



**TCP/CRO/3101 (A) Development of a sustainable charcoal industry**

# ***INSTITUTIONAL ASPECTS***

June 2008  
Zagreb, Croatia



[www.drveniugljen.hr](http://www.drveniugljen.hr)



This publication is a part of deliverables of the FAO project:  
*TCP/CRO/3101 (A) Development of a sustainable charcoal industry*

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This project was launched in July 2006 within FAO Technical Cooperation Programme with the objective to assess the current status of the charcoal production in Croatia, in order to develop a programme for the revitalisation of this industry.

Apart from recommendations and best solutions for the technological modernisation, the programme will provide guidelines for the production improvement and amplification with a holistic approach.

Ministry of Agriculture, Forestry and Water management is responsible for the project execution on behalf of the Government of the Republic of Croatia.

# INSTITUTIONAL ASPECTS

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## Executive Summary

The Government of Croatia has not yet recognised the significance of charcoal as one of the renewable resources. In order to change that situation it is necessary that all institutions, dealing with the charcoal production in any way, take interventional actions. In order to prevent decrease of charcoal production the following measures should be undertaken:

- create an encouraging legal framework through respective ministries that will fully regulate the production process;
- create forest product market for easier, transparent and more favourable acquisition of raw materials by the charcoal producers;
- promote association of producers into professional organisation by Croatian Chamber of Economy and Croatian Chamber of Trades and Crafts whether the producers are joining the cooperative or establishing and association;
- draft quality norms for charcoal production complimentary to the European ones. This will help placing of the domestic charcoal on the global markets and at the same time the control of the imported charcoal will be conducted;
- support charcoal producers for use of structural funds, financial instruments and other legal forms that can be used for improvement and expansion of their activities.

The Republic of Croatia has a good raw material base and tradition of charcoal production which is the reason why the FAO Project Sustainable development of charcoal industry tries to assist the charcoal industry to become more cost-effective. This study analysed current status, especially emphasizing obstacles, observed shortcomings, and possibilities of institutional support to future charcoal production national programme.

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## 1 Introduction

Forests cover almost half of the Croatia's mainland, out of which 78% are state forests and 22% belong to private forest-owners. Total wooden stocks are about 400 million m<sup>3</sup>. Annual allowable cut is about 6.5 million m<sup>3</sup> of the wooden stock out of which 2.6 million m<sup>3</sup> are the energy wood. The wooden industry has been developed based on the total production and has the possibilities to process the total production of technical timbers. Wood processing leaves a wooden residual of 1.7 million m<sup>3</sup> that can be used either for the production of energy or the production of charcoal. Everything said above shows that forestry and wooden industry produce significant amounts of raw material which subsequently can be utilised for production of energy.

Usage of wooden biomass (firewood and charcoal) has a long tradition, particularly in rural parts of Croatia. Charcoal in those areas is produced in a traditional manner in barrows and charcoal pits. Traditional production in barrows and furnaces is inefficient as it only utilizes 10% to 15% of the raw material. Taking into account technology of production and low usage of raw material small charcoal producers loose the competitive edge, which leads to decrease of cost-effectiveness.

The Republic of Croatia has a good raw material base and tradition of charcoal production which is the reason why the FAO Project Sustainable development of charcoal industry tries to assist the charcoal industry to become more cost-effective. This study will process current status, especially emphasizing obstacles, observed shortcomings, and possibilities of institutional support to future charcoal production national programme.

The study will answer following questions: Which institutions and professions have taken part so far? What is the legislation framework for charcoal production? Who should participate in the process in order to increase competitiveness? How the manufacturers should be organized?

Taking into account growing trend of charcoal demand in domestic and foreign market for Croatian charcoal, the implementation of a future national programme of charcoal production could incite investments in charcoal industry and its expansion which would influence the charcoal production to become more cost-effective and significant income source for people living in rural areas.

## 2 Existing institutional framework and stakeholders

### 2.1 Institutional aspects of charcoal production support

The Government of Croatia has not yet recognised the significance of charcoal as one of the renewable resources. In order to change that situation it is necessary that all institutions, dealing with the charcoal production in any way, take interventional actions.

