CREFF Project: Summary

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Besides the large potentials and opportunities, the establishment and cultivation of SRC is connected with several constraints and barriers – especially in the economics of the plantations. While most of the research results available in the past have been obtained for medium to good sites and the presumptions of a large field size for the SRC-plantations, this project focuses on unfavorable sites and small field sizes at scattered locations.

The main objective was the successful implementation of cost-efficient and consumer-oriented SRC-value-chains in regions with unfavorable site conditions for SRC. The research project covered all process steps of the SRC-value chain and is structured in 5 work packages (WP):

- WP1: Cost optimization through an adapted matching between plant material characteristics, site conditions and plantation management.
- WP2: Improvement of harvesting systems and transport logistics with regard to specific site conditions (steep slopes, long rotation periods with large stem-diameters).
- WP3: Value added conditioning of SRC raw material (regarding end product key-properties, industrial experiences, pilot storage trails and storage simulation device design)
- WP4: The economics of SRC-value chains and optimization strategies with respect to site location and dimension.
- WP5: New business concepts for successful implementation of a product-oriented wood fuel value chain from SRC.

The development of strategies allowing a major cost reduction and a higher efficiency has been achieved by an innovative approach to initialize intensive and early cooperation between producers and consumers. Inside these co-operations, the SRC-production concentrated on the requirements of industrial consumers. Based on the known value chain structures all major processes like the production (species-site matching, spacing, rotation), harvest, logistics and conditioning of SRC-products were streamlined.

The consortium work highlighted that farmers in the project region see SRC plantations as a good option to valorize their most marginal sites, where there is no or lower profit at the moment. However, the results have shown that SRC is not an option, which can raise profits on these unfavorable or marginal sites, but has the advantage to offer income with a minimum of input. CREFF consortium has made a number of recommendations, based on the results of each work package in order to optimize the management of the plantation as a whole: Producer – consumer co-operations, products, plantation design, plant material, fertilization, harvest and logistic, fuel quality and conditioning methods.

Moreover, some tools have been developed by partners to help stakeholders in decision making. A technical guide (in French) has been developed for interested farmers to explain every step of a SRC plantation. Also an excel model, the “KUP Ernteplaner” (in German) was realized in order to allow farmers with a SRC to accurately plan their harvesting operations and related logistics.