

Ethiopian Investment Agency

Investment Opportunity Profile for Sugar Cane Plantation and Processing In Ethiopia (Updated 2008)

May 2008

Production and Processing of Sugar Cane

1. Background

Sugar production in Ethiopia started in 1954/55 when the Wonji Sugar Factory was commissioned and produced 15,843 tons of white sugar in the first campaign. When sugarcane development began in 1951, the company was owned by Dutch Company, HVA (Handlers -Vereenging Amsterdam). The development of the sugarcane plantation was started on 5000 hectares in the upper reaches of the Awash basin, 100km. Southeast of Addis Ababa.

Currently, there are three large-scale sugar establishments in the country; two of them in the Awash Basin (Wonji/shewa and Metehara) and one (Finchaa) in the Blue Nile Basin. The present level of national production from the three-sugar estates is about 261,041 tons of sugar and 87,257 tons of molasses per annum respectively.

These three sugar factories have a production capacity of 280,000 tons of sugar annually. The total area developed by these factories is 23,769 hectares. The area developed at Wonji/Shewa is 7050 hectares (5930 hectares estate and 1120 hectares out grower farms) capable of producing 80,000 tons of sugar per annum. The Metehara Sugar Factory, which was brought on stream in 1969 by HVA at Metehara, developed 9919 hectares and has a capacity to process 115,000 tons of sugar annually. The Finchaa Sugar Factory (in East Wellega zone of the Oromia National Regional State) which was completed in 1998, developed 6800 hectares and has a production capacity of 85,000 tons of sugar per annum.

These sugar companies presently produce sugar for the local market and for export. White sugar is mainly exported to the neighboring countries such as Djibouti, Kenya, and Yemen in quantities ranging between 30,000 to 50,000 tons per annum. Raw sugar (partially processed) is currently exported to the EU countries under the EBA initiatives in quantities ranging from 14,000 to 15,000 tons.

At present, 11 private investors with a total investment capital of about Birr 305 million have been issued with investment permits to invest in small-scale sugar cane production and processing industries. Out of these, Triupat Sugar Industries PLC, an Indian Company, took 3,492 hectares of land in Sire (East Wellega Zone) and has started plantation of sugar cane on two hectares, which it plans to expand before embarking on the construction of the factory.

2. Resource base

2.1 Land and Water Resources

Ethiopia is endowed with large areas of suitable low lands, rivers and conducive climate for sugar cane growth. The climate and soil types in the country have both proven to be highly conducive for sugar cane growth and productivity. Various pre- feasibility and feasibility studies of sugar projects conducted by the Ethiopian Sugar Industry Support Center Share Company (ESISC) have indicated that many potential sites at the main river basins are suitable for sugar cane plantation. These include 303,500 hectares of already identified suitable net areas in 7 sites. However, the total area developed for the production of sugar cane in the country is only about 8% of the total identified suitable areas. Experiences of existing sugar

factories show that because of the suitable soil, adequate water and conducive climate, an average sugar cane production per hectare per month of the land under irrigation is very high as compared to other countries (i.e.9-11 tons against 6-8 tons). This would make Ethiopia a very attractive location for private investors to invest in the production and processing of sugar cane.

Table 1. **Potential Irrigation Sites For Sugar Cane Development.**

Basin	Site No.	Site	Water source	Gross area	Net Suitable area	Study level and Remarks
Awash	1	Angelele Balhamo	Awash	11,000	8,600	Feasibility
	2	Maro Gala	Awash	14,700	6,600	Pre-feasibility
	3	Kasem Kebena	Kasem	17,600	13,600	Pre-feasibility
Blue Nile	4	Arjo Dedesa	Dedesa	139,000	16,800	Pre-feasibility
	5	Anger Valley	Anger	65,500	30,200	Pre-feasibility
	6	Upper Beles	Beles	65,000	55,300	Feasibility
	7	Upper Dinder	Dinder	80,000	58,300	Feasibility
	8	Rahad	Rahad	100,000		*
Tekeze	9	Angereb	Angereb	45,600	38,800	Reconnaissance
	10	Tekeze	Setit	68,550	50,550	Feasibility
Omo Gibe	11	Lower Omo	Omo	58,000	29,000	*
Baro	12	Abob/Ubala	Gilo	46,900	39,400	Reconnaissance
	13	Itang	Baro		21,000	Feasibility
Nile	14	Dabus	Dabus		5,100	
Omo	15	Gojeb	Gojeb	12,000		

Source: ESISC, Ethiopian Sugar Industry, 2088.

In addition to the above-mentioned irrigable areas, there are also about 10,000 hectares of land suitable for rain-fed sugar cane plantation in the Country (See Table 2 below).

