

ERA-ARD: Bioenergy in Africa - Opportunities and Risks of Jatropha and Related Crops

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The BIA Project

The Bioenergy in Africa (BIA) project was launched in June 2009 with financial support from the Agricultural Research for Development Dimension of the European Research Area (ERA-ARD). The Austrian participation is financed by the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW). The BIA project investigates the opportunities and risks related to the production and utilisation of biofuels in East Africa and Central America. A focus on *Jatropha curcas* L. was chosen as this feedstock has experienced a strong and sometimes controversial development in both regions. The project analyses the opportunities and risks of increased *Jatropha curcas* production, appraises its social and environmental impacts and develops decision support tools for sustainable biofuel production.

The BIA project is implemented by a consortium composed of 7 European, 5 African and 3 Central American institutions. Each partner provides solid and complementary research experience and expertise ranging from natural to social sciences, making the BIA project an interdisciplinary venture.

Modular Structure

The BIA project consists of a modular framework composed of 4 complementary modules, each addressing a specific aspect of jatropha production and utilization.

Module 1 - Crop growth and processing: Assessment of sustainable Bioenergy production potentials and processing of jatropha biomass in different cultivation systems and under different environmental and cultural settings.

Module 2 - Impacts of biofuel production: Case-study based research on the socio-economic and environmental impacts of biofuel production in the local context as well as life cycle assessments of various jatropha value chains.

Module 3 - Global policy, trade and certification: Analysis of the influence of external socio-political and economic decision-making processes on the regional and local biofuel production processes.

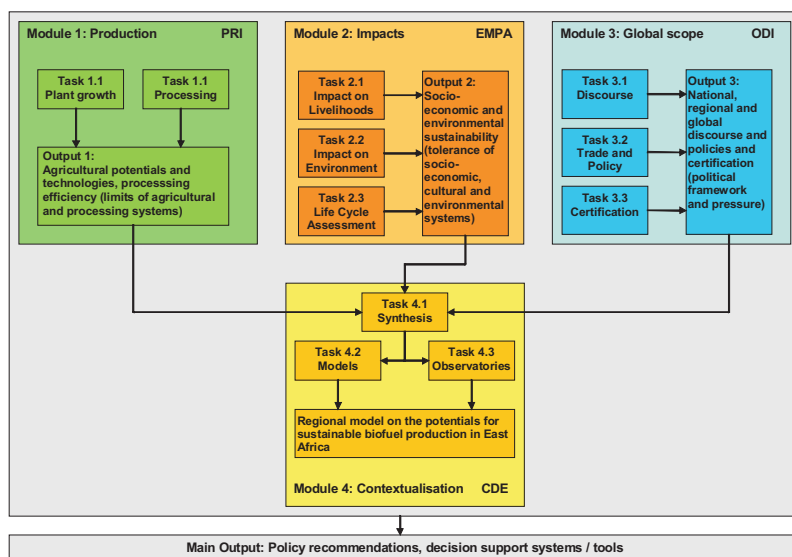
Module 4 - Potentials of biofuel in Eastern Africa: Elaboration of a regional model of sustainable jatropha production and relevant policy documents for decision-making and planning tools at the national and regional levels in Eastern Africa.

Activities of BIOENERGY 2020+

The work of BIOENERGY 2020+ concentrates on module 1 crop growth and processing. The objective is to identify viable pathways for local biofuel production from *Jatropha curcas* based on the assessment of the influence of harvesting, storage and pressing conditions on jatropha oil. Consultative work was done in module 2 on life cycle assessments.



Jatropha curcas L.



Conceptual framework of the BIA project