It is also very important to include all respective ministries: Ministry of Agriculture, Forestry and Water Management, Ministry of Environmental Protection, Physical Planning and Construction, Ministry of Economy, Labour and Entrepreneurship that should define through laws and by-laws all conditions regarding the charcoal production, prevent and/or limit non-transparent or illegal biomass sale, unregistered trade of charcoal and other illegal activities.

Educational and scientific institutions can also contribute to higher successfulness of charcoal production by education and training of charcoal experts. The production of charcoal in Croatia has been performed in traditional manner, and the know-how about that production is transferred by a word of mouth, while the introduction of modern industrial facilities will require for experts knowledgeable in all charcoal production processes.

An active role in achievement of better charcoal production results should be played by the Forestry Advisory Service, a specialised public institution for carrying out the respective state authority activities and improvement of forest management and land in forest-owners woods. According to the Forest Act (O.G. 140/05, 82/06) and the Regulation of Establishment (O.G. 64/06) Forestry Advisory Service activities include:

- training of forest-owner for carrying out of simple forest works;
- organisation and preparation of forest-owners for usage of international funds dedicated to forestry and rural development;
- forest management advisory, organisation of professional training and seminars in forestry;
- organisation of wooden products trade as requested by forest-owners;
- drafting and implementation of rural development projects in forestry for regional, i.e. local self-governance units.

With respect to current management, forests of private forest-owners are mainly in bad conditions with small wooden stocks of low quality. Those low-quality assortments and firewood represent a significant resource for charcoal production. Most of the forest-owners are from rural areas, while the politics has been encouraging development of those areas, the Forestry Advisory Service can significantly contribute to implementation of that policy. An forest-owner aside from owning his/her own raw material also resides in rural area which is suitable for charcoal production and can realize many benefits for production and obtain additional profit by selling a finished product, not only raw material.

Current status in charcoal producers' structure along with inclusion of all mentioned institutions it is necessary to point out to the existing and potential producers all the

opportunities and advantages arising from networking and association and joint market appearance.

## 2.2 Existing legislation framework

Legislation framework regarding charcoal production encompasses a series of legislations covering forest management, construction, work safety, environment protection and different aspects of economic activities in production, and charcoal trade (table 2.1).

Table 2.1 Legislation and subordinate legislation regulating production and trade of charcoal in the Republic of Croatia

<b>Act/subordinate regulations</b>	<b>OG</b>	<b>Regulates</b>
<b>Forest Act</b>	140/05, 82/06	-breeding, protection, use and management of forest and forest land and natural resources
Regulation on Establishment of the Forestry Advisory Service	64/06	-establishment of Forestry Advisory Service as a specialized public institution for carrying out the public authority activities and improvement of forest management and forest land in forest-owner woods
<b>Forest Management Plan of the Republic of Croatia</b>		
<b>Classification of Unprocessed Wood Act</b>	180/04	-measurement and classification of unprocessed wood for easier monitoring of production, trade, consumption, quality, and price of unprocessed wood
Ordinance on measurement, classification and labelling of unprocessed wood	57/05	-type of measurement, classification and labelling of unprocessed wood being put into trading operations and persons performing the respective jobs
<b>Agricultural Land Act</b>	66/01, 87/02	-management and disposal of agricultural land
<b>Physical Planning and Construction Act</b>	76/07	-location permit, construction permit, use permit
<b>Occupational Safety and Health Act</b>	114/03	-prevention of occupational injuries, professional diseases, and other diseases regarding work and protection of the working environment
<b>Environmental Protection Act</b>	82/94, 128/99	-environmental quality protection -rational use of national resources and energy
<b>Ordinance on environmental emissions registry</b>	36/96	- methodology and manner of administration of environmental emissions registry, manner and deadlines of collection and delivery of data, authorization of companies for environmental emissions registry administration and criminal provision in case of infringement
<b>Ordinance on environmental</b>	59/00, 136/04,	<b>-actions requiring environmental</b>

