

ПРАЦІ ЗАКОРДОННИХ АВТОРІВ

RENEWABLE ENERGY POTENTIALS OF HUNGARY WITH SPECIAL FOCUS ON BIOMASS

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The gradual decrease in the fossil fuels (oil, natural gas) has increasing significance and causes problems nowadays. The increasing electricity and heat demand of the industry, the public and the households and the increasing road traffic as well as the carbon-dioxide pollution of the air have high volumes globally. Although there are several conscious activities internationally and nationally to provide a livable environment for the next generations. The aim of our research is to discover those possibilities which can help Hungary to achieve the commitments on the renewable energy production, utilizing our natural, economic and human resources efficiently, thus the inequalities within the country may be reduced. These tendencies have fundamental impacts on the agricultural production of Hungary as well, since the agricultural land and other resources used by the agriculture may need to be utilized in other ways, for example for biomass production rather than traditional food production.

Introduction

Out of the renewable energy sources, biomass has the most important role in Hungary. The reason for this is that contrary to the features of the solar energy and wind energy, biomass can be transported, stored, therefore it provides continuous supply. At the same time, its disadvantage is that it has low energy consistence, similarly to other alternative energy sources (Fogarassy, 2001).

As for the renewable energy sources, the highest potentials in Hungary are in the biomass production and utilization, and there are huge potentials to increase the quantity of the biomass for energetic use. However, due to the agricultural risks related to the production, the decision-makers do not really believe that the biomass production may become a stable market segment. In favour of the biomass production it is an important argument that some of the agricultural lands do not have favourable conditions for food production, so it may create possibilities for crop production with other purposes, like energetic use. However, there are some negative factors in the biomass production as well.

One of them is that there are many farmers who produce food for their own purposes, facing structural and long-lasting difficulties. Therefore their farms are not economically viable.

The characteristics of the Hungarian situation

The renewable energy sources currently represent 3,6% of the total energy consumption of Hungary, out of which biomass represents 80%. Most of it comes from wood and other crop by-products, but this is only a minority of the possibilities. The energetic use of biomass can be primarily carried out by using the by-products and waste created in the conventional agricultural production and forestry or doing energy forestry and growing energy crops (Barótfi, 2000).

In the planning process of an efficient biomass-system, the key issue is the raw material utilization and supply. The access to the fundamental criterion of the production, i.e. the biomass, is closely related

to the territorial endowments. Without considering the territorial conditions of the country, the biomass supply systems cannot be planned due to its high transportation costs. The transformation of the power plants to biomass burning systems may require significant amount of foreign capital involvement. The expansion of the power plants is expected to have significant impact on the demand of the biomass in the coming years, so they are expected to increase its price.

The storage and transportation are of great importance in the biomass production. The storage capacities of the regions has been discovered because the geographical location of the raw material is very important due to the seasonal feature of the production. Without proper storage and transportation, the losses might be very high, so they cannot be considered as a problem of secondary importance.

While deciding on the location of the investment into biofuel production plants, selecting the most appropriate location is the most important.

Bioethanol and biodiesel plants are recommended to create close to the raw material or to the place where the final product will be utilized, since transporting them for longer distances may sharply reduce the profitability of the plant. The different ways of transport have to be also examined and the logistics related to the handling of the by-products is also a very important aspect. Based on the abovementioned, complex systems have to be elaborated to solve the problems occurred.

Employment and human resource issues have to be also mentioned while examining the supply of biomass. Based on our researches, the human resource demand of the energetic biomass production is moderately high, therefore real potentials can be discovered on those parts of the country where the people are qualified. From this aspect, Southern-Great Plain can be a suitable region for such purposes.

In addition to European commitments, there are other environmental and economic factors that urge

the increase of the green energy utilization. At the moment, the use of alternative energy sources within the Hungarian electricity production is quite low, but more and more power plants use biomass for heating.

At present, 60% of the energy need of the country comes from imports, while half of the imports could be produced domestically with using renewable energy sources with reasonable costs.

However, due to energetic crop production, only 8-25% of the country's demand could be produced, therefore it can only be a supplementary energy source. Moreover, under the present economic circumstances, the energy production from renewable energy sources is not competitive compared to the conventional energy sources. Though this handicap has been decreased due to the recent happenings, the raw material production still needs to be subsidized.

Conclusions

According to our research on Hungary's

potentials, the biomass potential of the forests is the highest in Northern-Hungary and Southern-Transdanubia due to their geographical location. We can also see that the community waste production is the highest in Central-Hungary. The aim is to establish regional dumpings where professional waste management and biomass production is carried out. Based on our examinations, we need to state that the regional analysis of the biomass production and processing is sometimes not enough to make certain decisions. In some cases, the optimal area sizes cross the regional borders, so it is not recommended to define the production borders at the regional borders.

In order to make right decision, we need comprehensive analyses. The selection of the right location for production, and the optimal size and location of the processing plant and storage facility may bring several economic and social benefits in long terms, generating multiplier effects in the given area.

Literature

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По мнению Элвина Тоффлера, выраженному в 2008 г. (через 17 лет после выхода из печати „Смещений во власти”), переход экономики от индустриальной к экономике, основанной на знаниях, начинается только теперь. В каждой стране этот переход будет протекать различно, и ему будет сопутствовать множество парадоксов и явных противоречий. Одна часть из них представлена в настоящем изложении. В этих целях обособляются две группы: 1) парадоксы и явные противоречия в организационном развитии в переходе к экономике, основанной на знаниях; 2) парадоксы и явные противоречия в человеческом поведении в переходе к экономике, основанной на знаниях. Рассмотрению предшествует характеристика знания как специфического человеческого ресурса и как источника высококачественной власти, включая и на организационном уровне.

На думку Елвіна Тоффлера, вираженого в 2008 р. (через 17 років після виходу з друку "Зміщення у владі"), перехід економіки від індустріальної до економіки, заснованої на знаннях, починається тільки тепер. У кожній країні цей перехід буде протікати різному, і йому буде супроводжувати безліч парадоксів і явних протиріч. Одна частина з них представлена в сьогоденні викладі. У цих цілях відокремлюються дві групи: 1) парадокси і явні протиріччя в організаційному розвитку в переході до економіки, заснованої на знаннях; 2) парадокси і явні протиріччя в людській поведінці в переході до економіки, заснованої на знаннях. Розгляду передуює характеристика знання як специфічного людського ресурсу і як джерела високоякісної влади, включаючи і на організаційному рівні.

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ELECTRONICS MARKETING AND ITS IMPACT ON THE QUALITY OF BANKING SERVICES IN IRAQI COMMERCIAL BANKS

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The importance of this study is that it explains the role adopted by the marketing departments of commercial banks of Iraq to the success of their work and achieving their marketing, social, and through the