are mainly these officials and ministry representatives directly mandated to implement the CBD in the country, several representatives of research institutions and all representatives of the international projects. The National Nature Protection Service within the Ministry of Environment and Water is a focal point for the Convention on Biological Diversity. As such, it receives and is supposed to disseminate information on the Convention and its specific thematic issues (e.g. forest biodiversity) to interested parties at national level.

Although the percentage of the respondents aware of the CBD POW wasn't high, most (over 95%) of the asked actors indicated that the CBD POW or parts of it were relevant and useful to enhance the status of forest biological diversity in Bulgaria. According to the respondents the CBD POW is adequate for the conditions in the country because of the forest-related problems that could be targeted through such a programme – deforestation, loss of forest biodiversity,



Pirin

unsolved problems with forest fires, illegal logging and other big threats to forests, lack of coordination between the institutions to cope with the problems. Furthermore an overall national document for conservation and sustainable use of forest biodiversity lacks. However the implementation of CBD POW in Bulgaria is hardly possible at the moment because economic interests are determining the forests-related policies and the awareness of the broad public on the value of forest biological diversity is very low. Furthermore the programme is voluntary and could therefore be applied with difficulty.

Regarding the implementation of the CBD POW in Bulgaria more than half of the respondents think that it is not implemented in Bulgaria. Other respondents indicate that the CBD POW is partly implemented here but "very chaotic" and "tear to pieces", no common strategy and directions for its implementation exist. Some of its objectives correspond to other similar mechanisms and programmes (e.g. developing plans for multifunctional forest management, FSC forest certification) and are implemented in their frameworks. Other elements are not applicable here due to the specific political and socio-economic situation.

According to ca. 70% of the respondents, no formal process on the implementation of the CBD POW in Bulgaria is in place. Ca. 10% think that such process exists but it is not adequately organized and is therefore very ineffective.

Regarding the allocated resources (personnel, financial, etc.) for the implementation of the CBD POW – ca 52% couldn't provide answer to that question due to lack of information, ca. 16% think that there aren't any such resources and ca. 32% consider the resources as insufficient and very limited.

One third of the respondents couldn't answer the question if the Bulgarian government had a programme of public consultation and discussion for the implementation and monitoring of the CBD POW. More than 60% indicated that there isn't such programme. However, such

consultations are considered very necessary (54%) in order to establish an efficient implementation process.

Regarding the underlying causes of forest biodiversity loss and degradation in Bulgaria – ca. 65% think they are identified and addressed, ca. 27% have the opposite opinion, ca. 10% considered the causes as identified but without the needed actions to address them undertaken.

The main identified causes of forest biodiversity loss and degradation are (given according to the ranking from the respondents):

- Forest fires and in particularly human induced (over 60%)
- Illegal and unsustainable use and overexploitation of forest biological diversity (incl. timber and non-timber forest resources) (over 50%)
- Lack of governmental policy, lack of control on illegal forest activities, weak legislation penalties for forest crimes, corruption and grey economy in the forest sector, prevalent economic interests (over 40%)
- Deforestation and destruction of important habitats (over 30%)
- Lack of public awareness and understanding on the value of forests and forest biological diversity (over 30%)
- Urbanization and building in forests and forest protected areas (over 30%)
- Change of purpose/function of lands that were previously forests (over 20%)
- Natural changes due to climate change, desertification
- Air pollution and its impact on forests

The political and socio-economic causes far outweigh the ecological ones.

The main actions the government uses to tackle the problems include mainly legislative measures and control on their implementation (over 70% from the respondents give it as an example), development of action plans for endangered species (over 40%), development of strategic documents (unfortunately just on paper), identification of HCVF and forest certification, reforestation of areas devastated by forest fires, etc.

The results on the opinion of the respondents on the actions undertaken by the government to protect forests from identified threats and to restore, mitigate and eradicate those identified threats are similar.