impact assessment	85/06	impact assessment, content, deadline and manner of drafting environmental impact assessment study, manner of evaluation process and conclusion regarding the intended action, way of information dissemination, setting out date and type of public participation in decision-making, rights and obligations of participants in the process
<b>Air Protection Act</b>	178/04	-monitoring and determining of air quality, emissions and sources of emissions
Ordinance on monitoring of the air quality	155/05	-manner of air quality monitoring and data collection, measurement actions, validation of quality measurement and data, type of processing and display of results, delivery of data for the needs of the air quality information system and the manner of regular dissemination of information
Regulation on limits of pollution matters in the air	133/05	-limits, tolerable values, upper assessment limits, lower assessment limits, deadlines for gradual decrease of tolerance limits, target values, basic components of those values, deadlines for gradual decrease of pollution matters in the air
<b>Regulation on critical level of pollution matters in the air</b>	133/05	-critical levels of sulphur dioxide, nitrogen and ozone in the air and special protective measures for people and environment that have to be undertaken in a case of their appearance
Regulation on limits of the air pollution matter emissions from stationary resources	21/07	-limits of the air pollution matter emissions from stationary resources and allowed overdraft of emissions limits in a certain period -stationary resources are: plants, technological processes, industrial facilities, certain activities, devices, buildings and surfaces emitting air pollution matters
<b>Waste Act</b>	178/04	-manner of waste management: management principles and objectives, planning documents, competencies and responsibilities regarding management, conditions regarding building in which waste management is performed, manner of carrying out of activities, foreign traffic of waste, concessions and monitoring on waste management
<b>Ordinance of waste management</b>	23/07	-actions of use and/or disposal of waste, categories and technical and technological conditions required for waste storage facilities, professional qualification of workers performing storage activities, use and/or disposal of waste, recording and delivery of waste management data

<b>Labour Act</b>	137/04	-labour relations, work contract
<b>Company Act</b>	111/93, 34/99	-establishment and operation of companies (public company, limited partnership company, share capital company and limited liability company)
<b>Craft Act</b>	49/03	-establishment of craft business, education and training for craftsmanship, carrying out of registered activities, responsibilities of the craft business
<b>Organisations Act</b>	88/01	-establishment of organizations, activities, rights and obligations of members
<b>Cooperative Association Act</b>	36/95	- establishment of cooperatives, activities, rights and obligations of members
<b>Trade Act</b>	49/03	-conditions for carrying out of trade activities in domestic market, foreign exchange training, protective import and export measures, trade limitations, unfair competition, monitoring and administrative measures
<b>Standardization Act</b>	55/96	standards, basic requirements for products and services, compliance assessment system, licences and documents for trading products
<b>Customs Tariff Act</b>	61/00	-regulation on calculation of customs, manner of classification and numerical labelling of goods
<b>State Aid Act</b>	47/03	-approval procedure, monitoring of implementation, restitution of state aid
Regulation on state aid act	121/03, 50/06	-determines content and important elements for assessment of compliance with State Aid Act, procedure of issuing opinions regarding general state aid proposals, content, procedure and deadline for submission of state aid proposals
<b>Public-private partnership guideline</b>	98/06	-public-private partnership forms, procedure for selection of private partners, contracting and approval of PPP projects
<b>Forest Management Plan for the period since 2006 through 2015</b>		-basic planning document for management of all forests in Croatia, determining economic, ecological and social background for sustainable forest management

### 2.3 Classification of charcoal production

According to National Classification Act (Official Gazette 98/94) the Resolution on national classification of activities – NKD 2002 (Official Gazette 13/03) which classifies the charcoal production in the following way:

Field: **D – PROCESSING INDUSTRY**

**Subfield: DG - PRODUCTION OF CHEMICALS AND CHEMICAL PRODUCTS AND ARTIFICIAL FIBRES**

Section: 24 Production of chemicals and chemical products

Group: 24.1 Production of basic chemicals

Class: 24.14 Production of other basic organic chemicals

Subclass: 241472010 Charcoal briquettes

241472020 Combustible trays charcoal

241472090 Other charcoal

**2.4 Charcoal quality norms**

Important parts in charcoal production are quality norms and its control. The norm JUS D.B9.020 since 1958 has been enforced in Croatia and it has been taken from the Yugoslavian standard (JUS) – whole norm is given in Annex 1. This norm should be aligned with existing European norms applicable in the European Union. Those norms are the following:

1. EN 1860-1:2003: Appliances, solid fuels and firelighters for barbecuing. Barbecues burning solid fuels; Requirements and test methods.
2. EN 1860-2:2005: Appliances, solid fuels and firelighters for barbecuing. Barbecue charcoal and barbecue charcoal briquettes. Requirements and test methods.
3. EN 1860-3:2003: Appliances, solid fuels and firelighters for barbecuing. Firelighters for igniting solid fuels for use in barbecue appliances; Requirements and test methods.
4. 1860-4:2004: Appliances, solid fuels and firelighters for barbecuing. Single use barbecues burning solid fuels. Requirements and test methods.

There is only one industrial producer in Croatia, Belišće d.d. that exports its charcoal and briquettes on the European Union market and complies with EN norms 1860-2:2005 by the quality of its products which is a condition for successful sale and export.

The given JUS norm is very detailed, more detailed than the respective EN norms, and the specified quality requirements are very similar. But, JUS norm does not cover packaging and communication with customers, which in today's sharp market competition is very important.

We also emphasise the problem of domestic producers testing which arises the question of CE mark, which is becoming a sign of product recognition on the European market. CE marks the product designed and tested in accordance with European guidelines and align with European technical legislation. Charcoal produced in Croatia has to be examined and certified in the Republic of Croatia

according to European norms in order to enable better competitiveness to Croatian charcoal producers compared to growing import of products from the east.

In order to implement the said norms in the Republic of Croatia it is needed to form a Technical Committee in Croatian Standardization Institute. In general, energy wood field is not represented in any committee, and the same problem emerges regarding the biomass that appears on the market. Producers of wood for energy (fuelwood and charcoal) and other products wood are now playing on the market and achieve 30% of lower prices in export due to non-existing laboratories, lack of translated European norms and inability to establish required certificates.

### 3 Institutional support measures

#### 3.1 Association of producers

Current status of charcoal production in Croatia, outside of the industrial plant in Belišće, is not satisfactory as the production and export are being decreased, while import of the charcoal is being increased. Association of small producers would contribute to overcoming of this situation as currently they are not competitive by their individual position on the market neither by produced volumes or the prices of products.

One of the possible forms of association in order to achieve better business results and product placement on the market is the association in the Cooperative of Charcoal Producers. According to Cooperatives Act (OG 36/95) a cooperative is voluntary association of cooperates in which every member participates directly and which operates according to the principle of mutual help to improve and protect its economic and other professional interest with the aim of obtaining personal and mutual profit for cooperates in accordance with the law and cooperative policy.

A cooperative is a natural or legal person operating partially or in a whole through the cooperation, i.e. the person selling its products or services, purchasing products or services or using services for carrying out of its own activity through cooperation, or in another way directly participating in achievements of goals for which the cooperative has been established. The cooperative is a legal person, and its status is verified by entry in court register. It is founded by Cooperative Foundation Agreement and each co-operator invests an equal membership fee into the cooperative. The membership fees can consist of money, properties, and assets and rights expressed in their money counter value. The cooperative does business on its own behalf and for its own account and for the account of co-operators, but it can also operate on its own behalf and for the account of co-operators, in accordance with Cooperative Foundation Agreement and cooperative policies. The cooperative offers for all members:

- joint market presence;
- everyday communication with potential buyers;
- Processed data for its members, issues invoices and carries out administrative activities;
- concludes agreements for businesses in arrangement with its members and accelerates settlements;
- in accordance with its possibilities, obtain and procure raw material by the most favourable conditions;
- monitor market state and in agreement with co-operators apply to tenders, and procure all the necessary bidding documents;
- sends offers to potential purchases regardless whether the business has been agreed by a member of cooperative or cooperative sales service;
- focuses on timely collection of debt and payment to co-operators, and if necessary, in agreement with the members, files a claim for unpaid debts;
- constantly stays informed about legal regulations and disseminates those information to the members.

