

A BUSINESS PLAN

FOR

TRIWIN AGRICULTURAL RESOURCES (TANZANIA) LTD

IN RESPECT OF

**TANZANIA COTTONSEED OIL AND SUNFLOWER OIL
COMPREHENSIVE PROCESSING PROJECT**

DRAWN BY:
THE COMPANY

A Business Plan for Triwin Agricultural Resources (Tanzania) Ltd

1. Project Name

Tanzania cottonseed oil and sunflower oil comprehensive processing project

2. Development Organization

TRIWIN AGRICULTURAL RESOURCES (TANZANIA) LTD.

3. Project Location

This project is located in Bariadi, Simiyu, Tanzania.

4. Project Background

Tanzania is an agricultural country, but it has been in shortage of edible oil due to various factors such as population growth, economic development and regional difference, with a shortage of 400,000t oil, which is supplied through pressing or import. This has a serious impact on the lives of local residents and impedes local economic development. To solve this problem, local government has kept encouraging and supporting the development of the farming industry in order to promote added value and export of agricultural products.

This project was proposed in this context. With rich experience in agricultural trade, the Company plans to build a cottonseed oil and sunflower oil comprehensive processing plant in Bariadi, Simiyu,

Tanzania, in order to solve the problem of shortage of edible oil and ensure the safety of edible oil. Meanwhile, this project can expand logistics and trade businesses, advance the cotton and sunflower planting industry of Tanzania and increase employment opportunities and income of local peasant.

5. Construction Scale and Content

This project is intended to build a cottonseed oil and sunflower oil comprehensive processing plant in Bariadi, Simiyu, Tanzania, with processing capacity-daily processing capacity of 1,000t cottonseed (and 400t/d sunflower seed). The annual processing capacity of the first-phase project is predicted to be about 50,000t cottonseed and 30,000t sunflower seed. Main products include cottonseed oil, sunflower oil, cottonseed meal and sunflower meal, in which cottonseed oil and sunflower oil are mainly sold in Tanzania, and cottonseed meal and sunflower meal are sold to China and surrounding regions.

Main construction content:

Table 1-1 Main construction content and scale

S/N	Main construction content	Construction scale		Remarks
		Unit	Qty.	
I. Oil processing				
1	Seed warehouse	m ²	10000	Storage capacity: 20,000t
2	Delinting workshop	m ²	3000	Cottonseed delinting
3	Raw material warehouse	m ²	3000	Temporary storage of delinted cottonseed and sunflower seed
4	Pressing workshop	m ²	1716	Pressing of cottonseed 1000t/d, and 400t/d sunflower seed
5	Boll hull warehouse	m ²	1804	
6	Extraction workshop (500t/d)	m ²	792	500t/d
7	Meal warehouse	m ²	4600	

8	Refining workshop (100t/d)	m ²	720	100t/d
9	Packaging workshop (200t/d)	m ²	4200	Edible oil canning capacity 200t/d
10	Oil tank area (8000m ³)	m ³	8000	1000t×2+ 2000t×2+500t×4
11	Oil pump house and control room	m ²	144	
12	Oil distribution shed (2 parking spaces)	m ²	432	
II. Public supporting facilities				
1	Sewage treatment station	Item	1	Sewage treatment capacity 50t/d
2	Boiler room	m ²	576	Biomass boiler
3	Machine repair shop	m ²	360	
4	Hardware warehouse	m ²	360	
5	Fire pump house, generator room	m ²	288	
6	Fire pool	m ³	2000	
7	High-voltage distribution room	m ²	264	
III. Office and administrative facilities				
1	Office building	m ²	2800	
2	Living building	m ²	1500	
3	Rest room and bathroom	m ²	96	
4	Production office building and settlement center	m ²	600	
5	Guard room and weighbridge room	m ²	120	
6	Motor truck scale (1-120t)	m ²	56	

6. Necessity and Feasibility of Project

6.1 Necessity

6.1.1 Promote Sino-Tanzania Economic and Trade Contact

Abundant cottonseed and sunflower seed resources of Tanzania offer a strong material guarantee for project implementation. This project will elevate the development level of local processing industry, enhance company's trade influence, facilitate to expand China's feed protein import system and boost the import and export system, and broaden the

feed protein import channel. Besides, this project will facilitate with cooperation and trade of "Belt and Road Initiative" countries and contribute to promoting Sino-African cooperation and friendship.

