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SCIENTIFIC SESSION I
**THE ROLE OF FORESTRY SECTOR IN PRESERVATION AND
DEVELOPMENT OF NATURAL RECOURSES –
LOCAL AND INTERNATIONAL SCALE**

PLENARY LECTURE
**CONSERVATION AND ENHANCEMENT OF NATURAL
RESOURCES IN SERBIA – ADJUSTMENT OF LEGISLATION
WITH INTERNATIONAL AGREEMENTS OF
ENVIRONMENTAL PROTECTION**

*Radovan NEVENIĆ¹, Dragana DRAŽIĆ¹, Ljiljana BRAŠANAC¹,
Srđan BOJOVIĆ²*

Abstract: *Conservation and advancement of natural resources is the base of sustainable development. The concept of sustainable development was adopted by the European Union in 1990, and at the world level, it was officially adopted at the Second United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992. The adoption of this concept at the global level was stimulated by the knowledge of large-scale changes of the environment, global climate change, pollution of air, water and soil, degradation of many ecosystems and consumption of great quantities of natural resources. It was understood that the environment could not be conserved and enhanced by partial policies and measures and that it is only possible by the implementation of the concept of sustainable development. The Rio Summit adopted the Declaration on environment and development (Rio Declaration), the Kyoto Protocol to UN Framework Convention on Climate Change and Convention on Biological Diversity, adopted the Principles on the Management, Conservation and Sustainable Development of all Types of Forests.*

Sustainable development requires the changes of development policy, a better integration of the sector policies with the environment policy and the

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adaptation of economic system to the environment policy. Sustainable development includes the implementation of three principles:

- *precautionary principle, favouring the preventive approach related to subsequent correction of mistakes and consequences;*
- *principle of solidarity between the present and future generations and among all populations of the world, and*
- *principle of participation of all social actors in the decision-making mechanisms.*

Utilization of potentials and natural resources in Serbia should be harmonized with goals of environmental protection defined by Law on environmental protection, Law on Strategic Environmental Assessment and other laws which consider.

To achieve the sustainable development, the structural, technical and technological changes are necessary, as well as the adaptation of the structure and dynamics of human activities to the structure and dynamics of the environment.

Serbia is the signatory to a number of international conventions and agreements in the field of environmental protection, which have directly or indirectly influence to the development of the forest sector. Republic of Serbia continued its active participation in regional initiatives. Disregarding the disadvantages of many preconditions, the frameworks of environment management strategy formulation should be defined in the new, changed conditions, relying primarily on the elements of the existing legal regulations.

Preparation of National strategy of sustainable use of natural resources in Serbia has started in 2005. National strategy should contain: principle of sustainable development, status analysis and so far level of exploitation, valuation methods and conditions for sustainable use of natural resources, ecological-spatial principles on the potentials of natural resources, conditions for progressive substitution of natural resources as a way of conservation, guidelines for further research in the area of individual natural resources etc.

As internationally recognized factor, Serbia should take an active part in the processes of development of future international agreements, taking into account the protection of its national interests. There for, it is necessary that Serbia realized its commitments by their implementation in the national legislation.

Key words: conservation, enhancement, environment, natural resources, international conventions and agreements.

1. INSTEAD OF INTRODUCTION

The relationship between economic development and environmental degradation was first placed on the international agenda in 1972, at the UN Conference on the Human Environment, held in Stockholm. After the Conference, Governments set up the United Nations Environment Programme (UNEP), which today continues to act as a global catalyst for action to protect the environment. Little, however, was done in the succeeding years to integrate environmental concerns into national economic planning and decision-making. Overall, the environment continued to

deteriorate, and such problems as ozone depletion, global warming and water pollution grew more serious, while the destruction of natural resources accelerated at an alarming rate.

By 1983, when the UN set up the World Commission on Environment and Development, environmental degradation, which had been seen as a side effect of industrial wealth with only a limited impact, was understood to be a matter of survival for developing nations. The Commission put forward the concept of sustainable development as an alternative approach to one simply based on economic growth – one “which meets the needs of the present without compromising the ability of future generations to meet their own needs”.

After considering the 1987 Brundtland report¹, the UN General Assembly called for the UN Conference on Environment and Development (UNCED). The primary goals of the Summit were to come to an understanding of “development” that would support socio-economic development and prevent the continued deterioration of the environment, and to lay a foundation for a global partnership between the developing and the more industrialized countries, based on mutual needs and common interests, that would ensure a healthy future for the planet.

The three Rio Conventions² – on Biodiversity, Climate Change and Desertification – derive directly from the 1992 Earth Summit. Each instrument represents a way of contributing to the sustainable development goals. The three conventions are intrinsically linked, operating in the same ecosystems and addressing interdependent issues.

In Rio, Governments – more than 178 represented by heads of State or Government – adopted three major agreements aimed at changing the traditional approach to development:

- Agenda 21 – a comprehensive programme of action for global action in all areas of sustainable development;
- The Rio Declaration on Environment and Development – a series of principles defining the rights and responsibilities of States;
- The Statement of Forest Principles – a set of principles to underlie the sustainable management of forests worldwide.

In addition, two legally binding Conventions aimed at preventing global climate change and the eradication of the diversity of biological species were opened for signature at the Summit, giving high profile to these efforts:

- The United Nations Framework Convention on Climate Change and
- The Convention on Biological Diversity

¹ Report of the World Commission on Environment and Development

² Agenda 21, the Rio Declaration on Environment and Development, and the Statement of principles for the Sustainable Management of Forests were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3 to 14 June 1992.

Agenda 21 addresses today's pressing problems and aims to prepare the world for the challenges of the next century. It contains detailed proposals for action in social and economic areas (such as combating poverty, changing patterns of production and consumption and addressing demographic dynamics), and for conserving and managing the natural resources that are the basis for life – protecting the atmosphere, oceans and biodiversity; preventing deforestation; and promoting sustainable agriculture.

Governments agreed that the integration of environment and development concerns will lead to the fulfillment of basic needs, improved standards for all, better protected and better managed ecosystems and a safer and a more prosperous future. “No nation can achieve this on its own. Together we can – in a global partnership for sustainable development”, states the preamble. The Rio Declaration on Environment and Development supports Agenda 21 by defining the rights and responsibilities of States regarding these issues. Among its principles:

- That human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature;
- That scientific uncertainty should not delay measures to prevent environmental degradation where there are threats of serious or irreversible damage;
- That States have a sovereign right to exploit their own resources but not to cause damage to the environment of other States;
- That eradicating poverty and reducing disparities in worldwide standards of living are “indispensable” for sustainable development;
- That the full participation of women is essential for achieving sustainable development; and
- That the developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

The Statement of Forest Principles, the non-legally binding statement of principles for the sustainable management of forests, was the first global consensus reached on forests. Among its provisions:

- That all countries, notably developed countries, should make an effort to “green the world” through reforestation and forest conservation;
- That States have a right to develop forests according to their socio-economic needs, in keeping with national sustainable development policies; and
- Those specific financial resources should be provided to develop programmes that encourage economic and social substitution policies.

At the Summit, the UN was also called on to negotiate an international legal agreement on desertification, to hold talks on preventing the depletion of certain fish stocks, to devise a programme of action for the sustainable development of small island developing States and to establish mechanisms for ensuring the implementation of the Rio accords.

Standard-setting- Central to the ability of Governments to formulate policies for sustainability and to regulate their impact is the development of a set of internationally accepted criteria and indicators for sustainable development. The Commission on Sustainable Development is spearheading this work, which will enable countries to gather and report the data needed to measure progress on Agenda 21. It is hoped that a “menu” of indicators — from which Governments will choose those appropriate to local conditions — will be used by countries in their national plans and strategies and, subsequently, when they report to the Commission.