The ecosystem approach is not put into practice in Bulgarian forests according to 73% of the respondents; ca. 10% think that its application is very limited. The overall effect of the ecosystem approach is positive according to the respondents - it mitigates the negative impacts of different processes that endanger the forest biological diversity (e.g. climate change, forest fires) and preserve the integrity of the forest ecosystems.

Regarding the question if sustainable use of forest biological diversity is a concrete activity/policy issue in Bulgaria slightly more than a half of the respondents (51%) think that it is so. According to them evidence for that is that in the last ten years important laws related to forest biodiversity issues have been adopted by the Parliament – e.g. Protected Areas Act, Biodiversity Act, Medicinal Plants Act. Implementation of the laws is very slow and insufficient though.

The majority of the respondents believe that forest biological diversity is an important economic and ecological factor for the people in Bulgaria. There are not such segments of the society that entirely depend on forests; the forests and their biological diversity contribute to the welfare of the whole society by providing important ecosystem services such as soil protection, water flow regulation, climate change mitigation and others.

Concerning the actions that are undertaken by the government in Bulgaria to create an enabling environment in the institutional and socio-economic fields, again the legislative measures prevail (over 40%). An important place within them is given to the harmonization of

the national legislation with the *aqui communitare* of the European Union, which contributes further to creating the needed preconditions for conservation and sustainable use of forest biological diversity in Bulgaria.

Nearly 20% of the respondents state that no actions have been undertaken to create the needed socio-economic environment, some actions are on the way to create institutional environment but they are not adequate and effective.

The different actors are not involved in this process according to ca. 43% of the respondents. Other 30% believe that the engagement of different stakeholders is very weak. A special emphasis is put on missing appropriate mechanisms to involve the local communities and to consider their opinion in the decision-taking process.

Regarding the integration of forest biodiversity concerns into sectoral policies the opinion that no such integration is taking place prevails (over 54%) or that it is very insufficient (ca. 25%). The priorities for research on forest biological diversity in Bulgaria include development of methodologies for monitoring of forest biological diversity, creation of common classification of the forests occurring in Bulgaria, improvement of the knowledge and the database on forest biological diversity on all levels with priority on endangered species, studies on the functional relations between different parts of the ecosystems, research on the impact of climate change and anthropogenic activities on forest biodiversity, development of models to forecast this impact, etc.

The concerns of the majority of the respondents (more than 85%) on that issue are connected with the lack of link between scientific research and the practice. No scientific approach to the management, monitoring and assessment of the forests and forest biodiversity is applied. This is due to two reasons – the scientists are not included in the decision-making and the practitioners lack information on newest researches.

The majority of the respondents (over 90%) state that traditional knowledge is also not used in policy making and assessment and monitoring of the status of forests. Ca. 50% believe that this is due to missing connection between local communities and decision-makers. Other respondents think that there is limited knowledge on local traditions left. A constant trend in losing traditions could be observed; the local people are no more interested in preserving their traditions on conservation and sustainable use of forest and its biodiversity.

4.3. Results from the national workshop

The main goal of the national workshop was to ensure clear understanding of all aspects of the project by all actors involved and to outline the main reasons and issues leading to forest loss and degradation in Bulgaria. Formulation of national priorities and recommendations for action and future steps on the implementation of the CBD POW in the country were the outcomes of the meeting. It complemented the results of the questionnaires and depicted a full picture of the problems related to forests and their biodiversity to be drawn.

More than 60 representatives of different institutions related to forest and biodiversity took part at the workshop.

The following main challenges to the forests in Bulgaria and their management have been outlined by the participants:

- Decreased efficiency of sanctions: less than 10% of forest legislation violations have been sanctioned
- Decreased recognition and respect to forest administration (less than 60%) and decreased trust in authorities and forest authorities in particular (52%)
- Increased consumption of timber and non-timber products
- Increased number of households using timber for heating (more than 50%)
- Changed land tenure (more than 20% of non-state owned forests)

- Intensified emigration and migration processes (more than 25 % of the local work force)
- Climate change
- Institutional reform and EU requirements
- Dependence of mountain population on forests as important source of incomes
- Ecosystem services of forests have not been secured.

