



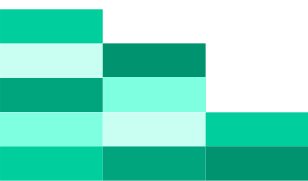
Natural Regional Park of Ardèche Mountains' Energy Approach

Mountain RES-RUE project
2nd stakeholders' workshop

Gospic - CROATIA



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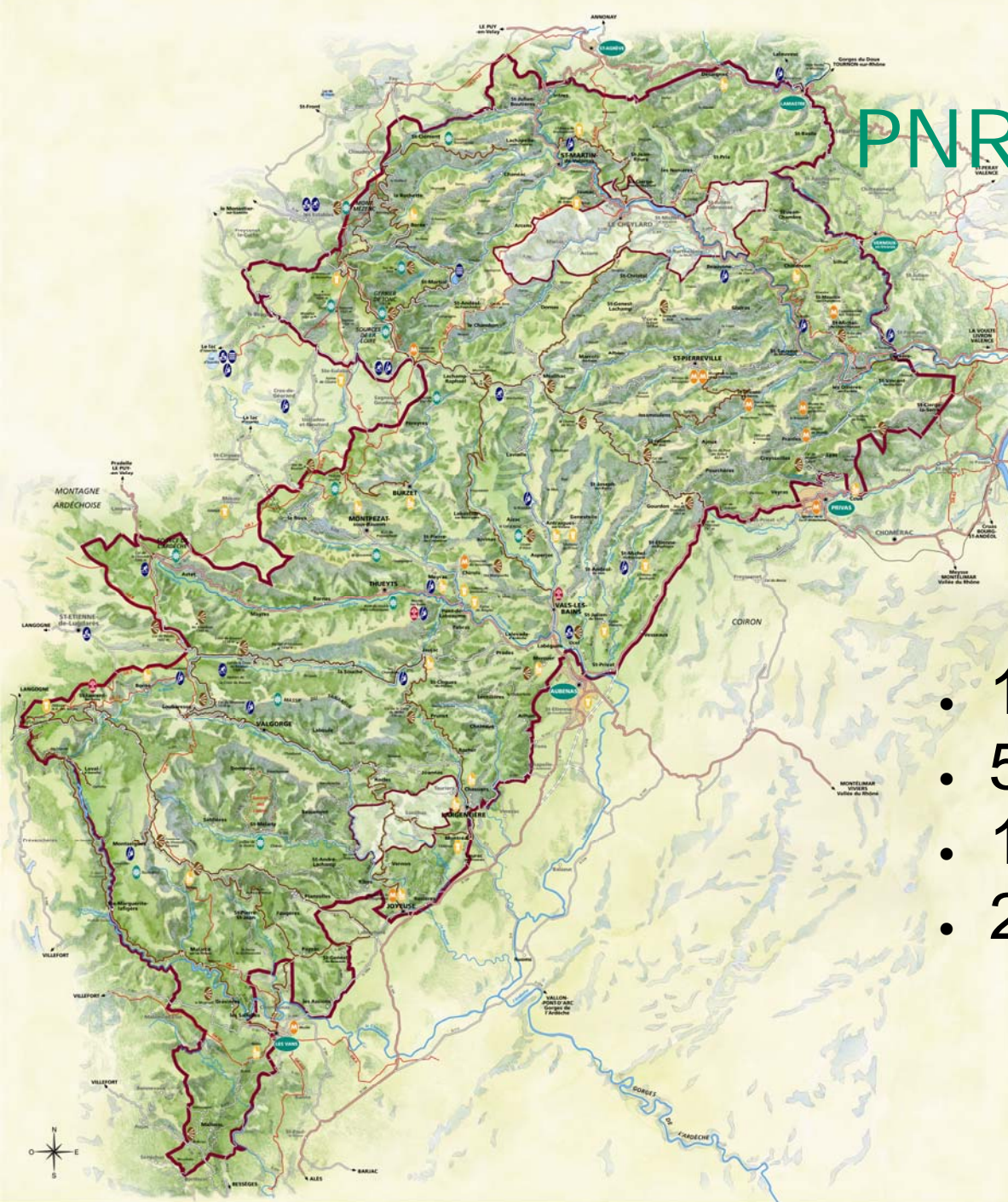