Achieving sustainable development worldwide depends largely on changing patterns of production and consumption — what we produce, how it is produced and how much we consume, particularly in the developed countries. Commission on Sustainable Development CSD’s work programme in this area focuses on projected trends in consumption and production; impacts on developing countries, including trade opportunities; assessment of the effectiveness of policy instruments, including new and innovative instruments; progress by countries through their timebound voluntary commitments; and extension and revision of UN guidelines for consumer protection.

In 1995, the Commission also adopted a work programme on the transfer of environmentally sound technology, cooperation and capacity building. The programme places an emphasis on three interrelated priority areas: access to and dissemination of information, capacity building for managing technological change and financial and partnership arrangements. The Commission is working with the World Trade Organization, the UN Conference on Trade and Development and the United Nations Environment Programme (UNEP) to ensure that trade, environment and sustainable development issues are mutually reinforcing.

1.1. Protection Of The Atmosphere – Protection of the atmosphere is a broad and multidimensional endeavor involving various sectors of economic activity. The options and measures described in the present chapter are recommended for consideration and, as appropriate, implementation by Governments and other bodies in their efforts to protect the atmosphere. It is recognized that many of the issues discussed in this chapter are also addressed in such international agreements as the 1985 Vienna Convention for the Protection of the Ozone Layer, the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer as amended, the 1992 United Nations Framework Convention on Climate Change and

other international United Nations Climate Change Conferences such as - Bali, 3 - 14 December 2007¹, including regional, instruments. In the case of activities covered by such agreements, it is understood that the recommendations contained in this chapter do not oblige any Government to take measures which exceed the provisions of these legal instruments. However, within the framework of this chapter, Governments are free to carry out additional measures which are consistent with those legal instruments.

The basic objective of this programme area is to improve the understanding of processes that influence and are influenced by the Earth's atmosphere on a global, regional and local scale, including, physical, chemical, geological, biological, oceanic, hydrological, economic and social processes; to build capacity and enhance international cooperation; and to improve understanding of the economic and social consequences of atmospheric changes and of mitigation and response measures addressing such changes.

1.2. Transboundary Atmospheric Pollution – Transboundary air pollution has adverse health impacts on humans and other detrimental environmental impacts, such as tree and forest loss and the acidification of water bodies. The geographical distribution of atmospheric pollution monitoring networks is uneven, with the developing countries severely underrepresented. The lack of reliable emissions data outside Europe and North America is a major constraint to measuring transboundary air pollution. There is also insufficient information on the environmental and health effects of air pollution in other regions.

The 1979 Convention on Long-range Transboundary Air Pollution, and its protocols, have established a regional regime in Europe and North America, based on a review process and cooperative programmes for systematic observation of air pollution, assessment and information exchange. These programmes are continued and enhanced till now days such as ICP Forests², and their experience shared with other regions of the world.

1.3. Integrated Approach To The Planning And Management Of Land Resources- Land is normally defined as a physical entity in terms of its topography and spatial nature; a broader integrative view also includes natural resources: the soils, minerals, water and biota that the land

¹ The Conference, hosted by the Government of Indonesia, took place at the Bali International Convention Centre and brought together representatives of over 180 countries together with observers from intergovernmental and nongovernmental organizations, and the media. The two week period included the sessions of the Conference of the Parties to the UNFCCC, its subsidiary bodies as well as the Meeting of the Parties of the Kyoto Protocol.

² ICP Forests was launched in 1985 under the Convention on Long-range Transboundary Air Pollution of the United Nations Economic Commission for Europe (UNECE) due to the growing public awareness of possible adverse effects of air pollution on forests. ICP Forests monitors the forest condition in Europe, in cooperation with the European Union using two different monitoring intensity levels. The first grid (called Level I) is based on around 6000 observation plots on a systematic transnational grid of 16 x 16 km throughout Europe. The intensive monitoring level comprises around 800 Level II plots in selected forest ecosystems in Europe. Currently 41 countries participate in the ICP Forests.

comprises. These components are organized in ecosystems which provide a variety of services essential to the maintenance of the integrity of life-support systems and the productive capacity of the environment. Land resources are used in ways that take advantage of all these characteristics. Land is a finite resource, while the natural resources it supports can vary over time and according to management conditions and uses. Expanding human requirements and economic activities are placing ever increasing pressures on land resources, creating competition and conflicts and resulting in suboptimal use of both land and land resources. If, in the future, human requirements are to be met in a sustainable manner, it is now essential to resolve these conflicts and move towards more effective and efficient use of land and its natural resources. Integrated physical and land-use planning and management is an eminently practical way to achieve this. By examining all uses of land in an integrated manner, it makes it possible to minimize conflicts, to make the most efficient trade-offs and to link social and economic development with environmental protection and enhancement, thus helping to achieve the objectives of sustainable development. Land resources are used for a variety of purposes which interact and may compete with one another; therefore, it is desirable to plan and manage all uses in an integrated manner. Integration should take place at two levels, considering, on the one hand, all environmental, social and economic factors (including, for example, impacts of the various economic and social sectors on the environment and natural resources) and, on the other, all environmental and resource components together (i.e., air, water, biota, land, geological and natural resources).

1.4. Sustaining the multiple roles and functions of all types of forests, forest lands and woodlands - There are major weaknesses in the policies, methods and mechanisms adopted to support and develop the multiple ecological, economic, social and cultural roles of trees, forests and forest lands. Many developed countries are confronted with the effects of air pollution and fire damage on their forests. More effective measures and approaches are often required at the national level to improve and harmonize policy formulation, planning and programming; legislative measures and instruments; development patterns; participation of the general public, especially women and indigenous people; involvement of youth; roles of the private sector, local organizations, non-governmental organizations and cooperatives; development of technical and multidisciplinary skills and quality of human resources; forestry extension and public education; research capability and support; administrative structures and mechanisms, including intersectoral coordination, decentralization and responsibility and incentive systems; and dissemination of information and public relations. This is especially important to ensure a rational and holistic approach to the sustainable and environmentally sound development of forests. The need for securing the multiple roles of forests and forest lands through adequate and

appropriate institutional strengthening has been repeatedly emphasized in many of the reports, decisions and recommendations of FAO¹, ITTO², UNEP³, the World Bank⁴, IUCN⁵ and other organizations.

1.5. Enhancing the protection, sustainable management and conservation of all forests, and the greening of degraded areas, through forest rehabilitation afforestation, reforestation and other rehabilitative means – Forests world wide have been and are being threatened by uncontrolled degradation and conversion to other types of land uses, influenced by increasing human needs; agricultural expansion; and environmentally harmful mismanagement, including, for example, lack of adequate forest-fire control and anti-poaching measures, unsustainable commercial logging, overgrazing and unregulated browsing, harmful effects of airborne pollutants, economic incentives and other measures taken by other sectors of the economy. The impacts of loss and degradation of forests are in the form of soil erosion; loss of biological diversity, damage to wildlife habitats and degradation of watershed areas, deterioration of the quality of life and reduction of the options for development. The present situation calls for urgent and consistent action for conserving and sustaining forest resources. The greening of suitable areas, in all its component activities, is an effective way of increasing public awareness and participation in protecting and managing forest resources. It should include the consideration of land use and tenure patterns and local needs and should spell out and clarify the specific objectives of the different types of greening activities.

To maintain existing forests through conservation and management, and sustain and expand areas under forest and tree cover, in appropriate areas of both developed and developing countries, through the conservation of natural forests, protection, forest rehabilitation, regeneration, afforestation, reforestation and tree planting, with a view to maintaining or restoring the ecological balance and expanding the contribution of forests to human needs and welfare. Ensuring the sustainable management of all forest ecosystems and woodlands, through improved proper planning, management and timely implementation of silvicultural operations, including inventory and relevant research, as well as rehabilitation of degraded natural forests to restore productivity and environmental contributions, giving particular

¹ Food and Agriculture Organization of the United Nations

² ITTO - is an intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources.

