

**National Report to the Third Session of the
United Nations Forum on Forests**

C R O A T I A

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I.

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II.

General

1. National forest policy and strategy takes into account all the documents signed with the international community in relation to forestry and, consequently, IPF and IFF proposals.

National forestry policy and strategy and FSC project are the most recent issues in the forestry of the Republic of Croatia.

All the interested parties and groups relevant in forestry have been actively involved in the process of elaboration of National forestry policy and strategy. The public was given opportunity to express its opinions and views on public consultations. The results of public consultations are incorporated in the final draft of the National forestry policy and strategy.

ECONOMIC ASPECTS OF FORESTS

2. *Assessment of forest assets and functions*

The existing manner of assessment of forest as a renewable natural resource, its increment and manner of its utilisation are not in accordance with modern economic, ecological and developmental findings and needs. On the other hand, caution related with the introduction of new methods of assessment of renewable natural resource is understandable since a considerable portion of expected changes of values obtained in such a way would entail changes which are difficult to evaluate.

Economic research of monetary expression of products of natural environment are still diverse. There is no practical application of any recent and exact method of evaluation of natural resources in the Republic of Croatia. The results of analyses of certain specific samples indicate that the most part of assets is with forest amenities, a category which is the hardest to evaluate in terms of economy. The absence of market, i.e. demand and supply with reference to these forest products, makes it difficult to financially evaluate this resource and is liable only to personal assessment. Evaluation of forest amenities is being performed according to a method regulated by a Book of Regulations of Amendments of Book of Regulations of Forest Management, dating from 1997.

A consensus on the choice of method for forest assessment has not yet been reached. A method appropriate for the calculation of total forest value has not been identified. The majority of authors takes into account the value of the stand plus the value of the land and other authors take into account the value of the stand with added forest amenities and value of the land. The existing methods are not exact enough and the value of forest should be determined by a new, composite method. This method should incorporate all positive achievements of the existing methods and also correct the forest value both with reference to its marketing and national value.

Data and information on prices and forest product market

The market value of 1 m³ of timber is defined by the Price-list of main forest products for domestic market of the company "Hrvatske šume", Zagreb for 2000. The price-list was approved by the Ministry of Economy and drafted by the Managing board of the company and has been enforced from 10th November, 1996. Considering the already stated fact that the prices of forest products in the company "Hrvatske šume" have not changed for the past several years, it is evident that market formation of prices for these products should be facilitated in the future. However, in that case it would be desirable to initiate the establishment of a stock market for forest products and other timber products because there is only one significant company for forest management and marketing of forest

products in the Republic of Croatia. Stimulation of a stock market would result in the increase of competitiveness on the market and the prices would be formed on the basis of supply and demand for these products. The stimulation of wood processing companies which produce final woos products can give some results; however, the problem of such companies is to a lesser extent caused by the price of logs and mainly by the lack of competitiveness in other business segments.

2. Information relevant for efforts undertaken for the diminishing of negative effects of trade and decrease of illegal trade are inaccessible.

“Hrvatske šume” have organised a group system FSC for forest certification, which encompasses 16 Forest administrations, i.e. all forest and forest land areas which are owned by the state. There is an ongoing elaboration of national forest certification standards which will take into account international principles and criteria (FSC P&C, Pan-European C&I).

Development and use of economic and policy instruments and forest revenue collection systems to increase rent capture and promote sustainable forest management

It is to be expected that the Project of restructuring of limited company “Hrvatske šume” Zagreb will facilitate revenue increase from other forest products and other activities. Admission of the Republic of Croatia to WTO will gradually diminish the influence of the Government of the Republic of Croatia on price formation and determination of manners of timber sale and it is supposed that it will have a positive impact on business activities of the company “Hrvatske šume” in the first place since it is a company which manages the most part of forest areas in the Republic of Croatia.

The Government of the Republic of Croatia has reached conclusions on its session in June 2002 with reference to gradual introduction of market relations in trade of roundwood and stimulation and protection of domestic wood processing manufacturers, especially those who produce final products. Those conclusions refer to the introduction of export charges which would be imposed on buyers if logs or sawnwood of a certain processing degree are exported. The aim is to protect domestic manufacturers in such a way as to stimulate buyers on auctions to carry out processing in the country. Such measures can mean only short-term improvement because charges are certainly not a proper stimulation for market economy outside Croatia.

Appropriate evaluation requires co-operation among all decision-making management levels, as well as among those responsible for management of forest, land, water and fauna resources.

The Republic of Croatia needs a new, multi-disciplinary approach to overall economic evaluation of natural resources and implementation of new management paradigms. This possibly calls for a richer economic environment which would transform the surplus of capital into conservation of living environment.

FOREST HEALTH AND PRODUCTIVITY

(segment of materials taken from The First National Report of the Republic of Croatia to United Nations Framework Convention on Climate Change - UNFCCC)

4. There is an ongoing work on the International co-operative program for the evaluation and monitoring of harmful impact of air pollution on European forests (ICP Forests) from 1987, with the exception of 1991, when work was stopped because of the war. Taking into consideration great variability and diversity of forest ecosystem, their physical distribution, structure and silvicultural practices, monitoring is carried on the level of **I**-basic plots (network of 16 x 16 km) and level **II**-bioindication plots (network of 4 x 4 km). Results gathered were incorporated into official reports of ICP Forests. The damage degree of forests in the Republic of Croatia is almost identical to the ones in Europe in 2001.

