



Republic of Serbia  
Ministry of Mining and Energy



# Presentation of Serbian Energy Policy

**Towards Integration into the European Research Area  
Belgrade, June 29<sup>th</sup> 2009**



Republic of Serbia  
Ministry of Mining and Energy



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## Regulatory Framework

### MINISTRY OF MINING AND ENERGY

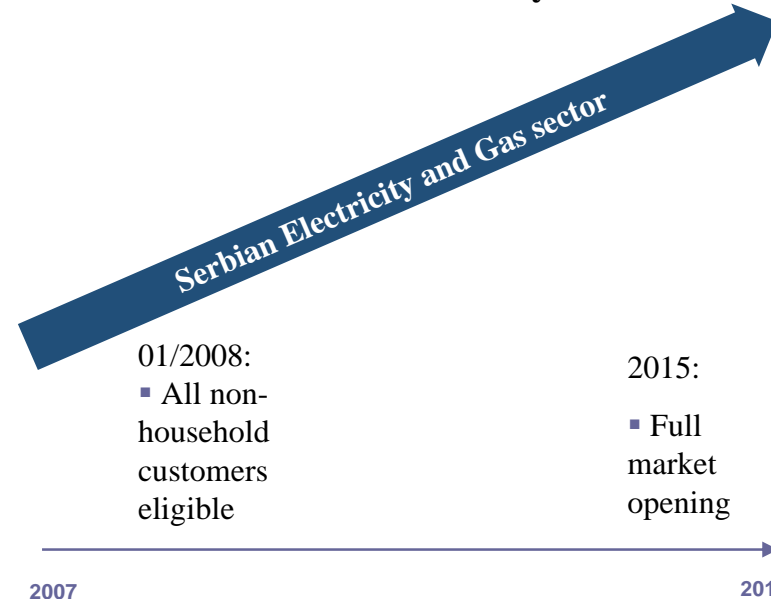
- Setting legal framework
- Approval of tariff systems
- Approval of licensing system
- Security of supply
- Crisis management

### REGULATORY ENERGY AGENCY

- Setting consumer tariffs
- Setting transmission tariffs
- Determining methodology for defining tariff elements / cost elements / eligibility
- Issuance of licenses

### MEMBER OF ENERGY COMMUNITY OF SOUTH-EAST EUROPE

#### Towards a liberalised Electricity and Gas Market





## Energy Policy Reform Goals

Increasing overall  
sector efficiency and  
effectiveness

Security of supply

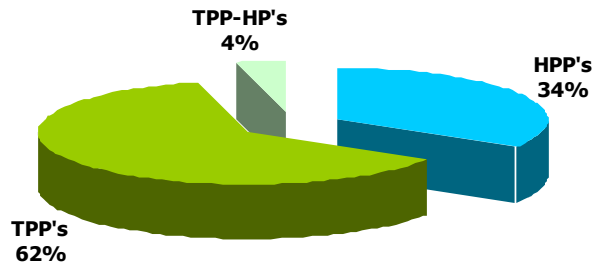
**GOALS**

Environment, Kyoto and  
renewables

Stabilisation and  
Accession Process  
and regional  
integrations-  
compliance with  
the EU Acquis



## Power Generation, Trade and Distribution



Total Installed Capacity 8,355 MW

5,171 MW TPP  
2,831 MW HPP  
353 MW CHP

2007

Total Power Generation	38.9 TWh
Total Power Consumption	37.8 TWh



**EPS**

Electric Power Industry of Serbia  
*Coal production*  
*Power Generation*  
*Electricity Distribution*

