



PANEL DISCUSSION 2

Sila National Park as a driving force for the activation of sustainable local supply chain



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CHARACTERISTICS OF THE PARK: Sila National Park protects areas of great environmental interest for a total of 73.695 hectares. About 80% of the Park territory is covered with forests (about 60.000 hectares) composed primarily by conifers and hardwood forests.

ROLE IN THE PROJECT: The Park, as all the other Parks involved, developed and set up a local biomass supply chain changing the pre-existent final destination of the biomass and contributing to create an economic virtuous circle in the Park area and nearby.



BACKGROUND INFORMATION



CONTEXT

Before project start the whole biomass produced within park area were burned in the big scale electric power plants of Crotona and Cosenza.

The plants, of average dimension of 35MWe /40MWe, are located 70-80 km far from biomass harvesting area and are characterized by low efficiency level and high environmental impact both on air and on the waters used to cool the plant.

This situation causes social conflicts against the plants owners and in general against the biomass exploitation policy



THE CHALLENGE



ROLE OF THE PARK

- ✓ Involve biomass producers in a shared path for the setting up of sustainable model of solid biomass exploitation
- ✓ Promote the setting up of a sustainable short range supply chain based on the conversion of thermal boiler from oil to pellet
- ✓ Act as a pioneer of the new supply chain converting its own thermal boilers
- ✓ Open a green public procurement for the acquisition of pellet deriving from local area and responding to detailed sustainability criteria in the harvesting and conversion process
- ✓ Promote to the local economic actors the joining to the supply chain
- ✓ Support the setting up of a local purchasing group among local economic actors and privates for the further development of the local pellet supply chain

KEY STAKEHOLDERS INVOLVED

- ✓ *Nature Park managers*
- ✓ *Forestry Company*
- ✓ *Pellet producers*
- ✓ *Local economic actors (Restaurants, hotels, farms etc.)*
- ✓ *Local Authorities representatives*
- ✓ *Biomass and bio-energy experts*
- ✓ *Environmental and citizens associations*

FINDING SOLUTIONS



PERFORMANCE INDICATORS : ESTIMATED RESULTS				
SNP con GPL	2013	2014	2015	2016
Consumo GPL/kg	3329,6	11261,6	9282,0	
Emissioni CO2/ton	9,8	33,2	27,4	
SNP - PELLETT				
biomassa prodotta (ton/a)		0	90	153
energia elettrica prodotta Mwh/anno		0	0	0
energia termica prodotta MWh/anno			209	355,73
energia rinnovabile prodotta MW/anno		0	209	355,73
risparmio di energia primaria TOE/anno			21,14	35,94
riduzione gas serra GHG TON co2 /anno		0	80,33	136,56

Estimated results in terms of GHG reductions, renewable energy produced, energy saving.

FINDING SOLUTIONS



ACHIEVEMENTS

The **introduction of wood biomass** replacing LPG and diesel fuels;

- **Changing destination of biomass:** a part of the biomass stored by local producers has been addressed to small plants located within the Park area rather than big thermal power plants outside the Park;
- The **creation of an economic virtuous circle** within the Park thanks to the establishment of a biomass Purchase Group aiming to improve cooperation among territorial stakeholders also after the end of the project;
- Increase in the **added value of forestry and agriculture** subproducts.



FINDING SOLUTIONS

Protected Areas leading new models for local development based on sustainable energy: a way to contribute to the EU climate and energy targets?

The creation of the supply chain in the Sila National Park area built a closer connection between local consumers and biomass harvesting areas, gave a more transparent image of the territory and consequently stimulated local economies. The park developed a Green Procurement Model for selection of the pellet provider which represent an example of excellence on how public authorities could play an active role in promoting short range and sustainable biomass supply chain

Furthermore, the creation of local supply chains implies **reducing distances for the transport of feedstock** and **decreasing CO2 emissions**. Other important effects include:

- the **reduction of “intermediaries”** involved in the process, leading to a fairer distribution of the added value among the players and to a better remuneration for biomass producers;
- the **sustainability of the production phase**, improving the inclusion of local producers in the social context and reducing risks of conflict with the population;
- the **promotion of new local markets**, creating new jobs along the supply chain, slowing down rural depopulation, and improving local skills related to harvesting, processing and transport of wood.

LESSONS LEARNED



Thank you.



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