6.1.2 Relieve the Burden of Tanzania in Edible Oil Supply

In recent years, Tanzania was stressed by edible oil supply. The domestic market was badly in need of edible oil due to low production capacity and restricted import channel. To relieve this pressure, government adopted a series of measures, e.g.: Intensify agricultural productivity, improve the import channel and strengthen market supervision, etc.

This project is intended to build a cottonseed oil and sunflower oil comprehensive processing plant in Tanzania. Edible oil will be mainly sold in Tanzania to effectively inhibit the risk of price fluctuation of the domestic market and satisfy the domestic need for edible oil. Moreover, this project conforms to agricultural policy of Tanzania and will facilitate to advance local economy and to better exploit the advantages of agricultural products and promote export of agricultural products.

6.1.3 Promote Local Economic Development and Enhance Sino-Tanzania Friendship

This project will adopt advanced technology and equipment to ensure product quality and output. This project will also attach great importance to energy conservation and emission reduction to reduce

environmental influence. Furthermore, this project will offer job opportunities to promote local economic development. We will actively perform social responsibilities to attain sustainable economic, social and environmental development.

It is worth mentioning that this project will set up a good example for Sino-Tanzania friendly cooperation. We will deepen pragmatic cooperation and promote Sino-Tanzania friendship and local economic development by virtue of the cooperative framework between China and Tanzania. This project will not only promote the economic development of Tanzania, but also contribute to friendly cooperation between China and Tanzania.

6.2 Feasibility

6.2.1 The Edible Oil Market of Tanzania Has A Large Demand

Tanzania is an east African country with a diversified population of about 60 million. With economic development and growth in the living standard, local demand for edible oil kept increasing. Presently, edible oil of Tanzania is mainly imported. Tanzania has an annual demand for edible oil of about 570,000t, but the domestic output can only meet about 30% of market demand, so 365,000t of edible oil must be imported. Therefore, the government of Tanzania values the development of the edible oil industry highly and hopes to improve local production capacity

to meet the rising market demand.

At present, the per capita edible oil consumption of Tanzania is about 9.5kg/year, which is far behind the world average 27kg/year. With improvement in the living standard, edible oil consumption will increase and there will be a great market potential and great industry prospects.

6.2.2 Sino-Tanzania Trade Cooperation Is Booming

In recent years, Sino-Tanzania trade relation maintained a sound momentum of growth. According to customs statistics, Sino-Tanzania bilateral trade volume reached up to \$ 3.7 billion during January to September 2021, with a year-on-year growth rate of 12%. China's export volume to Tanzania was \$ 2.5 billion, with a year-on-year growth rate of 8%, and the import volume was \$ 1.2 billion, with a year-on-year growth rate of 18%. China is the second largest trading partner of Tanzania, and Tanzania is the third largest trading partner of China in Africa.

In the future, we believe that Tanzania bilateral trade will grow steadily with continuous economic growth and cooperation between China and Tanzania. Both sides will further expand trade business, optimize the trade structure, and strengthen policy communication and coordination to push Sino-Tanzania trade cooperation to a higher level.