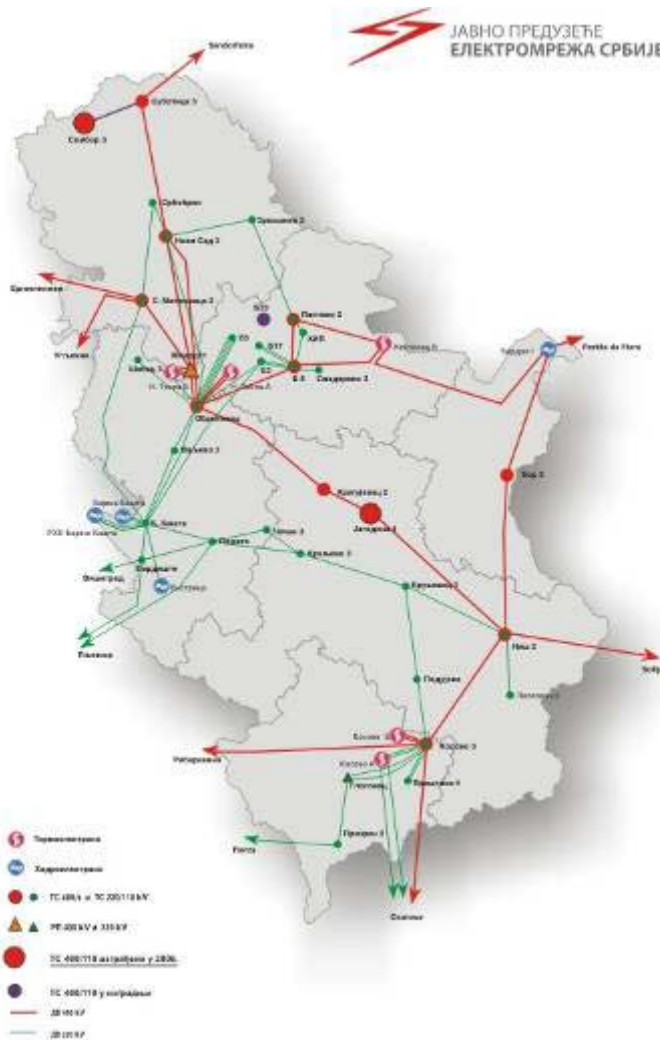
**Number of  
Customers  
3.3 millions**



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## Power Transmission



### EMS

Electricity Transmission Company of  
Serbia

Main Transmission paths in  
South-East Europe runs through  
Serbia



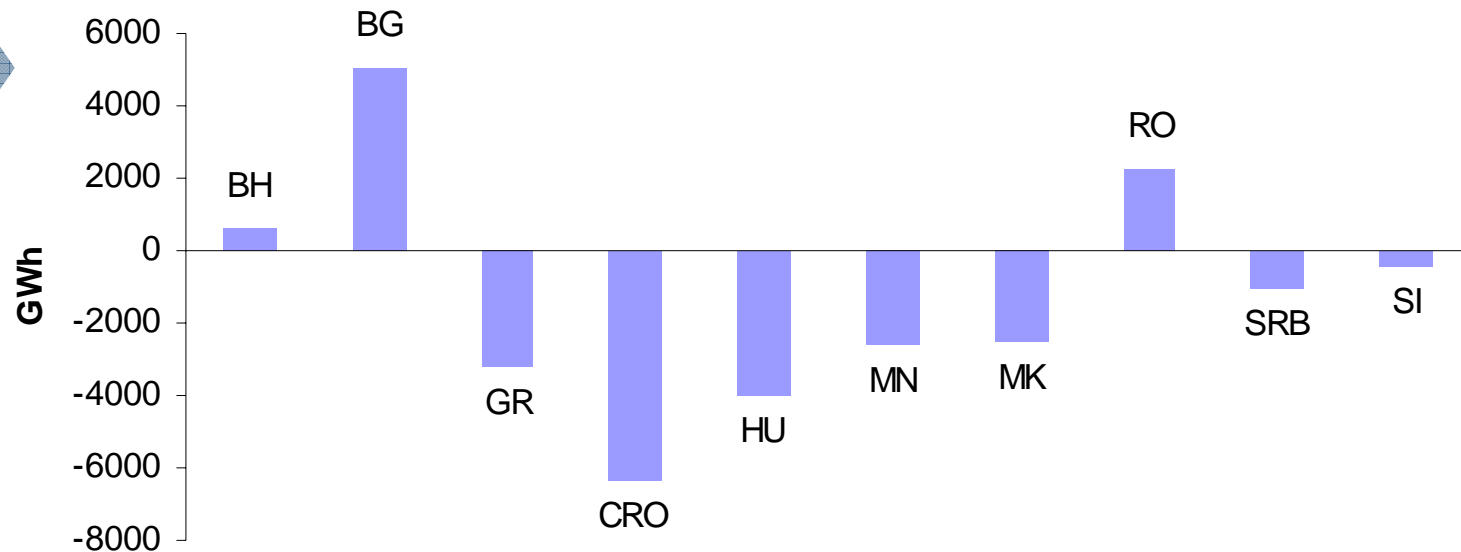


## Electricity Sector Projects

Construction of  
Power Units

Planned  
Construction  
of 3000 MW

Export/Import of Electricity in SEE - 2007



- Construction of lignite fired TPP Kolubara B – 2x350 MW
- Construction of lignite fired supercritical TPP TENT B3 – 700 MW
- Reconstruction / Extension of CHPP Novi Sad – 450 MW
- Exploitation of Hydro potentials of Drina river – up to 800 MW