By the notification on succession, The Republic of Croatia is a party to the convention on Long-Range Transboundary Air Pollution (LRTAP) and a Protocol of Convention on Joint Monitoring and Evaluation of Long-Range Transboundary Transmission of Pollutants in Europe (EMEP protocol).

Within the framework of National Strategy of Environment Protection (adopted in 2002) and National Environmental Action Plan (adopted in 2001), Croatia has defined long-term goals of diminishing emission of principal pollutants. The aims were defined in accordance with existing and future commitments related to LRTAP convention and corresponding protocols. Croatia is for the moment being bound only by Protocol on further reduction of sulphur emission, ratified in 1998. In the same year, Croatia has signed a Protocol on heavy metals and Protocol on persistent organic pollutants and in June 1999 also a Protocol to Abate Acidification, Eutrophication and Ground Level Ozone.

Following the signed Conventions and corresponding protocols, the following projects have commenced in the Ministry for Environment Protection and Physical Planning in the Republic of Croatia:

a). Estimation of emission of pollutants, which is carried out in accordance with the unique European methodology (EMEP/CORINAIR). The commitment related to revealing emissions is stipulated by the Law on Air Protection. Estimation of emissions encompasses five “main” pollutants, nine heavy metals and four groups of persistent organic compounds. The Ministry for Environment Protection and Physical Planning regularly delivers annual reports on the estimation of emission to the secretary of the Convention (the last report refers to the estimation of emission for the year 2000). In accordance with international programmes, the commencement of balancing hard particle emissions is planned for the following years.

b). Calculation and mapping of critical load of acid components from the atmosphere for forest ecosystems on the territory of Croatia (ICP Mapping & Modelling).

The Republic of Croatia joined the international program for calculating and mapping of critical loads (ICP Mapping & Modelling of Critical Load and Levels and Air Pollution Effects, Risk and Trends - ICP Mapping & Modelling) in 1997 by a project “Development of models for mapping of critical load with the application in ecosystem Gorski Kotar”. The research was continued in greater Zagreb area by a study “Mapping of critical sedimentation of acid components from the atmosphere for forest ecosystem of a part of north-western Croatia”. Mapping in Croatia up to now included four quadrants of standard EMEP network (European Monitoring and Evaluation Programme, 1984). Forest ecosystems were chosen as receptors for evaluation of critical load on the

level of National centre. Estimation was carried out through the application of SSMB (Steady State Mass Balance Method), according to CCE recommendations. Critical load for acidification and eutrophication is estimated for forest ecosystems. Estimation results are delivered to a European database in CCE, which is Croatia's commitment. These studies covered 4,4% of forest ecosystem areas. Reports on national research results are elaborated on a regular basis and delivered to Co-ordination centre for effects.

c). Establishment of national network for permanent monitoring of air quality on the territory of the Republic of Croatia.

Commitments related to LRTAP convention, corresponding EMEP programme, Croatian regulations and EU directives stipulated the establishment of permanent monitoring of air quality on national level. It has therefore been specified that 22 networks for permanent monitoring of air quality should be established on the territory of the Republic of Croatia by 2007.

With an aim of better understanding of emissions and sink of greenhouse gases, Croatia has for a number of years been included in the international programme IEA Bioenergy – Task 38 “GHG Emission Balances of Bioenergy Systems”.

National programmes for the mitigation of climate changes (ongoing elaboration in the Ministry for Environment Protection and Physical Planning) will have an impact on forests. There are no indications that this fact has been acknowledged accordingly by the forestry science.

MAINTAINING FOREST COVER TO MEET PRESENT AND FUTURE NEEDS

5. Forest and forest land management in Croatia still relies primarily on long-standing tradition. Part of that tradition is the elaboration (according to principles of forestry profession) of Management plan for management units and Management plan for karst forests. The aims promoted by these documents and regulated by law are also forest and forest land utilisation in such a way and to such extent as to sustain their biological diversity, productivity, regeneration capacity, vitality and potentials and to fulfil present and future economic, ecological and social functions on local and global level without harming other ecosystems. Introduction of technologies which will further ensure previously mentioned is outlined in the forestry Strategy. This was also the reason why Law on Forests defined the time and the conditions for the extraction of forests and forest land from the forest management area. To illustrate this, we will state that the biggest extraction occurred in 1998 (96,22 ha), and the smallest in 2000 (2,25 ha). Mixed stands, which are dominant in the Republic of Croatia, are pointed out as significant for the preservation of biological diversity.

