



Fact sheet (2016): Woody energy market in Bulgaria

Framework conditions

The total wood resource in the Bulgarian forests is approximately 650 million m³. In the course of the last years, the volume of standing dead wood mass has been 6 - 7.5 million m³ annually (5 - 6 million m³ of lying dead wood) with the possibility of an increase up to 14 million m³ every year. The largest share of wood is used in the primary industry and the end energy consumption in Bulgaria. More than half of the material is used for heating, mainly as firewood. Almost 2/3 of the harvested wood material is from state owned forests.

The private forests are highly utilized. The average forest road density in the country is 7.9 m/ha which is lower than most of EU member states. Most of the forest roads are not in good condition and only a few roads have been built in more than 10 years.

Forest area	4.148.114 ha	37.4 % of total land area
Forest ownership	3.034.000 ha state forests	74% is state owned
	451.000 ha private forests	11 % is private owned
	533.000 ha municipality forests	13% municipality owned
	606.809 forest owners with an average forest-holding of 0.74 hectares	

There are several heating plants based on wood residues in the country. But the lack of attractive and effective finance instruments (EU and national programmes, bank loans, private investment funds) is a big obstacle. Some of the plants are re-designed as Combined Heat and Power Plants (CHP) but the feed-in tariff was lowered over the last year leading to financial difficulties.

The main obstacles for the development of the forest sector are:

- Low labour productivity;
- Low social status of forest workers, low wages;
- Low qualification of personnel;
- Difficult access to financing; lack of bank support in investment;
- No available funds for renewing of machinery;
- Low number of certified forests and certified wood industries.

The problems in the sector were analysed, and some were addressed in the National Strategy for Forest Development for the period 2013 - 2020. The first step in reorganisation of the sector was the separation of state agencies for monitoring of forest from state forestry industry.

Market and supply chain development

The market for firewood has experienced growth in the last few years as the price for electricity grew and district heating plants experienced some management and financial





problems. The production of wood pellets in the country additionally increased in the last 5 years with main clients from Italy, Greece and Turkey. The mean annual volume of production achieved by the companies varies among 250 – 10 000 t of pellets, 400 – 1100 t of eco-briquettes and 100 – 5000 t of charcoal, respectively.

Around 150 000 tonnes of pellet were produced in Bulgaria in 2014. About 60% of the manufacturers produce pellets using small press machines.

The utilisation of wood residues has gained popularity and wood chips from furniture and pulp production are used for heating in food production. However, most of the forest residues are not used due to lack of machinery or low profit (high harvesting cost and low efficiency). The market for wood energy products is chaotic and there is no regulation body. The actual production of small pellet factories or private owners of pellet presses is not monitored and de-facto unknown. Most of the wood chips is sold by sawmills and there is no applied standards for size, moisture or other parameters. Production of standardized wood chips is rarely seen and the price differences are drastic. There is not enough knowledge about quality standards for wood energy products in the society and the customers' awareness of sustainability and greenhouse gas emissions need to be increased.

Nevertheless, in the big cities and urban areas the use of pellet boilers is increasing as the storage of the material and feeding are easier. The awareness of the reduction of emissions in the big cities has grown in the last years but only the wealthier part of the population can afford the prices of modern stoves or boilers with low emissions.

Sustainability and quality assurance schemes

There is no actual estimation of the wood supply potential of forests in Bulgaria. Meanwhile woody biomass as a renewable energy source contributes to Bulgaria's renewables goal of 16% share in the final energy consumption in 2020. Despite the government efforts for raising the awareness for the sustainability in forest management, the level of forest certification is still relatively low. Presently, 26% of the forest territory of Bulgaria is FSC certified and is managed by 61 legal entities (59 State Forestry Units, 1 municipality and 1 private company). It is planned for all state-owned forests to be gradually (step-by-step) FSC certified.

Bulgaria is developing a National Standard for Forest Management Certification (FSC) and aims to have it in use in 2017. Several public bodies (including the Executive Forest Agency), environmental organisations and private associations and companies have been involved as the whole process has been initiated, planned and led by the World Wide Fund for Nature (WWF) Bulgaria.

FSC Chain of Custody certification (CoC) has grown significantly in the past years from 29 certified companies in 2012 to around 140 in 2016. Presently, nearly 150 legal entities hold 185 FSC and 7 PEFC CoC certificates. The companies exporting their production abroad have the need to be CoC certified mainly because this is a requirement imposed by their foreign clients whether from the EU or other parts of the world. In this case, the unavailability of a national standard is irrelevant because the necessary CoC certification is obtained directly from national or foreign offices of the certification bodies.

