# Are the remedies more harmful than the desease itself?



Tomaž Jančar, DOPPS-BirdLife Slovenia Bovec, 16. september 2011 Letna strokovna konferenca CIPRA

## Desease: Climate crisis

#### Global warming



## Threat to biodiversity

Shift of ranges several 100 km towards NE
Some species will go extinct
In quarter of species regional extinction is expected







- To stop emissions of green-house gasses
- In midterm AL energy should be produced from low carbon and renewable sources

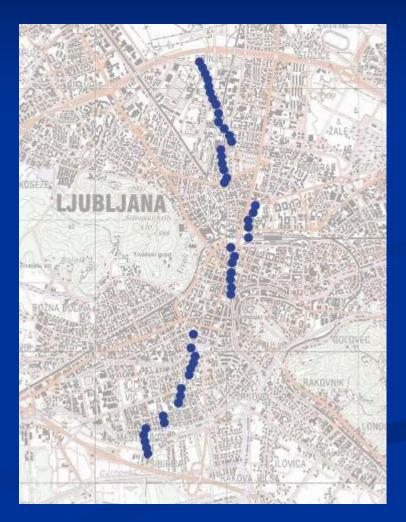
## 100% energy from renewables



# Key problems of RE

#### Require large area

- Thermal power stations in Slovenia 5.3 TWh, to replace:
- 72 Wind farms size of Volovja reber WF
- 3.361 wind turbines V52
- 500 km of mountain ridges