Table 2. **Potential Rain-Fed Sites For Sugar Cane Development(in ha)**

Sites	Gross area	Suitable area
Yayu (Ilubabor)	12,400	5,000
Duko (GojebValley)	12,000	1,400
Tepi	8,500	1,650
Serbo (Jima)	12,000	1900
Bure (Ilubabor)	N.A	N.A

Source: ESISC, Indicative Sugar Cane Potential Sites & Irrigation Agriculture and Background Information of Previous Studies for Identification of Irrigable Cane Agriculture, Irrigation Development and Small Scale Rain Fed Agriculture, Addis Ababa, March 2003,P.31-34

2.2 Climate

The identified irrigation sites for sugar cane plantation lie within Kola or warm zones of Ethiopia with dominant sub-tropical climate and with mean annual rainfall ranging from 400-2000 mm (Table 3). This agro-climatic condition is highly suitable for irrigated sugar cane plantation.

Table 3. **Climatic Conditions of the Potential Irrigation Sites**

No	Site	Altitude (meters above sea level)	Temperature Range (°c)	Mean Annual Rainfall (mm)
1	Angelele-Bohamo	650-700	25.1-27.5	550
2	Maro Gala	600-650	25.1-27.5	400
3	Kesem Kebena	700-750	15-38	470
4	Arjo-Dedessa	1300-1600	22*	1477
5	Anger	1000-1350	20-22	1367
6	Upper Beles	1000-1300	8-35	N.A
7	Upper Dinder	900-1100	26-27	1000
8	Rahad	760*	26-27	900
9	Angereb	650-670	14-41	840
10	Tekeze	650-695	13.2-40	N.A
11	Lower Omo	400*	21*	400
12	Abobo/vbala	425-460	10.3-44.9	680-2000
13	Itang	420-430	28.8	680-2000
14	Dabus		24	1000
15	Gojob		19.9-21.5	1631

Source ESISC,2008.

2.3 Soils

Sugar cane flourishes in a wide range of soils with textures from very heavy clays to sands. A soil that has a PH range of 4.5 to 8.5 and low toxic salt concentration is necessary. Most of the soils of the identified sites are fertile, freely draining and have good structure with sufficient mechanical strength to support mature sugar cane. The table below shows the type of dominant soils of these sites.

Table 4. **Soil Types of the Potential Irrigation Sites**

No	Site	Dominant Soil Type
1	Angelele-Bolhamo	Eutric fluvisol and alluvial
2	Maro Gala	Eutric fluvisol
3	Kesem Kebena	Eutric fluvisol
4	Arjo Dedessa	Vertisols few red Latosols
5	Anger	Alisols & Acrisols
6	Upper Beles	Vertisols and Grumosols
7	Upper Dinder	Vertisols
8	Rahad	N.A
9	Angereb	Vertisols & Lithic Leptosols.
10	Tekeze	Vertisols
11	Lower Omo	Sandy with some loams and vertisols associated with alluvial fans
12	Abobo ubala	*
13	Itang	Cambisols, Eutric vertisols,
14	Dabus	Red Latosols
15	Gojeb	Reddish brown

Source: ESISC, 2008.

2.4 Labour

With a population of over 80 million, Ethiopia has abundant, hard-working, inexpensive and easily trainable labour force. The average wage for unskilled labour generally ranges from Birr 12-15 (US\$ 1.24-1.55-1.15) per day. The salaries of fresh university graduates normally range from Birr 1000-1300 (US\$ 104-135) per month.

3. Market

3.1 Domestic

Sugar in Ethiopia, serves for direct household consumption and as an intermediate input for other industries like pastries, bottling companies and breweries. The per capita consumption in Ethiopia is one of the lowest in the world. The current level of per capita consumption is estimated to be about 3.6 kg, which is even below the world average minimum of 5 to 6 kg. The Ethiopian consumption of sugar was forecasted for the coming 10 years, taking into account the Ethiopian population of 80 million in 2007/2008, population growth rate per annum of 2.9% and an annual average economic growth rate of 9%. It is assumed that the per capita sugar consumption could increase at the rate of the economic growth of the nation.

