



bioregions.eu

Regional Networks for the development of a Sustainable Market for
Bioenergy in Europe



D5.4: The Bioregions project and renewable energy opportunities for rural Hungary: Workshop Proceedings

March, 22nd 2013

Acknowledgements

This report has been produced as part of the project BioRegions. The logos of the partners cooperating in this project are shown below and more information about them and the project is available on www.bioregions.eu



The work for this report has been performed by ELARD

The sole responsibility for the content of this report lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EACI nor the European Commission are responsible for any use that may be made of the information contained therein.

Table of Contents

Introduction: Setting the scene.....	p. 4
The workshop: “The Bioregions project & renewable energy opportunities for rural Hungary”.....	p. 4
Bioregions presentations	p. 5
The workshop’s audience & media outreach.....	p. 7
List of Annexes:	p. 8
<ul style="list-style-type: none">• Annex 1: Presenting the Bioregions project – Mr. Stefanos Loukopoulos, ELARD.• Annex 2: How to prepare an action plan for a future Bioregion – Mr. Thanos Balafoutis, Agricultural University of Athens.• Annex 3: Bioregions workshop agenda• Annex 4: Presence Sheet• Annex 5: Bioregions questionnaire in Kozard• Annex 6: Pictures from the workshop• Annex 7: Workshop’s promotional poster	

Introduction: Setting the Scene

The organisation of promotional workshops in regions not covered by the scope of the project constitutes an integral tool in successfully fulfilling Task 5.4 “engaging new regions”. Having previously co-organized a “bioregions workshop” in Rome, ELARD decided to host its second event in a more rural setting thus reaching out to a more targeted audience of stakeholders. Being aware of the biomass potential of the County of Nograd (Hungary), whose forests cover 41% of its territory, as well as of the growing interest in renewable energy by the local stakeholders, politicians and the population of the region, the choice for the location of the 2nd workshop was not a hard one to make.

ELARD made use of its vast network of Local Action Groups (LAGs) and with the valuable help of LAG Cserhatalja began to work towards the preparation of the workshop. The first step was to identify local partners who would be interested in helping with the organisation and promotion of the event either actively or by simply endorsing it. Given the mismanagement of the vast forest areas in Nograd County, the perceived positive effects that renewable energy can have for the local economy and the attractive theme of the workshop, ELARD’s and Cserhatalja’s call for partners was successful. The organisation of the bioregions workshop was either endorsed or supported by the following bodies: the Kozard Self Government (Municipality), EurAgro (the most successful agricultural development consultancy in the region), LAG Bukk-Tersegi, the non for profit environmental organisation Sokoro Naturzona and last but not least the Hungarian National Rural Network.

Having completed the first and most important step, namely securing visibility and local support, ELARD finalized the outline of the workshop whose overall design aimed at raising awareness with regards to the benefits of renewable energy for rural areas (specifically biomass), while simultaneously promoting the project’s results and raising local interest potentially leading to the emulation of the project.

The workshop: “The Bioregions Project & renewable opportunities for rural Hungary”

The 2nd bioregions workshop organized by ELARD took place on Friday the 22nd of March 2013 in Kozard – Hungary. The title of the event was: “*The Bioregions project & renewable energy opportunities for rural Hungary*”. The workshop was held in the community theatre building of the village of Kozard. During the registration process the guests were asked to sign the workshop’s presence sheet and were handed the project’s leaflet (66 copies in total) as well as a short questionnaire through which they had the opportunity to express their interest in the project and in its emulation in their own area. A total of 66 questionnaires were distributed to the participants out of which 18 were returned at the end of the workshop. All respondents answered positively both to the question concerning their interest in the bioregions project and

the one asking if they would be interested in starting a bioregion in their own area.

The workshop kicked off with the Mayor of Kozard, Mrs. Hajasne Banos Marta who took the floor to welcome the participants and to express her delight at the fact that such workshop was taking place in her Municipality. She went on to inform the participants that the Municipality of Kozard over the past couple of years has become very interested in renewable energy and that it is in their plans to engage more actively in relevant projects.

The floor was then given to Mr. Stefanos Loukopoulos - ELARD, who gave a general overview of the bioregions project, outlined the benefits that bioenergy can bring to rural areas and played the project's promotional video. Mr. Thanos Balafoutis from the Agricultural University of Athens focused his presentation on the results reached in the project's target region of Sredna Gora and provided the audience with a step by step guide on how to prepare a bioregion action plan.

Following a coffee break, during which the participants of the workshop had a chance to ask further questions and information on the project, the floor was given to Dr. Pal Hajas form LAG Cserhatalja who gave a brief presentation on the renewable energy projects carried out in his region. The second part of the day was in fact dedicated to promoting the concept of renewable energy and to showcasing various relevant projects and initiatives. The presentations given during this session where the following: "Biogas and rural income generation", "Integrated energy development EGME cluster planning and energy innovation in Nograd county", "Solar Energy Experiences in Central Europe" and "Decentralized Energy Generation & Storage".

Finally, the workshop was concluded with a networking lunch followed by an exhibition of different wood chipping machinery.

Bioregions presentations

ELARD along with its Bioregions partner from the Agricultural University of Athens gave two presentations titled "Presenting the Bioregions project & the positive aspects of bioenergy for rural areas" and "The Bioregions project & its activities in Bulgaria: towards the establishment of bioregions in Sredna Gora" (please see Annex 1 & 2).

Mr. Loukopoulos gave a 20 minute presentation aiming at introducing the project to the participants of the workshop and raising awareness towards the potential benefits of bioenergy. In doing so he began his presentation by outlining the basic characteristics of biomass and bioenergy. He then went on to provide the audience with some facts concerning the use of bioenergy in the EU and in particular in rural areas, while outlining the added value of its use both in the short and the long term. Mr. Loukopoulos touched upon the positive impacts of bioenergy for rural communities by explaining how it can generate new investment and provide

market and employment opportunities whilst improving infrastructure and of course health and livelihoods.