The assessment of the relevance of the CBD POW for Bulgarian forests, made by the participants in the workshop, showed that most of the elements have been found as relevant. The assessment of the implementation of these elements however shows that they are not implemented effectively in the country. The key areas defined by the participants as being essential along with the measures for their improved management are discussed further. As a whole these key areas refer to all three elements of CBD POW.

Legislation: the existing legislative framework does not reflect the principles of sustainable forest management. Therefore it should be updated in order to incorporate the landscape level considerations, as well as the social, economic and cultural values of forest ecosystems into the process of forest planning and management.

Capacity building: decision makers and experts working at different levels of administration hierarchy and forest management institutions in Bulgaria lack some knowledge and qualifications. These are e.g. related to international forest and biodiversity related policies, newest mechanisms and good practices of the sustainable use and management of forest resources, knowledge on forest classifications and the use of Geographic Information Systems (GIS).

Synchronization of the work of different institutions and organizations: synchronization of the activities and findings of the institutions and organizations working in the field of forests is absent but necessary, so that there is clear responsibility, duplication of efforts is avoided, and work efficiency is approved.

State control and ownership: the state should improve its controlling functions (and particularly the control on fellings and other forestry activities). In addition, a bigger percentage of state owned forests is considered to be a precondition for efficient forest management in Bulgaria. Private forests are vulnerable because the owners lack the proper understanding and preparation for their sustainable use. As a precautionary measure against private forest degradation, only companies with the necessary license should work in private forests and a maximal annual yield should be defined. There are no conditions for the establishment of private forest reserves in the country either.

Local communities: often the local people do not understand the necessity of forest biodiversity conservation. Increasing the understanding and awareness rising among the local communities is vital so that they appreciate better the forest biodiversity and contribute to its conservation and sustainable use of forest resources.

Long term use of forest resources: practices for long-term use of forest resources should be encouraged, regarding in particular the non-timber resources. For example concession contracts for 10 years could be signed. Thus the user will be interested in using the resources in sustainable manner.

Alternative sources of income and employment: creating alternative sources of income and employment of the population inhabiting the areas near forests has been viewed as a step to forest conservation. Such incentives might be alternative tourism, grow of cultivated herbs, mushrooms and other non-timber forest products. Introduction of economic stimuli and mechanisms for increased incomes as a result of forest biodiversity conservation has been also recommended.

Alternative sources of energy: the practice of using sources of energy other than wooden biomass should be encouraged. Taking the dead trees out of the forests is a treat for their biological diversity.

Increasing the capacity of non- governmental organizations: NGOs are very important and should be partners to the government in the process of sustainable use of forests and their conservation.

National databases: the problem with accessible, reliable and up-to-date information could be solved through the establishment of national databases, available to all stakeholders.



Amanita_muscaria



Fragaria_vesca

5. DISCUSSION

The results from the research clearly show that the CBD POW is not officially implemented in Bulgaria. This situation makes it difficult for anyone to evaluate the impact of the CBD POW in the country accurately. There are no particular changes that could be attributed to the CBD POW entry into force in Bulgaria. This was clear from interviews and questionnaires submitted by actors in all sectors.

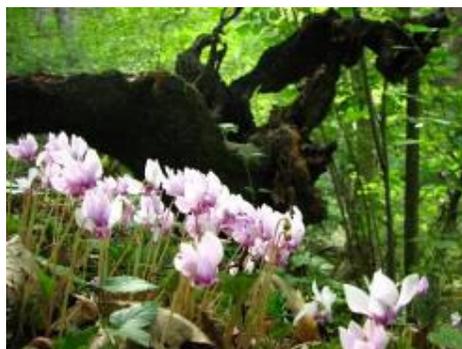
Therefore no overall and deep analysis of the situation of forests, forest people and forest management practices before and after the inception of the CBD POW could be conducted. In this chapter an attempt will be made to describe how a future implementation of the CBD POW in Bulgaria could contribute to trend positively these issues. Additionally market-based mechanisms used in the country and how they could interfere with the objectives of the CBD POW will be described. Also some projects will be presented that reflect the role of some international institutions in helping Bulgaria to put into practice the objectives of the CBD POW.