# Key problems of RE

Often claim last preserved areas of most valuable nature



# Hydro



#### Stone curlew



Ptujsko jezero reservoir on river Drava



#### Soča gravel bars

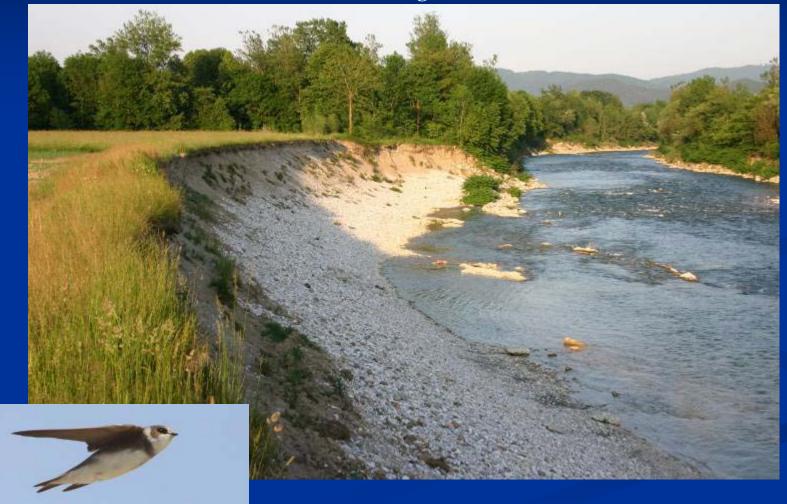




#### River Mura at Slovenian-Croatian border



#### Breeding habitat of Sand Martin

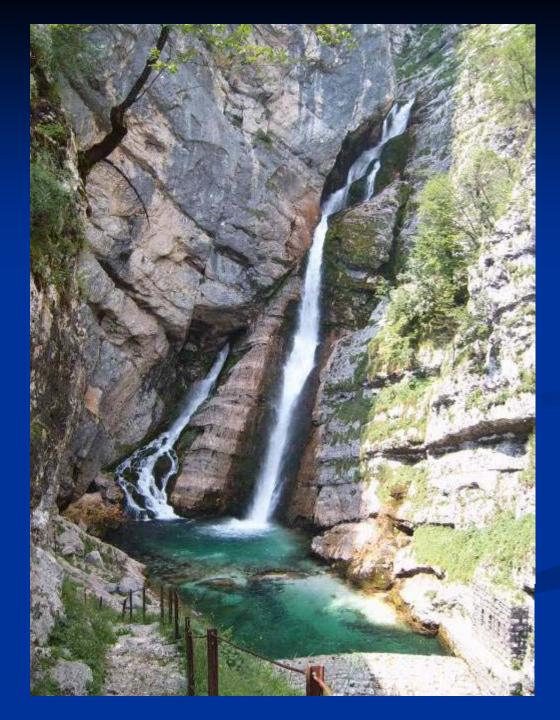


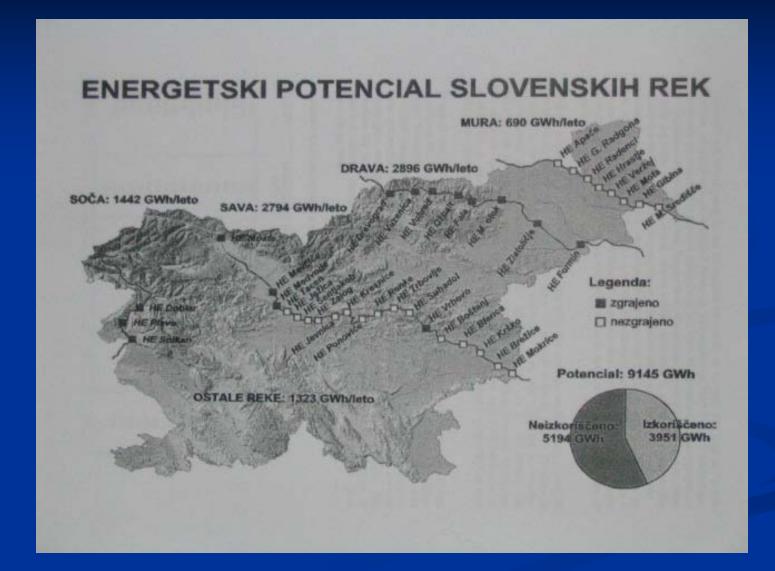


#### 1912 Carniolan land-parliament Nature Beauties Act Industrial use not allowed Bled Vintgar gorge Peričnik waterfall **and** ...

#### …Savica waterfall

#### ■ 1916 HE Savica





# Wind



## **Birds**

#### Wind turbines kill birds

 most wind turbines are not problematic



Avtocesta Dunaj - Bratislava

### Large raptors

- Problem are wind turbines in habitat of large raptors:
  - Golden eagle: 94 eagles killed annualy at Altamont pass Wind Resource Area





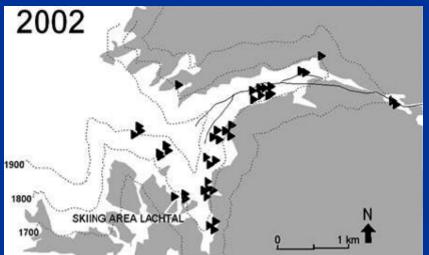
Griffon Vulture, Tahivilla, Andaluzija, Španija

#### **Griffon Vulture**

 1000 G. Vultures are killed annually in Spain
 Salajones Wind farm: 8 Vultures per turbine killed annually



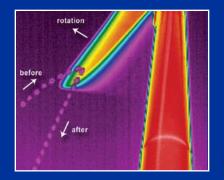






#### Bats

Wind turbines atract bats
6 weeks survey 2004 in USA:
WF in Pensilvanija: 1.764 bats
WF in W Virginija: 2.900 bats





## Landscape

#### Wind farms change landscape

 degradation of scenic landscape



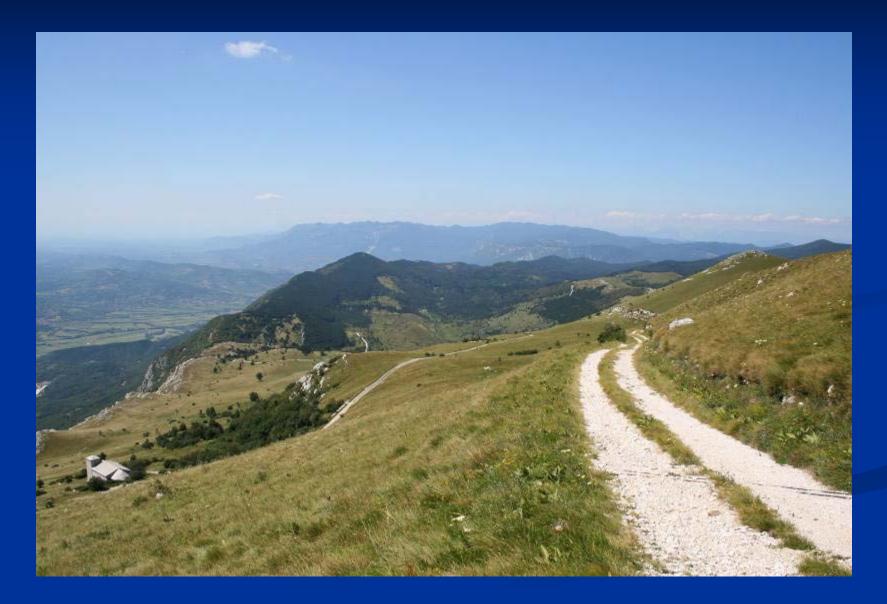
Slika 11: Najvišje ocenjena slika v anketi



Slika 12: Fotomontaža z vetrnicami na istem prizorišču je bila ocenjena veliko slabše



