



# Workshop 1 Economic feasibility of biofeuls in CEE countries

# Aims of workshop

Collect and validate data, information and knowledge

Topics to consider:

Land use

Energy dependency

Agro-performance

Fuel markets

Need for co-operation

Feedstock

Support

Objectives

Scale

# Major issues

Feedstock

Support

Objectives

Scale

## Country situation

Asked countries to report on situation

Can group countries:

- 1 Started biofuel production
- 2 In planning stage
- 3 Biofuels not being promoted



3 Biofuels not being promoted

# 3

## Armenia

Situation – just starting, researching type, how much, land use, bioethanol from artichokes

Objective - no Gov plan to develop

(Austria 35 k ha osr, big demand for biofuels = CEE has potential to supply feedstock to W Europe)

1

Croatia

Drivers - Brussels, agr,

some developments

expansion planned – left to entrepreneurs,

feedstock – new technology – new osr types,

education, 167 000t target for consumption

# 3

## Belarus

Situation – beginning stage, gas price problem, 2  
gov projects – domestic E promotion, use of  
waste (sewage), pilot project using  
renewables, remediation of radioactive  
contaminated land

Objectives – Kyoto ratification,

## 2

### Albania

Objectives - air quality improvement (new standards to reduce S emissions), main aim - agr production – social, underutilised, less fertile land (not enough food production)

Scale – international, no experience yet, project to produce E, contracts – small farmers 400 ha (soya), trying to increase. Part of larger scale. Coal ash + sewage sludge as fertiliser. CO<sub>2</sub> to greenhouse – integrated.

# 3

## Moldova

Do not have own sources of E, import 90% E, 3- 4% domestic production of biofuels - Solid fuel wood biomass, gov has tried to introduce programmes, low prices of gas in former Soviet Union – no need. Now changed – E plan focussing on renewables – 2020. Adopted by gov – tax VAT exemptions, not taxed on profit and VAT on services. Series of projects in renewables – N – biofuel from cellulose, S – 2 – 3 bioethanol – sugar (s beet)

# 3

## Montenegro

Present E not sufficient, working on hydro, coal, considering renewables – wood (biomass) 2, 5 10 MW, testing wind solar. BioD – testing, max potential wind and biomass – tech and econ assessment

1

Poland

Member of EU, - targets – main drivers, reduce dependence on oil imports (95%), envir, agr, new jobs in rural. 2006 – 1.6% target, got 1%.

3 main elements of regs – farmer scale for own use, dedicated fleets, inclusion rules for fuel producers. National plan– excise exemptions, support for growing E crops. Demand side – public transport, obligation on gov to use biofuels, education.

2006 – 4 mt petrol, mt diesel

Petrol – 2%, diesel – 0.70% biofuels content

2

Serbia

Beginning, establishing E community – action  
plan to implement, 08 – targets, technical  
assistance useful

100 000t plant biodiesel

1

## Turkey

Increasing since 2003, promotional activities,  
need biofuel processing licence, sell to only  
licenced Cos. Blend 5% max, if less than 2%  
no tax. 51 bioD Cos + 3 BioE cos,

5.15mt , 2.5 mt bioD

S beet for Bio e, Osr main oil, (W part)

Education of farmers – osr cultivation

Good location for import

1

Ukraine

28 mt year – oil 2006 – 18 mt oil consumed,

15- 18% own production, import rest – Russia etc

Consumption of fuel 06 – 3.7, petrol, 3.4 diesel, 3.8 agr mt

Area 1 m ha oilseed

Export of oilseeds

S beet –

41.7 mha – 80% agr business

Regulatory ready

15 sugar factories – will be changed to BioE

Small farmers – 20 %

BioD – 26 factories – 623 000t/yr, 75 – 100 000t yr now

06 – 700 m, 07 - 1.3m ha for osr

# needs

Consultancy

Information on EU requirements

Access to case studies to avoid mistakes

Sources

EU, research institutes, business

International organisations - UNIDO



## Moldova

Processing important, legal framework problems in introduction of new types of fuel. Close to Europe – legislation needs to be aligned. Developments in EU linked to direction of developments of all interested. Common framework needed. Would like consultancy, documents drafted in EU. Access to sources to avoid mistakes. Will have to include biofuels in E mix – programme to 2010.

Workshop part of this – website to give some information. Exchange into within room. Contact list of all participants will be available.



Suggestions for assistance needed – in practice  
Contact UNIDO – what happening in country,  
what assistance needed.  
Standardisation especially important.