## Electricity Sector Projects

### Investment Opportunity

#### Construction of lignite fired TPP Kolubara B



#### Country and location within country

Serbia, Lazarevac/Ub

#### Type of project

Construction completion

Joint investment into turnkey construction and operation of TPP  
Kolubara B

#### Description of the project

700 MW (2x350 MW) lignite-fired power plants with closed cooling  
system and environmentally optimized design according to BAT on  
the site of Kolubara B

#### Origin of funding

IPP - Private

#### Overall project value

Approximately EUR 750 million



## Electricity Sector Projects

### Investment Opportunity

**Construction of  
lignite fired  
supercritical TPP**



#### **Country and location within country**

Serbia, Obrenovac

#### **Type of project**

Greenfield/expansion of TPP Nikola Tesla B

Joint investment into construction and operation of **TENT B3**

#### **Description of the project**

700MW lignite-fired supercritical power plant with open cooling system and environmentally optimized design according to BAT on the site of TENT B

#### **Origin of funding**

IPP - Private

#### **Overall project value**

Approximately EUR 900 million



## Electricity Sector Projects

### Investment Opportunity

#### Reconstruction / Extension of CHPP Novi Sad



#### Country and location within country

Serbia, Novi Sad

#### Type of project

Rehabilitation/expansion

#### Description of the project

Optimization of existing plant and new unit – up to 450 MW gas-fired combined-heat-and-power plant with combined cycle gas turbine

Beside EPS and its local partner, the City of Novi Sad, project requires involvement of the strategic partner (preferably foreign investor)

#### Origin of funding

PPP – partially soft loans

#### Overall project value

Approximately EUR 120 – 160 million



## Electricity Sector Projects

Investment  
Opportunity

**Exploitation of  
Hydro potentials  
of Drina river**

Buk Bijela	132-166 MW	Greenfield	Joint Venture EPS and EPRS
Srbinje Basic	3x18.5 MW	Greenfield	
Drina river basin - HPP V.Tegare	248 MW	Greenfield	50% of Hydro Potential belongs to Serbia, and 50% belongs to Republic of Srpska; projects will be done in cooperation with Republic of Srpska
Drina river basin - HPP Dubravice	105 MW	Greenfield	
Drina river basin - HPP Kozluk	67.2 MW	Greenfield	
Drina river basin - HPP Drina I	68.5 MW	Greenfield	
Drina river basin - HPP Drina II	68.5 MW	Greenfield	
Drina river basin - HPP Drina III	68.5 MW	Greenfield	

**EPS conducting Feasibility Study**



## Oil Sector



### Petroleum Industry of Serbia

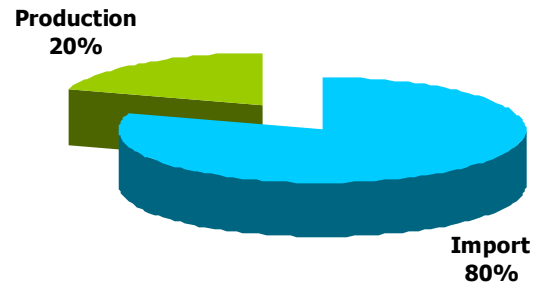
*Exploration and production of crude oil and natural gas*

*Refining and marketing of petroleum products*

*Transport and marketing of LPG*

Serbian Oil Production 0.7 M t

Crude Oil Import 2.7 M t



### Oil Refineries

#### Pancevo

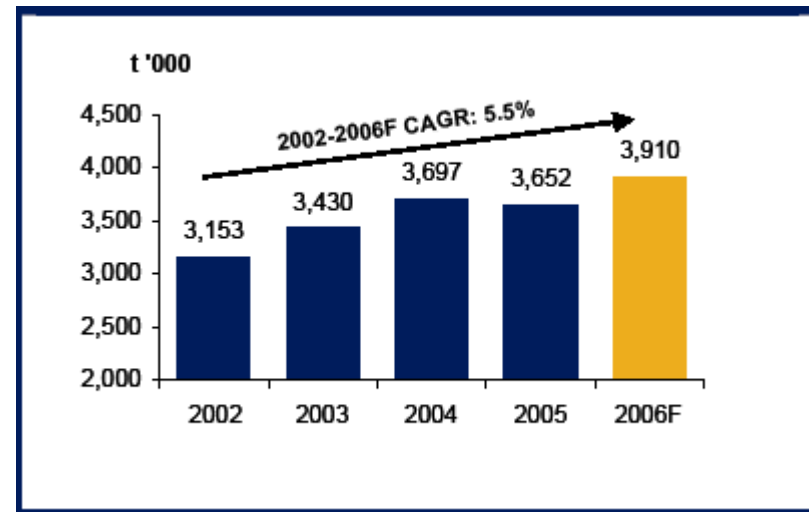
installed refining capacity 4.8 million t