5.1. Description and analysis of the status of forest people before and after the entry into force of the CBD POW⁵

There are no society groups in Bulgaria that entirely depend on forests. The people who rely on the forest sector as main source of incomes are situated mainly in the mountainous and semi mountainous regions. They will be considered here as forest people.

The mountainous and the semi mountainous regions belong to the so called rural areas in Bulgaria. It could be accepted that the population trends in the rural areas are in generally valid for the forest people too.

⁵ Data from RDP 2007-2013 is the main source of information for the analysis in this chapter.



Cyclamen_sp

The overall population of Bulgaria has been declining but in the rural areas the rate of population decline is significantly higher. The population in the rural areas has declined by over 1 million people in the period 1972 - 2004. In 2001–2004, the average annual rate of rural population decline was -10.5 per 1000 (‰) compared to -2.1‰ of urban. The major contributor of population decline in rural areas is the negative natural growth. The migration from rural to urban areas contributed to -2.3‰ decrease of the rural population in the 2001–2004 period. Another significant problem in rural municipalities is the high level of long-term unemployment. The high unemployment rate of young people is an additional problem that leads to immigration of young labour force from rural areas.

Rural areas in Bulgaria are dependent on agriculture and forestry. In 2004, in the predominately rural regions, the share of agriculture and forestry in GVA was 50% higher than the average for Bulgaria (17.0% vs. 11%). The importance of agriculture and forestry for employment in rural regions was even higher. In the predominantly rural regions, 33% of the employment was in agriculture and forestry, and in the intermediate rural regions it was 24%, as compared to 2% in urban regions.

The agriculture and forestry sector has lower productivity than other sectors of the national economy. In 2004 GVA per employed in agriculture and forestry was EUR 2 260, or 43% of the country average. The relative share of agriculture and forestry in the GVA has been decreasing over the last decade. It fell from 18.7% in 1998 to 13.9% in 2000 and to 11.0% in 2004. The fall in the share of agriculture of the GVA is explained by the slow and uneven growth of the sector, and the faster growth of the national economy.

The main problems related to forest people in rural areas could be summarized as follows:

- Migration of the young generations
- Aging and lack of motivation of the labour force in forestry due to low incomes generated
- Lack of own capital and difficult access to credit of small forest holdings;
- No interests of private forest owners to manage their forests in a sustainable way because of high input and low income, lots of illegal activities as a consequence
- Loss of traditions and traditional knowledge
- No awareness and understanding of the value of forest biological diversity
- No involvement of local communities in decision-making process.

In regards to these problems the implementation of the CBD POW in Bulgaria could significantly contribute to improve the status of the forest people in the rural areas. The activities should aim at reducing the impact of the above mentioned problems and could include creating alternative sources of incomes and employment (e.g. ecotourism) for the young people to stay at their birthplaces, awareness campaigns about the value of forest biological diversity and trainings on how to conserve and use sustainably forest biodiversity and gain benefits from that (e.g. through development of ecotourism which good potential is still underestimated), active involvement of local communities through consultations and other participatory mechanisms in decision making processes in order to reflect their visions, incentives for preserving local traditions and knowledge.

