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**Summary:**
**Tanzania's best market potential for bioenergy feedstocks might be oil crops, whose demand is expected to increase steadily , both at a global and regional level. Both palm oil and sunflower have potential in Tanzania and are under-exploited. The advantage of these crops over jatropha is their edibility and ability to produce valuable by products for livestock feed.**

**Title:**
Tanzania's market potential for oil crops: Looking beyond jatropha as a biodiesel feedstock

**Problem and Objective:**
There has been much discussion in Tanzania, as well as in other parts of Africa, over jatropha's potential as an biodiesel feedstock crop and active investments have already taken place. The non-edible nature of the jatropha oil and its byproduct, aside from its low yields, make it problematic, however, and many ventures in this have already failed. Tanzania therefore needs to look for alternatives that have proven market potential in both the regional and international markets, and which can provide useful and tradeable by-products. We examine the market potential of key food oils and draw conclusions for Tanzania's market prospects

**Method:**
In order to explore these questions, we take projections of oilseed supply, demand and trade from the IFPRI IMPACT model, and examine the implications for the East African market. Given the increasing use of oilseeds such as rapeseed and palm oil in biodiesel production in the EU and elsewhere, the market dynamics for oilseeds and their meal by-products have been evolving rapidly. A recently-revised oilseed sector in IMPACT provides us with insight as to where the export demand prospects for Tanzania might lie, were it to decide to scale up its production of oilseeds for domestic consumption and export. Insights and examples from recent literature are also drawn from.

**Results:**

The baseline projections of the IMPACT model show that the demand for food oils is expected to increase steadily across the global and in sub-Saharan Africa, due to continuing growth in demand for higher-value, and more energy rich food products in urbanizing areas. The large EU biodiesel feedstock demand for rapeseed oil is a major driver of international market dynamics, and has effects on other oil products such as palm oil. The food demand for all oils will continue to grow, nonetheless, and the largest regional demand in Africa will be in Western Africa, where palm oil imports are expected to increase. The opportunities for Tanzania to scale up in the production of either temperate or tropical oilseeds is considerable, and would also provide valuable by-products for its own livestock feed demand or for export. Jatropha has none of these prospects, due to its low-yielding and non-edible nature, and is not suited for scaling up.

**Lessons learnt:**

*For practitioners:*

One of the key elements of market competitiveness of a candidate feedstock crop is in its productivity and the marketability of its primary and secondary products. This is one of the key to the success of the palm oil industry in Southeast Asia, and should be a guiding agribusiness principle for Tanzania -- which runs the risk of getting locked into a dedicated crop like jatropha with limited market potential and poor prospects for commercial scale-up.

*For research:*

More work needs to be done to understand the regional market dynamics of oil-based products in Africa, which is undergoing steady economic growth, rates of urbanization and diet change. The demand for higher-value food products such as meat, oils and sugar is expected to grow, and represents a market opportunity for countries in the region which needs to be further explored

*For policy implementation:*

A successful bioenergy sector needs to achieve economies of scale in the production of high-productivity feedstocks in sufficient quantity. Otherwise costs become prohibitive for scaling-up. Even if Tanzania chooses not to use its oilseed production for bioenergy use, it will still have considerable market potential in the food market -- making it .

Policy recommendations :

Given the volatility in world energy and food markets, Tanzania should adopt a strategy that provides flexibilty in the use of agricultural products. The best approach is to encourage the development of a high-productivity sector that can produce in sufficient quantity to achieve cost-competitiveness – both in the domestic and international market, and for food, feed or othre uses. Tanzania has already realized some competitiveness on export markets for some of its specialty agricultural products like cashews and coffee, and can expand to other products, given its agricultural potential. Even if Tanzania chooses not to use its oilseed production for bioenergy use, it will still have considerable market potential in the food market -- making it less vulnerable to fluctuations in the price of oil and the demand for biodiesel, and providing a useful feed by-product. As the recent switch in strategy towards sugar and ethanol by EcoEnergy suggests – perhaps a 'food-first' approach for Tanzania's oilseed sector would be a more pragmatic way of achieving competitiveness in key agricultural sectors that can deliver products for multiple uses.

References:


http://www.better-is.com/files/FS35_IFPRI_Activity_Report.pdf

Further information available on www:

Msangi (2012): Biofuels in Africa: http://ebooks.cambridge.org/chapter.jsf?bid=CBO9780511920899&cid=CBO9780511920899A024

Laborde 2012: http://www.ifpri.org/node/8439

Arndt 2010: http://www.wider.unu.edu/publications/working-papers/2010/en_GB/wp2010-110/

Msangi (2010): Biofuels and agricultural growths: http://link.springer.com/content/pdf/10.1007%2F978-1-4419-0369-3_6

Ewing (2009) (Abstract): http://www.sciencedirect.com/science/article/pii/S1462901108001123:



Participating institutions: International Food and Policy Research Institute (IFPRI), Institute for Environmental Economics and World Trade IUW, World Agroforestry Centre ICRAF, Wuppertal Institute for Climate, Environment and Energy, Leibniz-Centre for Agricultural Landscape Research (ZALF e.V.), Association for Strengthening Agricultural Research in Eastern and Central Africa. Associated partners: SOKOINE University of Agriculture, Ministry of Agriculture, Food security and Cooperatives Tanzania, Ministry of Energy and Minerals, Tanzania.



On behalf of Federal Ministry for Economic Cooperation and Development