Table 5. Sugar Demand Projection (2001/02-2012)

Year	Projected population	Project ed per capital sugar cons. (kgs)	Projected sugar demand (tons)	Production of existing factories (tons)	Surplus/ Deficit without Expansion (tons)	Production increase from planned Expansion (tons)	Total productio n after expansion (tons)	Surplus/ Deficit with Expansion (tons)
2001/02	65,018,880	3.60	234,068	261,041	26,973	0	261,041	26,973
2002/03	66,904,428	3.78	252,899	265,000	12,101	0	265,000	12,101
2003/04	68,844,656	4.03	277,248	267,500	(9,648)	0	267,500	(9,648)
2004/05	70,841,151	4.29	303,722	275,000	(28,722)	0	275, 000	(28,722)
2005/06	72,895,544	4.57	332,845	280,000	(52,845)	15,000	295,000	(37,845)
2006/07	75,009,515	4.86	364,759	280,000	(84,759)	45,000	325,000	(39,759)
2007/08	77,184,791	5.18	399,734	280,000	(119,734)	75,000	355,000	(44,734)
2008/09	79,423,150	5.52	438,063	280,000	(158,063)	110,000	390,000	(48,063)
2009/10	81,726,421	5.87	480,067	280,000	(200,067)	140,000	420,000	(60,067)
2010/11	84,096,488	6.26	526,098	280,000	(246,098)	140,000	420,000	(106,098)
2011/12	86,535,286	6.66	576,543	280,000	(296,543)	140,000	420,000	(156,543)

Source: ESISC, Ethiopian Sugar Industry, Background Information & Investment Opportunities, Op.cit, P.6

From the above table, it can be concluded that:

- there is a consistent deficit in domestic sugar supply starting from 2003/04 provided that the players in the sugar industry remain the present three sugar factories and no expansion is foreseen;
- the deficit grows from 3.6% in 2003/04 to 106% in 10years time (2011/12);
- even assuming that the existing sugar factories will be expanded as planned there will be deficit of sugar to fulfill the demand of local sugar consumption ranging between 37845 and 156,543 tons in the years 2005/06 and 2011/12 respectively;

Thus, the consumption of sugar as an intermediate input and the household consumption indicates that the existence of enough local market that commercially justifies investment in the sector.

3.2 World

Total world sugar trade is predicted to increase by 3%, from 32 million metric tones ion 2005 to 33 million metric tones in 2015. The price of Caribbean sugar is expected to increase about 59% from 11.35 cents/lb in 2005 to 18.05 cents/lb in 2015, because substantial increase in ethanol production from sugarcane in Brazil. The whole sale price of U.S. sugar is projected to increase 20.9% from 27.04cents/lb in 2005 to 32.7 cents/lb in 2015. If Mexico allowed exporting additional sugar to the U.S., that price increase could be smaller.

Exports are expected to increase for Australia, South Africa, the EU, and Thailand due mainly to increase sugar price.

Imports by most importing countries predicted to increase from the 2003-2005 average to 2015 China's imports are predicted to increase 217%, while Japan's imports are predicted to increase 1.4%. Imports by south Korea and Algeria predicted to increase 11.5% and 24.2% respectively. U.S. sugar consumption is predicted to increase 7.2% for the forecasting period, while production is expected to increase 9.9%. Imports are predicted to decrease 2.2% for the period because of higher world sugar prices.

4. Other Favourable Conditions for Investment in the Sugar Industry

- The sugar industry structure analysis reveals that there is no fierce competition in the Ethiopian sugar industry that prohibits potential investors from investing in the sector.
- The industry requires a huge capital investment and the payback period is longer (12 years). Therefore, the threat of new entrants in the short- run is minimal.
- Customers have no strong substitute for sugar. Sugar substitutes (e.g. honey) are in short supply in the Country. They have strong preference for local sugar.
- Investors have the right to totally invest in and own sugar factories, or they can also enter the sector with local co-financers. Government will also take part in the development of the sector in case local private co-financers fail to humiliate.

Hence, foreign investors can invest both in existing factories, or in the development of new sugar estates. The investment in the existing sugar factories takes two forms:

- investment to enhance the sugar production capacity of factories; and
- conversion of the by- product (molasses) to Baker's yeast and Power Alcohol (Ethanol)

5. Investment Incentives

To encourage private investment, the Ethiopian Government has developed a package of incentives under Regulations No.84/2003 for investors engaged in new enterprises and expansions, across a range of sectors. These incentives are available both to foreign and domestic investors and the said Regulations doesn't discriminate between a foreign and domestic investor or between foreign investors of different nationalities. The type of incentives that are available both to foreign and domestic investors are the following:

5.1 Customs Duty Exemption

- A 100 percent exemption from the payment of import customs duty and other taxes levied on imports is granted to investment capital goods and construction materials necessary for the establishment of a new enterprise or for the expansion or upgrading of an existing enterprise as well as spare parts worth up to 15 percent of the value of the imported capital goods;

- Investment capital goods imported without the payment of import customs duties and other taxes levied on imports may be transferred to investors enjoying similar privileges;
- Exemptions from customs duties or other taxes levied on imports are granted for raw materials and packing materials necessary for the production of export goods. Taxes and duties paid on raw materials and packaging materials are drawn back at the time of exports of finished products. The voucher system and bonded manufacturing warehouse facilities are also in place.
- All goods and services destined for export are exempted from any export and other taxes levied on exports.

