

SWOT Analysis – Sweet Sorghum as Energy Crop

Explanation and Purpose

In the framework of the SWEETFUEL project a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was conducted in order to assess advantages and disadvantages of different sweet sorghum and biomass sorghum value chains.

The analysis investigated several energy sorghum value chains under different framework conditions: subtropical, tropical and temperate climate. The value chains included the cultivation of energy sorghum, conversion to different products and end use of the products.

The SWOT analysis addressed land use, social (e.g. smallholder benefits, health, food security), environmental (e.g. emissions, soil and water), and economic aspects (e.g. efficiency, competitiveness) in order to help identify promising pathways to produce and use sweet sorghum as energy crop.

Core focus was placed on the competition between the biomass uses for food, feed, fibres, and biofuels and on different scales of energy sorghum production and use. Finally, policy aspects such as different policy framework conditions in target countries as well as issues of social acceptance and public perception were taken into account.

Exploitation Strategy

The SWEETFUEL SWOT Analysis was published as public deliverable of the project and is available for download at: www.sweetfuel-project.eu/publications/swot_analysis_deliverable_6_5.

Further Research

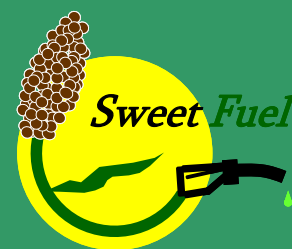
Further research is needed on social, environmental, and economic aspects of energy sorghum value chains, especially with respect to dual purpose applications (food and energy production) in tropical climates (e.g. India, Mexico, Philippines) and energy sorghum for industrial applications (e.g. biogas and lignocellulosic ethanol production) in temperate climates.

Impact of Exploitation

Results of the SWEETFUEL SWOT Analysis may provide international stakeholders (e.g. seed and feedstock suppliers, entrepreneurs, NGO's, policymakers, and agricultural research institutions) with valuable information to identify promising pathways to produce and use sweet sorghum as energy crop and to assist in decision making processes for improved energy sorghum value chains in different climates and framework conditions to:

- ensure competitiveness/complementary with other energy (bioethanol) crops
- ensure competitiveness with fossil based energy/products
- guarantee environmental, social and economic sustainability

Sweet Sorghum: an alternative energy crop



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