As for the second part of his presentation, Mr. Loukopoulos focused on presenting the Bioregions project in detail, focusing on its general aspects such as: the main goals and objectives, its background, the partner consortium, the main steps implemented during the project's lifetime and the expected results, most of which have already been achieved. At the end of his speech, Mr. Loukopoulos played for the audience the promotional video of the bioregions project and encouraged them to visit the website to access more detailed information and the project's completed deliverables.

Following Mr. Loukopoulos' presentation, the floor was given to Mr. Balafoutis from the Agricultural University of Athens, one of the Bioregions partner and mentor of the "Sredna Gora" region in Bulgaria. Mr. Balafoutis' presentation lasted about 30 minutes and it provided a step by step guide on how to go about developing a regional Bioenergy Action Plan by focusing on the case study of "Sredna Gora" - Bulgaria, which became a Bioregion due to the adoption of the Bioenergy Action Plan prepared during the course of the project.

In particular Mr. Balafoutis gave some general definitions to the audience on what is and how to create a bioregion; then he continued his explanation on how to adopt and implement a Bioregion Action Plan through the case of Sredna Gora region. He described the importance to refer to the European and National contexts from a legislative point of view before adopting a Bioregion Action Plan; he also defined the methodology adopted and data to be taken into account for the development of an action plan. He presented the general characteristics of the Sredna Gora region, its current energy situation, the existing bioenergy market and its potential; he focused also on the biomass supply chain process and the importance of the analysis and involvement of all stakeholders in the selected area. He gave some suggestions of concrete actions to be taken such as: the organisation of information campaigns/visits of best practice within the region, training, support/guidance for feasibility studies, development of a logistics/trading centre, providing guidelines to streamline permission process, cooperatives formation of forest owners or farmers, plan for large scale co-firing in power and district heating plants, use of existing local resources like energy agencies, taking into account competition with other sectors for the same resource (food, wood etc.). Mr. Balafoutis also presented all the criteria for the impact, assessment, monitoring and evaluation actions and he concluded with some final outcomes for the general audience, and specifically that:

- a) The Bioregions Action Plans in all 5 selected regions have been officially adopted by the authorities;
- b) Many key stakeholders have been engaged in their implementation;
- c) It is expected that this will result to various benefits for the regions in terms of economic, social and environmental aspects;
- d) The Bioregions experience can be helpful to pave the way for making the switch in other regions.

Both presentations were followed with great interest by the audience of the workshop something which became apparent by the numerous questions the two Bioregions speakers were posed during the coffee break.

The workshop's audience & media outreach

The audience was composed of 66 participants (see Annex 4) that were contacted through e-mailing, phone calls, the Bioregions website, Euragro, Cserhatalja and Kozard's Municipality communications tools and ELARD's website and social media pages. The audience was mainly made up of representatives of municipalities, LEADER Local Action Groups (LAGs) from the area of Nograd as well as from neighbouring regions, LAGs from Slovakia, one from Poland and Portugal. Additionally present were representatives of private companies, NGOs active in renewable energies and consultants of the sector. The presence of the press was quite impressive as the workshop was covered by HIRTV (National News – section for agriculture and rural development), Kistermelok Lapja (small holders monthly), Nograd Provincial Daily and MNVH (the Hungarian National Rural Network's news section). Following the completion of the workshop, Mr. Loukopoulos and Mr. Hajas from LAG Cserhatalja (co-organizer) were interviewed by HIRTV.

Figure 1 & 2: View from the audience of the Bioregions Workshop in Kozard



Annex 1: Presenting the Bioregions project – Mr. Stefanos Loukopoulos, ELARD.



Regional Networks for the
development of a Sustainable
Market for Bioenergy in Europe



Bioregions Workshop in Hungary –
„The Bioregions Project & Renewable
Energy Opportunities for rural
Hungary“

Kozard, 22nd of March 2013

Presenting the Bioregions project

Stefanos Loukopoulos
ELARD Coordinator
Bioregions project manager for WP5

www.bioregions.eu



Some basic facts on Bioenergy

- Bioenergy is one form of renewable energy among many from other sources (wind, solar, hydraulic, etc.)
- Bioenergy, when produced sustainably, saves greenhouse gas emissions.
- Bioenergy accounts for more than two thirds of total renewable energy in the EU.
- Biomass for energy is mainly provided by forestry, agriculture and organic waste.
- Feedstocks for bioenergy are storable; bioenergy can thus be produced constantly and is a very reliable source of energy.
- Biomass is amply available in most parts of Europe.
- Biomass can be either in solid, liquid or gaseous form and can be used to produce electricity, direct heating, or transport fuels.



Why go for bioenergy? Bioenergy & Rural Development

- Biomass is the most used source of renewable energy in Europe and 80% of it comes from wood.
- Production of bioenergy is therefore another important function of European forests, and a **growing economic sector** with much potential for boosting **economic development and employment in rural areas**.
- Bioenergy from wood is not only renewable but it is also largely considered as carbon neutral, so production of wood-based energy supports EU strategic goals for 2020 of achieving 20% use of renewable sources in energy production, as well as a 20% reduction in carbon emissions.



Why go for bioenergy? Bioenergy & Rural Development

- Bioenergy **brings new investment** into the agricultural sector which over the last decades has had to sustain productivity improvements in the face of declining real prices for food and agricultural commodities.
- New investment can provide **market and employment opportunities**.
- Bioenergy growth, if managed appropriately, can also contribute to **improving infrastructure and market access in rural areas**.
- Modern bioenergy can also be a clean source of energy in rural areas that can provide new opportunities for modernisation of agriculture and the rural economy and improve access to modern energy services for households. Reducing indoor pollution by switching to cleaner biofuels can **improve health and livelihoods**.





There are many more good reasons to use biomass...