Another possible form of association is association into Charcoal Producers Association. Association Act (OG 88/01) is defined as every form of free and voluntary association of several natural or legal persons that undertake associating for protection of its own interest and benefits without intention to obtain profit. The association is a non-for-profit organisation that spends all income for the benefit of the association. Taking into account the definition of Association – such association is a milder form of association as through its operation the members can only protect their interest but can not sell their own products.

Based on the afore mentioned facts, with the aim to achieve more quality results in domestic and international market it could be suggested to small and medium producers of charcoal to:

- enter into cooperatives on regional level in order to realize their interests in procurement of raw material and in placement of charcoal on the market;
- association in an umbrella organisation of charcoal producers on national level that would ensure their recognition in the national economy and create conditions for efficient negotiation with the ministries, Hrvatske šume d.o.o., and other stakeholders.

Association is an activity that should be initiated by the producers, not imposed by authorities. Therefore it is required to conduct the following activities:

- introduce producers to possible forms and legal aspects of different associations;
- objectively present benefits, possibilities and limitations of the association and, if it would be possible, to present experience of other countries;
- enable better financing, i.e., access to incentive measures and credit lines for associated producers.

### **3.2 Incentive measures for charcoal production**

Future development model of charcoal production has to respect the principles of the market economy, free competitiveness and private ownership, Croatian accession to European Union and international agreements. Existing aids to economic subjects in Croatia may be divided into:

- regional incentives,
- state incentives,
- EU funds,
- Local self-governance incentives

In order to utilize the economic infrastructure in a better way for producers, it is needed to actively include charcoal producer in interest associations like Croatian Chamber of Economy (HGK). Croatian Chamber of Economy is constituted as a unique Chamber of all economic subjects in the country. Territorial and professional constitution is supported by the work of professional services. The main task of Croatian Chamber of Economy, as an institution representing the interest of all companies, is to render numerous services to its members due to improvement of the economy as a whole.

In order to provide efficient support it is needed to project a concrete support through publication of promotional brochure for encouragement of the entrepreneurship in production of charcoal that would contain an overview regarding the following questions:

- Ways of financing modernisation, expansion and start-up of new facilities for production of charcoal;
- Possibilities of financing by the Environmental and Energetic Efficiency Fund, Croatian Bank for Reconstruction and Development - HBRO, by state incentive and pre-accession funds through the Ministry of Agriculture, Forestry and Water Management and the Ministry of Economy, labour and entrepreneurship.

In order to simplify and make the access to incentives easier, and articulate the complexity of legislation on all levels the Ministry of Economy, Labour, and Entrepreneurship, Directorate for Industry should form a Working group for the development of Operational Plan for Charcoal Production. The given plan should define concrete steps of all stakeholders.

In regard to development plant it is advisable to start up long-term projects and short-terms projects whose success can strengthen trust and commitment of all participants in the process and help strengthening of partnership relations.

In order to achieve more successful implementation of charcoal production projects the cooperation between municipalities and charcoal producers should be established. According to stated above, it is suggested to partially exempt producers from paying communal charges and fees. Active cooperation with local self-governance is required in regard to obtaining of location and construction permits, hence the assistance can be provided by the Forestry Advisory Service, Charcoal Referral Centre or competent local or regional energy agency.

Inclusion of charcoal producers in the work of regional development agencies and usage of their know-how and networking can significantly make access to incentives easier on all levels.

According to provisions of the State Aid Act (OG 47/2003, 60/2004) and the Regulation on state aid act (OG 121/2003), the following state aids for research and development, basic research, applied research, development research and state incentives for technical feasibility studies which are a condition for the implementation of applied and development research.