PNRMA location



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PNRMA Territory



- 1 800 km²
- 56 000 inhabitants
- 132 municipalities
- 20 local authorities

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PNRMA specificities

- 60% of the territory covered by forest
 - Chestnut culture

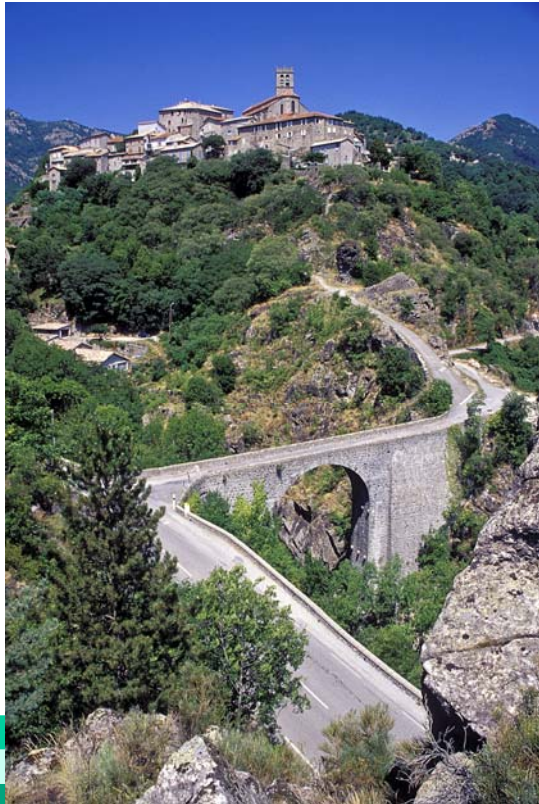


- 3 000 km of rivers (flood and dryness)
 - Old mills using energy water power



PNRMA specificities

- Most of villages < 300 inhabitants, with preserved patrimony

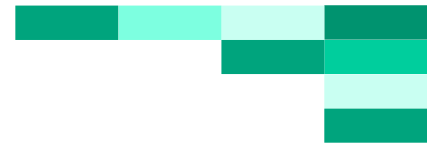


- Terraces



- Windy on the top of the mountains





Why a natural regional Park?

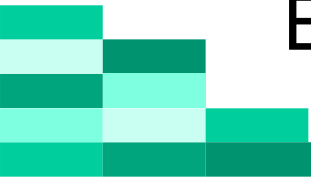
- To preserve natural biodiversity and built patrimonies
- To maintain economical activities on rural mountainous territory

=> PNRMA team in charge of:

Agriculture, Forest, Biodiversity, Tourism,
Economical development, Urbanism,
Education, Energy



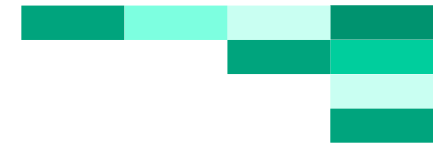
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Before Mountain RES-RUE

- No specific person identified to work about energy and climate issues
- Study about wood-fuel development on the territory
- Energy assessment on municipalities building and B&B
- Wind farm development scheme

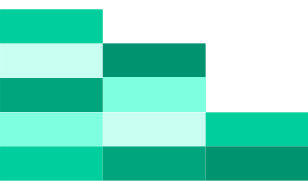


Through Mountain RES-RUE

- Development / re-inforcement of partnerships with local energy actors:
 - Identification of key actors and their role
 - Implication of these actors through work packages
- Analysis of the territory
 - Which RES and RUE technologies and methodology to answer territory issues ?
 - Shared photovoltaic project on farm roof with population => social link
 - Decrease energy consumption of emblematic companies, so as to preserve them of energy crisis
 - ...



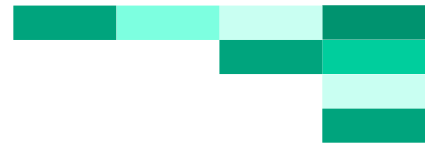
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Through Mountain RES-RUE

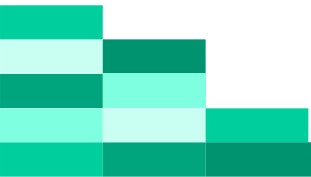
- Identification of local knowledges and know-how:
 - **Solar thermal** energy is very efficient on B&B buildings => to extend on all B&B?
 - **Wind energy** has a high potential but is a source of conflict if no consultation
 - **Micro hydroélectrique**: efficient technology, strong know-how, but restrictive water policy to preserve rivers' ecosystem => a consultation is to build with all « water » stakeholders

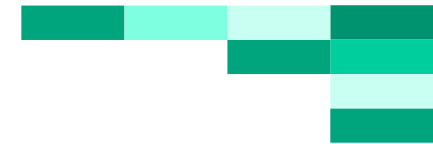


Through Mountain RES-RUE

Identification of local knowledges and know-how:

- **Wood fuel** well implanted, suppliers able to produce more => network heat boiler to develop
- **Energy assessment** on municipal buildings => To develop on a larger scale, to be exemplar
- High energy performance building **renovation with natural materials** => To train local building companies





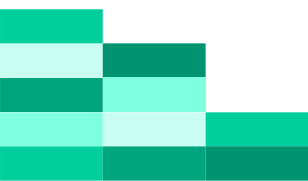
Through Mountain RES-RUE

Simplified energy balance of the territory

=> Increases Elected awareness

=> A tool to build an energy territory policy

=> Extension to a GHG emission balance of the territory to build a climate change plan