- Biomass is solar energy stored in organic matter
- Biomass is a renewable energy source
- Biomass for provision of heat, electricity and fuel is expected to contribute considerably to the future energy supply for Europe
- The use of biomass instead of fossil fuels will limit the dependence on oil
- The use of biomass instead of fossil fuels will reduce the greenhouse gas emissions
- Biomass and bioenergy will provide an additional income for farmers and will contribute to rural areas development



Bioregions Project Summary

The project will support the creation of “bio-energy regions” in rural areas of Europe.

A “bio-energy region” gets at least 1/3 of its heating and electricity needs from regional and sustainable bio-energy sources, with main focus on solid biomass.

BioRegions aims to:

- Support the development of **efficient and reliable markets** for solid biomass in the five target regions.
- **Stimulate investment** into bio-energy projects and trading businesses of local Stakeholders.
- **Inspire the rural areas** of Europe to follow the example of the target regions.





Target Regions

- Sredna Gora - Buglaria
- Slavcin & Brumov-Bylnice
- Trieves - France
- County Westmeath – Ireland
- Limbazi – Latvia

Best Practice Regions

- Achenal – Germany
- Jonkoping – Sweden




Consortium



Michael Papapetrou
WIP Renewable Energies
 Sylvensteinstr. 2, 81369
 Munich Germany

Phone: +49-89-720 12 712
 Email: pmp@wip-munich.de
<http://www.wip-munich.de>



Objectives and main steps

The *BioRegions* is a focused project that up to now:



1. Has identified success factors in “best practice” regions
2. Has organised networking activities in the target regions
3. Has defined Action Plans for 5 new bio-energy regions
4. Is supporting the implementation of the Action Plans
5. Is encouraging and supporting other regions to replicate these activities

Expected Results

- i. Each target region has formally adopted an Action Plan with a timetable and milestones to enhance their bio-energy to at least 1/3 of the energy demand for electricity and heating.
- ii. The first steps of the plans will be implemented
- iii. 5 specific projects will have their funding options analysed and will get support to secure full funding
- iv. At least 2MW of projects will be in the pipeline by the end of BioRegions
- v. After the end of the project there will be a clear plan, political support and a critical mass of engaged local actors that will ensure the continuation of the project activities.
- vi. The network of ELARD that has access to more than 900 regions of Europe will be encouraged and supported to implement similar activities in their areas.

Thank you for your attention!

Don't forget to visit www.bioregions.eu to view our project's latest results and more!

Annex 2: How to prepare an action plan for a future Bioregion – Mr. Thanos Balafoutis, Agricultural University of Athens.



Regional Networks for the
development of a Sustainable
Market for Bioenergy in Europe



Contract N°:
IEE/O9/769/SI2.558258
Duration: 05/2010 – 04/2013

Date: 22/03/2013

How to prepare an action plan for a future Bioregion?

Thanos Balafoutis
Agricultural University of Athens

www.bioregions.eu



Introduction

What is a bioregion?

A “bio-energy region” gets at least 1/3 of its heating and electricity needs from regional and sustainable bio-energy sources, with main focus on solid biomass.

How you can create a bioregion?

- **Identify** the biomass potential for energy in the region.
- **Highlight** the environmental benefits, together with other advantages (rural development and tourism)
- The supply chain players, the local authorities and the end-users need to **realize** the benefits
- **Access** to expert support and to up-to-date information
- Support the development of **efficient and reliable markets** for solid biomass in the region.
- **Stimulate investment** into bio-energy projects and trading businesses of local Stakeholders.



Development of the regional Bioenergy Action Plan

The case study of “Sredna Gora” region in Bulgaria



Introduction

1.1. Background (Why developing an action plan)

- European context
- National and regional context

1.2. Aims for the development of the action plan

Implementation of measures for the utilization of forest residues and waste biomass in the Sredna Gora region for the purposes of switching from using primitive biomass and fossil fuels to using modern biomass.

1.3. Methodology for the development of the action plan (short explanation of the template), including definitions.

Data derived by:

- Executive Forest Agency
- Regional plans for municipal development
- Development Strategy for the South Central Region
- Studies of Energy Agency of Plovdiv
- Surveys

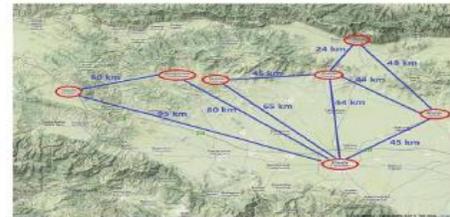


General characteristics of the region

- Geographical setting, natural conditions
- Administrative structure
- Demography and settlement pattern
- Economic situation

“Sredna Gora” region in Bulgaria

- Total area of 5 990 km².
- 6 municipalities.
- population of 121 440, out of which 65 700 in the main cities.
- 37% of the total area is forest.
- No gas distribution network.
- Tourism, eco-agriculture, forestry, light industry, and mining.



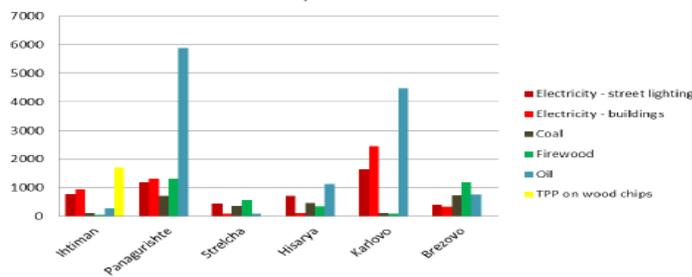
Current energy situation

- Current energy infrastructure
- Current energy supply and consumption (per energy carrier – available data)

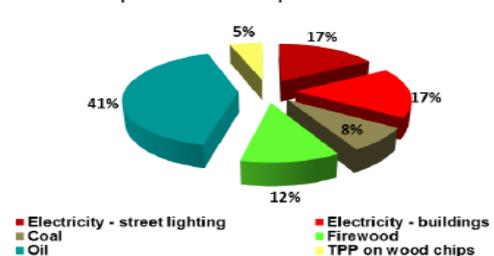
including relevant infrastructure like district heating networks or coal power plants able to co-fire biomass

If data missing, make estimates. If not possible, describe qualitatively. Then, monitoring of progress is one of the most important activities.

