



***Diversifying The T&T Economy
Through
The Agri-Business Sector
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AGRICULTURE VS AGRI-BUSINESS

AGRICULTURE FOCUS OF PRIMARY PRODUCTION.

AGRI-BUSINESS FOCUS OF THE PRODUCT VALUE-
CHAIN

AGRI-BUSINESS FOCUS –CHANGES HOW ROLE ROLE OF THE SECTOR IS SEEN

- 1. Food/nutrition/health security** (production of food, animal feed, medicinal/nutraceutical products)
- 2. Manufacturing Sector development** (foods, cosmetic, fuel, pharmaceutical, textile, paper, packaging, adhesive industries)
- 3. Rural development** (infra-structure development, provision of markets and creation of jobs for rural communities.)
- 4. Tourism development** (agro-entertainment and agro- tourism enterprises)
- 5. Bio-energy security** (production of ethanol, bio-diesel, methane - from e.g cassava, tropical beet and jatropa.)
- 6. Environmental security** (Bio-fertilizer production from farm and factory waste, carbon sequestration through large scale tree crop fruit and lumber production)

STRATEGIC MARKET FOCUS

1. DOMESTIC FOOD AND NUTRITION SECURITY MARKET – **approx. TT\$ 5B; US\$0.75 B**
2. EXPORT MARKET – **Potentially US\$ Billions**

SET NATIONAL TARGETS- based on objective assessment

- 1. Food/nutrition/health security** –agree on % of our food we will produce locally.
- 2. Manufacturing Sector development** ---industries that will be based on local raw material.
- 3. Rural development** --- Level of agribusiness related rural employment .
- 4. Tourism development** ---number of agro-tourism enterprises.
- 5. Bio-energy security.**--- % of our energy from agricultural raw material
- 6. Environmental security** – set level of inorganic chemicals and environmental pollution.

SET EXPORT TARGETS

1. EXPORT OF FRESH AND VALUE-ADDED PRODUCTS.
2. INCOME FOR AGROTOURISM

Get national buy-in to allow for real public-private partnership

- **Establish National Plan through consultations with leading firms in the major industries (manufacturers and marketers) to get specific commitments to the national targets and determine policy support that is required . e.g SMJ, Vemco, Bermudez, Neal & Massy Rituals, Energy companies etc.**

And with

- **Farmers and other input suppliers to get specific commitments and determine policy support that is required.**
- **Establish national public-private mechanism to oversee the implementation of the national plan.**

**KEY POLICY SUPPORT
REQUIRED**

DEMAND SIDE POLICIES
or
MARKET ACCESS AND MARKET
EVELOPMENT POLICIES

MARKET ACCESS & MARKET DEVELOPMENT POLICIES

- Identify **priority commodities** or “**Special Products**” based on food and nutrition security, Value-addition potential and thus export potential.
- **Prepare and implement comprehensive development programme** for these commodities based on value-added production of food and non-food products.
- **Promote the health and economic benefits** of these products and of buying local foods.
- Establish **public purchase policy** in which government institutions give priority to the purchasing of these and other local food products.

MARKET ACCESS & MARKET DEVELOPMENT POLICIES

- **Provide variable income tax reduction incentives** (based on amount purchased) for manufacturers of food and non-food products as well as food service companies for minimum usage of the ‘Special Products’ sourced locally.
- **Remove Value-added Tax** from all products “certified” as having a minimum of 50% of the Special Products “.
- **Provide “Export Market Development and Brand Promotion Fund”** for speciality food made from the “Special Products”

**SUPPLY SIDE –
POLICIES TO INCREASE
SUPPLY CAPACITY**

SUPPLY CAPACITY POLICIES

- **Legislate agricultural zones including organic areas and land banks as tradable assets.**
- **Provide infra-structure for farmers** (roads, drainage and ponds etc.) and **factory shells for processors**, especially those involved in the production and processing of the “Special Products.
- **Access to existing Incentives:** The Ministry of Agriculture should establish an Incentives Unit dedicated to facilitating farmers access to the many existing incentives which continues to be a challenge for farmers to access.
- **A Research & Development Fund through import cess on products which competes with the Special Products and which also have negative effect on health, such as wheat flour.**

(access to the funds **through competitive bidding** for grants with and without cost sharing, with preferential access for SMEs.)