Although all the existing basic determinants of forestry laws contained instructions on the preservation and protection of nature, a number of inadequacies has been noticed, especially with reference to the protection of biological diversity (for example, too short rotation for main species, increased usage of chemicals, inadequate emphasis on species which have no economic significance, etc.) Incorporation of new guidelines of protection into legislation and forest management plans is inevitable in Croatia, which signed the Convention on biological and landscape diversity. In relation to this, harmonisation between Law on forest protection and Law on nature protection will have to be conducted, especially in segments relating to forest management in national parks and other segments.

6. Felling quantity for the management unit is defined by the above-mentioned documents. Currently, neither the assessment of demand for wood in the Republic of Croatia is carried out, nor any action directed at increased demands for wood and wood products is undertaken. Prescribed felling quantity is defined as one to be realised regardless of the situation on the wood market. Felling quantity prescribed in such a way is obligatory irrespective of the fact that extra and occasional felling quantity may occur in one management unit (windthrow, breakage and the like). Awareness is still low with reference to the fact that such management practices and approach to the issue of felling quantity is not the only one possible. It is expected that after restructuring process of limited company “Hrvatske šume”, the segment responsible for consulting will take over problems like this and start working on their solution. Restructuring study points out the need for reorganisation of activities in the company and a need for adapting to the conditions of the free market and efficiency increase..

Forest-management plans of the area (elaborated for the first time in 1996 and now referred to as a document on forest inventarisation), as a basic document containing a projection of future forest management in whole Republic of Croatia, is also worked out without taking into account the factors of the market. This document is liable to revision each 10 years.

Fuelwood requirements of Croatia are satisfied by the prescribed felling quantity without special prior demand evaluation, relying primarily on sales data from previous years. Cases when the stock of fuelwood is smaller, i.e. bigger than the market demand are not unknown.

In the 1996-2000 period, the share of fuelwood was 8% of the primary production of energy in Croatia. Energy development strategy adopted last year in March, defines renewable energy sources as a part of its overall strategy.

Current needs for biomass in Croatia are met through planned felling quantity. For the moment being, there are no analyses of impact of biomass extraction on the stand.

Private forests in the Republic of Croatia are, as a rule and with some exceptions, not managed. National forestry policy and strategy recognises this segment of forestry as important and significant despite the fact that private forest estates are fragmented and small (average size of estates is 0.78 ha per one owner). It states as important the establishment of owners association and introduction of state subventions for management of private forests. Current structure and regulations for forest management plans is based on large management units and is not suitable for average small private estates. Since the new Law on Forests is not finished yet, it is to be expected that this problem will be dealt with in it.

The issue of forest by-products is not dealt with in any of mentioned documents.

On the basis of Law on nature protection from 1994, the Ministry for Environment Protection and Physical Planning issues official decisions on harvesting autochthonous plants for commercial purposes and from 2001 onwards, it keeps special records on harvested species and their quantities.

III.

PROCESS OF ELABORATING NATIONAL REPORT FOR A UN FORUM ON FOREST

Establishment of work group

In order to comply with the UNFF criteria on participation in the elaboration of reports of all significant interested parties in forestry sector and with an aim of its appropriate elaboration, Directorate for forestry and hunting at the Ministry of Agriculture and Forestry has established a separate work group. Invitations were sent to: 1) forestry experts involved in issues which will be on the agenda of the third session of UNFF and who are employees of College of Forestry and Forest Research Institute, Jastrebarsko 2) employees of limited company "Hrvatske šume" (the only company responsible for forest management in the Republic of Croatia) 3) members of non-government organisation "Green Action" 4) employees of the Ministry for Environment Protection and Physical Planning. We thought that the exchange of findings and information among the members of the work group on individual articles of IPF and IFF will be the right way for the elaboration of report. Two meetings of members of work groups were held in the ministry for this purpose. After reviewing IPH and IFF articles (on the first meeting), the members of the work group agreed on which report chapters would be elaborated in accordance with the conclusions of the discussion. A deadline for delivery of the first draft was set. The ministry was (among other things) put in charge of completing and distributing all parts of the report to all members. Suggestions and comments on the report could be presented by the members on the second, last meeting.

We thought that in such a way more representatives of important interested parties in forestry of the Republic of Croatia will get into contact with the UNFF, since it was evident that the elaboration of this report was, for the majority of us, (unfortunately) our first contact with it.

Although all important interested parties had the opportunity of actively participating in the elaboration of this report, the majority of obtained results is not satisfactory. The reasons for this are as follows:

- poor response of people invited to the work group
- lack of interest for the stated issues
- materials delivered to the ministry only partly deal with the given topic area

Lessons learnt

- insufficient keeping with the most recent developments in the world's forestry
- lack of international co-operation of Croatian scientists with scientific institutions in the world
- exchange of findings and experiences in forestry should be enhanced in order to make up for the lost time

It became clear during work that the future and direction of Croatian forestry to a great degree depends on the adoption of National forestry policy and strategy (ongoing) by the Government of the Republic of Croatia. General aim of the policy of this document is to enhance contribution of

sustainable management and exploitation of forest resources to the national economy through implementation of research results, compliance with international standards and resolutions and taking into account the rights of the local community.

Work on this report proved to be a good way for the assessment of Croatian forestry in relation to international experience, exchange of experiences, highlighting the most difficult problems and finding potential solutions.