Spain, Aragón	Alberto Centelles Martín				
Institution	Monroyo Industrial S.L				
Position	Manager and owner of the company				
Field of work	In recent years, Monroyo Industrial S.L has focused on services for				
	forest conservation, protection and improvement of the natural				
	environment. Currently they are engaged in production of biomass as				
	fuel.				
	Activities:				
	 Processing of pine wood for woodchips, biomass from forest maintenance 				
	 All forestry works; firewalls, ecosystems and natural habitats 				
	maintenance, reforestation				
	 Installing park banks and garden furniture, building 				
	playgrounds, trails and signs				
	Nature protection activities:				
	 Cleaning beaches and other natural environments 				
	Riverbanks protection work				
	Monroyo Industrial S.L has equipment and experienced staff focused				
	on the quality of their work.				
Experience					
About the	Pine wood residues such as bark or splinter of different sizes are used				
feedstock	as garden mulch. Pine splinters are used for combustion and heat				
	production in farms and public buildings. The pine wood is used for				
	building of viewpoints, trails or recreational areas in natural parks				
Processing chain	Steps in the processing chain of biomass:				
	1. Locating the spots with a good access to perform the work				
	2. Cutting the trees with chainsaws, piling the logs, loading at a truck				
	3. Transport to a harbor, export				
Economy	Purchase of the raw material in the forest 3 - 6 €/t				
	Costs of the felling: 25-30 €/t (pine and cypress trees)				
Production of pine splinters with a wood chipper: 12-14 €/t					
	Processed pine chips price: 45 – 90 €/t				
	In Matarraña region, there are two companies selling wood chips, Gil				
	Forestal and Monroyo Industrial S.L. They produce about 4000 tons per				
	month.				
Context	80 % of the raw material is exported outside Spain (mainly to Italy, also				
,	to France)				
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20 % of the material is sold in 150 km radius (Huesca, Zaragoza, Barcelona, Tarragona, Lleida, Girona, etc.)

Monroyo Industrial S.L has their own biomass logistics center in Alcaniz.

Related formalities

Industrial Monroyo S.L received subcidies covering 28 % of the costs for the machinery.

There is a support scheme for small projects creating new jobs. There are no subsidies for biomass production in Aragón, but such subsides can be received in the Valencia community.

Wider insight

The biggest motivation for using the LCMW biomass is the possibility of economic compensation for the maintenance work. Due to the difficult access to riverbanks and roadsides and low density of the material is the extraction unprofitable. However, cleaning is necessary in these areas to prevent fires and harms connected with rivers floods.

Contact information

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Photo Gallery



Picture 1: Creating trails and viewpoints



Picture 2: Forest brigades



Picture 3: Forestry work



Picture 4: Wood chips



Picture 5: Resting spots