“Sredna gora” Bioregion - structure of the total municipal energy consumption - 30 883 MWh



“Sredna gora” BioRegion - structure of the energy consumption of the municipal sector - 30 883 MWh





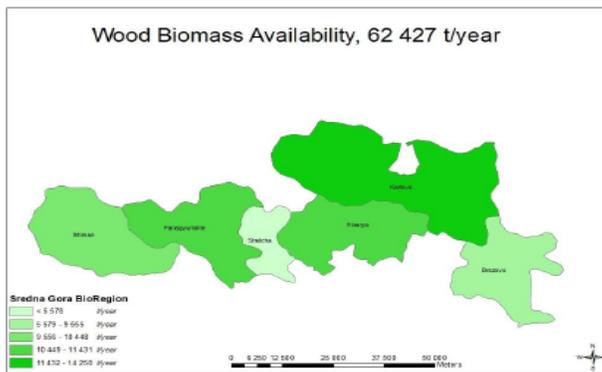
Existing Bioenergy market

o Bio-energy supply

Private wood cutting → FREE
 Forest management bodies → 30 – 37 €/t
 Dealer → 50 €/t

o Bio-energy consumption

Self-sufficient households
 Municipalities
 Industries

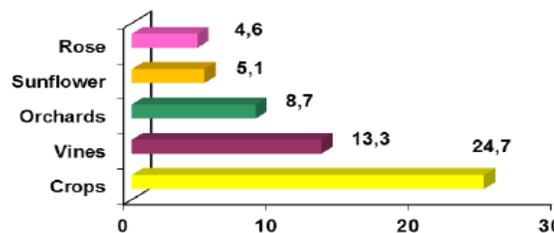



Bioenergy potential

- Overview (table) of technical and economic potential of biomass (including also overview of biomass potential used already)

Forest administrations	Ihtiman	Panagurishte	Hisarya	Karlovo	Chekeritsa	Total	Energy
	m³	m³	m³	m³	m³	m³	
Total annual growth (including branches)	70 492	108 379	22 596	70 045	54 000	325 512	
Total annual use (including branches)	40 180	67 195	31 090	40 486	43 632	222 584	
Annual use to growth rate (in %)	57	62	55	57,8	80,8		287 725 MWh (1 035 TJ)

"Sredna gora" Bioregion energy potential by types of solid agricultural residues - 56 433 MWh



Biomass Supply Chain

- **Current supply practices of biomass**
 - Firewood for households, partly public buildings
- **Gaps in biomass supply and logistics, meeting the potential**
 - ✓ The regulatory body do not support biomass
 - ✓ Biomass receives feed-in tariffs only when electricity is produced
 - ✓ No legal framework for biomass household heating regulation or stimulation
 - ✓ Fuel oil is used for public building heating
 - ✓ Fuel oil is not charged with excise tax when sold to municipalities
 - ✓ subsidies for energy efficiency measures in buildings are targeted in retrofitting
- **Determine if there is a need of a biomass trading centre**

Stakeholders Analysis

(Here we mean stakeholders related to supply and/or demand for bioenergy and regional (administration) bodies that should adopt and be responsible for implementation of the action plan).

Examples of relevant stakeholders:

- ✓ *Municipalities*
- ✓ *Regional authorities*
- ✓ *National or regional energy agencies*
- ✓ *Biomass associations*
- ✓ *Manufacturers of equipment*
- ✓ *Potential suppliers of biomass (forest managers, farmers, wood processing industry, furniture industry, pulp & paper industry, food industry)*
- ✓ *District heating plants*
- ✓ *Potential project developers*
- ✓ *Other stakeholders that could take the role of manager of a logistic centre, etc.*

SWOT analysis

Strengths

- Rich supply of biomass
- New Forestry Act (potential of forest residues for energy purposes)
- Introduction of long term contracts for supply of woody biomass
- Preferences given to local firms for the supply of biomass
- Lack of gas distribution network
- Existing production of local biofuels
- Biomass boilers available on the market

Weaknesses

- No feed-in tariffs for biomass heating
- Biofuels price competitiveness
- Difficulty in forest biomass harvesting
- No state policy for residential heating
- Weak internal market (60 000 tons of pellets are exported)
- No national standards for assessment and quality control of biofuels
- Lobbying in favor of liquid fuels and electricity for heating

Opportunities

- The prices of energy sources are constantly going up, which makes biomass a cheaper alternative
- More employment opportunities
- Market for heating systems is in need for reliable producers of biofuels
- ESCO funding mechanisms for financing biofuels for public buildings

Threats

- Biomass is used in other sectors – pulp and paper, furniture, and wood export
- Investors interested in big installations
- Decentralized heating systems lack capital
- High interest rates of loans
- Lack of balanced proportions of the different elements along the bioenergy supply chain

Overall bioenergy vision

This part is related to general (qualitative) targets and objectives

- Production and use of biomass resources
- Bio-energy technologies
- Bio-energy generation and use

Switching from traditional use of biomass to a modern one – Upgrading the traditional burning of biomass through the integration of new biofuels and technology with high COP

- **Efficient use of available biomass**
secure supply of biomass in the region will lead to the creation of new employment opportunities. The benefits from biomass trade will be realized in the region, which could improve the standard of living.
- **Introduction of modern technology**
the main objective is the promotion of proven technology that will ensure the processing of biomass for energy production. Boilers for biomass gasification, automatic pellet boilers, and small co-generation plants will be promoted.
- **Optimal use of biomass resources for the production of energy**
the objective is other sources of biomass such as agricultural waste to be used simultaneously with woody biomass.