SUPPLY CAPACITY POLICIES

- **Establish Research & Innovation Centres (RIC) with State of the Arts Hardware and Software and highly trained professionals to provide affordable service to the private sector.**
- **Link RIC with Network for Primary and value-added Products, led by the UWI** through series of Memorandums with regional and extra-regional universities, public sector agencies and private and public sector “R&D Centres of Excellence”.
- Provide **Income Tax Credit of up to 50% of the capital investment** in the production processing and marketing of the ‘Special Products.

SUPPLY CAPACITY POLICIES

- **Allow duty free imports by certified firms of all inputs** that go directly into the production of the primary and value-added “Special Products”
- **Provide low cost loan financing** for contracted farmers and agro-processors of the “Special Products”.
- EXIM Banks should provide processors of “special products” **with a discounting service for both local and export sales**, by treating local sales of products that directly results in a’ reduction of imports of the targeted products” as equivalent to earning foreign exchange.

EXPERIENCE WITH
IMPLEMENTING
THIS DIVERSIFICATION
STRATEGY IN
TRINIDAD & TOBAGO

THE TTABA MODEL

The National Agri-business Development Programme- NADP - A component of the Transformation Strategy

The government entered into a public/private sector collaborative partnership agreement with TTABA to prepare and implement a **National Agri-business Development Programme (NADP)** which would be funded by government to the tune of TT\$ 172 Million over 5 years.

The NADP would lay the foundation for transforming, diversifying and expanding the Agri-business sector in Trinidad & Tobago.