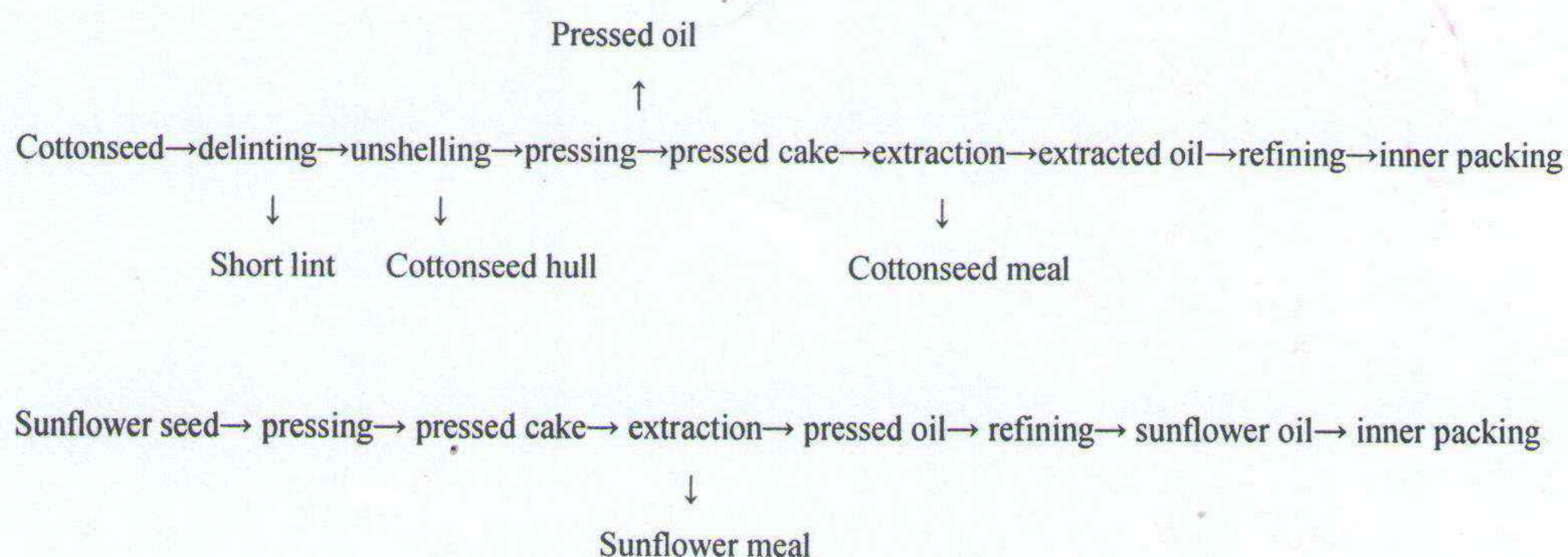
6.2.3 Material Supply and Product Marketing Are Guaranteed

Tanzania is rich in agricultural resources, of which cottonseed planting is a pillar industry. To elevate the output and quality of

cottonseed and sunflower seed, the government of Tanzania developed a series of agricultural development plans and policies, including provision of agricultural subsidy and strengthening of technical training, etc. Local peasants worked very hard in planting cotton seed and sunflower seed. On account of a great potential of the cottonseed and sunflower seed market, many peasants started to plant cottonseed and sunflower seed, and consequently the planting area of cottonseed and sunflower seed kept increasing. In recent years, the cottonseed planting area gradually increased with a rising demand of the global market. Tanzania is a main cotton producing place in East Africa, with an annual output of 150,000t cottonseed, and government planned output increased steadily year by year. The domestic sunflower seed output is about 500,000t, and the government planned output is 1,000,000t within three years.