Targets for the next 10 years

Here quantitative targets should be set

- % of heat produced by biomass
- % of electricity produced by biomass

- ✓ 86% of the total energy consumption in the “Sredna Gora” region will be supplied from biomass (60 % in the base year – 2010)
- ✓ 22 % of the total energy consumption will be supplied from modern utilization of biomass
- ✓ 17% increase in energy efficiency through reduction of the use of electricity for heating water and through integration of residential furnaces with high COP (COP more than 85 %)

- **Electricity consumption in public buildings reduced by 25 %** → switch to modern biomass for heating and replacing the electrical boilers for heating water.
- **Electricity consumption in households reduced by 25 %** → integrating modern use of biomass and replacing the electrical boilers for heating water (reduction of 20500 MWh).
- **Consumption of fuels will be reduced by 40 %** → integration of modern biomass and new boilers with high COP. The projected energy savings are 42800 MWh.

Milestones

Year 1 – setting up of pilot infrastructure for the utilization of biomass

Year 2 – decisions on pilot public buildings switch to use biomass

Year 3 – recruitment of agricultural potential for production of biofuels

Year 5 – all public buildings switch to using biomass, establishment of three logistic centers that will serve the needs of the entire region

Year 7 – at least 10 000 households using modern heating systems on biomass

Concrete actions

Suggestions for describing concrete actions:

- Structure by type of activity
- Then structure by time, short-term and long-term and then for each action when activity starts, when implemented

Some examples of concrete actions:

- *Information Campaigns/Visits of best practice within the region*
- *Training*
- *Support/Guidance for feasibility studies*
- *Development of a logistics/trading centre*
- *Providing guidelines to streamline permission process*
- *Cooperatives formation of forest owners or farmers*
- *Plan for large scale co-firing in power and district heating plants*
- *Use of existing local resources like energy agencies*
- *Take into account competition with other sectors for the same resource (food, wood etc)*

Impact Assessment, Monitoring and Evaluation

Impact Assessment

Possible Environmental impacts of the action plan implementation (positive like CO₂ reduction) and negative impacts (such as competition for wood with other sectors)

Socio-economic impact like job creation etc.

Progress Monitoring and Evaluation

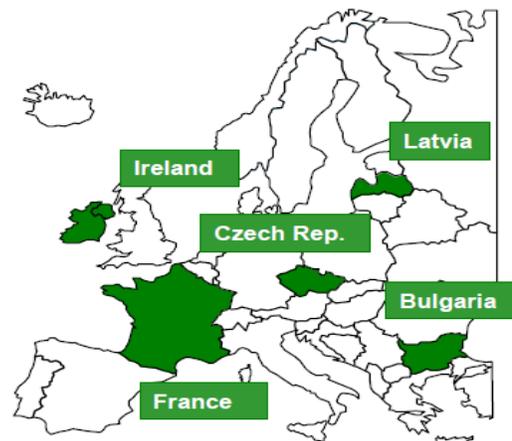
This section should include actions related to:

- regular reporting of progress,
- data collection during the action plan time frame
- revision of targets and actions based on the actual progress
- quality control

Final Outcome

- The Action Plans in all 5 regions have been officially adopted by the authorities
- Key stakeholders have been engaged in their implementation
- It is expected that this will result in various benefits for the regions in economic, social and environmental aspects.
- Our experience can help you to pave the way for making the switch in your region.

Thank you for your attention



Annex 3: Bioregions workshop agenda



Kozárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.



The Self Government of Kozárd village - Hungary, the European LEADER Association for Rural Development and the Euragro Agricultural Development Ltd. invite you to the following event:

BioRegions Workshop in Kozard-Hungary

“The BioRegions project & renewable energy opportunities for rural Hungary”

When: Friday 22nd of March 2013 from 9:00 until 16:30

Where: Kozárd Hungary – Kozárd Community Theater and village show area

Contact persons:

ELARD: Stefanos Loukopoulos, stefanos.loukopoulos@elard.eu

LAG CSERHATALJA: Pal Hajas Dr, hajas@cserhatalja.eu

Cooperating Organizing Partners

	Kozárd Község Önkormányzata / Kozárd Self Government, Hungary www.kozard.hu
	ELARD, European LEADER Association for Rural Development, Brussels, Belgium www.elard.eu
	EurAgro Agrárfejlesztési és Tanácsadó Kft. / EurAgro Agricultural Development and Advisory Ltd. Kozárd, Hungary www.euragro.hu
	Cserhatalja Vidékfejlesztési Egyesület LEADER HACS / LAG Cserhatalja LEADER, Kozárd, Hungary www.cserhatalja.eu
	Bükk-Térségi LEADER Egyesület / Bükk-Region LEADER LAG, Bukkaranyos, Hungary www.bukkleader.hu
	Sokoró Naturzóna Nonprofit Kft., Gyor, Hungary. www.naturzona.hu

Agenda

Friday 22nd of March, 2013		
Time	Content	Speaker
09:00 – 09:30	Registration	-
09:30 – 09:40	Welcome by Mayor of Kozard	Dr. Hajasné Banos Márta
09:40 – 10:00	Presenting the BioRegions project & the positive aspects of bioenergy for rural areas	Stefanos Loukopoulos (ELARD – BioRegions)
10:00 – 10:20	The Bioregions project and its activities in Bulgaria: towards the establishment of bioregions in Sredna Gora.	Thanos Balafoutis (Agricultural University of Athens – Bioregions)
10:20 – 10:35	Question & Answer Session	ALL
10:35 – 11:00	Coffee Break	
	Local Action Groups and renewable energy projects in North-Hungary	
11:00 – 11:15	“1 village – 1 MW” MIKROVIRKA Smart Grid development	Dr. Nagy József, President LAG BUKK-Mak
11:15 – 11:30	Municipalities and renewable energy projects: Kozard Municipality renewable energy project	Dr. Hajas Pál, President, LAG Cserhatalja, Director EurAgro
11:30 – 11:50	Development of Zero emission transport infrastructure in rural environment (LEADER BEV Ways)	Dr. Nagy József, President LAG BUKK-Mak
11:50 – 12:10	Biogas and rural income generation	Enyingi Tibor, Director, Sokoró Naturzóna Nkft.
12:10 – 12:30	Integrated energy development EGME cluster planning and energy innovation in Nograd county	ifj.Dr.Paróczai Péter, EGME Cluster, Pannon Development Foundation
12:30 – 12:50	Solar Energy Experiences in Central Europe	Öze Domonkos, Eco3Energy - Slovakia
12:50 – 13:05	Decentralized Energy Generation & Storage	Tóvalvi Zsolt, Verno Energy, Törökbálint
13:05 – 13:15	Question & Answer session	ALL
13:15 – 14:15	Press Conference & Lunch	
14:15 – 16:15	Technical Exhibition and Poster session by SME's	ALL
	Networking session for stakeholders	ALL