Environmental incentives intended for rectification or prevention of environmental and natural resources damage, achievement of environmental standards or encouragement of rational usage of natural resources, incentives to small and medium entrepreneurs are intended for promotion of initial material and non-material investments, consulting services and presentation on fairs and expositions.

Different types and purposes of state incentives may be added, according to the Directive, unless the respective determines otherwise. Total amount of state aid may not exceed upper limit determined according to type and purpose. The upper limit is

determined for the amount of state aid from the state budget of Croatia and local or regional self-governance unit budgets for the current year.

Several types of existing project are: entrepreneurship promotion, war veterans projects, encouragement of employment (Croatian Employment Bureau), and incentives in priority regions. All the existing state aid programmes can easily be found on official internet websites of the respective ministries.

Croatian agency for small economy within the framework of its own Programme provides guarantees for loans approved by banks and other legal persons to the entrepreneurs. Right to request is granted to start-up entrepreneurs with the following conditions:

- having a seat, i.e. residency in the Republic Croatia;
- the amount of the last annual balance is up to 30,000,000 kuna, if they are payers of the business tax, i.e. have long-term assets if they are payers of the income tax;
- have the annual income up to 60.000.000 kuna;
- have an average of 250 employees in the last twelve months;
- they have been working up to 24 months by the day of the guarantee request submission, i.e. the entrepreneur that has not yet registered the company, craft business or another form of entrepreneurial activities, provided that he/she delivers the proof of registration;
- if they do not have a business loss according to balance per 31.12. and whose gyro account has not been constantly blocked for more than 30 days (with exception - 60 days) in the last 6 months.
- if they do not have unsettled liabilities against the state;
- if they have a solid financial plan.

To encourage establishment of vertical connection in the sustainable charcoal production incentive systems we often mention the project: Local Development of Charcoal Production.

The aim of the project was to strengthen charcoal production and its even development across the regions of Croatia through subventions of interest rates on entrepreneurial loans. The counties of Croatia would be appointed as the organisers of Local Development of Charcoal Production project implementation. They would open up an invitation to tender for all charcoal producers in their region. The users of those assets could be small and medium companies, craft business, charcoal producers 100% privately held by the citizens of Croatia. Those assets would be intended for entrepreneurial loan interest rate subventions for new productions and employment in those counties. The entrepreneurs may use loans by commercial banks to:

- buy, build, fix up or expand object,
- procure equipment or its parts,
- use as current assets for investments or improvement of business to the maximum amount of 50% of the loan,
- refinance the existing unfavourable loans.

The counties would obtain assets according to received tender proposals. Upon the Committee's proposal and the minister's decision on awarding of assets a three-party

agreement between respective ministry, local or regional self-governance unit and commercial bank will be concluded. The ministry opens an invitation to tender for all counties applying for the Project's assets. Ministry's committee, appointed by the minister, would process the requests.

We suggest the minimal loan amount of € 5.000 in kuna counter value, while the maximum amount would not be set up. Interest rate would comprise of EURIBOR +3.70% up to 6.00%, loan processing fee up to 0.8%, no deposit with the payment period up to 10 years which would include a maximum grace period of 2 years. Security instruments would comprise of a mortgage or a state guarantee (Croatian Agency of Small Economy). Interest rate subventions would be realised by the respective ministry in the amount of 1% and by the local/regional self-governance unit in the amount of 1%.

In order to ease the elaboration and adoption of charcoal production incentives we suggest a project: Competitive Charcoal Production, and there also are various options for tendering in various funds and agencies which would be further elaborated within the proposed Operational Programme of Charcoal Production Development.

The objective of the Competitive Charcoal Production would be to stimulate competitive production of charcoal by implementation of new technologies and improvement of the existing ones.

The beneficiaries in this project would be charcoal producers: craft businesses, small and medium companies, seated in the Republic of Croatia, being 100% owned by Croatian citizens and having at least 3 employees employed for an indefinite period (with the exception of start-up entrepreneurs).

