

Abstract

Jatropha Curcas Development as Intervention Potential to Tackling Land, Energy and Food Challenges of Rural Communities in Dryland Sub-Saharan Africa

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Abstract: Global population growth is placing increasing pressures on land for food and feed production as well as energy security. In particular in sub-Saharan Africa (SSA), these issues require urgent attention. This is clearly stated in The United Nations Global Goals for Sustainable Development emphasizing the importance of sustainable use of land resources to increase food productivity and energy requirement. SSA lags behind most regions of the world in household food security and access to energy. The rural agriculture-dependent communities of SSA are the hardest hit by food and energy scarcity and the impact is felt most by communities in the dryland farming areas. In terms of energy supply appropriate measures and interventions are required to address this challenge. *Jatropha curcas* L. oil fast tracked itself from obscurity to prominence. Its main advantage is the high content of methyl ester (or bio-diesel). It conforms to EN 14214 specifications, exhibiting emission reduction potential and qualifying as a lucrative bio-diesel alternative to fossil diesel. This paper proposes a focus on *Jatropha* technology as a holistic approach to tackling the land, energy and food degradation challenges in unison for dry-land SSA. The new *Jatropha* strategy would be innovative and environmentally friendly soil resource recapitalization and supply feed stock for rural energy generation while fulfilling the criteria of delivering other benefits, such as addressing land use conflict for food and energy production

Keywords: land use; biofuels; agronomy; soil management

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