Nagy J: Nissan Leaf E-Car +töltőáll bemutatása, poszterek

Annex 4: Presence Sheet



Kozárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.



bioregions.eu

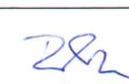
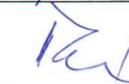
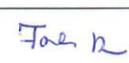
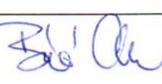


BioRegions Workshop in Kozard-Hungary

“The BioRegions project & renewable energy opportunities for rural Hungary”

Friday 22nd of March 2013

Kozard Hungary – Kozard Community Theater and village show area

Full Name	Organisation	Telephone	e-mail	signature
Bakallár Tamás	Cserhatalja Vidékfejlesztési Egyesület	06302656647	tamas@cserhatalja.eu	
Jose Lopes	AD ELO - Associação de DLBM	+351919462337	geral@adelo.pt	
Deiw Rahumägi	Nelja Valla Kogu	5015563	deiw@kogu.ee	
Mihkel Pukk	Nelja Valla Kogu	+3725028730	mihkel.pukk@gmail.com	
Csepela Csaba	csepela bt	06302764904	csepela@gmail.com	
Dr. Hajas Pál	Cserhatalja Vidékfejlesztési Egyesület	06307180912	hajas@cserhatalja.eu	
Farkas Attila	Jobbágyi Önkormányzata	06205608955	furet@freemail.hu	
Bíró Anna	MNVH Nógrád megye	06205330889	nogradmegye@nakvi.hu	

1



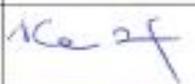
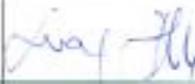
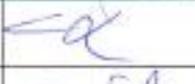
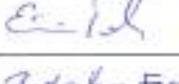
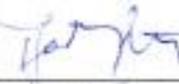
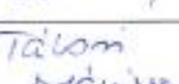
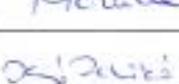
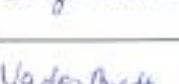
Kozárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.

Full Name	Organisation	Telephone	e-mail	signature
Kőrösi István	HF Racing Kft.	06302558892	team@hfracing.hu	
Szilniczky Gyula	HF Racing Kft.		team@hfracing.hu	
Dr. Hajasné Banos Márta	Kozárd Község Önkormányzata	06305244082	polgarmester@kozard.hu	
Csikász Gábor	MNVH	06704286778	bazmegye@nakvi.hu	
Enyingi Tibor	Sokoró Natúr-zóna Nonprofit Kft.		naturzona@naturzona.hu	
Balogh Ernő	InterEnergia Np. Kft.		b31@t-online.hu	
Balogh Ernőné	InterEnergia Np. Kft.		b31@t-online.hu	
Tófalvi Zsolt	Verno Energia Kft.	30-947-3009	zstof@hotmail.com	
Kodák István	Kozárdért Alapítvány	06304887010	kodak@kozard.hu	
Micsutka András	Őstermelő	06305309535	micsu@globonet.hu	
Nagy Bernadett	Cserhatalja Vidékfejlesztési Egyesület	06703124603	bnagy974@gmail.com	
Tábori Mónika	Cserhatalja Nonprofit Kft.	06304732161	taborimo@gmail.com	
Kanyó Ildikó	Cserhát-Mátra TDM Egyesület	06305248676	ildiko@kozard.hu	
Vadas Anett	Nógrád Megyei Önkormányzati Hivatal	06305248676	vadas.anett@nograd.hu	



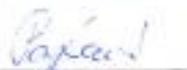
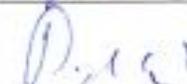
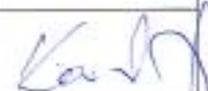
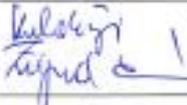
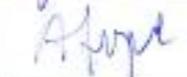
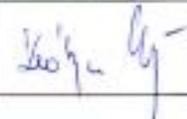
Kozárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.

Full Name	Organisation	Telephone	e-mail	signature
Karaba Tamás	Nógrád Megyei Önkormányzati Hivatal	06 30 848 23 14	karaba.tamas@nograd.hu	
Pápai Szilvia	MAS OZ KRAS	421905981918	manazer@maskras.sk	
Pápai Lóránt	MAS OZ KRAS	421905981918	manazer@masozkras.sk	
Gergely Gábor	MAS OZ KRAS	421905981918	manazer@masozkras.sk	
Dr. Nagy József	Bükk-Térségi LEADER Egyesület		hacs@bukkleader.hu	
Síneyi Marianna	Bükk-Térségi LEADER Egyesület		hacs@bukkleader.hu	
Kodák József	Euragro	06307180895	kodak.jozsi@t-online.hu	
Szebenszkiné Palik Katalin	Erdőkürti Önkormányzat	06204772080	polgarmester@erdokurt.hu	
Géczi László Miklósné	Szurdokpüspöki Község Önkormányzata	06706277445	szpuspoki@pasztonet.hu	
Zoltan Gyori	Vipker kft.	06203236453	vipker@vipker.hu	
Szalatnyainé Zsigmond Éva	Becske Község Önkormányza	06303269512	szalatnyaine@freemail.hu	
Helena Duque	AD ELO - Associação de DLBM	351919462337	mariofidalgo@adelo.pt	
Klátyik András	Alsótold Önkormányzata	06309987595	alsotold@toldinet.hu	



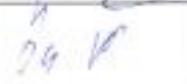
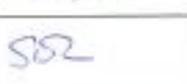
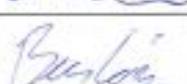
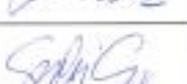
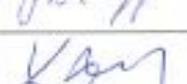
Kazárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.