#### Plans in Slovenia: Nanos, Golič & Volovja reber



# Solar



#### Solar panels in urban areas



■ 200 MW potential at Slovenian landfill sites that are filled up

### Solar power plants in nature



Gelemanovo, Bulgaria

#### Petrinjski kras





# Biomass



### Forests in Slovenia





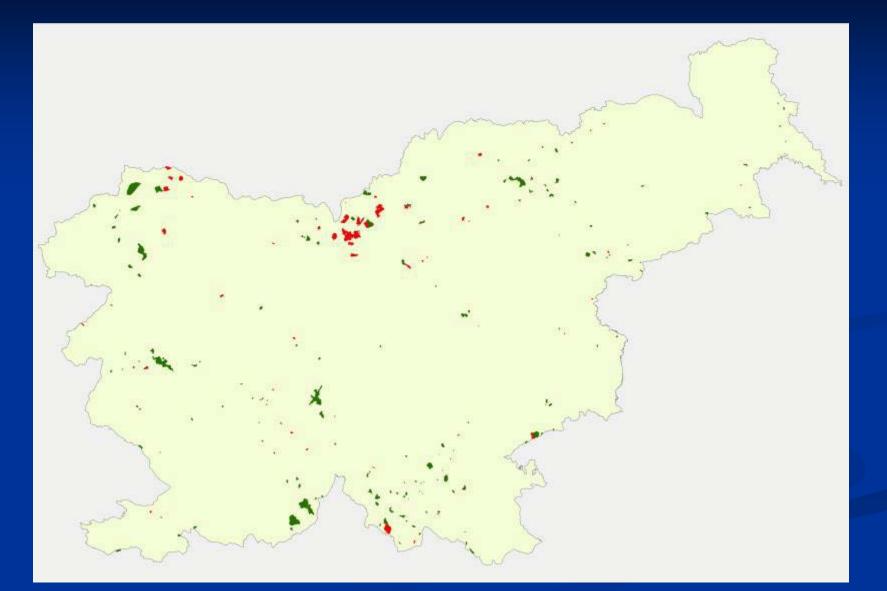
Red brested flycatcher

## Old grown forest specialists



White-backed Woodpecker

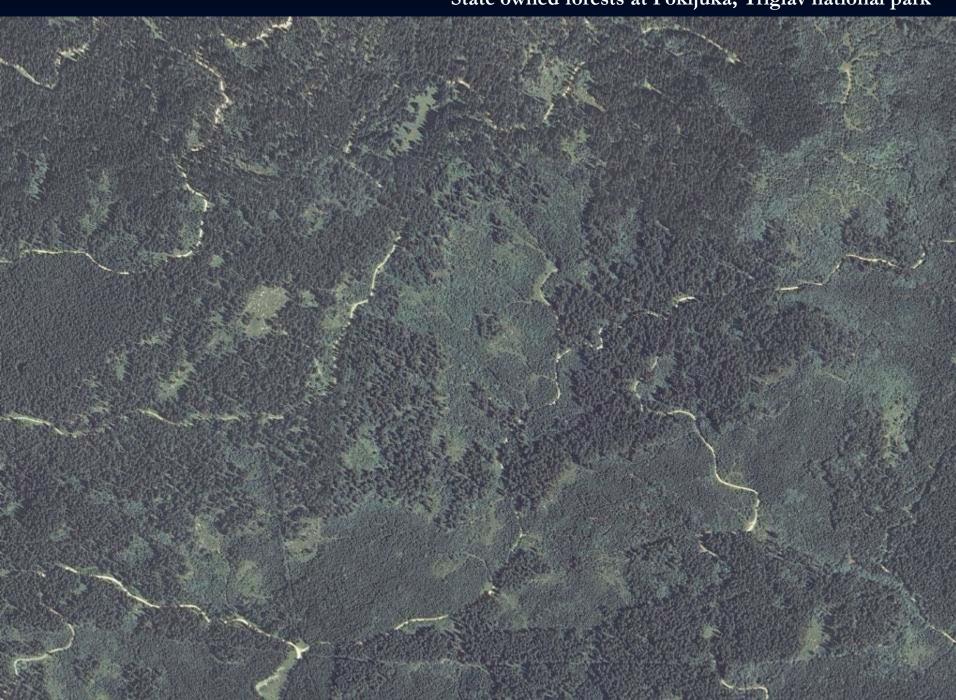
## Forest reserves



## Subventions for forest roads



State owned forests at Pokljuka, Triglav national park

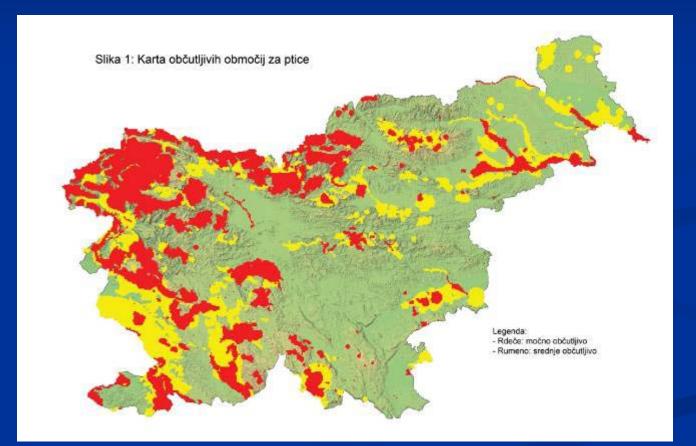


#### Renewable energy, another millstone around the neck?



Extremely hard task, but unavoidable

## Sensitivity mapping



## Understanding interests of key stake-holders

Interest of energy producers

Interest of environmentalists

- Growth of energy productin
- Maximizing profit
- As much public subsidies for RE as possible
- RE opportunity for new business, profit and subsidies
- External costs left to wider society

- Large reduction in energy consumption
- Minimizing harm to environment
- Subsidies targeting harm that energetics cause to environment
- RE opportunity for reducing harm to environment
  - External costs to be included in price of energy

# Hvala za pozornost!