³ UNEP [United Nations Environment Programme](#) - provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

⁴ The World Bank (the Bank), a part of the [World Bank Group](#) (WBG), is an internationally supported bank that provides loans to developing countries for development programs with the stated goal of reducing poverty.

⁵ The International Union for the Conservation of Nature and Natural Resources - The World Conservation Union is the world's largest and most important conservation network. The Union brings together 83 States, 110 government agencies, more than 800 non-governmental organizations (NGOs), and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership.

attention to human needs for economic and ecological services, wood-based energy, agro forestry, non-timber forest products and services,

Regarding the international and regional cooperation and coordination should be cooperation and assistance of international organizations and the international community in technology transfer, specialization and promotion of fair terms of trade, without resorting to unilateral restrictions and/or bans on forest products contrary to GATT¹ and other multilateral trade agreements, the application of appropriate market mechanisms and incentives will help in addressing global environmental concerns. Strengthening the coordination and performance of existing international organizations, in particular FAO, UNIDO², UNESCO³, UNEP, ITC/UNCTAD⁴/GATT, ITTO and ILO⁵, for providing technical assistance and guidance in this programme area is another specific activity.

2. SUSTAINING LIFE OF EARTH

Life on the blue planet is contained within the biosphere, a thin and irregular envelope around the Earth's surface, just a few kilometers deep

¹ The General Agreement on Tariffs and Trade (typically abbreviated GATT) was the outcome of the failure of negotiating governments to create the International Trade Organization (ITO).. As governments negotiated the ITO, 15 negotiating states began parallel negotiations for the GATT as a way to attain early tariff reductions. Once the ITO failed in 1950, only the GATT agreement was left. The GATT's main objective was the reduction of barriers to international trade. This was achieved through the reduction of tariff barriers, quantitative restrictions and subsidies on trade through a series of agreements. The GATT was a treaty, not an organization. The functions of the GATT were taken over by the World Trade Organization which was established during the final round of negotiations in the early 1990s.

² The United Nations Industrial Development Organization (UNIDO) helps developing countries and countries with economies in transition in their fight against marginalization in today's globalized world. It mobilizes knowledge, skills, information and technology to promote productive employment, a competitive economy and a sound environment.

³ United Nations Educational, Scientific and Cultural Organization (UNESCO) is a specialized agency of the United Nations established on 16 November 1945. Its stated purpose is to contribute to peace and security by promoting international collaboration through education, science, and culture in order to further universal respect for justice, the rule of law, and the human rights and fundamental freedoms proclaimed in the UN. It is the heir of the League of Nations' International Commission on Intellectual Cooperation.

⁴ United Nations Conference on Trade and Development. Established in 1964, UNCTAD promotes the development-friendly integration of developing countries into the world economy. UNCTAD has progressively evolved into an authoritative knowledge-based institution whose work aims to help shape current policy debates and thinking on development, with a particular focus on ensuring that domestic policies and international action are mutually supportive in bringing about sustainable development.

⁵ The International Labor Organization - The UN specialized agency which seeks the promotion of social justice and internationally recognized human and labor rights. ILO is devoted to advancing opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity. Its main aims are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues. In promoting social justice and internationally recognized human and labor rights, the organization continues to pursue its founding mission that labor peace is essential to prosperity. Today, the ILO helps advance the creation of decent jobs and the kinds of economic and working conditions that give working people and business people a stake in lasting peace, prosperity and progress.

around the radius of the globe. Here, ecosystems purify the air and the water that are the basis of life. They stabilize and moderate the Earth's climate. Soil fertility is renewed, nutrients are cycled and plants are pollinated. Although scientists are now able to appreciate the complexity of this web of interacting natural processes, we are still a very long way from understanding how they all fit together. What we do know is that if any part of the web suffers breaks down, the future of life on the planet will be at risk.

Biological diversity – the variability of life on Earth – is the key to the ability of the biosphere to continue providing us with these ecological goods and services and thus is our species' life assurance policy. However, as a species are degrading, and in some cases destroying, the ability of biological diversity to continue performing these services. The 20th century saw a fourfold increase in human numbers and an eighteen-fold growth in world economic output. With these came unsustainable patterns of consumption and the use of environmentally unsound technologies.

There are now more than six billion of populations and human are placing unprecedented strains on the planet's ability to cope. Worse, the fruits of this growth are extremely unequally divided.

Whilst some enjoy better standards of living than at any time in history, nearly half the world's population is unjustifiably poor, making do on less than \$2 a day. Worse still, the poor suffer disproportionately from the damage done to the environment (Töpfer 2000).

Interactions among the various components of biodiversity make the planet habitable for all species, including humans. Personal health, and the health of economy and human society, depends on the continuous supply of various ecological services that would be extremely costly or impossible to replace. These natural services are so varied as to be almost infinite. For example, it would be impractical to replace, to any large extent, services such as pest control performed by various creatures feeding on one another, or pollination performed by insects and birds going about their everyday business.

"Goods and Services" provided by ecosystems include:

- Provision of food, fuel and fiber
- Provision of shelter and building materials
- Purification of air and water
- Detoxification and decomposition of wastes
- Stabilization and moderation of the Earth's climate
- Moderation of floods, droughts, temperature extremes and the forces of wind
- Generation and renewal of soil fertility, including nutrient cycling
- Pollination of plants, including many crops
- Control of pests and diseases
- Maintenance of genetic resources as key inputs to crop varieties and livestock breeds, medicines, and other products

- Cultural and aesthetic benefits
- Ability to adapt to change

2.1. Biodiversity under threat

Species have other ecosystems that pose radiation reach the Earth's been disappearing at 50-100 times the natural rate, and the gravest threat to surface where it damages this is predicted to rise biological diversity. Forests living tissue. Global dramatically. Based on are home too much of the warming is already changing known terrestrial habitats and the distribution current trends, an estimated 34,000 plant and 5,200 biodiversity, but about 45 of species. Scientists warn animal species – including per cent of the Earth's that even a one-degree one in eight of the world's original forests are gone, increase in the average bird species – face cleared mostly during the global temperature, if it extinction past century. Despite some comes rapidly, will push re growth, the world's total many species over the brink.

For thousands of years forests are still shrinking. Food production systems have been developing a vast rapidly, particularly in the could also be seriously array of domesticated plants tropics. The loss of biodiversity food. But this treasure richest ecosystems – have house is shrinking as been destroyed, and one often reduces the productivity of ecosystems, modern commercial third of the remainder face agriculture focuses on collapse over the next 10 to thereby shrinking nature's relatively few crop varieties 20 years. It destabilizes ecosystems, and weakens their ability to deal with natural disasters such as floods, droughts, and hurricanes, and with human-caused stresses, such as pollution and climate change. Already, are spending huge sums in response to flood and storm damage exacerbated by deforestation; such damage is expected to increase due to global warming.

The reduction in biodiversity also hurts mankind in other ways. Cultural identity is deeply rooted in our biological environment. Plants and animals are symbols of our world, preserved in flags, sculptures, and other images that define us and our societies.

While loss of species has always occurred as a natural phenomenon, the pace of extinction has accelerated dramatically as a result of human activity. Ecosystems are being fragmented or eliminated, and innumerable species are in decline or already extinct. These extinctions are irreversible and, given our dependence on food crops, medicines and other biological resources, pose a threat to our own well-being. It is reckless if not downright dangerous to keep chipping away at our life support system.

It is unethical to drive other forms of life to extinction, and thereby deprive present and future generations of options for their survival and development.