#### Novi Sad

installed refining capacity 2.0 million t

**Serbian retail network is comprised of 1,250 public petrol stations**

### Oil Products Consumption, 2002-2006F



*transportation of crude oil and refined products via pipelines*



## Natural Gas Sector

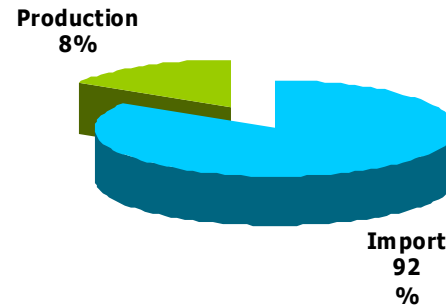


**Srbijagas**

*Natural gas transmission,  
storage, distribution and  
supply*

<b>SERBIAN GAS PRODUCTION</b>	<b>193 M m<sup>3</sup></b>
<b>NATURAL GAS IMPORT</b>	<b>2,250 M m<sup>3</sup></b>
<b>NATURAL GAS SYSTEM TRANSMISSION CAPACITY</b>	<b>6,100 M m<sup>3</sup> per year</b>

**Natural gas is supplied to**  
1000 industrial consumers  
170,000 households

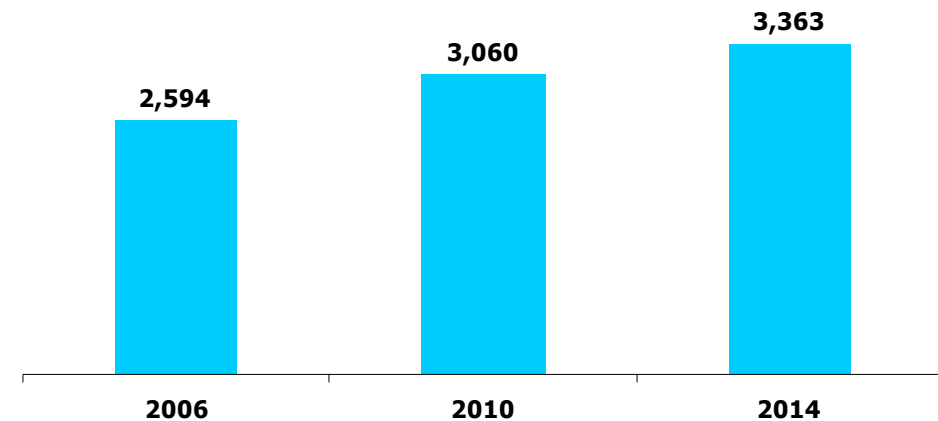


**One Supply route**

from Russia via Hungary

Daily Capacity – 13 M m<sup>3</sup>

**Natural Gas Consumption, 2006-2014F**





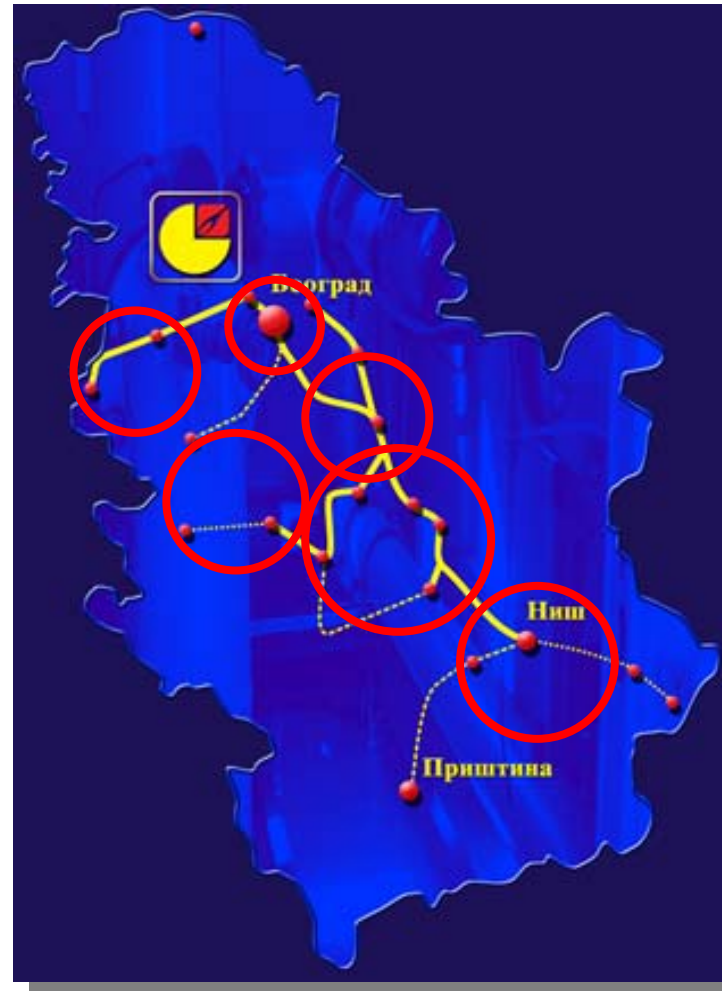
## Gas Sector Projects

### Investment Opportunity

#### Construction of Gas Distribution Networks

More than 200,000  
