

Good Practice Assessment for Bioenergy Projects

General data

1. Name of Assessor: Dr Helen Watson
2. Institution: University of KwaZulu-Natal
3. Date of Assessment: 23 December 2009
4. Name of Project: Kilombero Sugar Company Ltd (KSCL), Tanzania
5. Contact name at Project:
6. Place of Project: KSCL operates two mills at Kidatu in the Morogoro region which is inland and south of the country's capital - Dar es Salaam. The company takes its name from the Kilombero River. However, the area where sugar cane is cultivated is drained by three rivers, from west to east they are the Great Ruaha, Kilombero and Rufiji. The area drained by the Great Ruaha ranges in altitude from 800 to 1500 m.a.m.s.l. The topography ranges from mostly flat to rolling plains, to low hills transitional to the medium altitude plateau, to strongly dissected uplands. The area drained by the Kilombero ranges in altitude from 200 to 1000 m.a.m.s.l. The topography is predominately gently undulating to rolling plateaux developed on Karroo sediments. Parts of the terrain are however, strongly dissected. The area drained by the Rufiji ranges in altitude from 200 to 500 m.a.m.s.l. and is mainly gently undulating to rolling plateaux developed on Karroo sandstones and Neogene sandy sediments (ARI – Mlingano, 2006)
7. Characteristics of Project: Sugar cane cultivation in the vicinity of the Kilombero River commenced in the 1920's. The Kilombero Sugar Company (KSC) and first factory were established in 1962 when out growers supplied 17,000 tons of cane. In 1976 this supply was up to 103 000 tons and the second factory came into production. However, by 1998 this supply had dropped below 100 000 tons, and sugar production had declined to about 29 000 tons. The company could not meet its tax obligations and it's work force was on half pay. In April 1998 KSC was privatized and became KSCL. That year US\$ 50 million was spent on rehabilitation. Over the following six years KSCL invested in infrastructure, staff housing, schools, health centres and a refinery, and established a Partnership Project and the Kilombero Community Trust. During the 2004/5 season, out growers delivered 535 000 tons of cane which produced 126 000 tons of sugar. Conditions have continued to improve to such an extent that the United States Trade and Development Agency undertook in September 2009 to provide the funding required to install bioethanol/bioelectricity plant at Kidatu by 2012.

Tick if project is an initiative from:

Private community government NGO other

KSCL's Shareholders are Illovo Sugar (ISL) 55%, the Government of Tanzania 25% and EDF& Man 20%.

8. State how do you know the project

information from investor/promoter field trip a) and b) other

specify other : personal communication with Dr Jeremy Woods (Imperial College, London) and Mr Dennis Tomlinson (formally Corporate Affairs Development Manager, Illovo Sugar Ltd, P.O.Box 194, Durban, 4000, South Africa) in February 2006.

9. After reading the characteristics of the project (in Annex) please assess the following principles according to the scale:

- 1 The project does not consider this principle (0%)
- 2 The project covers this principle partially <30%
- 3 The project covers partially this principle in 30-70%
- 4 The project covers partially this principle in <70%
- 5 The project fully covers the principle (100%)

Principle	Name	Score
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1.	Good agro-ecological and forestry practices (biodiversity, soil)	<input style="border: 1px solid black; width: 20px; height: 20px;" type="text" value="4"/>
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Comments

Demonstration farm established by KCT (see 6 below), to ensure good agricultural practices. Area comprehensively mapped and biophysiological information on it acquired in order to ensure that areas of biodiversity significance and vulnerable soils are not cultivated. As noted in 8 below, KSCL has established a Reforestation Program.

2.	Not affecting water supply and quality	<input style="border: 1px solid black; width: 20px; height: 20px;" type="text" value="5"/>
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Comments

The Morogoro district has one of the highest irrigation potentials in the country (AQUASTAT, 2002) with the area under sugar cane in close proximity to three large perennial rivers see 6 above. In the district, the areas drained by the Great Ruaha, Kilombero and Rufiji rivers respectively receive 800 -1000, 800 – 1000 and 1000 to 1200 mm of rainfall per annum. The rainfall threshold below which sugar cane must be irrigated to obtain economically viable yields, is 800 mm per annum (Watson *et al*, 2007).