Can be the world's ecosystems saved, and with them the species we value and the other millions of species, some of which may produce the foods and medicines of tomorrow?

The answer will lie in mankind ability to bring demands into line with nature's ability to produce what we need and to safely absorb what we throw away.

3. CONSERVATION OF BIOLOGICAL DIVERSITY

Planet's essential goods and services depend on the variety and variability of genes, species, populations and ecosystems. Biological resources feed and clothe us and provide housing, medicines and spiritual nourishment. The natural ecosystems of forests, savannahs, pastures and rangelands, deserts, tundra's, rivers, lakes and seas contain most of the Earth's biodiversity. The current decline in biodiversity is largely the result of human activity and represents a serious threat to human development.

Governments at the appropriate level, with the cooperation of the relevant United Nations bodies and regional, intergovernmental and non-governmental organizations, the private sector and financial institutions, and taking into consideration indigenous people and their communities, as well as social and economic factors, should:

Press for the early entry into force of the Convention on Biological Diversity, with the widest possible participation; Develop national strategies for the conservation of biological diversity and the sustainable use of biological resources; Integrate strategies for the conservation of biological diversity and the sustainable use of biological resources into national development strategies and/or plans; Take appropriate measures for the fair and equitable sharing of benefits derived from research and development and use of biological and genetic resources, including biotechnology, between the sources of those resources and those who use them; Carry out country studies, as appropriate, on the conservation of biological diversity and the sustainable use of biological resources, including analyses of relevant costs and benefits, with particular reference to socio-economic aspects; Strengthen support for international and regional instruments, programmes and action plans concerned with the conservation of biological diversity and the sustainable use of biological resources.

4. 2010 BIODIVERSITY TARGET

Targets are increasingly being used in various areas of public policy. Clear, long-term outcome-oriented targets that are adopted by the international community can help shape expectations and create the conditions in which all actors, whether Governments, the private sector, or civil society, have the confidence to develop solutions to common problems. By establishing targets and indicators, progress can be assessed and appropriate actions taken. Biodiversity is crucial.

As demographic pressures and consumption levels increase, biodiversity decreases, and the ability of the natural world to continue delivering the goods and services on which humanity ultimately depends may be undermined. Other Convention on Biological Diversity Targets - In addition to the 2010 Biodiversity Target, the Convention has established other targets in the Global Strategy for Plant Conservation, and in the Programme of Work on Protected Areas.

All of the Parties to the Convention on Biological Diversity (CBD) have committed themselves to achieving the 2010 Biodiversity Target, and its commitments go beyond as an all-inclusive global target.

In 2005, Countdown 2010¹ was launched at the stakeholder conference “Sustaining Livelihoods and Biodiversity: Attaining the 2010 Biodiversity Target in the European Biodiversity Strategy”. Through a multitude of activities, this initiative assists Governments worldwide in moving closer to the 2010 Biodiversity Target.

At the initiative of the Secretary-General of the United Nations, presented to 61st session of the General Assembly in 2006 in the Report of the Secretary-General on the work of the Organization, the 2010 Biodiversity Target was incorporated as a new target under Goal 7 ("Ensure environmental sustainability") of the Millenniums Development Goals.

The meeting of the environment ministers of the eight leading industrialized countries, the G8, and of the five major newly industrializing countries - China, India, Brazil, Mexico and South Africa – held in Potsdam, Germany from March 2007, endorsed the Potsdam Initiative – Biological Diversity 2010. The ministers of the G8+5 agreed to the process of analyzing the global economic benefit of biological diversity, the costs of the loss of biodiversity and the failure to take protective measures versus the costs of effective conservation and renewed their commitment to develop and implement national targets and strategies in order to achieve the 2010 Biodiversity Target and beyond.

In summary, the 2010 Biodiversity Target has been agreed in a variety of flora and formulations and its achievement presents a truly global challenge to which actors around the globe respond in different ways and according to their capacities and priorities.

¹ Countdown 2010 is a powerful network of active partners working together towards the 2010 biodiversity target. Each partner commits additional efforts to tackle the causes of biodiversity loss. The secretariat – hosted by the World Conservation Union (IUCN) – facilitates and encourages action, promotes the importance of the 2010 biodiversity target and assesses progress towards 2010. An Assembly of all partners meets annually to review the overall direction of Countdown 2010. In its implementation, Countdown 2010 is guided by a core Advisory Board. Nearly all countries of the world came together for the World Summit on Sustainable Development in 2002 and promised to ‘achieve by 2010 a significant reduction in the current rate of loss of biological diversity’. Countdown 2010 and its partners assist governments worldwide in moving closer to this 2010 biodiversity target. Approach is: Through a multitude of activities on all levels, it makes the case for biodiversity and its conservation; call upon decision makers to do their very best to keep their promise to save biodiversity by 2010; and take action ourselves to stop the loss of biodiversity. Countdown 2010 Hubs in many regions worldwide assess the specific threats to biodiversity and possible approaches to alleviate them, and work with stakeholders to increase the level of action towards the 2010 biodiversity target. Governments as Countdown 2010 Partners - Fourteen European governments have joined Countdown 2010 officially. Some partners pointed out though that some commitments signed were rather weak, and that others were not being implemented.

What are the prospects for achieving the target - According to the Biodiversity Synthesis of the Millennium Ecosystem Assessment, unprecedented additional efforts would be needed to achieve, by 2010, a significant reduction in the rate of biodiversity loss at all levels. The magnitude of the challenge of slowing the rate of biodiversity loss is demonstrated by the fact that most of the direct drivers of biodiversity loss are projected to either remain constant or to increase in the near future. Moreover, inertia in natural and human institutional systems results in time lags – of years, decades, or even centuries – between actions being taken and their impact on biodiversity and ecosystems becoming apparent. Several of the 2010 Biodiversity sub-targets adopted by the Convention on Biological Diversity could be met for some components of biodiversity, or some indicators, in some regions. For example, the overall rate of habitat loss, which is the main driver of species loss in terrestrial ecosystems, is now slowing in certain regions. This may not necessarily translate, however, into lower rates of species loss for all taxa because of the nature of the relationship between numbers of species and area of habitat, because decades or centuries may pass before species extinctions reach equilibrium with habitat loss, and because other drivers of loss, such as climate change, nutrient loading, and invasive species, are projected to increase.

The second edition of Global Biodiversity Outlook suggests that the policies developed under the Convention are sufficient to meet the 2010 Biodiversity Target. However, they must be widely applied, in all relevant sectors, if conservation and sustainable use are to be achieved.

Biodiversity considerations must be integrated into any poverty reduction strategies in order to ensure their sustainability.

Biodiversity will be better protected through actions that are justified on their economic merits.

5. ENVIRONMENTAL LAW REFORM IN SOUTH EASTERN EUROPE

Since 2001 the REC¹ has implemented a European Commission assistance project that is funded through the Community Assistance for Reconstruction, Development and Stabilization (CARDS)² programme to help the countries of South Eastern Europe to re-establish and develop their environmental legal systems in accordance with EU norms and standards.

The project supported ministries in the drafting of 19 pieces of legislation in conformity with the EU environmental acquires. A prime

¹ The Regional Environmental Center for Central and Eastern Europe (REC). The REC has studied the region's environment and guided its stakeholders for more than 15 years. REC experience and knowledge, gained in concert with its donors and beneficiaries alike, represent both an asset for future work and a responsibility of everyone involved

² Since 1991 the European Union has committed, through various assistance programmes, € 6.8 billion to the Western Balkans. In 2000 aid to the region was streamlined through a new programme called CARDS (Community Assistance for Reconstruction, Development and Stabilisation)

example is the recent assistance in the drafting of new chemicals legislation to support approximation in a complex and critically important sector for Albania, the former Yugoslav Republic of Macedonia, the Republic of Serbia, and the Republic of Montenegro.

