

Use of wooden biomass for energy purposes in Slovakia

Background

Slovakia aims to cover 14% of its energy consumption from Renewable sources of energy by 2020, with biomass identified as the key resource. As far as wooden biomass is concerned, it is expected that in 2020, 4,7 million ton will be used from domestic sources to produce 1222 ktoe of energy. In 2006, the amount of domestic biomass from forestry was 1,9 million ton¹, which means that there is a prognosis of 147% increase of the use of biomass from forestry in 14 years. Important note is that sustainable amount of logging per year in Slovakia is approx. 6 mil. ton, which means that Slovakian government is planning to use almost 80% of sustainably available wooden biomass as a resource of energy. This boom of biomass use in Slovakia is happening in the absence of sustainability criteria and limits on biomass use. At this stage, there are no comprehensive studies which would show the impact of this pressure on ecosystems, but visible changes in landscapes indicate that ecosystems are suffering.

Case study:

In 2013, Slovak NGO “WOLF Forest Protection Movement” has drawn up a study that evaluated the amount of available wooden biomass suitable for energy production and the actual demand for it in two regions of eastern Slovakia (Prešovský and Košický self-governing regions)² -

http://www.wolf.sk/files/Analyza%20biomasa_0.pdf

According to findings, the annual amount of wooden biomass suitable as resource of energy from all sources (forestry, wood processing industry, non-forest wood vegetation) in these two regions is 530 000 tons.

However, the annual consumption is 1 million t. It means that there is an annual deficit of 470 000 tons.

The study also analysed subsidies supporting the use of biomass, which include guaranteed price for electricity and support from EU funds in above mentioned 2 self-governing regions. Between 2004-2013 , in two analysed regions 72 million EUR was spent for the support of wooden biomass use for energy purposes. According to authors, the subsidy policy is one of the drivers behind the unsustainable use of biomass, as it artificially increased the demand



¹ National action plan for energy from renewable sources of energy (2010),

² LZ VLK (2013) Spracovanie biomasy v regióne východného Slovenska vo vzťahu k zachovaniu prirodzených lesov

for wood at the market and subsequently raised the price of wood. As a consequence, processing of any type of wood for energy purposes has become interesting from economic point of view and it causes market distortion as well.

When looking at the consumption of wooden biomass for energy use in national context, in 2012 1,3, million ton of wooden biomass for energy use was available, according to data from National forest centre. However, according to available information summarised in the study (and confirmed by Ministry of Agriculture), the consumption was 3,8 million t. Which means, that also on national level the demand is already now far beyond available national resources.

According to authors of the study this is compensated by using wood of high quality³ for production of energy, shortening the period of cutting, logging beyond the planned amounts, illegal harvest of wooden biomass, unsustainable harvest of wooden vegetation outside forest (windbreaks, trees along the rivers, roads), import from abroad (Ukraine, Poland, Hungary).

The authors report, that as a result of this unsustainable demand for wooden biomass, ecosystems are under threat. The biomass is being harvested from rare habitats such as bank vegetation, forest and shrub vegetation on agricultural land and other habitats which are crucial for feeding or hiding place for number of species protected by national and EU legislation. Due to artificially increased demand for biomass the lack of timber is being compensated by logging in National Parks, Nature Reserves, Sites of Community Interest, Special Protection Areas. The other problem is unsustainable logging in forests which has negative impact on forest ecosystems.

The findings published in the analysis of WOLF Forest Protection Movement have been already officially confirmed by Regulatory Office for Network Industries of Slovak Republic. Despite all available information about negative impacts on highly valuable habitats and species, use of wooden biomass for production of energy is being supported under current Rural Development Programme. Thanks to pressure of NGOs, there have been promises that any support for wooden biomass from EU funds will be subject to sustainability criteria. The content and effectiveness of such criteria is to be seen, but unless correct carbon accounting is introduced on EU level and robust cap limiting the use of biomass for energy to sustainable levels is introduced, NGOs are sceptical about their effect and seriously worried about continuous negative impact of biomass use for energy purpose in Slovakia.

³ According to Slovak legislation, only wood of lowest quality (category VI) can be used for energy purposes

Annex: Photo-documentation

Picture 1: Bioenergy Bardejov (Prešovský self-governing region) Photo © Wolf

According to NGO WOLF Protection movement, public subsidis to this company fully cover the costs of wood, which represent the highest item in the costs of company. Because of this, the return on investment is 4years.



Picture 2: Harvesting of wooden biomass in Natural reserve Bisce (Košícký self-governing region)

Photo © Wolf



Picture 3,4: Harvesting of wooden biomass in National Park Poloniny (Prešovský self-governing region) Photo © Wolf





Picture 5: SPA Dolné Považie (Trnavský self-governing region) photo ©SOS/BirdLife Slovakia

The picture illustrates the damaging nature of wood harvesting interventions which are done under the label of „flood prevention“. The removal of bank vegetation has negative impact on SPA qualifying species such as Syrian Woodpecker and Barred Warbler, but also many other bird species as tits, sparrows, woodpeckers, and other group of animals such amphibians, fish and insect.



Picture 6, 7: Proposed SAC Dolny Hron (Nitrianský self-governing region) photo © SOS/BirdLife Slovakia

Natural alluvial forests were harvested to produce wood chips.