3	No land use change that detrimentally affects food security	<input style="border: 1px solid black; width: 20px; height: 20px;" type="text" value="5"/>
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Comments

The land that is now under sugar cane was assumingly previously used by local communities for acquiring non timber forest products and grazing. No information on the contribution or intensity of this use was found. It is assumed that the income from sugar cane has increased food security on the basis that it has enabled (a) greater flexibility in the purchase of food, and (b) the purchase of inputs such as fertilizer leading to greater yields and a greater range of food crops grown.

4 Community participation (from planning)

3

Comments

Not from planning but yes, since privatisation and the establishment of KCT (see 6 below). Have certainly been actively involved in planning for the future bioethanol/bioelectricity plant.

5 Women's participation (from planning)

2

Comments

As per "Community participation" above.

6. Skills transfer (management, business, agriculture)

5

Comments

KSCL initiated a partnership with out growers to stimulate community development. The partnership led to the establishment of the Kilombero Community Trust (KCT) which (a) set up a farm to demonstrate best agricultural practices to growers, (b) provides regular capacity building workshops on management and business skills required by growers, and (c) mapped growers farms and entered information on their biophysiological and production characteristics in a Management Information System in order to assist growers in planning their harvesting and delivery schedules to the factories.

7. Community inclusion in business or economic model (Contract with investor or NGO).

4

Comments

KCT set up the Kilombero Business Linkages Project which in turn established partnerships with a network of organizations resulting in out growers gaining increased access to finance. KSCL strengthened the out growers supply chain by establishing a Division of Proceeds and Cane Supply Agreements which (a) providing assistance to improve in farm infrastructure, (b) instituted a reliable cane payments system, and (c) supports retention fund/bulk input supply.

8. Added value in the community (individual, money, assets, land, co-products)

3

Comments

Between 1999 and 2004, KSCL contributed Tshs. 30 billion to Government tax revenues, and Tshs. 11 billion to the community in payments for cane and related services. KSCL currently employs 6000 people at peak season. KSCL instituted a Reforestation Program under which (a) a Pilot Nursery was established, (b) indigenous species were planted on company land, and (c) thousands of seedlings distributed to the community. One point has been deducted from the score because of recent strikes by factory workers for improved wages.

9. Improvement in services and infrastructure (energy supply, health) reinvestment of revenue within the community

5

Comments

Since privatisation, KSCL has reconfigured the electrical distribution system enabling interconnection between the two factories as well as the National grid. The Company has also invested over Tshs 3.5 billion in providing and maintaining the following: (a) housing for employees, 43 teachers and 56 police personnel, (b) a health clinic and

hospital with a combined capacity of 10 000 patients per year, (c) six primary schools and four day care centres, (d) twelve buildings for primary courts, (e) supplying potable water, and (f) 800 kms of roads.

10. Compliance with National policies and/or guidelines for bioenergy projects in place

4

Comments

Tanzania established a National Biofuels Task Force in 2006 “to prepare enabling policy and a regulatory environment for sustainable biofuels development” (Sawe, 2008). This task is still in progress. The fact that the government is a shareholder suggests that compliance of future developments are likely to be vigorous.

11. Compliance with Local programmes, regulations and/or plans in place

4

Comments

The strong partnership established with the community suggests that there has been full compliance. No information to the contrary was found in the literature used.

12. Respect Land rights and avoid displacement

5

Comments

No information on land disputes or displacement was found in the literature. Therefore, assume that this was not an issue.

Overall assessment

49

Out of 60

Additional comments on the project:

I unfortunately have not had the opportunity to visit KSCL myself or to engage in conversations with employees, out growers and other members of the local community. My assessment is based on information gained from COMPETE partners who have visited it, information generated by KSCL and media reports.

References

ARI – Mlingano, 2006: Rainfed Agriculture – Crop Suitability for Tanzania, Ministry of Agriculture, Food Security and Cooperatives Report, Tanga.

Sawe, E.N., 2008: Bioenergy policies in Tanzania, ppt presentation at COMPETE International Workshop on Bioenergy Policies for Sustainable Development in Africa, November, Bamako, Mali, www.compete-bioafrica.net.

AQUASTAT, 2005: Information System on Water and Agriculture – United Republic of Tanzania, Food and Agriculture Organization, Rome, www.fao.org/ag/agl/aglw/aquastat/countries/tanzania/index.html

Watson, H.K., Garland, G.G., Dercas, N., Griffee, P. and Johnson, F. and Purchase, B. 2007: *Thematic Report on Agriculture: Agronomy, Harvesting and Delivery*, www.carensa.net