The Environmental Law Programme of the REC is dedicated to the progressive development of environmental law and governance, both internationally and within each country of Central and Eastern Europe, through support to the development of multilateral environmental agreements, state-of-the-art legislation, conflict-reduction tools, citizens' environmental rights and legal professionalism. Serbia already have a progress towards Regional Priority on air quality prepared a new law. By the end of 2005 a new law on Air Pollution Prevention, harmonized with European Union legislation, prepared by the Ministry for Science and Environmental Protection, on that time.

After the adoption of the law, a set of bye-laws and regulations will also be adopted. The main regulated topics are: Surveillance of indoor air quality, Tobacco: Since 2002 the Ministry of Health has initiated strong activities against smoking and for tobacco control. In 2003 the National Committee for Smoking Prevention was established, and it prepared the draft version of the Strategy for Tobacco Control in Serbia, adopted in 2005¹, Outdoor air², Protection against air pollution³, The National Environment Action Plan (NEAP)⁴.

¹ Legislation related to tobacco control: Law on Smoking Ban in Close Premises (Official Gazette of the Republic of Serbia, 16/1995; 101/2005), such as care centres, schools, daycare centers, workplaces, and public transportation. In 2005 fines were substantially increased and law has been enforced.

New Law on Tobacco was adopted in December 2005 (Official Gazette of the Republic of Serbia, 101/2005) and it banned selling tobacco products to minors and terms such as "low tar", "light", "ultra light" and "mild", introduced ISO standards for testing and measuring, disclosure by manufacturers - health warnings on toxic contents of the tobacco products, etc. New Law on Advertising adopted in September 2005 (Official Gazette of the Republic of Serbia, 79/2005), banned all forms of tobacco advertising and sponsorship, particularly close to the schools, sport centres etc.

² Investing in the reconstruction of the Serbian Electric Power System (EPS): The most important step forward to improve outdoor air quality was the donation of 26 million euros from the European Agency for Reconstruction, to reduce pollution from two thermal plants which are major air and environment polluters. The funds will make technological improvements in the system of ash deposition at the thermal power plant Nikola Tesla B Obrenovac. Four million euros will also go for the same purpose to the thermal plant Kostolac. In the production of electric energy, these thermal plants produced over 8 millions tons of ash per year. Since the thermal power system in Serbia is responsible for over 80% of all harmful pollutants, this is a very important action in improving air quality. Recently a new project, "Energy Efficiency in Serbia" was launched by the World Bank with the aim of improving energy efficiency in the Clinical Centre in Serbia and numerous health care facilities, schools and nurseries. The budget is US \$21 million. The expected results are that the use of heat will be reduced by 40%, that expenses will be cut by 50%, and the production of electrical energy with a high level of use will be around 87%. Furthermore it is expected that air pollution within the CCS will be reduced from 780 ton per year of SO₂ to 20 SO₂, NO_x from 100 tons a year to 35; for CO₂ to be halved; and airborne ashes will be virtually eliminated. The project started in 2004 and finished by the end of 2007.

³ The area of protection of air from pollution has been regulated by the Law on Environmental Protection ("Official Gazette of the Republic of Serbia", no. 135/04), By-Law on Limit Values, Methods of air quality Metering, Criteria for Determination of Measuring Points and Data Recording ("Official Gazette of the Republic of Serbia" no. 54/92), By-Law on Emission Limit Values, Manners and Deadlines of Metering and Data Recording ("Official Gazette of the Republic of Serbia" no. 30/97) and By-Law on Closer Conditions that must be fulfilled by expert organizations that conduct emission and air quality metering ("Official Gazette of the Republic of Serbia" no. 5/2002).

⁴ The National Environment Action Plan (NEAP) is in the final stage of preparation. Within this Plan, the Serbian Government will adopt action plans: for water protection, air and atmosphere protection, eco-system protection, chemical management, protection from ionizing and non-ionizing radiation, protection from hazards, protection from noise and vibration, sustainable energy management, information system development, scientific research development and education in two years, counting from the day the above mentioned Law enters into force.

6. NATIONAL ENVIRONMENTAL STRATEGY REPUBLIC OF SERBIA – Some statements

The Constitution of the Republic of Serbia provides for the right to a healthy environment as one of the basic rights and freedoms of every citizen. Article 72 of the Constitution stipulates that the Republic is responsible for the environmental protection and the protection and enhancement of flora and fauna. The Law on Environmental Protection (The Official Gazette RS Nr. 135/04) requires that the National Environmental Strategy (NES) is developed for the period of at least ten years. One of the key issues in a successful NES is building of understanding, consensus and ownership among different stakeholders of the NES, and an effective management structure that provides for an efficient management of the NES process. Much effort was put to address those issues. The Ministry of Science and Environmental protection – the Directorate for Environmental Protection and the Inter-ministerial Committee for Sustainable Development provided the political driving force for the NES process.

The National Environmental Strategy contains:

- Description and appraisal of the state of environment;
- Policy objectives, criteria for enforcement of environmental protection in general,
 - by sectors and geographical areas indicating priority measures;
- Conditions for implementation of the most favorable economic, technical, technological and other measures for sustainable development and environmental protection;
- Long-term and short-term measures for prevention, mitigation and control of pollution;
- Implementing institutions and implementation plan;
- Financing plan.

The National Environmental Strategy is to be implemented through Action Plans and remediation plans adopted by the Government for the period of five years. In addition, the Government is to submit every two years the NES progress report to the Parliament. Individual action plans are developed by the ministry in charge of environmental protection in cooperation with the relevant sectoral ministry.

The Republic of Serbia faces significant challenges in improving its system of environmental protection while continuing profound socio-economic transformation to market economy and civil society. This process implies improvement of the traditional environmental policy by including all sectoral policies towards management of the environment and natural resources based on the principles of sustainable development.

The National Environmental Strategy was developed with the objective to guide the development of modern environmental policy in the Republic of Serbia over the next decade. The NES is followed by

Environmental Action Plans that provides detailed implementation plan for the next five years. The NES is developed to enable improvement of the quality of the environment, and the quality of life for citizens of the Republic of Serbia. Furthermore, the NES facilitates the EU approximation process in Serbia.

The National Environmental Strategy (NES) document that stipulates the priority policy objectives in the short- (till end of 2010) and medium-term (till end of 2015), and the key policy reforms that are needed to implement those objectives. The NES can be considered as a road map that will guide the reforms of policy and legislative framework over the next decade. It will also facilitate integration of environmental considerations in other sectoral strategies and guide development of environmental programmes. The National Environmental Action Plan specifies packages of actions that are required to implement the NES policy objectives in the short-term horizon of 2006-2010, as well as presenting financial plan, implementation and progress monitoring arrangements. The Action Plan provides a direct link to project pipelines.

The body of environmental legislation in Serbia consists of a large number of laws and regulations¹. Legislative, executive and judicial powers are mostly practiced through the legally prescribed scope of competencies of the republic's authorities. According to the law, certain competences are delegated to the autonomous province and the local government.

Environmental legislation includes laws and regulations on: planning and construction, mining, geological survey, water, soil and forest protection, flora and fauna, national parks, fishery, hunting, waste management, production and trade of chemicals, trade and transport of explosive and hazardous materials, protection of ionizing and non ionizing radiation, nuclear safety etc.