potential consumers

More than 40,000  
customers connected to  
gas networks in  
2005-2008





## Oil Sector Projects

Investment  
Opportunity

### Construction of Pan-European Oil Pipeline (PEOP)

**A 1319 km pipeline to transport crude oil from Black Sea to Western Europe**

**Start** a new marine terminal in Constanza, Romania

**Terminate** at Trieste, Italy

**Traverses** Romania, Serbia, Croatia, Slovenia & Italy.

**Supplies** Western European Market by directly feeding into the existing pipeline network



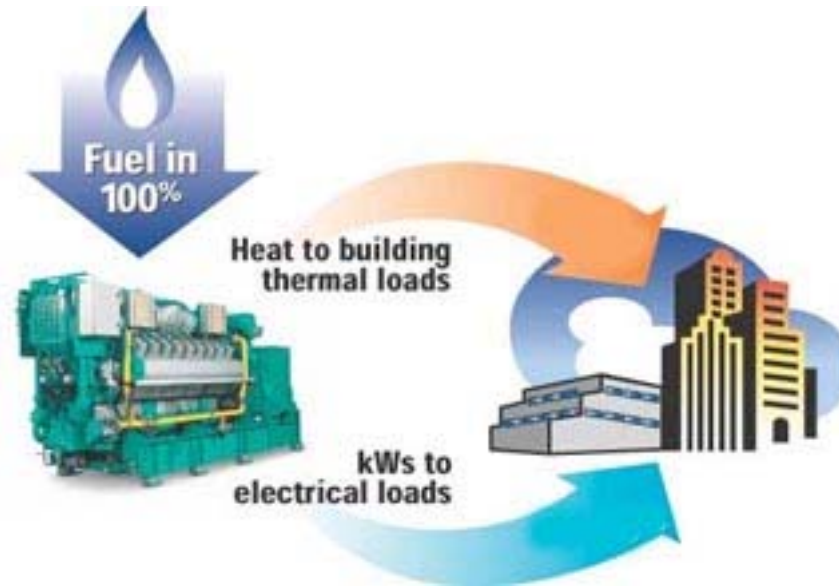
Throughput Mt/y	Investment Million US\$
40	1,952
60	2,282
90	3,444



## Energy Sector Projects

Investment  
Opportunity

**Cogeneration**



### **Serbia Heating Plants**

Capacity – 6000 MWt

### **Ongoing Feasibility Study**

Reconstruction of District Heating Plants into  
Combined heating and power plants (CHPP)