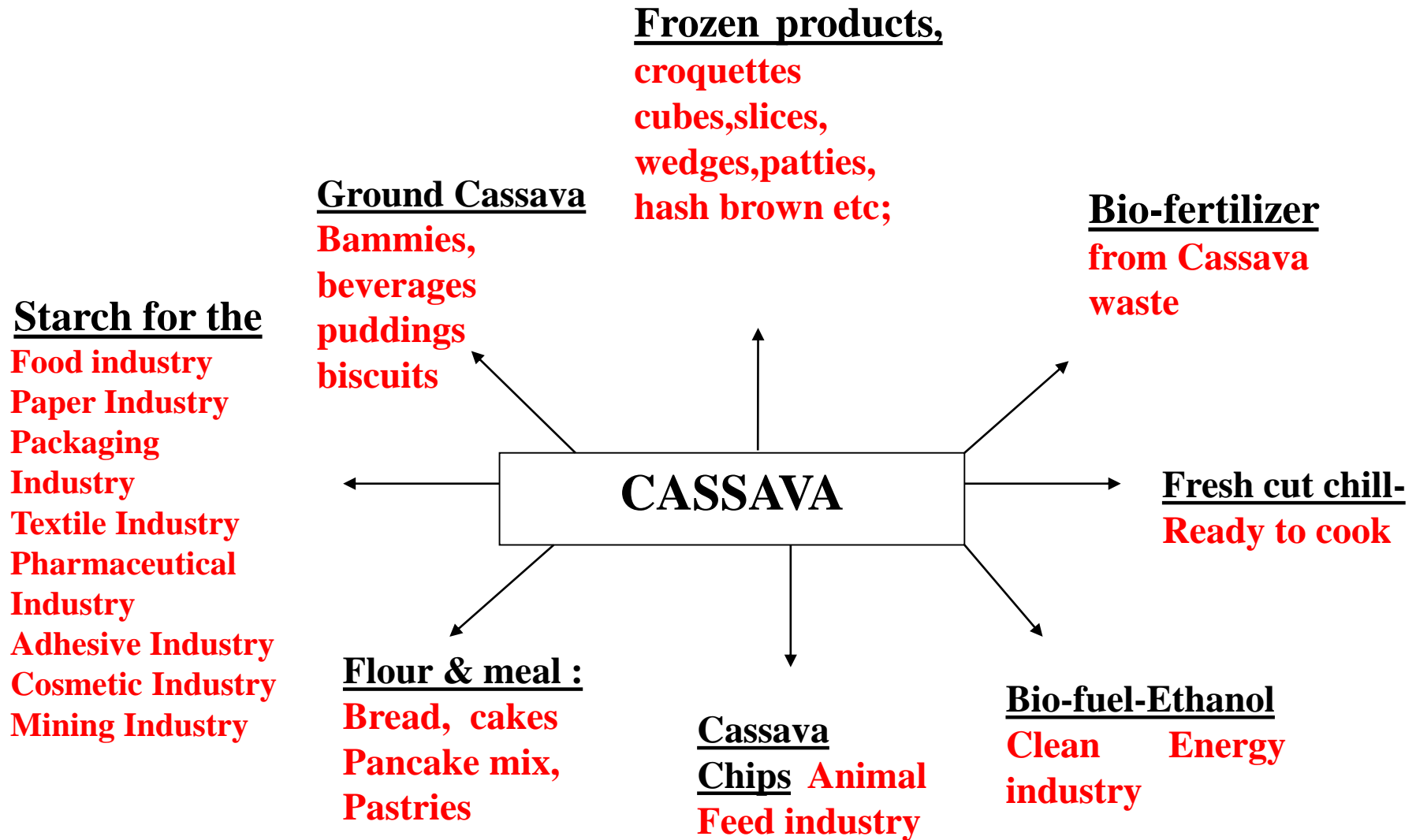
ROLE OF TTABA UNDER THE NADP

1. Prepare development plans for priority commodities.
2. Establish and provide support to commodity associations and farmers associations.
3. Identify market opportunities for value-added products from the priority commodities.
4. Develop new value-added products from the priority products.
5. Establish agro-processing facilities to produce the products and evaluate their commercial viability (Pilot scale R& D)
6. Commercial scale production of semi-processed raw materials to local food manufacturers and food service companies base on forward contracts with buyers and backward contracts with farmers.