The new legal framework for environmental protection was introduced in 2004 in the Republic of Serbia by the Law on Environmental

¹ LIST OF LEGAL ACTS IN THE ENVIRONMENT SECTOR:

1. General regulations

1. The Constitution of the Republic of Serbia (Off. Jour. of RS, No. 1/90)
2. Law on Environmental Protection (Off. Jour. of RS, No. 66/91, 83/92, 67/93, 48/94, 53/95)
3. Law on Environmental Protection (Off. Jour. of RS, No. 135/04)
4. Law on Strategic Environmental Impact Assessment (Off. Jour. of RS, No. 135/04)
5. Spatial Plan of the Republic of Serbia (Off. Jour. Of RS 13/96)

2. Protection of Nature

1. Law on national parks (Off. Jour. of RS, No. 39/93, 44/93, 53/93, 67/93, 48/94)
2. Regulation on protection of natural rarities (O.H. RS 50/93, 93/93)
3. Decision on placement under control the use and trade of wild flora and fauna (Off. Jour. of RS, No. 31/05)
4. Regulation of categorization of natural goods (O.H. RS 30/92)
5. Regulation on methods of marking protected natural goods (O.H. RS 30/92, 24/94, 17/96)

6. Regulation on the registry of protected areas (O.H. RS 30/92)

3. Environmental Impact Assessment

1. Law on Environmental Impact Assessment (Off. Jour. of RS, No. 135/04)

Protection, Law on Strategic Environmental Assessment¹ (This Law regulates the conditions, methods and procedure according to which the assessment of impact of certain plans and programmes on the environment - hereinafter referred to as: strategic assessment- shall be carried out in order to provide for the environmental protection and improvement of sustainable development through integration of basic principles of environmental protection into the procedure of preparation and adoption of plans and programmes), Law on Environmental Impact Assessment and Law on Integrated Prevention and Pollution Control. The most significant issues addressed by the Law on Environmental Protection include: main principles of environmental protection, management and protection of natural resources, measures and conditions of environmental protection, environmental programs and plans, industrial accidents, public participation, monitoring and information system, clearly identified competences of the Environmental Protection Agency, reporting, financing of environmental protection, inspection services and fines. The new laws are harmonized with the EU Directives on Environmental Impact Assessment (85/337/EEC), Strategic Impact Assessment (2001/43/EC), IPPC (96/61/EC) and Public Participation (2003/35/EC).

The principle of preservation of natural values are: The achievement of objectives of sustainable development requires respecting of the principle of sustainable use of natural resources and the substitution principle. Natural values are used under the conditions and in a manner ensuring the preservation of values of geological diversity, biodiversity, protected natural values and landscape. The exploitation of renewable resources is carried out under conditions enabling their continuous and efficient renewal and enhancement of their quality. Non-renewable resources are exploited under conditions ensuring their long-term cost-effective and reasonable exploitation, including the imposing of limits on the exploitation of strategic or rare natural resources and their substitution with other available resources, composite or synthetic materials. The substitution of fossil fuels and non-renewable energy sources by renewable materials and materials/energy recovered from waste stream is specifically addressed by the substitution principle.

The principle of cross-sectoral integration are: The authorities of the state, autonomous province and units of local self-government provide for the integration of environmental protection and enhancement of environmental policy with all sectoral policies. This is achieved by implementing mutually adjusted plans and programs and by enforcement of legislation through strengthening of the permitting system, technical and other standards and norms, provision of funding, incentives and other environmental measures. This principle requires that environmental considerations are incorporated into sectoral policies such as industrial

¹ LAW ON STRATEGIC ENVIRONMENTAL IMPACT ASSESSMENT. Published in the "Official Gazette of the Republic of Serbia", No. 135/2004

policy, agricultural policy, energy policy, transport policy, social policy etc. Environmental protection should be seen as an integral part of social and economic development.

In July 2003 the Government of the Republic of Serbia adopted the Action Plan for harmonization of draft legislation with the laws of the EU, identifying the scope of laws that need to be adopted in line with the EU requirements. This Action Plan includes also justification for the need to adopt certain laws, the institutions in charge of implementation, and other elements of significance for the harmonization of the national legal system with the EU acquis.

Harmonization with the EU *acquis communautaire* is a voluminous and imperative task for a state which aspires for EU membership. The parts of the EU *acquis* communitarian relevant to the environment consists¹ of more than two hundred legal provisions (framework directives, daughter directives, regulations and decisions) addressing water pollution and management of water resources, air pollution, waste management, management of chemicals, nature conservation, etc.

¹ Law on Acknowledgement of the UN Convention of Climate Change (Off. Jour. SFRY International treaties, No. 2/97)

1. Law on Acknowledgement of the Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal, (Off. Jour. SFRY International treaties, No. 2/99)

2. Law on Acknowledgement of the Convention on Biological Diversity (Off. Jour. FRY International treaties, No. 11/2001)

3. Law on Acknowledgement of the Convention of International Trade of Endangered Species of Wild Fauna and Flora (Off. Jour. FRY International treaties, No. 11/2001)

4. Convention on Co-operation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention), (Off. Jour. S&M International treaties, No. 4/2003)

5. Amendments to the Montreal Protocol on Substances Depleting Ozone Layer (Off. Jour. S&M International treaties, No. 2/2004) International agreements which indirectly regulate environmental protection

1. Law on ratification of Geneva Maritime Conventions from April 29, 1958, ratifying Convention of Territorial Seas and Outside Sea Zone (Off. Jour. SFRY, No. 4/65)

2. By-law on ratification of Treaty on Financial Contribution to the North-Atlantic Department for Protection from Ice (Off. Jour. SFRY, International treaties, No. 3/59)

3. Directive on ratification of the Treaty for Establishment of the General Council for Fisheries of the Mediterranean Sea (Off. Inf. of Presidium of the National Parliament, No. 25/51)

4. Directive on ratification of Convention on Fisheries and Conservation of Biological Goods of High Seas (Off. Jour. SFRY, International treaties, No. 4/65)

5. By-law on ratification of International Convention for Protection of Human Life on the Sea (Off. Jour. SFRY, International treaties, No. 4/65)

6. By-law on ratification of International Convention on Civil Responsibility for Damages caused by Oil Pollution (Off. Jour. SFRY, International treaties, No. 7/77)

7. Law on ratification of International Convention for establishment of International Fund for Compensation of damages caused by Oil Pollution (Off. Jour. SFRY, International treaties, No. 3/77)

8. Law on ratification of Convention on International Rules for Avoiding Collision on the Seas (Off. Jour. SFRY, International treaties, No. 60/75)

9. Law on Conventions adopted on the bases of Versaille Peace Treaty from June 8, 1919, and on the bases of corresponding directives from other conventions on peace adopted on International conferences held in Washington, Genova and Geneva 1919 – 1926, Off. News. Of Kingdom of Yugoslavia No. 44 XV/30)

10. By-law on ratification of Convention Concerning Protection against Hazards of Poisoning Arising from Benzene (Off. Jour. SFRY, International treaties, No. 16/76)

11. Law on ratification of Convention on Prevention and Control of Occupational Hazards Caused by Carcinogenic Substances and Matter, (Off. Jour. SFRY, International treaties, No. 3/77)

12. Law on Prohibition of Experiments with Nuclear Weapons in Atmosphere, Universe and under the Water (Off. Jour. SFRY, International treaties, No. 11/63)

7. FOREST POLICY OF SERBIA – Some statements

The forestry sector of Serbia has documents in preparing that address adequately the goals of the sector development. The incentive to develop a document at the State level is in progress, which will reflect the trends and methods of solving the numerous issues in Serbian forestry in harmony with the sector requirements, its significance for the sustainable development of the Republic of Serbia, and the intentions to join the European Union in near future. The constraints in the development of the forestry sector in Serbia are the decade-long backwardness in the technical-technological development and the absence of communication with the international community due to UN sanctions, institutional weaknesses and the slowness of the adaptation to the changes of forest management at the global level, from practical, educational and research aspects.