The project would grant non-refundable assets for:

- investments in development and procurement of new technologies for charcoal production (equipment, transfer of knowledge);
- investment in development of more environmentally friendly and energetically efficient charcoal production;
- professional education of employees for implementation of new charcoal production technologies;

Maximum amount of grant per users would be 50% of justified investment costs, with the upper limit of 300.000 kuna. The grant is awarded according to submitted requests and documentation.

Supporting documents that a company should submit:

- description of a new technology that would be supported by the grant;
- short company description (activities, products, placement, development plan – clearly showing export trend, waste management, education/training, etc);
- copy of court register statement;
- BON 1 and BON 2 (not older than 30 days) or a bank statement of account status and transactions;
- a copy of the annual financial report for the previous year, authorised by FINA;

- statement of Revenue Service that there are no outstanding debts against the state;
- proofs that the assets are being used as intended: invoices, pro-forma invoices, offers/proposals, contracts, orders, etc – and gyro account statement proving the realised payment.

Supporting documents for craftsmen:

- description of a new technology that would be supported by the grant;
- short description of the business (activities, products, placement, development plan – clearly showing export trend, waste management, education/training, etc);
- copy of craft business statement;
- income/expense overview for the previous year and BON 2 (not older than 30 days) or a bank statement of account status and transactions;
- a copy of the certified income tax application for the previous year;
- statement of Revenue Service that there are no outstanding debts against the state;
- proofs that the assets are being used as intended: invoices, pro-forma invoices, offers/proposals, contracts, orders, etc – and gyro account statement proving the realised payment.

Upon the awarding of the grant, along with the signed contract the beneficiary would have to deposit at the bank a blank debenture as a payment instrument in a case that the assets would be used contrary to project and contract provisions.

### **3.3 Incentive measures for exporters**

In order to limit all export barriers we need a coordinated cooperation with Croatian exporters in order to collect information regarding export barriers. We expect to obtain that information at workshops regarding preparation and export process that are related to the processes and institutions in Croatia which will be subsequently more focused to eliminate barriers for presence and penetration of the foreign markets.

Action and procedures regarding elimination of the barriers will be conducted according to the application process and elimination of the barriers that the EU is being conducted for member state according to Trade Barriers Regulation, and that service carried out by the European Commission will be available to Croatian companies once Croatia joins the EU (more information on <http://madb.europa.eu/>). In regard to entrance of our companies on the EU market we can already use the European Commission service Export Helpdesk for Developing Countries, providing practical information and preventing barriers for penetration of those markets.

The Croatian Government programme for promotion of small and medium enterprises valid as of May 5 2004 sets out guidelines for small and medium enterprises promotion. Annual Operational Plans with projects and incentive measures for promotion of small and medium enterprises are drafted according to those guidelines. In accordance with the above, the charcoal producers can apply for

the project of Technical harmonisation at the Ministry of Economy, Labour and Entrepreneurship.

The objective of that project is to create more favourable conditions for introduction of quality and environmental control system, to certify product conformance with the Croatian and European norms and guidelines (CE-mark), acquisition of right to use the label: Genuine Croatian, Croatian Quality and Croatian Island Products, etc, with the aim to increase competitiveness of products on foreign and domestic markets. The beneficiaries of this project are the producers: craft businesses, small and medium companies, cooperatives and business subjects providing production related services that are doing business positively and are seated in the Republic of Croatia, being 100% owned by Croatian citizens and having at least 3 employees employed for an indefinite period (with the exception of start-up entrepreneurs).

## 4 Conclusions

In the last couple of years charcoal production, steady in a sense of production volumes, is being marginalised, which threatens its long-term sustainability. First analyses show that such activity can be profitable in Croatian terms and that there are good natural, technical and other conditions for it. Charcoal market on the EU level has been constantly growing and it is a product that ensures cost-effectiveness.

The government of the Republic Croatia has recognised the specific situation in the are of charcoal production and accepted technical assistance of the FAO in order to prepare modernisation and revitalisation of the charcoal industry.

