Questionnaire for Value chains - Prunings and Plantation Removal

Value chains : Prime mover and Main Characteristics

Stakeholder Type

- [x] Farmer
- [ ] Agrarian Cooperative
- [ ] Public Institution
- [ ] Agro-Services
- [ ] Final Consumer
- [ ] Farmer Association
- [ ] ESCO
- [ ] Agro Industry
- [ ] Pellet Producer
- [ ] Biomass Supplier

Location of Prime Mover

Municipality : Fejo

Latitude : 54.946097

Longitude : 11.373023

Type of Residue used in value chain

- [x] Pruning
- [ ] Plantation Removal
- [ ] Both

Crop Species used in Value Chain

- [ ] olives
- [ ] vineyards
- [x] apples
- [x] pears
- [ ] peaches
- [ ] apricot
- [ ] nectarine
- [x] plum
- [ ] cherries
- [ ] oranges
- [ ] tangerines
- [ ] lemons
- [ ] grapefruit
- [ ] hazelnuts
- [ ] chestnuts
- [ ] almonds

Total Plantation Area involved in the Value Chain (ha) 70

Typical APPR biomass production (tonnes/year)

Start Date of the APPR value chain (Month-Year)

Key success Factors in Value Chain

Keys of success

Select the key success factors of your value chain in scale 0-3. Then indicate the 3 most crucial factors.

Check as many as apply

Factor Group	Description	Check the influence in success:(0)-Not relevant;(1)-May have influenced;(2)-Important for success;(3)It was crucial;(?)-Unknown					Check the 3 most crucial factors in WHOLE table
		0	1	2	3	?	
Project	There was an important effort in determing the feasibility and planning prior starting the business	☐	☐	☐	☐	☐	☐
	The implementation of the chain considered the target consumers and their quality requirements	☐	☐	☐	☐	☐	☐
	Market was analysed, and contracts prepared prior start	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
Product Quality	Biomass was labelled or certified according to existing standards	☐	☐	☐	☐	☐	☐
	The quality of the biomass product is object of an assurance process	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
Community	Permanent crop plantations are quite extended. The use of the agrarian residues for biomass was regarded by community as quite beneficial	☐	☐	☐	☐	☐	☐
	There was an intense information campaign to promote social acceptance	☐	☐	☐	☐	☐	☐
	Argarian residues utilisation for energy was subject of debate by policy makers and/or by social groups in months, or years before the investment was done	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

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Market	There was already a mature market of biomass	☐	☐	☐	☐	☐	☐
	There was a shortage of usual biomass resources	☐	☐	☐	☐	☐	☐
	There was a high increase of biomass demand (e.g. new power plants opened, increase og household biomass heating)	☐	☐	☐	☐	☐	☐
	The price of biomass locally rose, and made biomass residues of economic interest	☐	☐	☐	☐	☐	☐
	Target biomass market was stable and secure	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
Local Capacities	There was a recent reconversion of a sector (mining, metal industry etc.) leading to a high need of re-orientate economic activities. Biomass was one of the targeted new economic activities	☐	☐	☐	☐	☐	☐
	There was already service companies/persons with capacities to start new biomass chains on prunings/plantation removal	☐	☐	☐	☐	☐	☐
	There was a campaign of information for biomass procurement	☐	☐	☐	☐	☐	☐
	Pruning and/or agricultural residues were quite an issue in the course	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

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		0	1	2	3	?	
Pruning Management	The management of the pruning/plantation removal is recognised to be expensive. Farmers found pruning for energy a good idea	☐	☐	☐	☐	☐	☐
	There were already experiences in mobilisation/treatment of prunings/plantation removal (pilot experience etc.)	☐	☐	☐	☐	☐	☐
	The high density of permanent crops plantations in the area	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
Regulation	There is strict regulation making compulsory treatment/management of the residues	☐	☐	☐	☐	☐	☐
	Lobbying of stakeholder groups caused policy makers to promote changes in regulation	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