7. Production Method and Technology Adopted

7.1 Main production Process



7.2 Main Processing Section

(1) Pressing section

Cottonseed → screening → unshelling → kernel and hull separation → kernel → softening → rolling → steaming and frying → pressing → cake to extraction workshop



Sunflower seed → clearing → stone removal → unshelling → kernel and hull separation → kernel → softening → rolling → drying → drying, steaming and frying → pressing → cake to extraction workshop



(2) Extraction section

Cottonseed cake, sunflower cake → extractor → including solvent meal → solvent removal → cottonseed meal/sunflower meal



Including solvent oil → solvent removal → crude cottonseed oil/sunflower oil

(3) Refining section

Crude cottonseed oil/sunflower oil → degumming → alkali refining → decoloration → deodorization → dewaxing → filtration → cottonseed oil/sunflower oil

This project will adopt advanced technology and reasonable process design. Equipment will be selected reasonably according to company's practical production condition and future development need to reduce investment and energy consumption and improve product quality and technical and economic indicators. Meanwhile, this project has a high degree of automation and adopts digital control of key operations to greatly reduce personnel use and labor intensity, improve the productivity and ensure production safety and stability.

7.3 Main Raw and Auxiliary Materials, Products, Fuel and Power Consumption

Table 1-1 Main raw and auxiliary materials

S/N	Content	Unit	Annual consumption (t)
1	Cottonseed	t	50000.0
2	Sunflower seed	t	30000.0
3	n-Hexane	t	65.3
4	Solid caustic soda	t	54.0

5	Phosphoric acid	t	18.0
6	Carclazyte	t	360.0
7	Oil packing material	Batch	18000.0
8	Meal packing material	Batch	44125.0

Table 1-2 Main products

S/N	Content	Unit	Annual output
1	Cottonseed oil	t	7000.0
2	Cottonseed meal	t	23000.0
3	Cottonseed hull	t	13000.0
4	Short lint	t	6500.0
5	Sunflower seed oil	t	10875.0
6	Sunflower seed meal	t	18000.0
7	Refined by-products	t	1750

Table 1-3 Fuel and power consumption

S/N	Content	Unit	Annual consumption (t)	Unit price(\$)
2.1	Water	10,000m ³	6.2	6438.4
2.2	Electricity	10,000 kWh	809.6	821.9
2.3	Biomass	t	6352.2	137.0

8. Organization and Manpower Quota

This project requires 615 staffs and will practice a four-shift three-operation system after put into production. Technical staffs, administrative staffs and production workers can be dispatched by the Company or recruited locally.

9. Project Progress

The construction period is 1 year from survey, preparation of consulting report, project approval, design, bid of civil construction and electromechanical equipment, construction and installation, equipment commissioning and completion acceptance, etc.

10. Total Investment Estimation

According to project content and scale, combined with prices of main materials in the local market and through reference to construction experience in similar projects, this project has a total investment of \$ 21.5825 million (equivalent to RMB 157.55 million), including construction investment of \$ 7.1233 million (equivalent to RMB 52.00 million by an exchange rate of 7.3), interest incurred during the construction period of \$ 123,100 (equivalent to RMB 900,000 million) and working capital of \$ 14.3361 million (equivalent to RMB 104.65 million).

Construction investment:

Construction and installation costs: \$ 3.1507 million

Electromechanical equipment and installation costs: \$ 3.0137 million

Other construction costs: \$ 684,900

Budget reserve: \$ 274,000

(2) Capital source

This project will have self-raised funds \$ 151.085 million, accounting for 70% of total investment, and a loan from local bank, accounting for 30% of total investment.

11. Economic Benefit Analysis

This project is a cottonseed oil and sunflower oil comprehensive processing project. This project will play a critical role in ensuring safety

of edible oil and stabilizing the price of goods of Tanzania. This project has a total investment of \$ 21.5825 million, FIRR after income taxes of 11.17%, after-tax payback period of 10.25 years, annual average operating income of \$ 38.7741 million and average annual income tax of \$ 692,800. This project will have favorable economic benefits.