Obstacles to the implementation of this project, identified directly by the producers include:

- lack of adherence to European quality standards and consistent labelling and monitoring of the charcoal coming to domestic market;
- lack of understanding and wrong perception of local people and local/regional self-governance units regarding environmental and health impact of charcoal production;
- non-transparent sale and unordered wooden biomass market;
- lack of information regarding possibilities and procedures for financing of the modernisation and expansion of production facilities;
- lack of information regarding new, efficient charcoal production technologies.

The Energy Strategy of the Republic of Croatia showed that the biomass is an important renewable source of energy in Croatia, according to all scenarios of future development, and charcoal is one option to increase usage of the biomass energy.

In order to prevent decrease of charcoal production the following measures should be undertaken:

- create an encouraging legal framework through respective ministries that will fully regulate the production process;
- create forest product market for easier, transparent and more favourable acquisition of raw materials by the charcoal producers;
- promote association of producers into professional organisation by Croatian Chamber of Economy and Croatian Chamber of Trades and Crafts whether the producers are joining the cooperative or establishing and association;
- draft quality norms for charcoal production complimentary to the European ones. This will help placing of the domestic charcoal on the global markets and at the same time the control of the imported charcoal will be conducted;
- support charcoal producers for use of structural funds, financial instruments and other legal forms that can be used for improvement and expansion of their activities.

It is necessary that all respective institution act promptly and jointly to realize the set out objectives as soon as possible, which means to create conditions for the charcoal production to become stable, cost-effective industry branch with recognisable products in domestic and global market.

## 5 Recommendations

1. The State Office for Standardisation should draft out the charcoal quality standard according to relevant European norms implementing their positive effects into our standards.
2. The State Office for Standardisation should form a Technical Committee for wooden biomass that would also be in charge for charcoal.
3. The Ministry of Agriculture, Forestry and Water Management should provide translation of relevant EU norms (especially EN 1860-2:2005) within the FAO project and submit that to the producers of charcoal who could then be able to implement them in their own production.
4. The Ministry of Agriculture, Forestry and Water Management should create legal framework to form market of wooden products (wood bourse) in order to make that raw material more available on the market. The Wood Processing and Use Act has been in the parliamentary procedure which will create a legal basis for formation of the said bourse.
5. The Ministry of Agriculture, Forestry and Water Management should promote and organise inspection of wooden products trade to ensure transparent trading in accordance with marketing terms.
6. The Ministry of Environmental Protection, Physical Planning and Construction should issue a legal obligation for depositing of biomass – wooden residual of wood processing industry and forestry in order to further incite energetic use.
7. The Ministry of Economy, Labour and Entrepreneurship should implement the system to encourage new charcoal production technologies which will increase the efficiency of the production.
8. The Environmental Protection and Energy Efficiency Fund, in cooperation with the respective ministries, in accordance to the operational programme for 2008, 2009 and 2010 shall carry out a tender for modernisation and expansion of the existing and starting up of the new charcoal production facilities.
9. The Ministry of Environmental Protection, Physical Planning and Construction, should issue guidelines for selection of location of the new facilities in accordance with the existing legal regulations regarding building due to avoid misinterpretation of regulation by the local/regional self-governance units.
10. Forestry Advisory Service should organise education on advantages, possibilities and limitation of the charcoal producers associations and the possibilities to secure financing for modernisation of this production which would include the preparation of the guidebook.
11. Charcoal producers should form regional cooperatives and establish the national association of charcoal producers at the Croatian Chamber of Economy or independently in order to gain easier and more quality market appearance. The

Croatian Chamber of Trades and Crafts should definitely be included in this process.

12. The referral centre should be formed either at the Forestry Advisory Service or regional energy agencies that would provide information regarding new technologies, financial options, and mediate in the appearance of domestic producers on foreign markets.

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## **7 ANNEXES**

**Annex 1 – Copy of the first charcoal norm used in Croatia (and former Yugoslavia) - JUS D.B9.020, 1958**

**Annex 2 - Copy of the currently used charcoal norm used in Croatia - JUS D.B9.020, 1977**

**Annex 3 – European norm EN 1860-2:2005 Appliances, solid fuels and firelighters for barbecuing. Barbecue charcoal and barbecue charcoal briquettes. Requirements and test methods**