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		0	1	2	3	?	
Support	The subject of argarian residues for energy was subject of new supporting measures	☐	☐	☐	☐	☐	☐
	Enviromental regulations placed funds for subsidising partly pruning/plantation removal collection	☐	☐	☐	☐	☐	☐
	The biomass consumption sector leading to pruning/plantation removal utilisation was subject of recent support for expansion	☐	☐	☐	☐	☐	☐
	Availability of financial support (loan guarantees, green banks, etc.)	☐	☐	☐	☐	☐	☐
	There was a combined initiative supported for LIFE (or equicalent) programs (for GHG reduction, for improving competitiveness, etc.)	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

Policy	There were published plans and/or roadmaps for biomass utilisation (including pruning/plantation removal utilisation)	☐	☐	☐	☐	☐	☐
	There were clear objectives in mind of policy makers for utilisation of pruning or argarian residues	☐	☐	☐	☐	☐	☐
	Existence of public initiative as pioneer in pruning/plantation removal utilisation leading to investment in public infrastructure (e.g. private/public consortium to use pruning for heating in public schools)	☐	☐	☐	☐	☐	☐
	There were special taxation for the pruning/biomass (or agricultural residue) utilisation	☐	☐	☐	☐	☐	☐
	There was a public media campaign to boost utilisation of prunings/biomass (e.g. in common by various city councils, or various countries)	☐	☐	☐	☐	☐	☐
	The use of pruning/plantation removal was integrated with other enviromental/public strategies (e.g. landscaping conservation of vineyar scenery)	☐	☐	☐	☐	☐	☐
	There was a ban to burn agricultural residues by open fires	☐	☐	☐	☑	☐	☐
		☐	☐	☐	☐	☐	☐

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Logistics Chain	There were pre-existent collaborations established between farmers sector and biomass cosumers/traders	☐	☐	☐	☐	☐	☐
	The introduction of new technologies (machine, handling systems, logistic chain) supported the implementation of new chains	☐	☐	☐	☐	☐	☐
	Private investment for entepreneurs was incentivised	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

Short summary of the initiative (<100 words)

Summary of the value chain

The pruning in the farm is done manually and the big branches are used for self-consumption in a boiler for self-heating. The rest is being shredded by the machine brand Perfect by driving 2 times on each row so that it can shred all branches. The machine is mulching the branches in a homogenous product and the bigger pieces are reintroduced and mulched again to give the same result.

Laust Spandet Jensen (Fejo)

VALUE CHAIN ACTORS		Farmers	Farm cooperative / agro productive organization	Agro services Company	Techno-logistics services in agriculture	Biomass energy plant builder /dealer	Energy service company	Biomass consumer / energy user
VALUE CHAIN PROCESSES	APPR biomass producer	1						
	Harvesting & conditioning	1						
	Biomass 1st haulage/ Transport	↓						
	Pretreatment & Storage	1						
	Biomass further processing	1						
	Biomass transport	↓						
	Energy conversion	1						

1 Mr. Laust Spandet Jensen

Fuel Specifications

Final form of Biomass prior to Exploitation

- [ ] Bales of branches
- [x] Wood chips
- [ ] Hog fuel-shredded
- [ ] Pellets

Moisture content (%) : _____

Max Content of Ash (% a.r.) : _____

Min LHV (kj/kg a.r.) : _____

Value Chain Details and Prices of fuels

End-users

- [x] Self-consumption
- [ ] Industrial heating
- [ ] Public-private buildings
- [ ] Distributed heat networks
- [ ] Biomass to Market

Distance between biomass production and its final use (km) : 0

Storage options

- [x] On-farm storage
- [ ] Intermediate storage prior transporting to end user
- [ ] Direct delivery and storage at final user
- [ ] No storage

Ownership of the APPR harvesting machinery

- [x] Farmer
- [ ] Farmer's community
- [ ] Leasing
- [ ] Municipality-public
- [ ] 3rd party-private

Prices of fuels sold to final consumers

- ☐ Price of APPR biomass (€/t) _____
- ☐ Price of regular woodchips (€/t) _____
- ☐ Price of ENPLUS pellets (bulk-€/t) _____
- ☐ Price of domestinc heating gasoil (€/l) _____

Have you filled the questionnaire about mechanized pruning/plantation removal ? ☐ Yes ☐ No

If yes, please provide the name or e-mail you have used on that questionnaire _____

References-External links:Provide references on which the information is based on or highlight any comments

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