5.2. Predominant forest management practices in Bulgaria and how they fit in the objectives of the CBD POW

The development of forests and forest management in Bulgaria is carried out in compliance with the provisions of the national legislation and the responsibilities and commitments to the international treaties and agreements. Forest management is aiming at development, protection and maintenance of the forest ecosystems. The national legislative framework consists of specific forestry laws (Forest Act) and secondary legislation (e.g. Ordinance N: 6 for forest and game management planning) and other statutory laws of relevance to forests (e.g. Protected Areas Act, Biodiversity Act), programmes, action plans (e.g. Strategic Plan for Forest Sector Development 2007–2011), projects and decrees of the Council of Ministers (e.g. Decree on ban of the trade with burned timber).

According to the SPFSD 2007-2011 the forests of Bulgaria are divided into three groups, according to their main purpose:

1. Wood-producing and environment-sustaining forests (68.1%)
2. Protective and recreational forests (23.7%)
3. Forests and lands in protected areas (8.2%).

Management activities are applied in accordance to the function of the forests. Timber harvesting in wood-production forest is carried out through regeneration fellings, sanitary cuttings and thinning. New stands are established mainly through natural regeneration. Clear cuts are carried out to a very limited extent; the maximum size of clear cutting areas is limited to 5 ha. The current priority - sustainability of forest plantations - is achieved by increase of 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 of natural ranges (Yonov & Velichkov 2004). The implementations of selection systems, which promote the formation of multi-aged stands, are not commonly practiced. In the protected and protective forest certain activities are forbidden – e.g. any cuttings in the strict protected zones, use of chemicals.

Biodiversity conservation has not yet been able to make its way into the mainstream of forest management. 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. Other negative examples include ongoing practices for conversion of wild riverine deciduous forests into fast-growing poplar plantations; ongoing practices for substitution of unproductive wild tree species with highly productive ones, often invasive alien species, considerable loss of the genetic pool of some species.

The establishment of the national Natura 2000 ecological network is considered to be of huge importance for the conservation of the biological diversity of forest ecosystems. The establishment of new protected areas comply with the objectives of the CBD POW and could advance its implementation in Bulgaria. This could have a positive impact on some of the above mentioned negative practises such as the use of invasive alien tree species. However, designation and maintenance of protected areas is often seen as the main tool for preserving forest biodiversity. Generally forest management practises in Bulgaria are not in line with the CBD POW because they do not address adequately forest biodiversity concerns and therefore the application of the programme in Bulgaria could have a very positive impact.

5.3. Description and analysis of how market-based conservation mechanisms interfere with the implementation of the CBD/POW in Bulgaria

Forest management in Bulgaria has undergone severe changes. After all it was realized that government through its command and control methods alone cannot manage the forest successfully and this calls for looking at strengthening alternate options, particularly economic instruments. Currently, forest management faces several constraints including a lack of adequate funds. It is possible that the introduction of suitable market-based instruments for ecosystem services of forests would strengthen forest conservation and sustainable use of forest biodiversity in Bulgaria.

From the different sets of market-based mechanism available, in Bulgaria the FSC forest certification is the most spread one.

The beginning of the FSC forest certification in Bulgaria was set in 2005 with the certification of two forest districts – a private and a state. In the course of the process of certification several other private forestry cooperatives, state forest districts and game breeding stations were certified. Additionally, in 2006 the NFB (now SAF) has officially stated its will to FSC certify another 1 million ha state forest in the next five years.

The first step in certifying forests according to the requirements of the FSC standard in Bulgaria is the identification of the so called High Conservation Value Forests (HCVF) which reflects the Principe 9 of this standard. High percentage of the respondents to the questionnaires thinks that the identification of HCVF in Bulgaria comply entirely with the objectives of the CBD POW and could contribute to its implementation in the country. The identification of HCVF here is carried out in accordance with a national toolkit developed through a multi-stakeholder participation. It has helped to ensure consistent quality, transparency and stakeholder participation in the subsequent HCVF work.