Table 1-3 Technical and economic indicators

S/N	Project name	Unit	Data	Remarks
1	Total investment	\$ 10,000	2158.25	
	Including total investment for approval	\$ 10,000	1154.72	
1.1	Construction investment	\$ 10,000	712.33	
1.2	Interest during the construction period	\$ 10,000	12.31	
1.3	Working capital	\$ 10,000	1433.61	
	Including initial working capital	\$ 10,000	430.08	
1.4	Other assets			
2	Financing	\$ 10,000	2158.25	
2.1	Project capital	\$ 10,000	1510.77	
2.2	Project debt capital	\$ 10,000	647.47	
2.3	Other funds			
3	Average annual operating income	\$ 10,000	3877.41	
4	Total average annual cost	\$ 10,000	3646.48	
5	Average annual sale taxes and surcharges			
6	Average annual VAT			
7	Earnings before interest and taxes (EBIT)	\$ 10,000	287.41	
8	Total average annual profit	\$ 10,000	230.93	
9	Average annual income tax	\$ 10,000	69.28	
10	Average annual net profit	\$ 10,000	161.65	
11	Return on investment	%	13.32	
12	Profit and tax investment ratio	%	10.70	
13	Net profit margin of project capital	%	10.70	
14	Loan repayment period			
14.1	Bank loan	Year (s)	6.00	
15	Average Interest Coverage Ratio (%)	%	414.80	
16	Average Debt Service Coverage Ratio (%)	%	223.29	
17	Pre-tax index of project investment			
17.1	FIRR (%)	%	15.93	

S/N	Project name	Unit	Data	Remarks
17.2	FNPV (%)	%	672.59	I=10%
17.3	Payback period (year)	Year (s)	7.91	
18	After-tax index of project investment			
18.1	FIRR (%)	%	11.17	
18.2	FNPV	\$ 10,000	132.51	I=10%
18.3	Payback period	Year (s)	10.25	
19	Internal rate of return on capital		11.57	
20	Break-even point			
20.1	Capacity utilization rate	%	56.15	
20.2	Price equilibrium point	%	93.84	

Note: The estimated RMB-USD exchange rate is 7.3.

12. Conclusions and Suggestions

12.1 Conclusions

(1) This project is a cottonseed oil and sunflower oil comprehensive processing project in Tanzania, and cottonseed oil and sunflower oil produced will be sold in Tanzania to solve the problem of shortage of edible oil and ensure safety of local edible oil.

(2) This project will make a layout of processing, storage and logistics of cottonseed and sunflower seed in Tanzania to acquire more oil resources, enhance international trade influence, expand China's feed protein import system, improve the import and export system, broaden the feed protein import channel and promote the cooperation and trade of "Belt and Road Initiative" countries.

(3) After put into production, this project can not only help TRIWIN AGRICULTURAL RESOURCES (TANZANIA) LTD expand the agricultural product market in the middle of Tanzania and deep processing business and increase product category, but also bring value-added logistics and trade businesses to the Company.

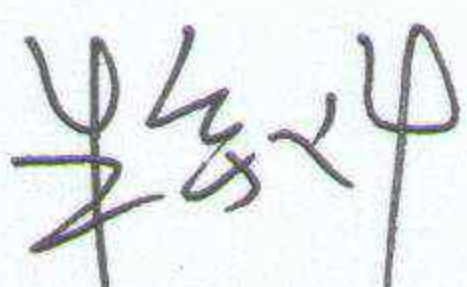
(4) The land of this project will be leveled. The plant area has abundant cottonseed and sunflower seed resources and sound supporting facilities, which can meet the need for electricity and water for construction, and favorable external conditions.

In conclusion, this project is intended to build a cottonseed oil and sunflower oil comprehensive processing plant in Bariadi of Simiyu to develop the local deep processing industry and increase export of high value-added products, which conforms to the agricultural development direction of Tanzania. This project will also facilitate to further enhance company's comprehensive strength, increase product category to boost the Company's discourse right, and it conforms to the development strategy of the Company.

Dated: October 23rd 2023

Authorized By:

Name: XUFENG ZHU

Signature: 

Dated: NOV. 1ST, 2023

Title: Director



Company Stamp