Full Name	Organisation	Telephone	e-mail	signature
Matics János	Bér Önkormányzata	06306354103	polgarmester@ber.hu	
Óze Domonkos	Eco3Energy s.r.o.	06304194024	ozedomonkos@gmail.com	
Papp Tibor	Eco3Energy s.r.o.	06304194024	ozedomonkos@gmail.com	
Édes Imre	Ózon Sportrepülő Egyesület	06209126185	edym2222@gmail.com	
Sinka Attila	HM Budapesti Erdőgazdaság Zrt.	06304743562	sinka@bp-erdo.hu	
Dr. Jávor András	Debreceni Egyetem			
Tarnóczi László				
Csuka Enikő				
Bőle István				
Boros Sándor	GREEN SPS ELECTRIC KFT	+3670-3785103	info@greenardan.hu	
Gyulai György	Hírtanulmány Központ	(20) 21 38 605	gyulai@hirtanulmany.hu	
Kelemen János	Palóc Food Kft.	06309721021	euragro@yahoo.com	



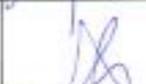
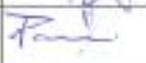
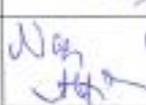
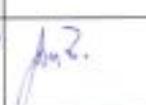
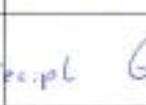
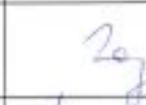
Kazárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.

Full Name	Organisation	Telephone	e-mail	signature
Stefanos Loukopoulos	ELARD	0032492765834	stefanos.loukopoulos@elard.eu	
Thanos Balafoutis	Agricultural University of Athens	302105294209	abalafoutis@aua.gr	
Poróczai Péter	HF Racing Kft.	06203908356	team@hfracing.hu	
Ivanovics István	Kálló Község Önkormányzata	0632577001	hivatal@kallo.hu	
Nagy Attiláné	Erdőtarcsa Község Önkormányzata	0632478009	polgarmester@erdotarcsa.hu	
Hrnicsjár Mihályné	Vanyarc Község Önkormányzata	06309523443	vanyarc@vanyarc.hu	
Farkas Károly	T&T Consulting Kft.	06302289290	farkas.karoly56@upcmail.hu	
Milarsoucky Zoltán	MM Agr. Erdőgyepek Zrt.	06 30 5944-26	milarsoucky@gmail.com	
Brauer Tibor	Greenways Biotech Kft.	70 5197693	brauer.tibor@csenapfelett.hu	
SANETA GRZEGORZ	LAG ZYWIEKINIA	+48602458361	saneta@leader-zyni.pl	
J. ZAGŁEK	LAG ZYBIKOJA	+483169501	-	
CHÓCSA KRISTOF	ZULT ZER	30/2372773	chocsa.kristof@water.hu	



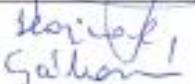
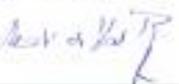
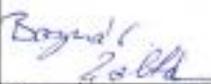
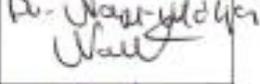
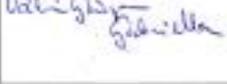
Korád Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.

Full Name	Organisation	Telephone	e-mail	signature
Rácz János	Felső-Honvédtelep	20/9157200	haz.janos@leadit.hu	
Szűcs Péter	HABMAG GAZDASÁG KFT	20/432-2340	szucs.peter@habmag.hu	
Hollósi Zoltán	VÖRÖS VILÁG SZÜCS PÉTER - HOLLÓSI ZOLTÁN	41/33-12-572	szucs.peter@habmag.hu	
Flórida Zoltán	MAS KFT / Jóléti Kft	0905 227481	mitos.gomiz@joleti.hu	
Ógár Zoltán	ZEMPLÉN KFT	30 876 8147	zemplen@zemplen.hu	
Rácz János	RCO VAST	30/4141018	gorpaj@rcovast.hu	
HADI ZSOLT	AGRO LAMP	20/4900185	hadisz@agrolamp.hu	
Ógár Zoltán	AGROSERVICE KFT		agroservice@agroservice.hu	
Barna Tibor	AGROSERVICE KFT		tbarna63@freemail.hu	
Bognár Zoltán	AGROSERVICE KFT	30/35F113A		
Nagy-Négyesi Nóra	Med-ER KFT	30/9407-4013		
Járvási Gabriella	AGROSERVICE KFT	301580-4010		



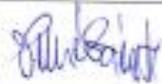
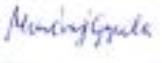
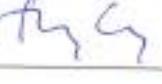
Kozárd Self Government, Hungary



The European LEADER Association



Agricultural Development Ltd.