5.2 Income Tax Exemption

- Any income derived from an approved new manufacturing, agro-industrial or agricultural investment is exempted from the payment of income tax ranging from 2-8 years depending up on the area of investment, the volume of export and the location in which the investment is undertaken.
- Income derived from an expansion or upgrading of an existing manufacturing, agro-industrial or agricultural enterprise is exempted from income tax for a period of two years if it exports at least 50% of its products and increases, in value, its production by 25%.

5.3 Loss Carry forward

Business enterprises that suffer losses during the tax holiday period can carry forward such losses for half of the income tax exemption period, after the expiry of such period.

6. Remittance of Funds

Foreign investors are entitled to make the following remittances out of Ethiopia in convertible foreign currency at the prevailing rate of exchange on the date of remittance:

- Profits and dividends accruing from investment;
- Principal and interest payment on external loans;
- Payments related to a technology transfer agreement;
- Proceeds from the sale or liquidation of an enterprise;
- Proceeds from the transfer of shares or of partial ownership of an enterprise to a domestic investor;
- Expatriate employees may remit, in convertible foreign currency, unspent salaries and other payments accruing from their employment in hard currency.

7. Investment Guarantee and Protection

In Ethiopia both the Constitution and the investment Code protect private property. Ethiopia is also a member of MIGA, which issues guarantees against non-commercial risks to enterprises that invest in signatory Countries. Besides, the Country has signed bilateral investment promotion and protection treaties with a number of Countries and is also in the process of signing such treaties with a number other Countries.

8. Cost of Land and Utilities*

8.1 Land

In Ethiopia land is public property. Both urban and rural land is available for investment on leasehold basis. Lease right over land can be transferred, mortgaged or sub-leased together with on-build facilities. The period of lease may also be renewed.

The rental value and the lease period of rural land are determined and fixed by land use regulations of each regional state. The cost of rural land in four regional states are shown below:

- Oromia.....US\$ 7.28 – 13.97 per hectare per year
- Amahra.....US\$ 1.47 – 8.21 per hectare per year
- Southern Nation,
Nationalities and Peoples’
Region.....US\$ 3.10 – 12.11 per hectare per year
- Tigray..... US\$ 3.10 – 4.14 per hectare per year

8.2 Utilities

The cost structure of utilities is as follows:

a) Electricity

- Low voltage time-of-day industrial:
Equivalent flat rate.....US\$ 0.06 per KWh
- High voltage time-of-day industrial 15kv:
Equivalent flat rateUS\$ 0.042 per KWh
- High voltage time-of-day industrial 132kv:
Equivalent flat rate..... US\$ 0.039 per KWh.

b) Telephone

- Fixed telephone.....US\$ 0.02 per six Minutes
- Mobile telephone
 - Mobile to mobile.....US\$ 0.074 per minute
 - Mobile to fixed.....US\$ 0.155 per minute

* 1US\$ = Birr 8.7923 (as of May 25,2004)

c) Water (in Addis Ababa)

- Residential
 - 0-7 m³US\$ 0.18 per m³
 - 7-20 m³US\$ 0.27 per m³
 - above 20 m³US\$ 0.34 per m³
- Non-residential.....US\$ 0.34 per m³

9. Taxation

The principal tax rates of the Country are as follows:

- Corporate income tax.....30%
- Turnover tax
 - From goods supplied to the local market and rendering of construction, grain mill, tractor, combine harvesting services undertaken in the Country.....2%
 - On other sectors.....10%
- Excise tax.....10-100%
- Customs duties.....0-35%
- Export tax.....nil
- Withholding tax.....2%
- Value added tax.....15%
- Dividend tax.....10%
- Royalty tax.....5%
- Capital gains tax
 - Shares of companies.....30%
 - Building held for business, factory and office.....15%
 - Building held for residence..nil
- Income tax from employment0-35%

10. One-stop Shop Service

Foreign investors obtain pre-and post-approval services from the Ethiopian Investment Agency (EIA). In addition to facilitation and promotional services, the EIA offers the following services under the one-stop shop arrangement:

- issuance of investment permit.....in 6 hours

- issuance of commercial registration certificate» 6 »
- issuance of business license» 6 »
- issuance of work permit.....» 2 hour
- registration of technology transfer agreement.....» 1 hours
- registration of export oriented non-equity based
foreign collaboration.....» 1 hour
- facilitation of the acquisition of land and utilities .

Thus, all the above factors combined with the Country’s favorable agro-climate conditions for sugar cane growth, rising demand for sugar, supporting policy environment for investment and the existence of relatively cheaper labour provide an attractive ground for investment in the sugar sector.