The Government of the Republic of Serbia, recognizing the fact that forests and other wooded land in the Republic of Serbia cover cca 2.5 million hectares, which is cca 1/3 of the territory; recognizing that the entire society supports the sustainable management, i.e. forest management and utilization which ensures the conservation of biological diversity, the promotion of productivity, regeneration potential, vitality and the potential of satisfying the ecological, economic and social functions in the present and future periods; aware of the unsatisfactory forest state which is characterized by a high share of poor-quality forests, inadequately tended artificially established forests and an insufficient share of high-quality and valuable high natural forests; convinced that the priority is to improve the forest state by tending and protection of actual forests, and to enlarge the forest area by the establishment of new forests; acknowledging that forestry, as a branch of economy with a long tradition, developed structure, personnel and other potentials, scientific and professional knowledge, is a significant segment of Serbia's development in general; recognizing the fact that Serbia has a very rich biological diversity, mainly in forest ecosystems; establishing also the universal nature of wild fauna, as an inseparable and invaluable part of forest ecosystems; expecting a significant role of the forestry sector in the sustainable development of Serbia; conscious that the actual level of the production-technological process in forestry, due to technical-technological and organizational backwardness and insufficiently developed forest road network, makes forest management more difficult; conscious also that the actual state of forestry education, due to multi annual economic difficulties and international isolation, resulted in over numerous but insufficiently qualified professional staff, unable to meet the challenges and modern achievements in forestry, acknowledging that, for the same reasons, the scope and quality of scientific research is at an unsatisfactory level; noting that in the Constitution the forest status is in accordance with its significance, and that current legislative-regulatory instruments do not ensure the adequate protection and enhancement of actual forest resources.

The issues of management in private forests, which occupy cca one half of the total forest area and which are characterized by a poor state and fragmented holdings, which makes forest management even more difficult, stressing the fact that the State intends to participate in the stimulation of the private sector development, aiming at the implementation of the goals of sustainable development.

To realize the goals of forest policy, the Government and the Ministry of Forestry will launch the activities on the formulation of the National Forestry Programme, as the strategic framework for the development of the forestry sector.

Within the overall legal system, the Government will, based on the general significance of forests for the well-being of the nation, the specificities of forest management and biological characteristics of resources, provide the mechanisms for real valuation of forests and quality and the efficient sanctioning of the illegal actions related to forests. The Government will promote communication, co-ordination and cooperation with other forestry related sectors.

The identification of the optimal solutions will condition the definition of forest area – forest holding on which it is possible to realize the principle of sustainable management, i.e. sustainable production and yield, with simultaneous creation of the preconditions for commercial management. The objective of forest policy is to increase the contribution of the forestry sector to the economic and social development of the Republic of Serbia. This includes the following:

- Increase the area of forest cover by encouraging the activities and by providing assistance for the afforestation of the land on which it is economically and ecologically feasible to raise forests (degraded soil, abandoned agricultural land, treeless forest land, etc.) regardless of the ownership;
- Increase the productivity by maximal and rational use of the overall production potential of forest areas;
- Establish and maintain the optimal quality and density of forest roads, and the accessory infrastructure (houses, resting points, etc.) aiming at the implementation of sustainable forest management and meeting the social and cultural demands of the society;
- The forestry sector will encourage the advancement of co-operation with other sectors (agriculture, tourism, etc.), financial institutions and the general public, aiming at the most complete planning and use of other potentials of forest areas;
- Encourage the establishment and development of private forest owner associations in order to build their capacity for sustainable forest management and the application of scientific and professional knowledge, which will create the conditions for rational use of forest products and other forest functions;

- Encourage the participation of stakeholders, especially in rural regions, in decision-making and allocation of responsibility for the crucial issues of forest management;
- Support the establishment and development of small and medium enterprises for forestry operations and other activities in the forestry sector;
- Create and maintain a national information system of the forestry sector;
- Start the research on the role of forests in the mitigation of energy balance issues, which will create the preconditions for international funds for the advancement of bio-fuel consumption and carbon sequestration. The economic policy measures will stimulate the consumption of wood for energy and simultaneously help solve the issues of forests with fuel wood as the major product;
- Define the mechanisms that will enable a part of the income realized by state forest utilization to be allocated to local communities (villages) to meet the common demands or to solve the common social issues (roads, water supply, schools, etc.);
- Enable the land tenure right of state forests to socially endangered families in rural regions under the identified conditions.

7.1 Forest status and protection -A somewhat better state of state-owned forests compared to the state of private forests, and the significance and the role of that part of the growing stock in overall economic activities, as well as the more significant engagement of the society and the State in forest protection and advancement, impose the following decisions: reserve the property right, protect, increase and legally strengthen the property. At this moment, when private forests by all criteria of forest quality lag behind the state-owned forests, the focusing of attention on the state forests is considered appropriate, rational and unavoidable.

Sustainable management implies the commitment of permanent protection, maintenance, regeneration and the realization of numerous multiple benefit forest functions.

Sustainable management of state forests, taking into account the state of private forests, is an imperative commitment and at least the aim which should be permanently realized in each unit of planning in the aim of simultaneous realization of the logical principle of multiple forest functions. Its base and the capacity of implementation is grounded in large state-owned forest complexes, and not the small spatially distant holdings of numerous owners of different interests, and even more different economic potentials and attitudes to their forests.

Bearing in mind that the former socio-political system did not attach importance to property-legal issues of the public property, and especially forests, either from the aspect of enhancement or from the aspect of protection, the proposed measures are unavoidable for the realization of the goal. They include the reserving of property, its legal insurance,

delimitation, re-distribution of holdings, establishment and updating of the forest cadastre.

The objective of forest policy is sustainable management of state forests by their conservation, enhancement and increase. This objective requires:

- The development of the system of planning and the development of national criteria and indicators for sustainable forest management aiming at their quality and quantity improvement by modern management methods, with special significance focused on monitoring the forest condition, protection of forests and biological diversity of forest ecosystems, and the realization of education, research, recreation, tourism and other functions;
- The State will reserve the ownership of the forests under its jurisdiction, and during the regulation process of restitution and re-privatization, special attention will be devoted to the problem of sustainable forest management;
- Identification of ownership and the harmonization of state-owned forests and other woodland categories with the internationally accepted categorization;
- Identification and delimitation of state-owned agricultural and forest land;
- Upgrading and harmonization of regulations on the change of land use and transfer of property, as well as the purchase (if the State is interested) of state forests and woodland;
- Creation of legal conditions, stimulating measures and mechanisms for the enlargement of state-owned forest estates;
- Updating of the cadastre of forests and other woodland;
- Control of the management activities in state-owned forests and other Woodland;
- Protection of state forests against harmful biotic and abiotic factors, illegal felling, unlawful occupation, illegal building and other illegal actions;
- Development of partnership between the State and other stakeholders by adequately identifying the rights and responsibilities for forest management.

7.2. Upgrading the quality of information on the significance of protected Nature - Conservation and enhancement of biodiversity in forest regions Serbia, as the country of conserved nature, and the Balkan area, as the centre of European biodiversity, require the adequate treatment also in the national context through the system solutions of the conservation and enhancement of the most valuable parts of forest ecosystems.

The objective is the conservation and the appropriate enhancement of forest biodiversity, and the sustainable management of the wild flora and fauna species which are the components of forest areas. This requires:

- Development and implementation of regulations for protection and enhancement of biodiversity;
- Promotion of inter-sectoral co-operation in biodiversity protection and Enhancement;

- Advancement of the methods of directed use of the gene pool of forest tree species by in situ and ex situ conservation and advanced production of quality forest seed and planting material of controlled origin;
- Support to the implementation of international commitments in biodiversity protection,
- Enhancement of quality information on the significance of biodiversity at all levels,
- Updating of the register and maps of the ranges of wild plant and animal species,
- Development and harmonization of the regulations with modern demands of sustainable management of wild plant and animal species (protection and forbidden harvesting of rare and endangered wild plant and animal species; control of trade in protected species and their products, introduction of exotic species, plant or animal diseases or pests, autochthonous and domesticated plant or animal diseases or pests and the species of fauna with a harmful effect on the environment or harmful effect to autochthonous species of wild flora and fauna).