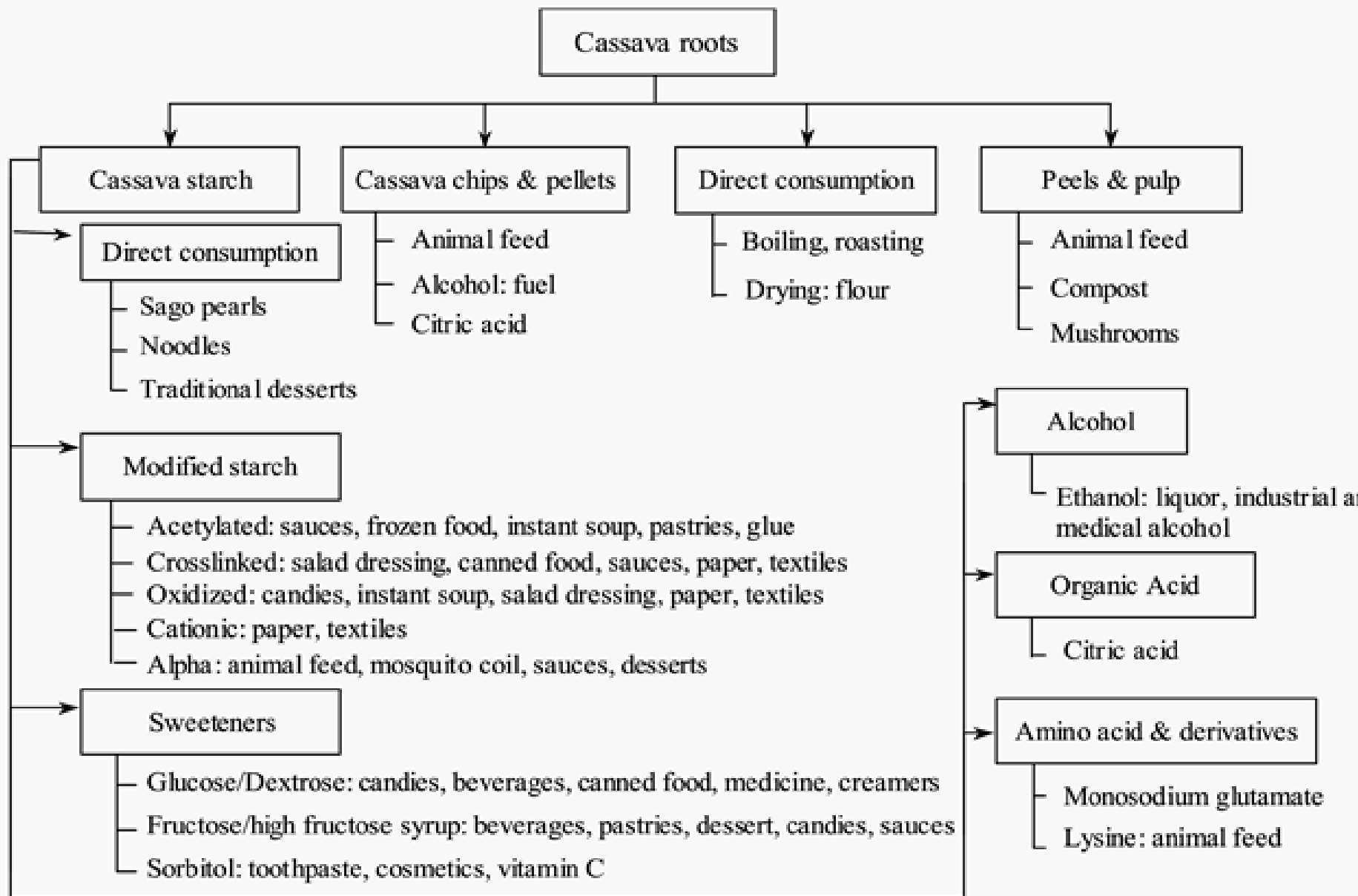
Products selected for the NADP

- 1. Staples** -- **Cassava, sweet potato, plantain**
- 2. Fruits---** **Paw-paw, Pommecythere**
- 3. Vegetables & herbs**– **Pumpkin, sweet corn, spinach, dasheen bush, hot pepper, lemongrass.**
- 4. Legumes--** **bodi,**
- 5. Oils and fats**– **coconut**
- 6. Food from animal**– **Rabbits**

Example of Our Commodity Development Strategy showing the different value added products from each commodity **example Cassava**



