



Cultivation of energy crops - A chance for development in the rural areas of Podlaskie Voivodship

Podlaska Agency for Energy, Poland

Summary

The main idea of the project was to popularize energy crops cultivation and highlight its value as parallel to food production source of income in agricultural areas of Podlaskie region.

The project was implemented in small towns of north-eastern Poland (region Podlaskie Voivodship), it was financed by Podlaska Agency for Energy and municipalities (contribution in kind). During the project we organized 9 seminars in small towns of Podlaskie Voivodship (a region in north – eastern Poland) for farmers and entrepreneurs interested in cultivation of energy crops. Podlaska Agency comprises a training team for Energy' workers consisting of owners of farms with experience in growing energy crops and agriculture experts. The topics of the seminars were as follows: cultivation of energy crops, legal and logistic framework of energy sector in Poland and Podlaskie Voivodship, sources of financing, energy saving. Implementation of the project created solid bases for development of energy crops plantations and helped to establish links between parties interested in future development of biomass market: owners of farms, logistics companies, owners of power plants. The project will be continued in autumn 2005 and will serve as a platform for popularization not only energy crops cultivation but also other issues related to energy saving and renewable sources of energy. The knowledge of these matters among farmers is still insufficient.

Podlaska Agency for Energy operates in the north-eastern Poland.

End-user area

- New buildings
- Refurbishment of buildings
- Transport and mobility
- Financial instruments
- Industry
- Legal initiatives (regulations, directives, etc)
- Planning issues
- Sustainable communities
- User behaviour
- Education
- Other

Target Audience

- Citizens
- Households
- Property owners
- Schools and universities
- Decision makers
- Local and regional authorities
- Transport companies
- Utilities
- ESCOs
- Architects and engineers
- Financial institutions
- Other

Technical

- Energy efficiency
- Heating
- Cooling
- Appliances
- Lighting
- CHP
- District Heating
- Solar energy
- Biomass
- Wind
- Geothermal
- Hydro power
- Other

Context

The geographical area covered by Podlaska Agency for Energy is the Podlaskie Voivodship, the green and blue land located in the north-eastern part of the country. In terms of its area (20180 sq. km) it is the sixth largest in Poland. It borders on the Mazovia Voivodship in the West, with the Warmia and Mazury Voivodship in the north-west, and it has a short border section with the Lublin Voivodship in the South. The Podlaskie Voivodship borders on Lithuania in the north-east and with the Belorussia Republic in the East. The border location of the Podlaskie Voivodship is conducive to the development of economy, transport services, tourism, trade and international scientific and cultural co-operation.



Polish government decided that in 2010 as much as 7,5 % of energy will be coming from renewable sources of energy which means that energy sector companies must gradually increase the amount of “green energy” in the volume of their production. The same holds true for energy sector companies located in Podlaskie Voivodship. Majority of large and medium scale power plants and CHP units burns coal as a fuel, but they plan to develop installations suitable for burning biomass or build biomass dedicated units as for instance in Hajnowka town, where 50 MWt CHP unit will be built by the end of year 2007. Podlaskie voivodship is the center of timber and furniture industry and the amount of the wood available for energy sector coming from forests is limited, despite the fact that the region is among most forested areas in Poland. The Podlaskie Voivodship has typical agricultural character, much land however is a wasteland which for economical reason was excluded from agricultural activity. If the consumption of biomass distinctively rises this land can be used for growing energy plants. For this reason Podlaska Agency for Energy decided to start-up activities that would help to create biomass market in Podlaskie region and carry on chain of seminars focusing on methods of growing energy crops. The target groups were farmers and other inhabitants of rural areas. The main idea was to organize educational meetings in small towns, close to farmers' places of living and to give them practical knowledge of energy plants use, methods of cultivating, prices, economical and organizational schemes as well as to present them with available funds for starting such an activity.

Objectives

- Providing farmers with knowledge on methods of energy plants cultivation and use of biomass in energy sector
- Information on energy policy implemented in Poland and its EU dimension
- Information on sources of financing of energy crops growing and land planting
- Energy conservation matters, environment and air protection and other energy issues provided to consumers to rise public awareness
- Education of farmers and entrepreneurs on functioning of energy market in Poland and other countries

Process

The project implemented by Podlaska Agency for Energy aimed at training of farmers who are interested in beginning of energy crops cultivation. Target group were farmers and entrepreneurs from Podlaskie Voivodship, especially from communities where energy crops are known and farmers need more information about such crops. Seminar programme included presentations concerning following subjects:

- Podlaska Agency for Energy Management – mission and objectives,
- Energy crops – species and conditions for their cultivation,
- Costs and financing of energy crops cultivation start-up,
- Examples of energy crops plantation and rules of contracting between producer and receiver,
- During seminars energy crops as well as their utility were presented.

Presentations were carried out by employees of Podlaska Agency for Energy and professionals from institutions which operate on energy crops market.

All seminars were finished by discussion. Participants were involved in seminars by asking questions to experts.

Table 1. Listing of seminars

Lp	Place	Date
1	Dabrowa Bialostocka	25.11.2004
2	Narew	26.11.2004
3	Grodek	29.11.2004
4	Narewka	09.12.2004
5	Wyszki	20.01.2005
6	Dubicze Cerkiewne	24.01.2005
7	Hajnowka	25.01.2005
8	Czyze	01.02.2005
9	Michalowo	10.03.2005



Financial resources and partners

The project based on Agency's financial sources. Seminar halls were rented by self – governments with no charge.

Budget of the project included only costs of trip to places where seminars were hold. Total costs of trips were about 600 Euro.

Results

Results of the project:

1. 9 seminars were held
2. 125 participants participated in seminars
3. increase of farmers' knowledge about energy crops cultivation process and distribution
4. increase of energy crops plantations number – 200 hectare
5. increase of buildings and farms uses biomass – 5 objects
6. development of bio-mass market on regional scale
7. improvement of energy saving buildings
8. popularization and growth of utilization of ecological fuels, e.g. *Salix* sp., *Thopinambur*, cane, rape
9. development of energy crops cultivation on waste-lands
10. decrease of scale of money spent on traditional fuels, e.g. coal, heating oil

Lessons learned and repeatability

The most positive aspect of the project was practical knowledge of matters related to energy crops growing gained by the farmers from Podlaskie Voivodship. Information carried out during the seminars was of great help in planning of future agricultural activity by farmers and land management. The meetings created an opportunity of establishing links between key actors active in biomass industry, i.e. producers, logistics companies and experts specialized in cultivation of energy crops that were present during the seminars. Such situation would not be possible if the meetings were not arranged in places located in close proximity of small villages and towns. The main factor of success was that we managed to cooperate with local authorities (mostly town or regional units' mayors) who helped to distribute information about seminars among citizens living in rural, distant areas. Matter of great importance was also that among trainers were people who had not only theoretical but also practical knowledge on growing energy crops including owners of willow and topinambur (*Helianthus tuberosus*) plantations. If the seminars are continued we plan to organize visits of farmers interested in growing of energy plants on already existing plantations, power plants and to enhance the role of energy sector companies in order to tighten the cooperation between final buyer of biomass and energy crops producers.

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