7.3. Protection of forest and environment - Forest, as the most valuable part of the ecosystem, capable of significantly improving the general life conditions, occupies a special position in the global concept of environmental protection. Therefore, it requires a special treatment by an appropriate system of protection, harvesting, management and sustainable development. The harmonization of the basic elements of the sustainability system is essential for the survival of forest ecosystems and healthy environment in general. The objective is to reduce to a minimum all the adverse effects on forests and environment and the damage to forest ecosystems. This requires:

- Assessment of the effects on the environment of the potentially harmful activities in forest regions, i.e. protected nature;
- The State organ responsible for forestry will define the activities in forestry for which it is necessary to analyze the effect on the environment, i.e. the activities in forests which can directly endanger forest ecosystems;
- The utilization of water and mineral raw materials from the forests will be allowed only if it does not bring about the serious changes or damage to forest ecosystems and the environment;
- The Government will help especially the conservation of the forest protection functions - reclamation and rehabilitation of eroded and degraded lands and forests and the protection of headwater areas. The disposal of the hazardous waste in forest ecosystems will be strictly sanctioned.

The key elements of the support to the forest policy implementation are:

- A. Sectoral planning
- B. Investments in the sector
- C. Sectoral co-ordination

- D. Institutional reforms
- E. Forestry legislation
- F. International and regional co-operation
- G. Monitoring and evaluation

Serbia is a signatory to a number of international agreements which affect the forestry sector. The Government will meet its commitments to these agreements by the national legislation and by the implementation of activities on their implementation. A series of other future agreements is in the phase of development and Serbia will participate actively in their development to meet, first of all, the national objectives. The key ratified international agreements which address the forestry sector and include the commitments and possibilities are:

- Agenda 21
- UN Framework Convention on Climate Change (UNFCCC) (1992)
- Convention on Biodiversity (2001)
- Convention on Long-range Transboundary Air Pollution (1979)
- Convention on Wetlands of International Importance (Ramsar Convention)(1977)
- Convention on International Trade in Endangered Species (CITES) (2001)
- Protection of the World Cultural and Natural Heritage (1972)
- Resolution of the Ministerial Conference on Forest Protection in Europe (2003).

8. CONCLUSION

Agenda 21, the Rio Declaration on Environment and Development and the Statement of principles for the Sustainable Management of Forests addresses today's pressing problems and aims to prepare the world for the challenges of the next century. It contains detailed proposals for action in social and economic areas (such as combating poverty, changing patterns of production and consumption and addressing demographic dynamics), and for conserving and managing the natural resources that are the basis for life – protecting the atmosphere, Achieving sustainable development worldwide depends largely on changing patterns of production and consumption – what we produce, how it is produced and how much we consume, particularly in the developed countries oceans and biodiversity; preventing deforestation; and promoting sustainable agriculture. Commission on Sustainable Development CSD's work programme in this area focuses on projected trends in consumption and production; impacts on developing countries, including trade opportunities; assessment of the effectiveness of policy instruments, including new and innovative instruments; progress by countries through their time bound voluntary commitments; and extension and revision of UN guidelines for consumer protection: Protection Of The

Atmosphere, controlling Transboundary Atmospheric Pollution, Integrated Approach To The Planning And Management Of Land Resources, Sustaining the multiple roles and functions of all types of forests, forest lands and woodlands, Enhancing the protection, sustainable management and conservation of all forests, and the greening of degraded areas, through forest rehabilitation afforestation, reforestation and other rehabilitative means.

Biological diversity – the variability of life on Earth – is the key to the ability of the biosphere to continue providing us with these ecological goods and services and thus is our species' life assurance policy. However, as a species we are degrading, and in some cases destroying, the ability of biological diversity to continue performing these services. The 20th century saw a fourfold increase in human numbers and an eighteen-fold growth in world economic output. With these came unsustainable patterns of consumption and the use of environmentally unsound technologies.

Can be the world's ecosystems saved, and with them the species we value and the other millions of species, some of which may produce the foods and medicines of tomorrow?

The answer will lie in mankind ability to bring demands into line with nature's ability to produce what we need and to safely absorb what we throw away.

„Attaining the 2010 Biodiversity Target in the European Biodiversity Strategy”. Through a multitude of activities, this initiative assists Governments worldwide in moving closer to the 2010 Biodiversity Target.

Since 2001 in Serbia several projects are running under European Commission assistance that is funded through the Community Assistance for Reconstruction, Development and Stabilization (CARDS) programme to help the countries of South Eastern Europe to re-establish and develop their environmental legal systems in accordance with EU norms and standards.

The Republic of Serbia faces significant challenges in improving its system of environmental protection while continuing profound socio-economic transformation to market economy and civil society. This process implies improvement of the traditional environmental policy by including all sectoral policies towards management of the environment and natural resources based on the principles of sustainable development.

The National Environmental Strategy was developed with the objective to guide the development of modern environmental policy in the Republic of Serbia over the next decade.

The Government of Republic of Serbia, recognizing the fact that forests and other wooded land in the Republic of Serbia cover cca 2.5 million hectares, which is cca 1/3 of the territory, showing that the entire society supports the sustainable management.

The identification of the optimal solutions will condition the definition of forest area – forest holding on which it is possible to realize the

principle of sustainable management, i.e. sustainable production and yield, with simultaneous creation of the preconditions for commercial management. The objective of forest policy is to increase the contribution of the forestry sector to the economic and social development of the Republic of Serbia.

Sustainable management implies the commitment of permanent protection, maintenance, regeneration and the realization of numerous multiple benefit forest functions. Forest, as the most valuable part of the ecosystem, capable of significantly improving the general life conditions, occupies a special position in the global concept of environmental protection. Therefore, it requires a special treatment by an appropriate system of protection, harvesting, management and sustainable development. The harmonization of the basic elements of the sustainability system is essential for the survival of forest ecosystems and healthy environment in general.

REFERENCES

1. 1992: *Rio declaration on environment and development*. United Nation Document Chapters 11-15. The United Nations Conference on Environment and Development, Rio de Janeiro.
2. Topfer, K. 2000: *Sustaining Life on Earth. How the Convention on Biological Diversity promotes nature and human well-being*. Secretariat of the Convention on Biological Diversity. UNEP and UK Government, ISBN 92-807-1904-1.
3. 2004: *Forest Policy Of Serbia – Draft*. The Republic of Serbia Ministry of Agriculture, Forestry and Water Management. Belgrade.
4. 2004: *Law on strategic environmental impact assessment*. Published in the “Official Gazette of the Republic of Serbia”, No. 135/2004. Belgrade
5. 2004: *National Environmental Strategy*. The Official Gazette Republic of Serbia. Nr. 135/04. Belgrade
6. 2005: UNECE, Geneva, “*Europe’s Forests in a Changing Environment, Twenty years of Monitoring Forest Condition by ICP Forests*”, Federal Research Centre for Forestry and Forest Products (BFH).
7. 2006: Regional Environmental Center, REC. *Promising harvest – the fruits of environmental law reform in South Eastern Europe*. Legal Commentaries.
8. Nevenic, R. at al., 2006: *Forest Condition Monitoring in the Republic of Serbia*. Annual Report 2006. National Focal Centre of Serbia (NFC). Institute of Forestry. ICP Forests – Level I. Belgrade.