PRODUCTS FROM CASSAVA



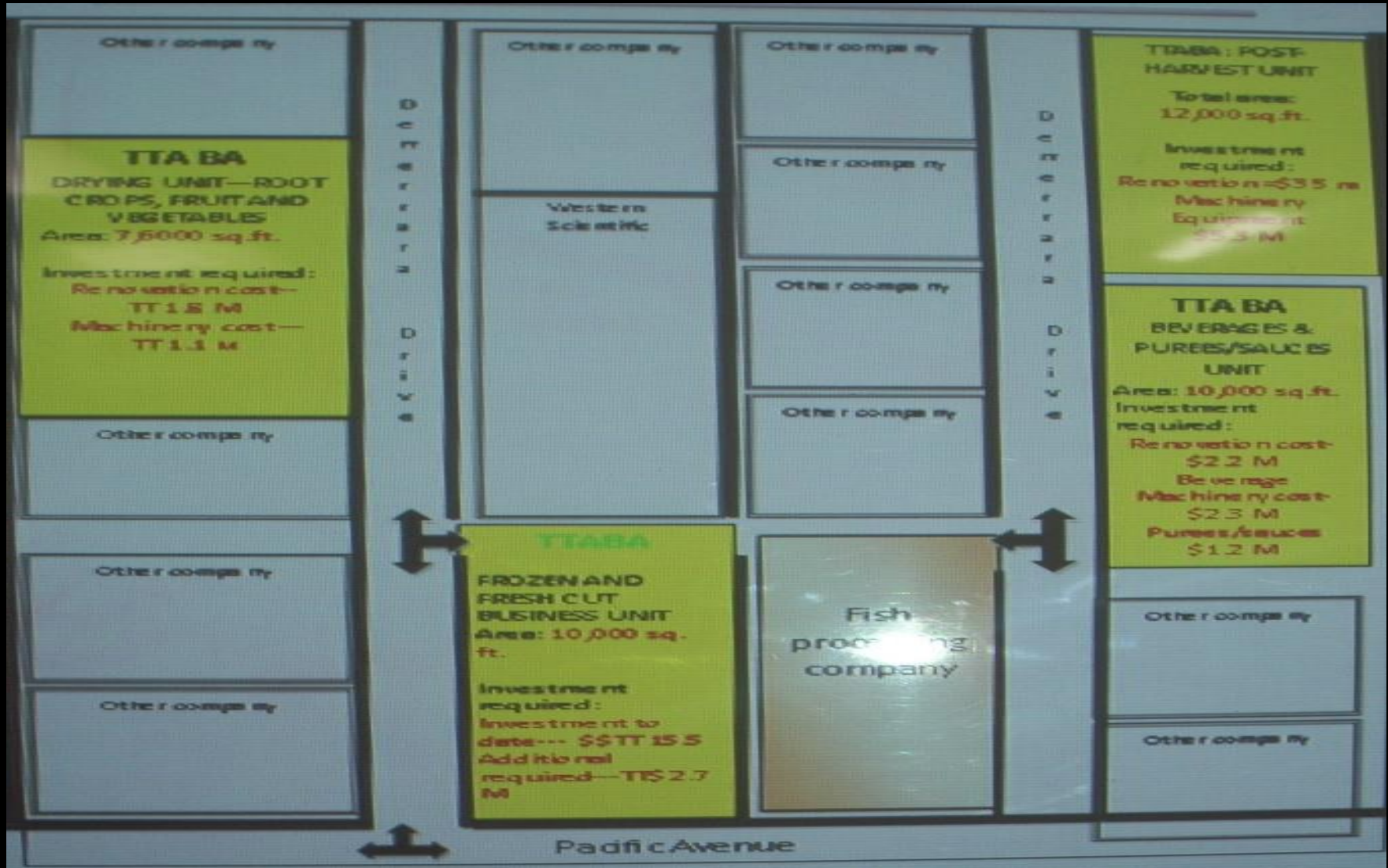
National Agro-processing Services Centre

Aim was to establish a world class Agro-processing Services Centre in Point Lisas or other appropriate location including;

- 1. Post Harvest processing Unit (washing, grading, curing, ripening and storing)**
- 2. Frozen and chilled products Unit (Frozen and chilled food products)**
- 3. Dehydrating and extrusion Unit (e.g bakery and snacks products)**
- 4. Concentration and Chemical preservation Unit. (e.g Beverages, &Sauces, Condiments, confectionaries)**
- 5. Canning & High Pressure Unit (Canned, bottled, vacuumed packaged foods)**

(4 buildings were leased from E-Teck in Point Lisas and were been equipped, but was closed down by the UNC administration using a UNC s Chairman of TTABA and several compliant Directors)

E-TECK PARK IN POINT LISAS -Where TTABA leased 4 buildings and 40,000 SQ.FT factory space (location highlighted in yellow)



BUILDING RENTED OR PURCHASED BY TTABA FOR THE AGRO-PROCESSING CENTRE

Buildings available to support commercialization of staples and vegetables
Rented from E-TECK 30, 000 SQ.FT.