Bulgarian NGOs are lobbying the Government of Bulgaria to formally endorse the national HCVF toolkit and adopt it as a methodology for biodiversity inventories. As such, the toolkit will be included in the national standards for forest management planning in Bulgaria. The FSC process in Bulgaria is strongly supported and encouraged by the environmental NGOs which see in it a unique opportunity to address some urgent forest problems such as illegal logging and to mainstream biodiversity concerns in the forest management practices.

Other marked-based conservation mechanisms such as compensatory payments for private forest owners under Natura 2000 or funding opportunities under the Rural Development Regulation are not sufficiently developed and applied yet in Bulgaria. This is supposed to happen in the next years and could also contribute to the implementation of the CBD POW objectives in the country.

Another mechanism that is currently gaining attention in Bulgaria is the carbon offset under the Kyoto protocol. The Bulgarian environmental NGOs are in general suspicious for its application because it could be connected with planting of fast growing alien species that could have negative impact on the forest biological diversity.

5.4. Assessment of environmental changes occurring in Bulgaria and how they interfere with the CBD POW

Although one of the priorities of the current forest policy is to increase the forest cover, most of the environmental changes related to forests in Bulgaria over the last five years are in general connected with deforestation, degradation of important forest habitats and loss of biodiversity. Some of the underlying causes for this changes have natural origin (climate change and thus increased number of nature extremes), but the biggest part are rather due to different human-induced socio-economic and institutional failures.

Forest fires are nowadays one of the hottest issues in the Bulgarian forest sector. Only in 2007 more than 40 000 ha of forests (which accounts for more than 1% of the forest cover in Bulgaria) have been devastated by fires. Natural forest fires are an important ecological factor

occurring rarely in Bulgaria. However, the majority of forest fires - more than 90% - associate with human activities.

Other natural disaster that causes indirect impact on Bulgarian forests is flooding. Huge swell waves started swamping Bulgaria in 2005. Fallen trees, floating branches as well as sediment and garbage in riverbeds were found to be the main reasons for reduced water connectivity. As a prevention measure the authorities started clearing riverbeds. However not only fallen trees and floating branches were removed from the riverbeds but also huge trees of high market value in the upper part of the course were cut. Thus important (and some of them endangered) forest habitats having crucial ecological functions – e.g. maintaining the steep riverbanks, were destroyed.



Other cause leading to negative forest changes is illegal logging. According to a report of the WWF on illegal felling in Bulgaria from 2005, 45% of all the timber obtained in Bulgaria has been acquired illegally. The enhanced developments in tourism and construction works are among the factors promoting criminal felling. The aggression of tourism-oriented construction inflicts double damage on forests. On the one hand there is a growing appetite for introducing more tourist centres and ski-tracks, even into protected territories; and that is always related to cutting many trees and affecting watersheds, which speeds up erosion and degradation of

other important habitats. On the other hand the very construction of these resorts requires more and more wood. Additionally control on these processes is still far from the necessary standard.

All this issues are targeted by the CBD POW and therefore its implementation in Bulgaria could contribute to shifting the environmental changes occurring here in positive direction and to reducing deforestation rates and further loss of forest biodiversity.

5.5. Assessment of the role of international institutions and other relevant regional ones in helping Bulgaria implementing the CBD POW

The international institutions and foreign governments have been supporting Bulgaria in the process of applying the international agreements for over 15 years. There are a number of projects addressing directly biological diversity in the country. Some of the most important ones are UNDP projects "Biodiversity Enabling Activities", "Biodiversity Action Plan", and "National Capacity Self- Assessment for Global Environmental Management". Several bi-lateral protected area projects have been implemented as well, funded by USAID, GTZ and the Government of Switzerland.