Full Name	Organisation	Telephone	e-mail	signature
ILLES RUDOLF	PSZE		sabadrolse@intertel.hu	
Murányi Gyula	Cserhátszentivány Agriculture		muranyi.gyula@cserehaszentivany.com	
MAROS ISTVÁN	Válicaközd		marcos@disomillu.com	
HÁJAS PÉTER	ERSTE HÁJAS KFT.		pphajas@gmail.com	

Annex 5: Bioregions questionnaire in Kozard



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
Tibor	Erdelyi	Solomb Munkors sz. N.K.H.	naturzona@naturzona.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
TAMAS	ZAKALAIK	CSENYTALDA	tamas@csenytalda.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
SILVIA	PÁPAIOVA'	MAS OZ KRAS	MANAZER@MASKRAS.SK



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
GABOR	RAJNAI	ECOVAST HUNGARY A.	gajnai@ecovast.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
SZALATNYAINÉ ZSIGMOND	EVA	2633.BECKE PÉTEŰT 1/A KÖZEGI ÖNKORMÁNYZAT	szalatnyoine@freemail.hu bente_ouk@freemail.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
ISTVAN	IVANOVICS	KALLO KOZSEGI ONKORMANYZATA	hivatal@kallo.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
NAGY ATTILÁNÉ	NAGY	ERDŐTARCSA KÖZSÉG ÖNKORMÁNYZAT	onkormanyzat@erdotarcsa.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
Kidtyik	Anolra's	AISZTOLD ÖNKÖR MANTYBÁT	alsotolal@tolohi.net.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	✓	
Would you be interested in finding out more on how to start a bioregion in your area?	✓	

Name	Surname	Organisation	e-mail
TAMÁS	GABOR	—	T. GABOR@JHOMATEL.HU

	YES	NO
Did you find the Bioregions project interesting?	/	
Would you be interested in finding out more on how to start a bioregion in your area?	✓	

Name	Surname	Organisation	e-mail
GRZEGORZ	SANETRA	LAG ^{Zurawicki} _{Kaj}	sanetra@leader-zurawicki.pl



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?		X

Name	Surname	Organisation	e-mail
BAKO TIBOR		GreenSys Electric vft	BAKO.TIBOR@GSENAPELERM.LU



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



bioregions.eu

Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
Jose	LOPEZ	ADELO	GENM@ADELO.PT



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



bioregions.eu

Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	✗	
Would you be interested in finding out more on how to start a bioregion in your area?	✗	

Name	Surname	Organisation	e-mail
HELENA	DUBA	AD ECO	MARIO.FINALGI@ADCO.IT



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
ZOLTA'W	MICA SOVSEKY	HM B.: Erdög. Zrt.	m.arsusky@gmail.com



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
ATTILA	SINKA	HM BUDAPESTI ERDŐGAZDASÁG ZRT.	smka@bp-erdo.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
PETER	PARÓCZAI	EGME duston	paroczai.peter@chello.hu



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



bioregions.eu

Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
OZE	DOMONKOS	KLŐSZENERGIA	ozedomonkos@gmail.com



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe



Regional Networks for the development of a Sustainable Market for Bioenergy in Europe

Kozard - Hungary, 22.03.2013

The Bioregions Project & Renewable Energy opportunities for rural Hungary

Questionnaire on Bioregions Project

	YES	NO
Did you find the Bioregions project interesting?	X	
Would you be interested in finding out more on how to start a bioregion in your area?	X	

Name	Surname	Organisation	e-mail
LÓRÁNY	PÁPAI	ALMAKENTRUM	papai.lorant@etonline.sk

PAPAI.LORANT@910XLINE.SK

Annex 6: Pictures from the workshop



The Mayor of Kozard, Mrs. Hajasne Banos Marta & Dr. Pal Hajas from LAG Cserhatalja opening the workshop.



Mr. Thanos Balafoutis (AUA – Bioregions) giving his presentation.



Mr. Loukopoulos (ELARD-Bioregions) giving his presentation.



Mr. Loukopoulos playing the project's promotional video to the workshop's audience.



Networking coffee break.



Mr. Balafoutis during the wood chipping machinery exhibition.



Wood chipping in action!



Participants of the workshop at the exhibition site.



Mr. Balafoutis & Loukopoulos holding the bioregions' promotional poster

Annex 7: Workshop's promotional poster



The poster features a background of a lush green field with tall grasses. In the top left corner is the coat of arms of Kozárd. In the top right corner is the bioregions.eu logo. The main text is centered and reads: **BioRegions Workshop in Kozard-Hungary**, **Renewable energy opportunities for rural Hungary**, **Megújuló energia lehetőségek a magyar vidéken**, and **22 March 2013**. Below this, a list of topics is presented in black text: **A BioRégiók EU projekt bemutatása és a vidéki bioenergia termelésre gyakorolt pozitív hatása**, **“1 falu – 1 MW” MIKROVIRKA “Okos Hálózat” Kozárdi közösségi megújuló energia projektek**, **Zero emissziós szállítási infrastruktúra vidéki környezetben (LEADER-es töltőállomás hálózat)**, **Biogáz és vidéki jövedelemtermelés**, **Integrált energetikai fejlesztések tervezése és Energetikai Innováció az EGME klaszter keretében Nográd megyében**, **Naperőmű tapasztalatok Közép-Európában**, and **Megosztott energiatermelés és tárolás**. A registration link is provided in red text: <https://docs.google.com/forms/d/1vGilUI5AeyvMef0lnNJUjN1Owef9Fc5WKdPLjRDmIEQ/viewform>. At the bottom, there are three images: the ELARD logo on the left, a photograph of a person standing next to solar panels on a roof in the center, and the EurAgro logo on the right.

BioRegions Workshop
in Kozard-Hungary
Renewable energy opportunities
for rural Hungary
Megújuló energia lehetőségek
a magyar vidéken
22 March 2013

A BioRégiók EU projekt bemutatása
és a vidéki bioenergia termelésre
gyakorolt pozitív hatása
“1 falu – 1 MW” MIKROVIRKA “Okos Hálózat”
Kozárdi közösségi megújuló energia projektek
Zero emissziós szállítási infrastruktúra
vidéki környezetben
(LEADER-es töltőállomás hálózat)
Biogáz és vidéki jövedelemtermelés
Integrált energetikai fejlesztések tervezése
és Energetikai Innováció az EGME klaszter
keretében Nográd megyében
Naperőmű tapasztalatok Közép-Európában
Megosztott energiatermelés és tárolás

Registration link:
<https://docs.google.com/forms/d/1vGilUI5AeyvMef0lnNJUjN1Owef9Fc5WKdPLjRDmIEQ/viewform>

ELARD
EurAgro