Multi-purpose pilot commercial plant – to be used for commercialisation of cassava and sweet potato Rented from E-Teck–10, 000, sq.ft.



20,000 Sq.ft owned by TTABA Available for commercialisation of pommecythere and paw-paw

BENEFITS OF THE AGRO-PROCESSING SERVICE

This Centre would provide contract food processing services to local and international buyers utilizing local and regional fresh agricultural produce for semi-processed of consumer products.

It would allow for easy and low cost entry of local and Diaspora based agri-entrepreneurs into the agro-processing sector by contracting TTABA to process and pack on their behalf.

The Agri-entrepreneurs would;

- Have no need to make any significant capital investment in infrastructure.
- Be able to meet the very challenging international food safety and quality standards.
- Be able to invest their resources into finding and expanding markets for local food products.

The Contract Production Service with Farmers

TTABA organized to source supplies from;

Small farmers through their associations (15 Assn. were established with over 6000 acres available for contract farming)

- Large Farm enterprises; 4 farms with over 500 acres were involved in the programme
- Ex-sugar cane farmers -over 20,000 acres were available
- EX-caroni workers –(over 14,000 acres available) A detailed plan was developed for the 2 acres farms taking into consideration range of agronomic, social and economic factors.

Under contract arrangements TTABA provided the farmers with **guaranteed price**, production technology based on Good Agricultural Practices (GAP), grade standards, delivery schedule, field monitoring and advice and information on market situation.



TRINIDAD & TOBAGO AGRIBUSINESS ASSOCIATION

A photograph of a paved road leading through a lush green area with trees and a building in the background. The road is the central focus, leading the eye into the distance. On either side of the road are green grassy areas and various trees, including palm trees. In the background, a white building with a dark roof is visible. The sky is overcast.

OUR CARAPO RESEARCH & CENTER

What Did We Achieve

Supply agreements that were in place or were been negotiated with large private sector companies

- 1. Pommecythere juice – Potential to produce 4 million litres of juice/yr Advanced discussion were in progress with largest beverage manufacture and large distributor) an est. 55 million litres of juice is imported at a CIF value of TT\$ 70 Mil.**
- 2. Paw-paw ketchup – Potential to produce 2 million lbs of paw-paw paste, significant volumes were already been supplied as ketchup and BBQ sauce to food service firms and supermarket chains. (We import over 4 Million lbs of tomato paste equiv. to some 30 Million lbs of ketchup.)**
- 3. Pepper mash -- We were importing over 1.4 Million lbs and had contract with one of the largest food processor to supply over 2 Million lbs/yr for the largest fast food companies.**

Supply agreements that were in place or were been negotiated with large private sector companies

- 4. Cassava Mash--** Developed technology to replace 40% of wheat in all bakery products. We were supplying 32 bakeries with cassava mash and was in advanced stage of negotiations with largest bakery company in the Region to use grated cassava in a wide range of bakery products.

If we target 25% of the wheat bakery market we will need 21 Million lbs/yr of cassava mash & 28 Million lbs of cassava requiring about 933 acres at 30,000 lbs/acre.

- 5. Sweet potato and cassava Fries**—Developed technology to produce sweet potato and cassava fries, and established agreement with largest fast food company KFC and were in advance discussions with the second largest fast food company to use cassava fries.