The above mentioned projects, supported by international institutions and donors outlined the framework for biodiversity conservation as a whole, while there were also activities focused particularly on forest management and forest biodiversity and conservation. A major role among them had the preparation phase of the World Bank Forest Sector Development Project which set the National Forest Policy and Strategy. Unfortunately the preparation phase of that project ended in 2004 and due to different political reasons the project didn't continue. A Japanese Trust Fund "Fuel Switch Pilot Project" focused on the utilization of wooden biomass from forest management activities. Furthermore, with the support of the Government of Switzerland, the Bulgarian-Swiss Programme on Forests was implemented. Its main goal was to support the forest sector in Bulgaria in balancing the ecological, economic and social functions of forests through multifunctional forest management practices. The on-going

GEF/UNDP Project "Conservation of Globally Significant Biodiversity in the Landscape of Bulgaria's Rhodope Mountains" includes activities focused on regions with sensitive ecosystems and landscape components such as buffer zones, conservation zones and corridors, as well as forests, pastures and arable land. Forest fire prevention and improved capacity of the state administration to address effectively forest fire problems were aimed by two other projects: USAID Forest Fire Management Project and Capacity Building for Forest Fire Prevention – a joint project with FAO.

In summary, the role of the international institutions was essential particularly in contributing to development of strategic framework for forest biodiversity conservation, along with applying pilot practices for sustainable forest management. The capacity of the state in this respect was also improved. In addition, these initiatives contributed to the involvement of civil society organizations into the process of forest management and conservation. All this activities are also in line with the CBD POW objectives.

6. CONCLUSIONS FROM THE RESEARCH AND RECOMMENDATIONS FOR THE FUTURE IMPLEMENTATION OF THE CBD POW IN BULGARIA

The general conclusion of the research is that CBD POW is not officially implemented in Bulgaria. The conducted independent monitoring process on the implementation of CBD POW provided a valuable platform for discussion on this programme and initiated its establishment in the country. Based on the findings of this research, however, it is clear that if Bulgaria's commitment to the CBD POW is to be fully realized, a great deal more effort is needed.

In order to effectively implement the CBD POW in Bulgaria from now on the following recommendations should be considered:

- The official implementation of the CBD POW should start as soon as possible in Bulgaria in order to fulfill all its objectives and effectively contribute to halting the loss of forest biological diversity.
- As every voluntary document of this kind with broad objectives applicable to the conditions all over the world the CBD POW has to be adapted the Bulgarian specifics. This could be made through participatory development of national programme of work on forest biological diversity that follows the CBD POW structure and reflects the specific circumstances and national priorities for conservation and sustainable use of forest biological diversity.
- The national programme of work (POW) should be institutionalized – for example through official regulation of the government that commits itself to its implementation.
- The government should officially assign clear responsibilities for the programme implementation to one or more institutions (most of the consulted stakeholders see as such institutions the MoEW and the SAF). These institutions should be responsible for disseminating information on CBD POW to all interested parties and for coordinating the roles of the remaining institutions involved.
- A process on the implementation of the CBD POW on regional and local level should be initiated through the development of e.g. working groups involving representatives of different interested parties.
- The knowledge and capacity of the state institutions to deal with forest biodiversity-related issues should be improved. The necessary resources (financial, human and technical) for the CBD POW implementation should be allocated.
- Part of the financial means generated through trade with forest products should be used for the implementation of the CBD POW and the conservation of forest biological diversity in this way.
- The implementation of the CBD POW should be encouraged through economic stimuli in order to convince the people that they may benefit from the sustainable use of forest biological diversity.