## Renewables – potential in small HPPs

### Investment Opportunity

#### Small Hydro Power Plants

##### Potential

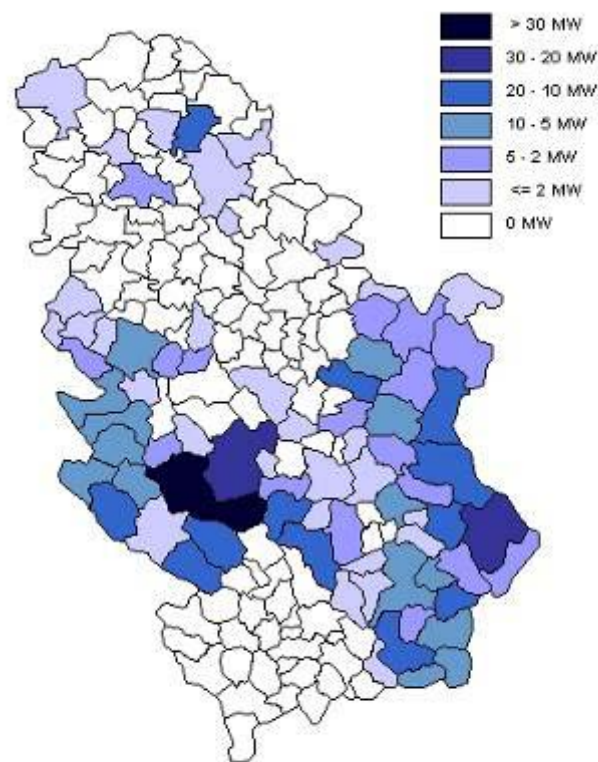
- 900 locations for building up new SHPP (up to 10 MW) with total capacity of 500 MW
- >5 MW: 9 locations
- 2-5MW: 30 locations (average 3 MW)
- <1 MW :most SHPP

##### Actual state of existing SHPP

- 60 SHPP (50 % out of operation)
- 1 MW in average

##### Prospective projects

- revitalisation of old and out of operation SHPPs (30)
- building new ones at existing water accumulation



Total MW from Small Hydro Power Plants



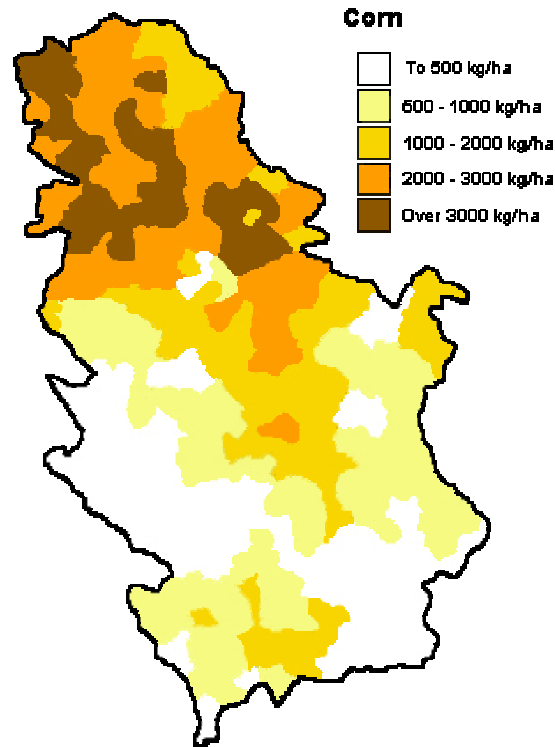
## Renewables - Biomass potential

Investment  
Opportunity

**Biomass**

**2.6 million tones  
of oil equivalent  
(toe)**

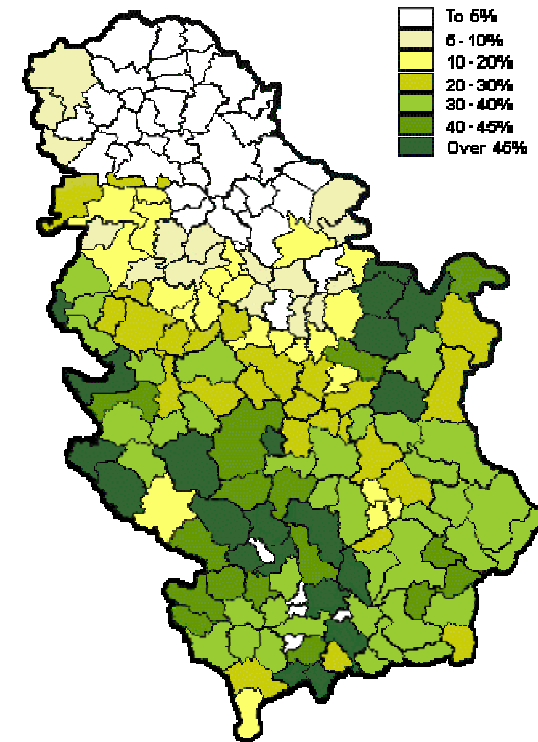
**Corn**



**Agricultural wastes:  
1.6 million toe**

**Forest**

SHARE OF FORESTS IN TOTAL AREA OF COMMUNITIES, 1997



**Wood biomass:  
1.0 million toe**

Federal Statistical Office, 2001



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