If we take 25% of the imported fries market we will need 7.2 Million lbs/yr and 9.6 Million lbs cassava/sweet potato requiring 320 acres/yr at 30,000 lbs/acre

COLLABORATIVE RESEARCH NETWORK ESTABLISHED

- **Extensive collaborative links established** locally (UWI, UTT, CABI CARDI, IICA) Regionally (CEDA, CARICOM) Internationally (Colombia, Cuba, Peru, China, Thailand, USA and UK.)
- **Thirteen (13) categories of new value added products comprising 41 individual** products (fresh cut, frozen, juices, sauces, bakery products, finger foods in various stages of development and commercialization.
- **21 Agricultural** Research projects implemented aimed at increasing productivity.
- **A plant nursery established** and produced over 100,000 pomme cythere seedlings and numerous clean sweet potato slips and cassava sticks, resulting in significant increase in yields.
- **Over 50% increase in yields of cassava (introduced 11** new varieties, mechanical planting and harvesting.
- Introduction of **new varieties of bhagie & sweet corn**

OUR SEEDLING PRODUCTION CENTER



National Industry development plans prepared for the following commodities

1. CASSAVA
2. SWEET POTATO
3. PUMPKIN
4. HOT PEPPER
5. COCONUT
6. PAW-PAW
7. POMMECYTHERE
8. RABBIT
9. SMALL RUMINANT
10. HERBS & SPICES

INVESTMENT & BUSINESS PLANS PREPARED BY TTABA

1. Development plan for the CARONI VSEP “2 ACRE PLOTS” (14000 acres) into sustainable Farm Enterprises.
2. Proposal for the development of world class agro-tourism projects in Picton and in Hope Tobago
3. Feasibility for the establishment of imported farm labour programme.
4. Feasibility for the establishment of a National vegetable Grow box programme.
5. Business plan for joint venture integrated 1000 acres coconut and goat farm in Guyana
6. Feasibility for the establishment of a large farm in La Gloria
7. Feasibility and business plan for the establishment of joint venture Large Farm (TECHNOLOGY FARM) in Orange Grove

Targets that were set in the new programme

Commodity	2012 est. Consumpn. (Tonnes)	2012 est. Production (Tonnes)	2013	2014	2015
Cassava	4,500	5,454	11,817	15,453	18,182
Accumulated increased production			6,363	9,999	12,728
Sweet potato	7,000	3,150	8,727	10,909	13,090
Accumulated increase production			5,577	7,759	9,940
TOTAL Accumulated Increase			11,940	17,758	22,668

Wheat Replacement Market

Wheat Replacement Target %	5%	10%	15%
Bakery Wheat (38000 tonnes) replacement target (tonnes)	1,900	3,800	5,700
Grated cassava (70%) required to replace wheat (tonnes)	1,330	2,660	3,990
Grated Sweet potato(30%) required to replace wheat (tonnes)	570	1,140	1,710
TOTAL	1,900	3,800	5,700

Percentage of White Potato Market Targeted

PRODUCT	2013	2014	2015
% of fries market (13,000 tonnes) targeted	5%	10%	15%
Cassava (30%) Tonnes	195	390	585
Sweet potato (70%) Tonnes	455	910	1365
Sub-total	650	1300	1950
% of fresh white potato market (26,000 tonnes) targeted)	5%	10%	15%
Cassava (30 %)	390	780	1,170
Sweet Potato (70%)	910	1,820	2,730
Sub-total	1,300	2,600	3,900
TOTAL	1,950	3,900	5,850

Targeted Government Institutional Market

	2013	2014	2015
NDSFP Demand	1,473	1,473	1,473
Other Government institutions	250	250	250
Total Government	1,723	1,723	1,723
Cassava	861	861	861
Sweet potato	861	861	861
Total	1,723	1,723	1,723

Based on 90,000 meals per day @ 3 ozs/per student (of the average of 6 ozs.) 180 days

Potential Household Market

Reduction in consumption of imported staples	5 lbs	10 lbs	15 lbs
Total reduction in household consumption of imported staples (1.2 Mn people)	2,727	5455	8182
Cassava allocation(50%)	1,364	2727	4091
Sweet potato allocation (50%)	1,364	2727	4091
TOTAL	2,727	5455	8182