- More bottom-up initiatives of regional and local stakeholders on the implementation of the CBD POW should be encouraged.
- In order to conserve and use the forest biodiversity in sustainable way the connection between research and practice should be improved (or even created where not in place).
- All relevant stakeholders, incl. local communities, should be included in this process through different mechanisms such as awareness campaigns, public consultations, informative meetings on regional and local level etc. This is one of the most important premises for the successful implementation of the CBD POW. The role of the environmental NGOs could be very important in terms of promoting the CBD POW at national level.
- Traditional forest knowledge of local communities should be preserved and incorporated in policies and measures for curving the forest biodiversity loss.
- The objectives of the CBD POW should be broadly promoted to the public. Awareness campaigns should target with priority younger generations.
- The objectives of the CBD POW should be further incorporated in the legislation and thus made obligatory.
- The objectives of the CBD POW should be taken into account in developing forest management plans and management plans for protected areas.
- Efforts to conserve forest biodiversity, such as those set out in some national strategic documents (e.g. Strategic Plan for Forest Sector Development 2007–2011), need to be explicitly linked to the CBD POW so that their effectiveness in meeting international commitments can be clearly tracked.
- The objectives of the CBD POW should be integrated in other sectoral policies such as tourism, economy, energy, trade, education and others.
- Toolkits and detailed instructions on how to implement the CBD POW should be developed.
- Best practices from other countries on the implementation of the CBD POW should be presented to the Bulgarian stakeholders in order to encourage their understanding and active involvement in the national process.
- Trainings and capacity building on sustainable forest management practices and the application of the ecosystem approach should be organized for the key stakeholders.
- The implementation of the CBD POW should be related to other similar programmes and mechanisms (e.g. development of national forest programme).
- Regular monitoring and reports to the CBD Secretariat should be encouraged; stronger commitment from the CBD Secretariat is also a premise for efficient implementation on national level.

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Picture: Rhododendron_ponticum_Strandza

Beech forests with Rhododendron ponticum in Strandza Nature Park. Strandza Nature Park is the largest protected area in Bulgaria. The park was a refugium for many species widespread in the Tertiary. It is unique in Europe in the combination of deciduous forests and ever-green understory bushes. However, the threats to Strandza’s beauties are multitudinous: inappropriate forest management practices, poaching, pollution, wind and mini-hydro power generators and, last but not least, excessive and unregulated building on the coast – one of the fastest growing holiday hotspots in Europe. Author: John Taylor Fox

Picture: Rilska river

Mixed Beech-Spruce-fir forests in Rila National Park. Rila National Park is the largest national park in Bulgaria and contains unspoiled tracts of wilderness, a rarity in whole Europe. Recently, however, the quiet beauty of the park has been broken by the whine of chain saws carving away at the forest below the Seven lakes region of the park. The enhanced developments in tourism and construction works are among the factors promoting criminal felling and destruction of forests in Bulgaria. Author: Georgi Ekov

Picture: Pirin

Mixed Spruce – Macedonian Pine (*Pinus peuce* Griseb.) coniferous forest in Pirin National Park.

The Macedonian Pine is a relict species, endemic for the whole Balkan Peninsula. Best preserved Macedonian pine forests (often mixed with spruce) with age over 400 years occur in Pirin National Mountain. Author: Boyan Rashev

Picture: Amanita muscaria

Author: Georgi Ekov

Picture: Fragaria vesca

Bulgaria has a significant non-timber forest resource – medicinal plants, mushrooms, forest fruits etc. Author: Ilija Gionov

Picture: Elaphe longissima

Bulgarian forests offer a variety of habitats for plants, animals and micro-organisms. The Aesculapian snake is found from sea level to 2,000 m in a variety of habitats, including deciduous woodland. It is listed in Appendix II of the Council of Europe’s ‘Convention on the Conservation of European Wildlife and Natural Habitats’ (the Bern Convention). Author: Georgi Popgeorgiev

Picture: Cyclamen sp.

Cyclamen sp. in beech forests in Belasitza Nature park. Belasitza nature park is the youngest Bulgarian park designated at the end of 2007. It protects large ancient beech and sweet chestnut (*Castanea sativa* Mill.) forests. Author: Georgi Ekov

Picture: Gudevica_Rhodope

Forests in the Western Rhodope region. The Western Rhodope is a mountain region in South – west Bulgaria that is largely forested, with over two thirds coverage of mostly coniferous species. The relative low attitude and the favourable climate has been a precondition for the establishment of settlements throughout this region in ancient and modern times. Such rural areas like the Western Rhodope are highly dependent on agriculture and forestry. Author: Georgi Ekov



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