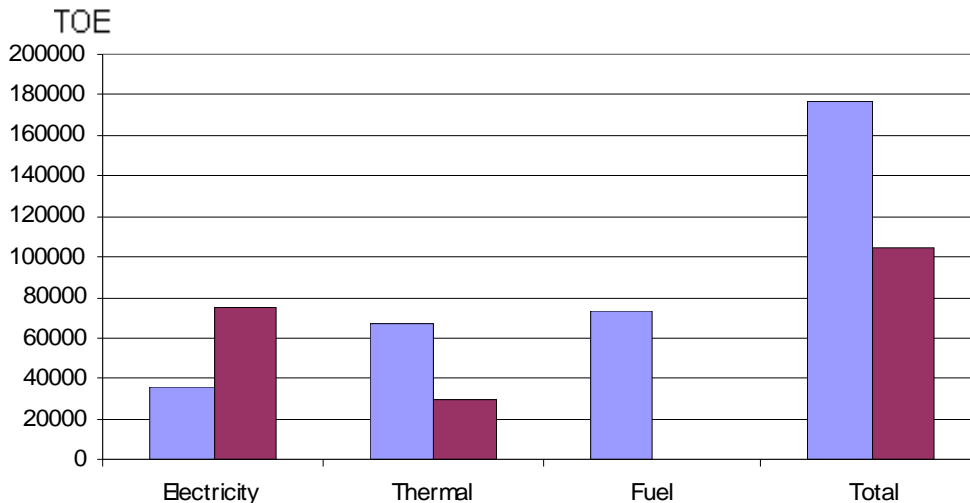




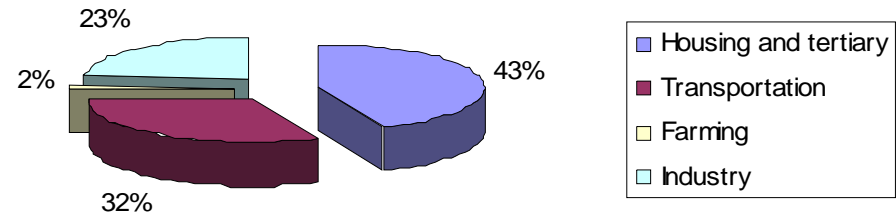
Through Mountain RES-RUE Energy balance

- Energy consumption of the territory: 180 kTOE
- RES production: 100 kTOE

RES production and energy consumption



Energy consumption per sector



Consumption
RES production



Through Mountain RES-RUE

- Dissemination: To increase local awareness
 - Elected
 - Inhabitants
 - with 1st progress meeting
 - Press release





WP4 & identified projects

- PNRMA methodology:
 - Questionnaires aiming to know on going projects about RES-RUE, including territory issues (sustainable development)
 - Polénergie as PNRMA's partner
 - Questionnaires sent to:
 - Municipalities and local authorities
 - Consular chambers
 - Associations





WP4 & identified projects

- Different project holders identified:
 - municipalities
 - local authorities
 - farmers
 - tourism actors
 - association
- Different projects nature:
 - Installation of photovoltaic on municipal roof
 - Installation of wood chips boiler network
 - Wood chips production deck
 - Renovation with eco-materials
 - High energetic performance buildings





WP4 & identified projects

- 4 meetings with projects' holders:
 - To create local energy network
 - To share experiences
 - To meet local players and
 - To know their motivations (to create employment, to enrich the territory, to be exemplar,...)
- sProjects selected on 3 criteria:
 - Current stage (conception or design)
 - Collective character
 - Innovating for rural territories



Project's examples

- Energy self sufficient artists hut
- Construction of a passive town hall
- Renovation of town halls and municipal housing with eco-materials
- Farmers' group wood chips producers and suppliers
- Wood chips boiler network
- Wood chips production deck
- Photovoltaic farm (1,2 MWc on 3,3 ha)





Community needs

- Issues identified with local stakeholders (PNRMA partners and Elected) x = stronger issues

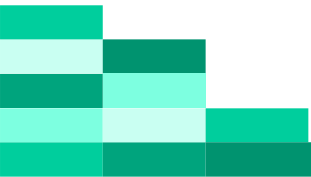
RES / RUE	Environmental	Economical	Social	Consultation
To increase citizens and Elected awareness			x	x
To train building professionals on eco-building	x	x		
To develop woodfuel network heat boiler	x	x	x	
To develop shared RES projects (photovoltaic, woodfuel,...)			x	x
To build microhydro-electric plant policy	x			x
To encourage solar thermal energy in campsites		x	x	





PNRMA new charter

- Mountain RES-RUE project feeds building of PNRMA new charter
- Actual charter doesn't give aims in terms of energy and climate
- With data collected with Mountain RES-RUE, issues and aims can be determined with local actors to build new PNRMA charter





Actual debates about energy issues for the territory

- High potential RES development (100% EnR / consumption)
 - Should the territory provide energy for other territories?
 - How to produce more with including other territory issues (landscape, ecosystem,...)?

